

PRICE LIST

Effective : 1st July 2017



BCH ELECTRIC LIMITED

Modern facilities at Faridabad & Rudrapur



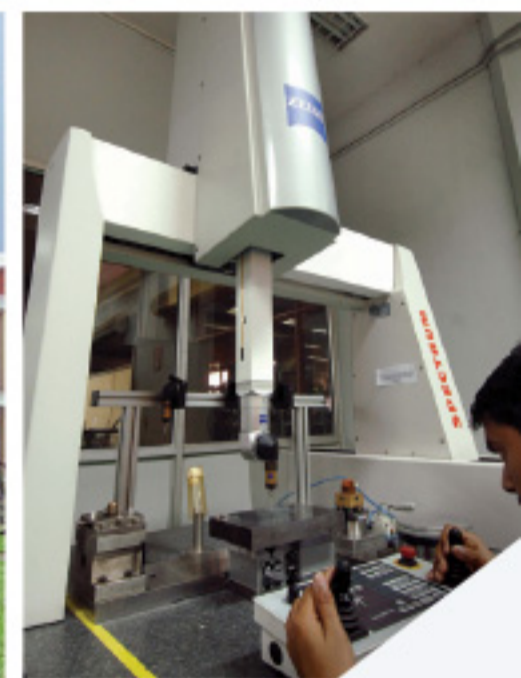
BCH ELECTRIC LIMITED

Our Strengths:

- ◆ State-of-the-art product development and R&D
- ◆ Modern manufacturing facilities
- ◆ Tool room with latest facilities
- ◆ Serving customers for five decades
- ◆ Presence in ~50 locations
- ◆ 650 channel partners
- ◆ ISO 9001:2008 certified company

Core Values:

- ◆ Integrity
- ◆ Nurturing People
- ◆ Commitment to Customers
- ◆ Striving for Excellence
- ◆ Long Term Thinking



Quality Policy

We are committed to provide products and services meeting or exceeding customers needs and expectations.

Continual improvement and learning aimed at customer satisfaction through involvement of people shall be the guiding principle.

Health & Safety Policy

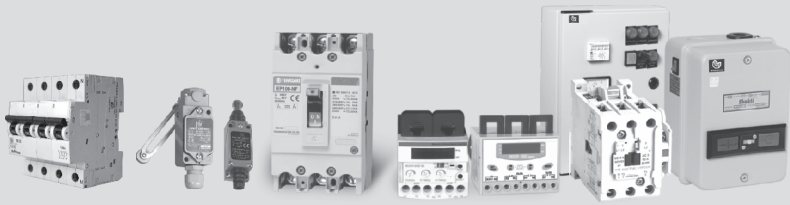
It is our policy to comply with applicable statutory and regulatory requirements related to health and safety.

We shall endeavor to achieve this by providing safe working conditions and promoting awareness through training.

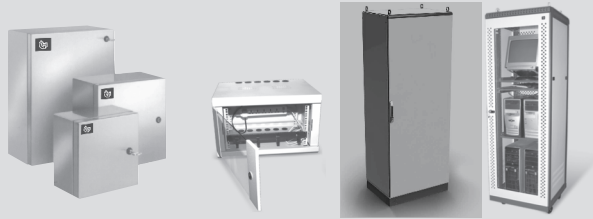
www.bchindia.com



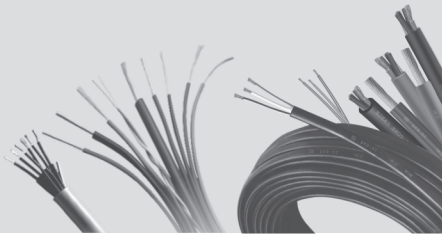
Our Products



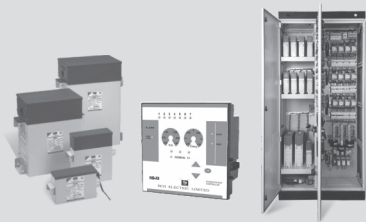
Switchgear & Controlgear



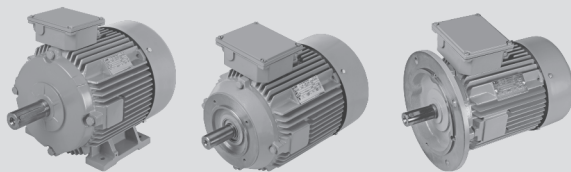
Enclosure Systems



Wires & Cables



Power Factor Control Product



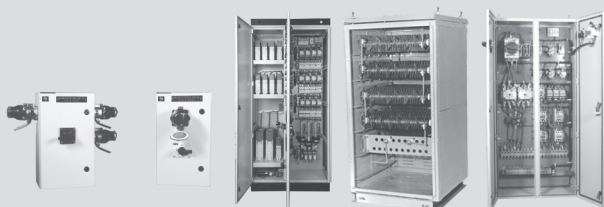
Motors



Motor Control Centres (MCCs) & Power Control Centres (PCCs)



Automation Product



Custom Built Products

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Tough Rugged & Reliable

Reilient
BCH ELECTRIC LIMITED

Miniature Circuit Breaker

- Line load interchangeability
- Suitable for isolation
- Suitable for IT systems
- Current limiting design
- 45mm panel cutout, suitable for standard MCB distribution boards
- Possibility of bus bar termination at both ends



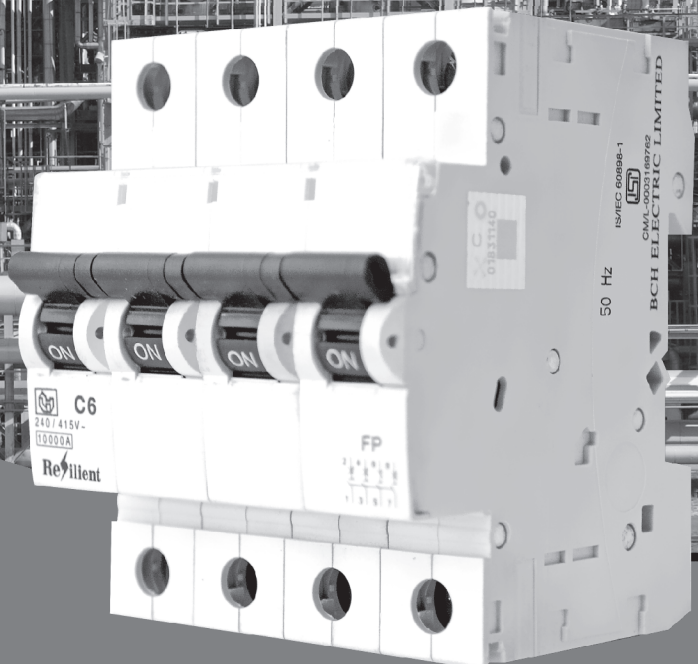
BCH ELECTRIC LIMITED

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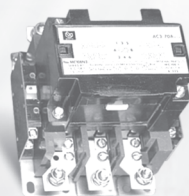
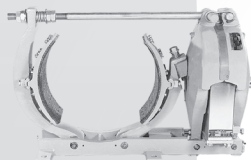
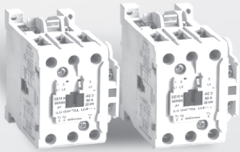
Registered Office : Block 1E, 216, Acharya Jagadish Chandra Bose Road, Kolkata - 700 017


Works 1 : 20/4, Mathura Road, Faridabad - 121 006 (Haryana) Tel. : 0129-4063000/4293000 Fax : 0129-2304024

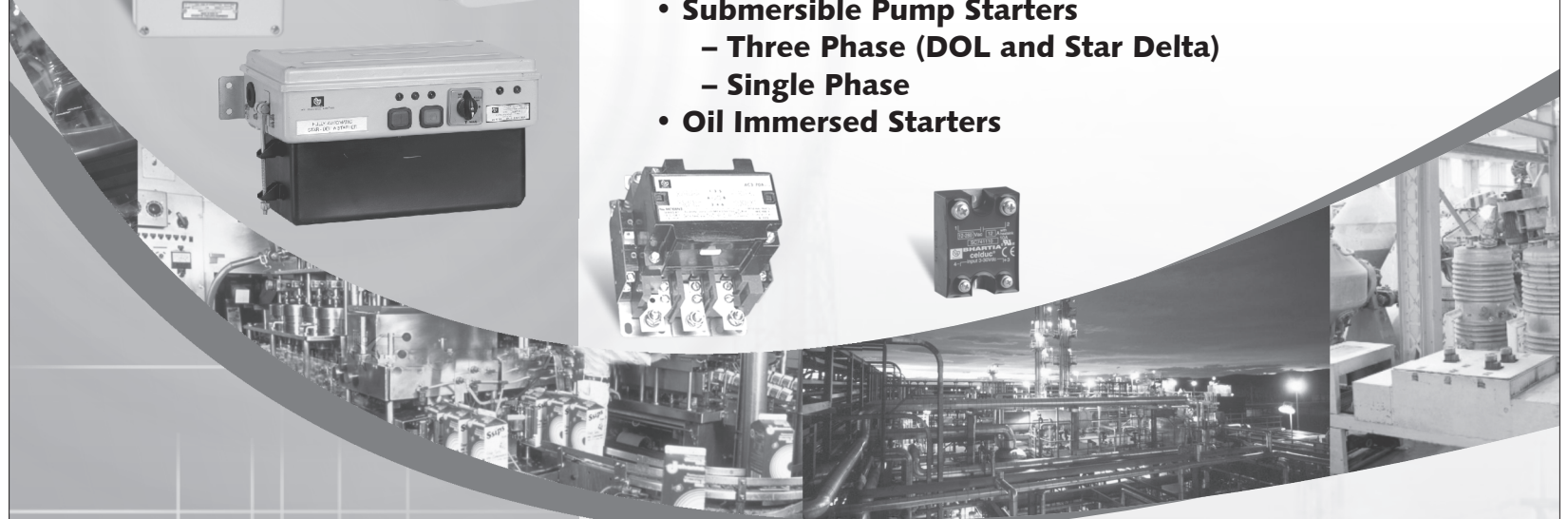
Works 2 : 64-68, Sector-7, IIE, Pant Nagar, Rudrapur, Udham Singh Nagar - 263 153 (Uttarakhand) Tel. : 05944-250214/16 Fax : 05944-250215



Low Voltage Switch Gear & Control Gear Products

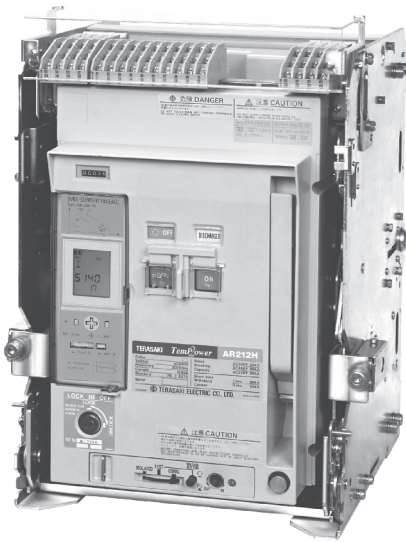


- Air Circuit Breakers
- MCCBs
 - Resilient, Tembreak 2
- Resilient MCB
- FSU, SDFU
- AC Contactors
- DC Contactors
- Solid State Relays
- Overload Relays
- Vacuum Contactors 
- Electronic Overcurrent Relays (BOCR)
- Motor Protection Circuit Breakers (MPCB)
- Limit Switches
- Push Buttons, Indicating Lights, LEDs
- Foot Switches
- AC Solenoids & Brakes
- DC Brakes
- Plugs & Sockets
- Plug & Socket Boxes
- Rewireable Fuse Switches
- Pneumatic Timers
- Motor Starters
 - DOL
 - Mini Manual
 - Star Delta
 - Spares-Motor Starters & Supmersible Pump Starters
- Submersible Pump Starters
 - Three Phase (DOL and Star Delta)
 - Single Phase
- Oil Immersed Starters



Air Circuit Breakers.....BCH

TemPower - 2 Range of Air Circuit Breakers



@ ACBs with higher breaking capacity and higher current ratings are also available On Request
 MF: Manual Fixed Breaker, EF: Electrical Fixed Breaker
 MDO : Manual Draw out, EDO : Electrical Draw out

Releases

TemPower2 provides positive protection for electric power systems.

The TemPower2 Series is equipped with an RMS sensing over-current release (OCR) having a wide range of protection function and capabilities.

Frame	Current rating (A)	Poles	Breaking capacity (Icu=Ics=Icw for 1 sec)	Standard MRP [₹]*			
				Fixed Breaker		Draw out breaker	
				MF	EF	MDO	EDO
AR208S	800A	3 4	65kA	On request			
AR212S	1250A	3 4	65kA				
AR216S	1600A	3 4	65kA				
AR220S	2000A	3 4	65kA				
AR325S	2500A	3 4	85kA				
AR332S	3200A	3 4	85kA				
AR440S	4000A	3 4	100kA				
AR650S	5000A	3 4	100kA				
AR663S	6300A	3 4	100kA				

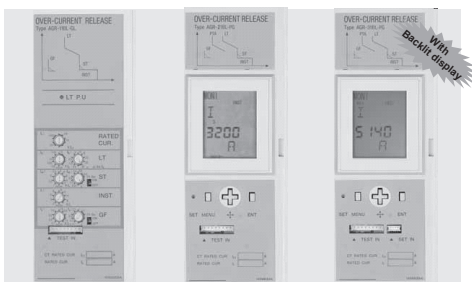
*Standard MRP, means a standard breaker with

- A) Auxiliary Switch (4 change over)
- B) Closing coil (In case of Motorised ACBs)
- C) 1 No Draw out handle (in case of draw out ACB)
- D) Terminations are standard as per : Horizontal : Upto (AR216S)
Vertical : (AR220S, AR325S, AR332S, AR440S, AR650S and AR663S)

E) Calibration : 40° C

F) Neutral CT is required to be ordered when Ground Fault option is required in the release (example AGR11BL-GL)

Note : Above price is with over current release (OCR) Type AGR-11BL-AL with standard Functions LSI Long Time (L), Short Time (S) and Instantaneous (I)



Standard OCR with adjustment dial Type AGR-11B. Standard OCR with LCD-'Ammeter' Type AGR-21B, 22B. Enhanced OCR with LCD-'Analyser' Type AGR-31B.

- For General Feeder circuits (L Characteristics)
- For General Feeder circuits (R Characteristics)
- For Generator protection (S Characteristics)

Protection features

Standard

- Long time delay
- Short time delay
- Instantaneous

Optional

- Ground fault
- Reverse Power trip

- N-phase protection
- Earth leakage
- Two channel pre trip
- Advance LCD display
- Contact temperature monitoring
- Communication protocol
- Phase rotation protection

For prices contact our nearest sales office.

Please note that the price of the ACBs mentioned above is only indicative, to get an actual quote please fill in the ACB Ordering form provided overleaf

Over current releases (OCR)	Functions	Additional Price [₹]
AGR-11BL-GL	LSIG*	On Request
AGR-21BL-PS	LSI with LCD display	On Request
AGR-21BL-PG	LSIG with LCD & Communication	On Request
AGR-31BL-PS	LSI with LCD display with energy metering, earth leakage and PTA	On Request
AGR-31BL-PG	LSIG with LCD display with energy metering, earth leakage and PTA	On Request
AGR-21BR-PS	LSI with LCD display with current metering and PTA	On Request
AGR-21BR-PG	LSIG with LCD display with current metering and PTA	On Request

* When using a 3 Pole ACB in a 3 phase 4 wire system, additional Neutral CT is required for OCR type AGR-11BL-GL

All accessories and spares like SHUNT, CLOSING, UNDER VOLTAGE release, castle lock, safety shutter, door interlock, motor charging units, etc. are available on request

* For more details refer product catalogue



BCH ELECTRIC LIMITED

TEMPOWER -2 ACB ORDERING FORM

For general feeder circuits (L/R-characteristic)
Please check boxes and fill in underlined spaces appropriate.

Your company name : _____ Order Number : _____

Quantity : _____ PCS Delivery required : _____ / _____ / _____

Specification Summary :

1	Type	P14,15	P14,15	<input type="checkbox"/> AR208S	<input type="checkbox"/> AR212S	<input type="checkbox"/> AR216S	<input type="checkbox"/> AR220S	<input type="checkbox"/> AR325S	<input type="checkbox"/> AR332S	<input type="checkbox"/> AR440S
				<input type="checkbox"/> AR212H	<input type="checkbox"/> AR216H	<input type="checkbox"/> AR220H	<input type="checkbox"/> AR316H	<input type="checkbox"/> AR320H	<input type="checkbox"/> AR325H	<input type="checkbox"/> AR332H
2	Number of poles			<input type="checkbox"/> 3-pole	<input type="checkbox"/> 4-pole	For the requestment of 2-pole type, specify 3-pole type and use 2 poles on both sides.				
3	Circuit voltage and frequency			AC _____ V	_____ Hz	DC _____ V	<input type="checkbox"/> 3Ø3W	<input type="checkbox"/> 3Ø4W		
4	Applicable standard and ambient temperature			Applicable standard	IEC	for marine: rule, for industrial: IEC				
				<input type="checkbox"/> 40°C	<input type="checkbox"/> 45°C	for marine: 45, for industrial: 40				
5	Type of mounting			<input type="checkbox"/> Fixed type						
		P17-19,43,44		<input type="checkbox"/> Draw-out type	<input type="checkbox"/> Draw-out handle _____ pcs	<input type="checkbox"/> Mal-insertion prevention device	P18			
				<input type="checkbox"/> Draw-out storage handle _____ pcs ^{**}	Code _____ pcs,	Code _____ pcs				
			P18	<input type="checkbox"/> Main circuit safety shutter	<input type="checkbox"/> Position switches type	ALR- _____ P	P19			
			P18	<input type="checkbox"/> Padlocking unit (for shutter)	<input type="checkbox"/> Door interlock	P19				
			P18	<input type="checkbox"/> Control circuit safety shutter	<input type="checkbox"/> Lifting plates	P43				
			P18	<input type="checkbox"/> Test jumper (lead wire 5m) _____ sets	<input type="checkbox"/> Earthing device	P44				
			P18	<input type="checkbox"/> Breaker fixing bolts	<input type="checkbox"/> Inter-pole barrier	P44				
	Line side (Top):			<input type="checkbox"/> Horizontal terminals	<input type="checkbox"/> Vertical terminals	<input type="checkbox"/> Front connections	P17			
	Load side (Bottom):			<input type="checkbox"/> Horizontal terminals	<input type="checkbox"/> Vertical terminals	<input type="checkbox"/> Front connections				
6	Type of spring charged operation	P20 - 22		<input type="checkbox"/> Manual charging	P20					
				<input type="checkbox"/> Motor charging Supply voltage	AC _____ V	DC _____ V	P21			
				<input type="checkbox"/> Step-down transformer _____ sets	<input type="checkbox"/> 450/220V	<input type="checkbox"/> 380/22V	P21			
				Automatic closing spring release	P22					
				Spring charge indicator	P22					
7	Over-current release (OCR)	P25 - 37		(1) OCR type	- _____ - _____	<input type="checkbox"/> No-request OCR				
					P30,31	<input type="checkbox"/> N : N-phase protection				
				(2) Rated primary current I_{CT}	z _____ A	P33				
				(3) Rated current I_N	z _____ A	P33				
				(4) <input type="checkbox"/> TERASAKI STANDARD						
				(5) <input type="checkbox"/> L I_{R}	z _____ A (I_N X _____ %)	t_R z _____ s	at 600% I_R for L-char.	P32		
				(6) <input type="checkbox"/> S I_{SS}	z _____ A (I_N X _____ %)	t_{SS} z _____ ms	P32			
				(7) <input type="checkbox"/> INST I_N	z _____ A (I_N X _____ %) ^{*2}	P32				
				(8) <input type="checkbox"/> GF I_N	z _____ A (I_{CT} X _____ %)	t_N z _____ ms	<input type="checkbox"/> CT for neutral line	P32		
				(9) <input type="checkbox"/> NP I_N	z _____ A (I_{CT} X _____ %) (Factory set to a fixed value)					
8	Electrical tripping devices	P23, 24		<input type="checkbox"/> Shunt trip device	AC _____ V,	DC _____ V	<input type="checkbox"/> Capacitor trip device	P23		
				<input type="checkbox"/> Fixed type Undervoltage Trip	AC _____ V,	DC _____ V ^{*2}	<input type="checkbox"/> AUR-1CS	<input type="checkbox"/> AUR-1CD	P24	
9	Other accessories	P40		<input type="checkbox"/> ON-OFF cycle counter						
		P40		<input type="checkbox"/> Auxiliary switches type AXR- _____						
		P41		<input type="checkbox"/> Key lock (<input type="checkbox"/> Lock-in OFF <input type="checkbox"/> Lock-in ON)						
		P41		<input type="checkbox"/> Key interlock (<input type="checkbox"/> Cylinder lock <input type="checkbox"/> Castell lock) (Castell lock not supplied)						
		P42		<input type="checkbox"/> Mechanical interlock (Cotact TERASAKI for details)						
				<input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical						
				P ₁ : _____ mm	P ₂ : _____ mm					
				ACB (A) : Type _____	_____ poles					
				ACB (B) : Type _____	_____ poles					
				ACB (C) : Type _____	_____ poles					
1	Special environment specification	P45		<input type="checkbox"/> Not required						
				<input type="checkbox"/> Tropicalization (fungus and moisture treatment)	<input type="checkbox"/> Cold climate treatment	<input type="checkbox"/> Anti-corrosion treatment	P45			
1	Spare parts			<input type="checkbox"/> Not required						
				<input type="checkbox"/> Required (Contact TERASAKI for recommended spare parts)						
1	Documents			<input type="checkbox"/> Test Report	English _____ copies	<input type="checkbox"/> Approval Drawing	English _____ copies			
				<input type="checkbox"/> Instruction Manual	English _____ copies	<input type="checkbox"/> Finish Drawing	English _____ copies			
1	Other	P18, 38		<input type="checkbox"/> Not required	<input type="checkbox"/> Lifetr	P18				
				<input type="checkbox"/> OCR checker with AC100-110V power supply	P38		<input type="checkbox"/> OCR checker with AC100-240V power supply + Type C plug	P38		

*1 : One handle come standard with every five ACB's. Specify the number of additional handles if needed.

*2 : Fixed type Undervoltage Trip can not be fitted with shunt trip device. However, Instantaneously rated shunt trip can be used together with fixed type undervoltage trip (except DC rating) with special specification. Contact terasaki for details.



Resilient MCCB..... BCH

Frame 1

- High Performance Compact Size
- Suitability for Isolation
- Tested and rated for 50° C ambient condition
- Line Load Interchangeability
- Double Insulation
- Thermal Magnetic Trip unit



Frame -1 :
 $I_{cu} / I_{cs} = 10 / 7.5$



Frame -1 :
 $I_{cu} / I_{cs} = 15/15, 25 / 25, 30/15, 36/30, 50/25$ kA

I_{cu}	Frame	Rated Current	Overload Setting	Ordering Code	MRP [₹]
10kA @	F1*	100	Fixed	XFE100G#	1750
		80		XFE080G#	1750
		63		XFE063G	1600
		50		XFE050G	1600
		40		XFE040G	1600
		32		XFE032G	1600
		25		XFE025G	1600
		20		XFE020G	1600
		16		XFE016G	1600
		15kA ~		F1**	100
80	XFN080P#		3310		
63	XFN063P		3310		
50	XFN050P		3310		
40	XFN040P		3310		
32	XFN032P		3310		
25	XFN025P		3310		
20	XFN020P		3310		
16	XFN016P		3310		
30kA ^	F1**		100		Adjustable
		80	XFH080NV#	4050	
		63	XFH063NV	4050	
		50	XFH050NV	4050	
		40	XFH040NV	4050	
		32	XFH032NV	4050	
		25	XFH025NV	4050	
		20	XFH020NV	4050	
		16	XFH016NV	4050	
		36kA ^	F1**	100	
80	XFL080NV#			4460	
63	XFL063NV			4460	
50	XFL050NV			4460	
40	XFL040NV			4460	
32	XFL032NV			4460	
25	XFL025NV			4460	
20	XFL020NV			4460	
16	XFL016NV			4460	

* With RAL-7035 (Light Grey) front Facia
** With RAL-7016 (Dark Grey) front Facia

~ means $I_{cs} = 100\% I_{cu}$
@ means $I_{cs} = 75\% I_{cu}$
^ means $I_{cs} = 50\% I_{cu}$

Spreader Link available as standard (for MCCB without spreader , please contact our sales team)

All above MCCBs have fixed (non adjustable) Magnetic setting

MCCBs with different I_{cu} / I_{cs} combination can be made available On Request

MCCBs are available in unit pack as standard for bulk packing option please contact our sales team

All needed accessories are mentioned on page no 6
(Extended terminals for all ratings is also available as accessory)

* For more details refer product catalogue

Resilient MCCB..... BCH

Frame 1



Frame -1 :
I_{cu} / I_{cs} = 25/25, 50/25 kA

I _{cu}	Frame	Rated Current	Overload Setting	Ordering Code	MRP [₹]
25kA ~	F1**	100	Adjustable	XFS100PV#	5150
		80		XFS080PV#	5150
		63		XFS063PV	5150
		50		XFS050PV	5150
		40		XFS040PV	5150
		32		XFS032PV	5150
		25		XFS025PV	5150
		20		XFS020PV	5150
		16		XFS016PV	5150
50kA ^	F1**	100	Adjustable	XFV100NV#	7895
		80		XFV080NV#	7895
		63		XFV063NV	7895
		50		XFV050NV	7895
		40		XFV040NV	7895
		32		XFV032NV	7895
		25		XFV025NV	7895
		20		XFV020NV	7895
		16		XFV016NV	7895

** With RAL-7016 (Dark Grey) front Facia

Frame 2

- High Performance Compact Size
- Suitability for Isolation
- Rated at 50° C
- Line Load Interchangeability
- Double Insulation
- Thermal Magnetic Trip unit



Frame -2 :
I_{cu} / I_{cs} = 25/25, 36/27, 36/36, 50/25, 50/50 kA

I _{cu}	Frame	Rated Current	Overload Setting	Ordering Code	MRP [₹]
25kA ~	F2	250	Adjustable	XF2E250PV#	16560
		200		XF2E200PV#	10855
		160		XF2E160PV	8695
		125		XF2E125PV	6945
36kA ^	F2	250	Adjustable	XF2N250NV#	11225
		200		XF2N200NV#	9935
		160		XF2N160NV	7450
		125		XF2N125NV	6625
36kA @	F2	250	Adjustable	XF2N250GV#	16745
		200		XF2N200GV#	15455
		160		XF2N160GV	11040
		125		XF2N125GV	8650
36kA ~	F2	250	Adjustable	XF2N250PV#	17020
		200		XF2N200PV#	15640
		160		XF2N160PV	11225
		125		XF2N125PV	9155
50kA ^	F2	250	Adjustable	XF2H250NV#	17390
		200		XF2H200NV#	16285
		160		XF2H160NV	11870
		125		XF2H125NV	9385
50kA ~	F2	250	Adjustable	XF2H250PV#	19780
		200		XF2H200PV#	17985
		160		XF2H160PV	14030
		125		XF2H125PV	11590

Complete range RAL-7016 (Dark Grey) front Facia

Spreader Link available as standard (for MCCB without spreader , please contact our sales team)

All above MCCBs have fixed (non adjustable) Magnetic setting

MCCBs with different I_{cu} / I_{cs} combination can be made available On Request

MCCBs are available in unit pack as standard for bulk packing option please contact our sales team

All needed accessories are mentioned on page no 6

(Extended terminals for all ratings is also available as accessory)

~ means I_{cs} = 100% I_{cu}

@ means I_{cs} = 75% I_{cu}

^ means I_{cs} = 50% I_{cu}

* For more details refer product catalogue

Reilient MCCB..... BCH



Frame - 3 :
 $I_{cu} / I_{cs} = 36/36, 50/50 \text{ kA}$
 (Spreader terminal available by default)

Spreader Link available as standard (for MCCB without spreader , please contact our sales team)
 MCCBs with different I_{cu} / I_{cs} combination can be made available On Request
 MCCBs are available in unit pack as standard for bulk packing option please contact our sales team

Frame 3

- High Performance Compact Size
- Suitability for Isolation
- Rated at 50° C
- Line Load Interchangeability
- Double Insulation
- Thermal Magnetic Trip Unit (TMTU)
 - Overload Setting: 0.8-1.0 In
 - Short Circuit Setting: 6-10 In

I_{cu}	Frame	Rated Current	Ordering Code	MRP [₹]
36kA ~	F3	630	XF3N630PV	26590
		500	XF3N500PV	24840
		400	XF3N400PV	23370
		320	XF3N320PV	22265
50kA ~	F3	630	XF3H630PV	28785
		500	XF3H500PV	27920
		400	XF3H400PV	24750
		320	XF3H320PV	23460

~ means $I_{cs} = 100\% I_{cu}$



- **Electronic Trip Unit (ETU)-LSIG**
 - Overload Setting: 0.4-1.0 In
 - Short Circuit Setting: 1.5-10 In
 - Earth Fault Setting: 0.2-0.55 In
 - Instantaneous Setting: 12 In
 - Short Circuit Delay: 50-500 ms
 - Earth Fault Delay: 50-500 ms
 - Pre Trip Alarm Indication

I_{cu}	Frame	Rated Current	Ordering Code	MRP [₹]
36kA ~	F3	630	XF3N630PE-LSIG	38180
		400	XF3N400PE-LSIG	33120
50kA ~	F3	630	XF3H630PE-LSIG	40480
		400	XF3H400PE-LSIG	35420

~ means $I_{cs} = 100\% I_{cu}$

ACCESSORIES FOR Reilient RANGE OF MCCBs



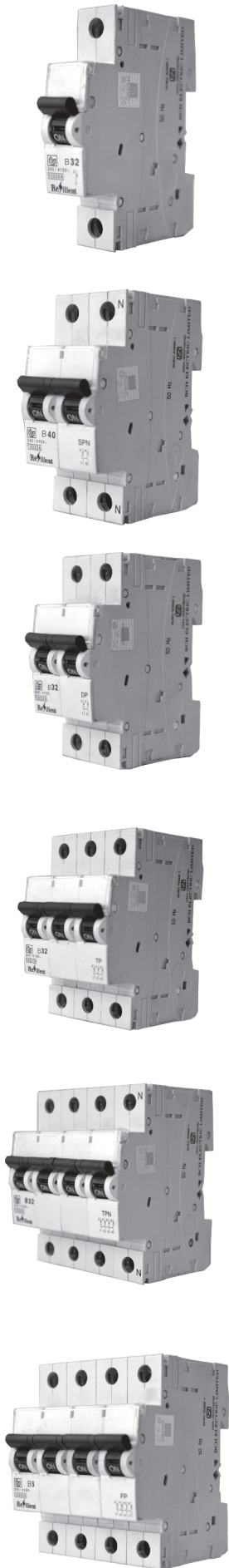
Type	Product	Rating	Cat Code	List Price [₹]	
Internal Accessories	Shunt Release	220V - 415V F1	XFSHT220V	1010	
		220V - 415V F2	XF2SHT220V	1010	
		220V - 415V F3	XF3SHT220V	1680	
	Under Voltage Release	240V F1	XFUV240VA	1335	
		240V F2	XF2UV240VA	1355	
		240V F3	XF3UV240VA	2105	
		415V F1	XFUV415VA	1540	
		415V F2	XF2UV415VA	1540	
		415V F3	XF3UV415VA	2105	
Auxiliary Contacts	1 C/O + 1 C/O	XFALAX11	1105		
	2 C/O	XFAX2	1105		
External Accessories	Din Rail	F1	F1DIN	150	
		Extended Rotary Handle	F1	F1ROHE	1360
			F2	F2ROHE	1405
	Extended Terminals	F3	F3ROHE	2945	
		F1	ACMF1TP100	275	
	Phase Barriers	F2	ACMF2TP250	1010	
		F1	F1PB	55	
		F2	F2PB	145	
	MCCB Enclosure	F3	F3PB	175	
		F1	F1EU3P	675	
		F2	F2EU3P	1325	

* For more details refer product catalogue

MCB

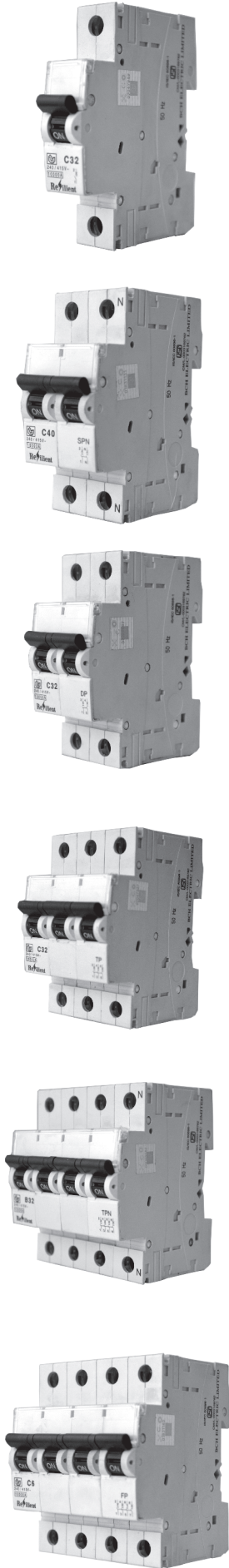
BCH

- Line load interchangeability
- Suitable for isolation
- Suitable for IT systems
- Current limiting design
- Possibility of bus bar termination at both ends
- 45mm panel cutout, suitable for standard MCB distribution boards



Curve	Pole	RATING	CATCODE	Standard pack of	MRP (per unit) [₹]
B Curve	1P	6A	BCHM10SPB06	12 units	190
		10A	BCHM10SPB10		190
		16A	BCHM10SPB16		190
		20A	BCHM10SPB20		190
		25A	BCHM10SPB25		190
		32A	BCHM10SPB32		190
		40A	BCHM10SPB40		440
		50A	BCHM10SPB50		440
B Curve	1P + N	6A	BCHM10SNB06	6 units	520
		10A	BCHM10SNB10		520
		16A	BCHM10SNB16		520
		20A	BCHM10SNB20		520
		25A	BCHM10SNB25		520
		32A	BCHM10SNB32		520
		40A	BCHM10SNB40		770
		50A	BCHM10SNB50		770
B Curve	2P	6A	BCHM10DPB06	6 units	640
		10A	BCHM10DPB10		640
		16A	BCHM10DPB16		640
		20A	BCHM10DPB20		640
		25A	BCHM10DPB25		640
		32A	BCHM10DPB32		640
		40A	BCHM10DPB40		980
		50A	BCHM10DPB50		980
B Curve	3P	6A	BCHM10TPB06	4 units	1005
		10A	BCHM10TPB10		1005
		16A	BCHM10TPB16		1005
		20A	BCHM10TPB20		1005
		25A	BCHM10TPB25		1005
		32A	BCHM10TPB32		1005
		40A	BCHM10TPB40		1480
		50A	BCHM10TPB50		1480
B Curve	3P + N	6A	BCHM10TNB06	3 units	1180
		10A	BCHM10TNB10		1180
		16A	BCHM10TNB16		1180
		20A	BCHM10TNB20		1180
		25A	BCHM10TNB25		1180
		32A	BCHM10TNB32		1180
		40A	BCHM10TNB40		1595
		50A	BCHM10TNB50		1595
B Curve	4P	6A	BCHM10FPB06	3 units	1425
		10A	BCHM10FPB10		1425
		16A	BCHM10FPB16		1425
		20A	BCHM10FPB20		1425
		25A	BCHM10FPB25		1425
		32A	BCHM10FPB32		1425
		40A	BCHM10FPB40		1990
		50A	BCHM10FPB50		1990
63A	BCHM10FPB63	1990			

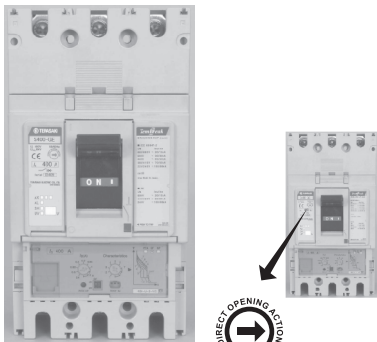
- Line load interchangeability
- Suitable for isolation
- Suitable for IT systems
- Current limiting design
- Possibility of bus bar termination at both ends
- 45mm panel cutout, suitable for standard MCB distribution boards



Curve	Pole	RATING	CATCODE	Standard pack of	MRP (per unit) [₹]
C Curve	1P	6A	BCHM10SPC06	12 units	200
		10A	BCHM10SPC10		200
		16A	BCHM10SPC16		200
		20A	BCHM10SPC20		200
		25A	BCHM10SPC25		200
		32A	BCHM10SPC32		200
		40A	BCHM10SPC40		455
		50A	BCHM10SPC50		455
C Curve	1P + N	6A	BCHM10SNC06	6 units	600
		10A	BCHM10SNC10		600
		16A	BCHM10SNC16		600
		20A	BCHM10SNC20		600
		25A	BCHM10SNC25		600
		32A	BCHM10SNC32		600
		40A	BCHM10SNC40		790
		50A	BCHM10SNC50		790
C Curve	2P	6A	BCHM10DPC06	6 units	650
		10A	BCHM10DPC10		650
		16A	BCHM10DPC16		650
		20A	BCHM10DPC20		650
		25A	BCHM10DPC25		650
		32A	BCHM10DPC32		650
		40A	BCHM10DPC40		990
		50A	BCHM10DPC50		990
C Curve	3P	6A	BCHM10TPC06	4 units	1025
		10A	BCHM10TPC10		1025
		16A	BCHM10TPC16		1025
		20A	BCHM10TPC20		1025
		25A	BCHM10TPC25		1025
		32A	BCHM10TPC32		1025
		40A	BCHM10TPC40		1490
		50A	BCHM10TPC50		1490
C Curve	3P + N	6A	BCHM10TNC06	3 units	1195
		10A	BCHM10TNC10		1195
		16A	BCHM10TNC16		1195
		20A	BCHM10TNC20		1195
		25A	BCHM10TNC25		1195
		32A	BCHM10TNC32		1195
		40A	BCHM10TNC40		1680
		50A	BCHM10TNC50		1680
C Curve	4P	6A	BCHM10FPC06	3 units	1435
		10A	BCHM10FPC10		1435
		16A	BCHM10FPC16		1435
		20A	BCHM10FPC20		1435
		25A	BCHM10FPC25		1435
		32A	BCHM10FPC32		1435
		40A	BCHM10FPC40		2015
		50A	BCHM10FPC50		2015
63A	BCHM10FPC63	2015			



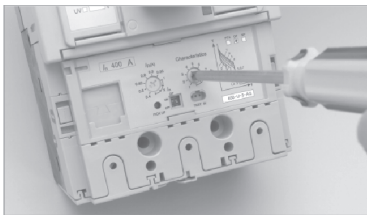
Total Protection Complete Control



TemBreak



User friendly adjustment



Clear Trip Indication



OFF



ON



TRIP

Tembreak 2 MCCB with 10kA* breaking capacity

Frame	Pole	Current (A)	Type	Code	CATCODE	MRP [₹]
E100SF	3	10-40	Fix-Thermal	■	XT2E100SF3F■U0	4535
	3	50-75	Fix-Thermal	■	XT2E100SF3F■U0	4535
	3	100	Fix-Thermal	A0	XT2E100SF3FA0U0	4765

* Ics = 50%

Tembreak 2 MCCB with 25kA* breaking capacity

Frame	Pole	Current (A)	Type	Code	CATCODE	MRP [₹]
S160SCF	3	15-40	Fix-Thermal	■	XT2S160SCF3F■U0	5180
	4		Fix-Thermal	■	XT2S160SCF4F■U0	6900
	3	50-75	Fix-Thermal	■	XT2S160SCF3F■U0	5180
	4		Fix-Thermal	■	XT2S160SCF4F■U0	6900
	3	100	Fix-Thermal	A0	XT2S160SCF3FA0U0	5440
	4		Fix-Thermal	A0	XT2S160SCF4FA0U0	7610
	3	125	Fix-Thermal	AB	XT2S160SCF3FABU0	5795
	4		Fix-Thermal	AB	XT2S160SCF4FABU0	7990
3	160	Fix-Thermal	AF	XT2S160SCF3FAFU0	6900	
4		Fix-Thermal	AF	XT2S160SCF4FAFU0	8390	
S160SCJ	3	25-40	Adj-Thermal	■	XT2S160SCJ3F■U0	7195
	4		Adj-Thermal	■	XT2S160SCJ4F■U0	9600
	3	63-80	Adj-Thermal	■	XT2S160SCJ3F■U0	7195
	4		Adj-Thermal	■	XT2S160SCJ4F■U0	9600
	3	100	Adj-Thermal	A0	XT2S160SCJ3FA0U0	7555
	4		Adj-Thermal	A0	XT2S160SCJ4FA0U0	10075
	3	125	Adj-Thermal	AB	XT2S160SCJ3FABU0	7935
	4		Adj-Thermal	AB	XT2S160SCJ4FABU0	10580
	3	160	Adj-Thermal	AF	XT2S160SCJ3FAFU0	8325
	4		Adj-Thermal	AF	XT2S160SCJ4FAFU0	11115

*Ics = 50%

Code - Current Rating

Rating	15A	20A	30A	32A	40A	50A	60A	63A	75A	100A	125A	150A	160A	175A	200A	225A	250A	400A	630A	800A	1000A	1250A	1600A	2000A
■Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

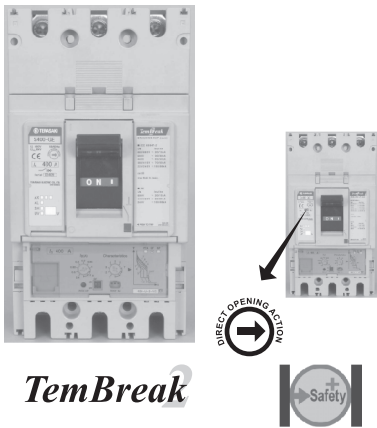
Plugin versions Available on request

Accessories are mentioned on page no 19

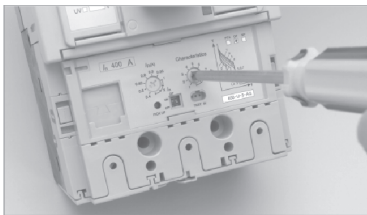
* For more details refer product catalogue

Tembreak 2 MCCB with 25kA breaking capacity

Total Protection Complete Control



User friendly adjustment



Clear Trip Indication



OFF



ON



TRIP

Frame	Pole	Current (A)	Type	Code	CATCODE	MRP [₹]
E250SF	3	125	Fix-Thermal	AB	XT2E250SF3FABU0	On Request
	4		Fix-Thermal	AB	XT2E250SF4FABU0	
	3	175	Fix-Thermal	AG	XT2E250SF3FAGU0	
	4		Fix-Thermal	AG	XT2E250SF4FAGU0	
	3	200	Fix-Thermal	B0	XT2E250SF3FB0U0	
	4		Fix-Thermal	B0	XT2E250SF4FB0U0	
	3	250	Fix-Thermal	BE	XT2E250SF3FBEU0	
	4		Fix-Thermal	BE	XT2E250SF4FBEU0	
E125NJ	3	20-80	Adj-Thermal	■	XT2E125NJ3F■U0	On Request
	4		Adj-Thermal	■	XT2E125NJ4F■U0	
	3	100	Adj-Thermal	A0	XT2E125NJ3FA0U0	
	4		Adj-Thermal	A0	XT2E125NJ4FA0U0	
	3	125	Adj-Thermal	AB	XT2E125NJ3FABU0	
	4		Adj-Thermal	AB	XT2E125NJ4FABU0	
E250SJ	3	160	Adj-Thermal	AF	XT2E250SJ3FAFU0	On Request
	4		Adj-Thermal	AF	XT2E250SJ4FAFU0	
	3	200	Adj-Thermal	B0	XT2E250SJ3FB0U0	
	4		Adj-Thermal	B0	XT2E250SJ4FB0U0	
	3	250	Adj-Thermal	BE	XT2E250SJ3FBEU0	
	4		Adj-Thermal	BE	XT2E250SJ4FBEU0	

*Ics = 75%

Tembreak 2 MCCB with 25kA* breaking capacity

Frame	Pole	Current (A)	Type	Code	CATCODE	MRP [₹]
E400NJ	3	250	Adj-Thermal	BE	XT2E400NJ3FBEU0	28180
	4		Adj-Thermal	BE	XT2E400NJ4FBEU0	37555
	3	400	Adj-Thermal	D0	XT2E400NJ3FD0U0	29580
	4		Adj-Thermal	D0	XT2E400NJ4FD0U0	39405

*Ics = 100%

Code - Current Rating

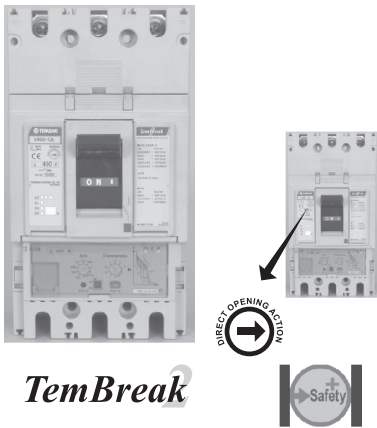
Rating	15A	20A	30A	32A	40A	50A	60A	63A	75A	100A	125A	150A	160A	175A	200A	225A	250A	400A	630A	800A	1000A	1250A	1600A	2000A
Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

Plugin versions Available on request

Accessories are mentioned on page no 19

* For more details refer product catalogue

Total Protection Complete Control Tembreak 2 MCCB with 36kA* breaking capacity

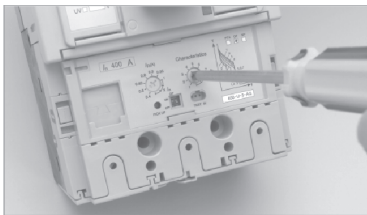


Frame	Pole	Current (A)	Type	Code	CATCODE	MRP [₹]
S125NJ	3	20-80	Adj-Thermal	■	XT2S125NJ3F■U0	On request
S125NJ	4		Adj-Thermal	■	XT2S125NJ4F■U0	On request
S125NJ	3	100	Adj-Thermal	A0	XT2S125NJ3FA0U0	On request
S125NJ	4		Adj-Thermal	A0	XT2S125NJ4FA0U0	On request
S125NJ	3	125	Adj-Thermal	AB	XT2S125NJ3FABU0	On request
S125NJ	4		Adj-Thermal	AB	XT2S125NJ4FABU0	On request

*Ics = 84%

Tembreak 2 MCCB with 36kA* breaking capacity

User friendly adjustment



Frame	Pole	Current(A)	Type	Code	CATCODE	MRP [₹]
S250NJ	3	160	Adj-Thermal	AF	XT2S250NJ3FAFU0	16500
	4		Adj-Thermal	AF	XT2S250NJ4FAFU0	20130
	3	200	Adj-Thermal	B0	XT2S250NJ3FB0U0	16510
	4		Adj-Thermal	B0	XT2S250NJ4FB0U0	20985
	3	250	Adj-Thermal	BE	XT2S250NJ3FBEU0	17825
	4		Adj-Thermal	BE	XT2S250NJ4FBEU0	21160
S400CJ	3	400	Adj-Thermal	D0	XT2S400CJ3FD0U0	31005
	4		Adj-Thermal	D0	XT2S400CJ4FD0U0	41340
S800CJ	3	630	Adj-Thermal	630	XT2S800CJ3F630U0	46435
	4		Adj-Thermal	630	XT2S800CJ4F630U0	61915
	3	800	Adj-Thermal	800	XT2S800CJ3F800U0	48760
	4		Adj-Thermal	800	XT2S800CJ4F800U0	65010
S250NE	3	125	Electronic	AB	XT2S250NE3FABU0	41895
	4		Electronic	AB	XT2S250NE4FABU0	55860
	3	250	Electronic	BE	XT2S250NE3FBEU0	43995
	4		Electronic	BE	XT2S250NE4FBEU0	58660
E630NE	3	630	Electronic	630	XT2E630NE3F630U0	51665
	4		Electronic	630	XT2E630NE4F630U0	68890

*Ics = 100%

Clear Trip Indication



OFF



ON



TRIP

Code - Current Rating

Rating	15A	20A	30A	32A	40A	50A	60A	63A	75A	100A	125A	150A	160A	175A	200A	225A	250A	400A	630A	800A	1000A	1250A	1600A	2000A
■Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

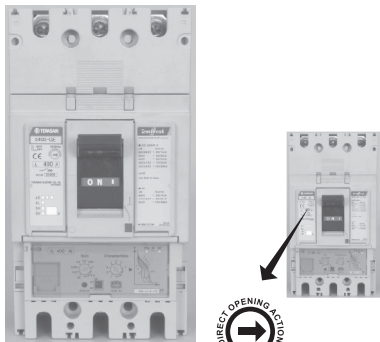
Plugin versions Available on request

Accessories are mentioned on page no 19

* For more details refer product catalogue

Total Protection Complete Control

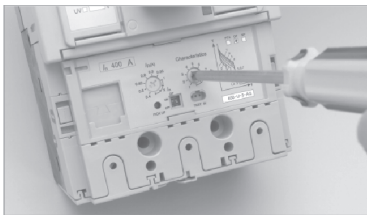
Tembreak 2 MCCB with 40kA* breaking capacity



TemBreak



User friendly adjustment



Clear Trip Indication



OFF



ON



TRIP

Frame	Pole	Current (A)	Type	Code	CATCODE	MRP [₹]	
S160SF	3	15-40	Fix-Thermal	■	XT2S160SF3F■U0	5820	
	4		Fix-Thermal	■	XT2S160SF4F■U0	7765	
	3	50-75	Fix-Thermal	■	XT2S160SF3F■U0	5820	
	4		Fix-Thermal	■	XT2S160SF4F■U0	7765	
	3	100	Fix-Thermal	A0	XT2S160SF3FA0U0	6115	
	4		Fix-Thermal	A0	XT2S160SF4FA0U0	8145	
	3	125	Fix-Thermal	AB	XT2S160SF3FABU0	6415	
	4		Fix-Thermal	AB	XT2S160SF4FABU0	8555	
	3	160	Fix-Thermal	AF	XT2S160SF3FAFU0	6735	
	4		Fix-Thermal	AF	XT2S160SF4FAFU0	8985	
	S250SF	3	200	Fix-Thermal	B0	XT2S250SF3FB0U0	13115
		4		Fix-Thermal	B0	XT2S250SF4FB0U0	17480
3		225	Fix-Thermal	BB	XT2S250SF3FBBU0	13115	
4			Fix-Thermal	BB	XT2S250SF4FBBU0	17480	
3		250	Fix-Thermal	BE	XT2S250SF3FBEU0	13765	
4			Fix-Thermal	BE	XT2S250SF4FBEU0	18350	
S160SJ	3	15-40	Adj-Thermal	■	XT2S160SJ3F■U0	7700	
	4		Adj-Thermal	■	XT2S160SJ4F■U0	10265	
	3	50-75	Adj-Thermal	■	XT2S160SJ3F■U0	7700	
	4		Adj-Thermal	■	XT2S160SJ4F■U0	10265	
	3	100	Adj-Thermal	A0	XT2S160SJ3FA0U0	8085	
	4		Adj-Thermal	A0	XT2S160SJ4FA0U0	10780	
	3	125	Adj-Thermal	AB	XT2S160SJ3FABU0	8490	
	4		Adj-Thermal	AB	XT2S160SJ4FABU0	11315	
	3	160	Adj-Thermal	AF	XT2S160SJ3FAFU0	8915	
	4		Adj-Thermal	AF	XT2S160SJ4FAFU0	11885	
	S250SJ	3	200	Adj-Thermal	B0	XT2S250SJ3FB0U0	14820
		4		Adj-Thermal	B0	XT2S250SJ4FB0U0	15555
3		250	Adj-Thermal	BE	XT2S250SJ3FBEU0	19750	
4			Adj-Thermal	BE	XT2S250SJ4FBEU0	20730	

*Ics = 50%

Code - Current Rating

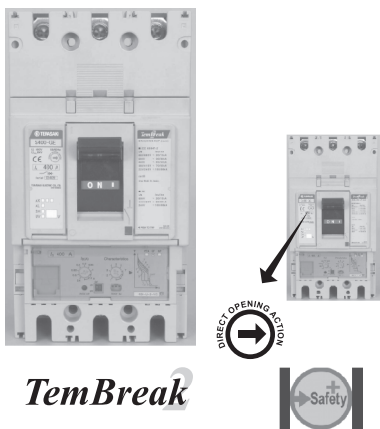
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■Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

Plugin versions Available on request

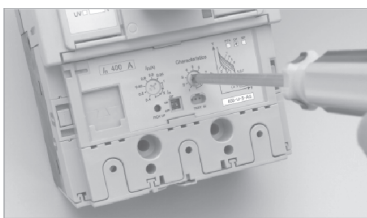
* For more details refer product catalogue

Accessories are mentioned on page no 19

Total Protection Complete Control



User friendly adjustment



Clear Trip Indication



OFF



ON



TRIP

Tembreak 2 MCCB with 50kA* breaking capacity

Frame	Pole	Current (A)	Type	Code	CATCODE	MRP [₹]
S1250SE	3	1250	Electronic	1250	XT2S1250SE3F1250U0	123095
	4	1250	Electronic	1250	XT2S1250SE4F1250U0	164130

*Ics = 75%

Tembreak 2 MCCB with 50kA* breaking capacity

Frame	Pole	Current (A)	Type	Code	CATCODE	MRP [₹]	
S400NF	3	125	Fix-Thermal	AB	XT2S400NF3FABU0	28715	
	4		Fix-Thermal	AB	XT2S400NF4FABU0	38285	
	3	160	Fix-Thermal	AF	XT2S400NF3FAFU0	29290	
	4		Fix-Thermal	AF	XT2S400NF4FAFU0	39055	
	3	200	Fix-Thermal	B0	XT2S400NF3FB0U0	29875	
	4		Fix-Thermal	B0	XT2S400NF4FB0U0	39830	
	3	225	Fix-Thermal	BB	XT2S400NF3FBBU0	29900	
	4		Fix-Thermal	BB	XT2S400NF4FBBU0	39860	
	3	250	Fix-Thermal	BE	XT2S400NF3FBEU0	30325	
	4		Fix-Thermal	BE	XT2S400NF4FBEU0	40435	
	3	320	Fix-Thermal	BF	XT2S400NF3FBFU0	30785	
	4		Fix-Thermal	BF	XT2S400NF4FBFU0	41045	
	3	400	Fix-Thermal	D0	XT2S400NF3FD0U0	31250	
	4		Fix-Thermal	D0	XT2S400NF4FD0U0	41670	
	S800NF	3	630	Fix-Thermal	630	XT2S800NF3F630U0	50745
		4		Fix-Thermal	630	XT2S800NF4F630U0	67660
3		800	Fix-Thermal	800	XT2S800NF3F800U0	52290	
4			Fix-Thermal	800	XT2S800NF4F800U0	69715	
S400NJ	3	250	Adj-Thermal	BE	XT2S400NJ3FBEU0	30360	
	4		Adj-Thermal	BE	XT2S400NJ4FBEU0	40480	
	3	400	Adj-Thermal	D0	XT2S400NJ3FD0U0	32560	
	4		Adj-Thermal	D0	XT2S400NJ4FD0U0	43405	
S800NJ	3	630	Adj-Thermal	630	XT2S800NJ3F630U0	51115	
	4		Adj-Thermal	630	XT2S800NJ4F630U0	68150	
	3	800	Adj-Thermal	800	XT2S800NJ3F800U0	53645	
	4		Adj-Thermal	800	XT2S800NJ4F800U0	71525	
S400NE	3	250	Electronic	BE	XT2S400NE3FBEU0	46975	
	4		Electronic	BE	XT2S400NE4FBEU0	62640	
	3	400	Electronic	D0	XT2S400NE3FD0U0	49325	
	4		Electronic	D0	XT2S400NE4FD0U0	65765	
S630CE	3	630	Electronic	630	XT2S630CE3F630U0	52440	
	4	630	Electronic	630	XT2S630CE4F630U0	69000	
S800NE	3	800	Electronic	800	XT2S800NE3F800U0	68355	
	4	800	Electronic	800	XT2S800NE4F800U0	91135	
S1000SE	3	1000	Electronic	1000	XT2S1000SE3F1000U0	82035	
	4	1000	Electronic	1000	XT2S1000SE4F1000U0	109480	
S1600SE	3	1600	Electronic	1600	XT2S1600SE3F1600U0	166185	
	4	1600	Electronic	1600	XT2S1600SE4F1600U0	221580	

Code - Current Rating

*Ics = 100%

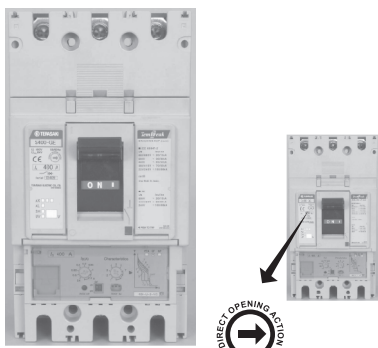
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Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

Plugin versions Available on request
Accessories are mentioned on page no 19

* For more details refer product catalogue

Tembreak 2 MCCB with 65kA* breaking capacity

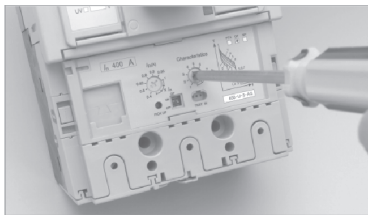
Total Protection Complete Control



TemBreak



User friendly adjustment



Clear Trip Indication



OFF



ON



TRIP

Frame	Pole	Current(A)	Type	Code	CATCODE	MRP [₹]
S100GF	3	15-40A	Fix-Thermal	■	XT2S100GF3F■U0	12695
	4		Fix-Thermal	■	XT2S100GF4F■U0	16930
	3	50-75A	Fix-Thermal	■	XT2S100GF3F■U0	13340
	4		Fix-Thermal	■	XT2S100GF4F■U0	17785
	3	100	Fix-Thermal	A0	XT2S100GF3FA0U0	14000
	4		Fix-Thermal	AB	XT2S100GF4FABU0	18675
S125GF	3	125	Fix-Thermal	AB	XT2S125GF3FABU0	14470
	4		Fix-Thermal	AB	XT2S125GF4FABU0	18400
S225GF	3	125	Fix-Thermal	AB	XT2S225GF3FABU0	On request
	4		Fix-Thermal	AB	XT2S225GF4FABU0	On request
	3	160	Fix-Thermal	AF	XT2S225GF3FAFU0	17000
	4		Fix-Thermal	AF	XT2S225GF4FAFU0	22680
	3	200	Fix-Thermal	B0	XT2S225GF3FB0U0	17865
	4		Fix-Thermal	B0	XT2S225GF4FB0U0	23820
	3	225	Fix-Thermal	BB	XT2S225GF3FBBU0	17940
	4		Fix-Thermal	BB	XT2S225GF4FBBU0	23875
S250GF	3	250	Fix-Thermal	BE	XT2S250GF3FBEU0	18755
	4		Fix-Thermal	BE	XT2S250GF4FBEU0	25010
S125GJ	3	20-32A	Adj-Thermal	■	XT2S125GJ3F■U0	14905
	4		Adj-Thermal	■	XT2S125GJ4F■U0	18860
	3	40-80A	Adj-Thermal	■	XT2S125GJ3F■U0	14905
	4		Adj-Thermal	■	XT2S125GJ4F■U0	18860
	3	100	Adj-Thermal	A0	XT2S125GJ3FA0U0	14905
	4		Adj-Thermal	A0	XT2S125GJ4FA0U0	18860
	3	125	Adj-Thermal	AB	XT2S125GJ3FABU0	15580
	4		Adj-Thermal	AB	XT2S125GJ4FABU0	19230
S160NJ	3	160	Adj-Thermal	AF	XT2S160NJ3FAFU0	15870
	4		Adj-Thermal	AF	XT2S160NJ4FAFU0	23000

*Ics = 50%

Tembreak 2 MCCB with 70kA* breaking capacity

Frame	Pole	Current (A)	Type	Code	CATCODE	MRP [₹]
S250PE	3	125	Electronic	AB	XT2S250PE3FABU0	50635
	4		Electronic	AB	XT2S250PE4FABU0	67515
	3	250	Electronic	BE	XT2S250PE3FBEU0	53165
	4		Electronic	BE	XT2S250PE4FBEU0	70890
S800RE	3	630	Electronic	630	XT2S800RE3F630U0	71555
	4		Electronic	630	XT2S800RE4F630U0	95405
	3	800	Electronic	800	XT2S800RE3F800U0	75125
	4		Electronic	800	XT2S800RE4F800U0	100170
S800RJ	3	630	Adj-Thermal	630	XT2S800RJ3F630U0	53665
	4		Adj-Thermal	630	XT2S800RJ4F630U0	71555
	3	800	Adj-Thermal	800	XT2S800RJ3F800U0	56345
	4		Adj-Thermal	800	XT2S800RJ4F800U0	75125

Code - Current Rating

*Ics = 100%

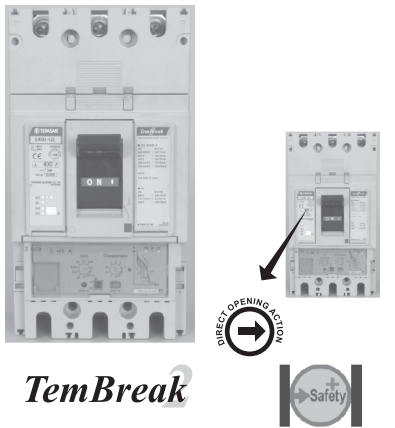
Rating	15A	20A	30A	32A	40A	50A	60A	63A	75A	100A	125A	150A	160A	175A	200A	225A	250A	400A	630A	800A	1000A	1250A	1600A	2000A
■Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

Plugin versions Available on request
Accessories are mentioned on page no 19

* For more details refer product catalogue

Total Protection Complete Control

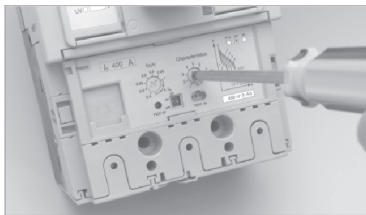
Tembreak 2 MCCB with 65kA* breaking capacity



TemBreak²



User friendly adjustment



Frame	Pole	Current (A)	Type	Code	CATCODE	MRP [₹]
S160GJ	3	50-63	Adj-Thermal	■	XT2S160GJ3F■U0	On request
	4		Adj-Thermal	■	XT2S160GJ4F■U0	
	3	100	Adj-Thermal	A0	XT2S160GJ3FA0U0	
	4		Adj-Thermal	A0	XT2S160GJ4FA0U0	
	3	125	Adj-Thermal	AB	XT2S160GJ3FABU0	
	4		Adj-Thermal	AB	XT2S160GJ4FABU0	
S250GJ	3	160	Adj-Thermal	AF	XT2S250GJ3FAFU0	On request
	4		Adj-Thermal	AF	XT2S250GJ4FAFU0	
	3	200	Adj-Thermal	B0	XT2S250GJ3FB0U0	
	4		Adj-Thermal	B0	XT2S250GJ4FB0U0	
	3	250	Adj-Thermal	BE	XT2S250GJ3FBEU0	
	4		Adj-Thermal	BE	XT2S250GJ4FBEU0	
S250GE	3	125	Electronic	AB	XT2S250GE3FABU0	On request
	4		Electronic	AB	XT2S250GE4FABU0	
	3	250	Electronic	BE	XT2S250GE3FBEU0	
	4		Electronic	BE	XT2S250GE4FBEU0	

*Ics = 55%

Clear Trip Indication



OFF



ON



TRIP

Tembreak 2 MCCB with 85kA* breaking capacity

Frame	Pole	Current(A)	Type	Code	CATCODE	MRP [₹]
S400PF	3	250	Fix-Thermal	BE	XT2S400PF3FBEU0	32295
	4		Fix-Thermal	BE	XT2S400PF4FBEU0	43065
	3	320	Fix-Thermal	BF	XT2S400PF3FBFU0	33895
	4		Fix-Thermal	BF	XT2S400PF4FBFU0	45205
S400PJ	3	400	Fix-Thermal	D0	XT2S400PF3FD0U0	35610
	4		Fix-Thermal	D0	XT2S400PF4FD0U0	47410
	3	250	Adj-Thermal	BE	XT2S400PJ3FBEU0	32605
	4		Adj-Thermal	BE	XT2S400PJ4FBEU0	43475
	3	400	Adj-Thermal	D0	XT2S400PJ3FD0U0	35865
	4		Adj-Thermal	D0	XT2S400PJ4FD0U0	47820
S1250GE	3	1250	Electronic	1250	XT2S1250GE3F1250U0	132480
	4		Electronic	1250	XT2S1250GE4F1250U0	176730
S1600NE	3	1600	Electronic	1600	XT2S1600NE3F1600U0	178050
	4		Electronic	1600	XT2S1600NE4F1600U0	232615
XS2000NE	3	2000	Electronic	2000	XT2XS2000NE3F2000U0	442260
	4		Electronic	2000	XT2XS2000NE4F2000U0	589515

*Ics = 100%

Code - Current Rating

Rating	15A	20A	30A	32A	40A	50A	60A	63A	75A	100A	125A	150A	160A	175A	200A	225A	250A	400A	630A	800A	1000A	1250A	1600A	2000A
■Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

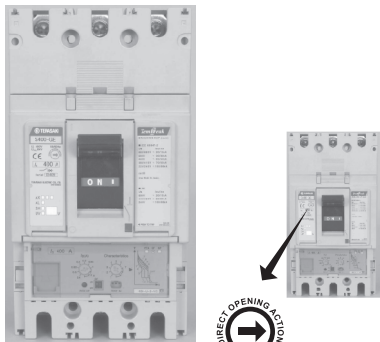
Plugin versions Available on request

Accessories are mentioned on page no 19

* For more details refer product catalogue

Tembreak 2 MCCB with 70kA* breaking capacity

Total Protection Complete Control

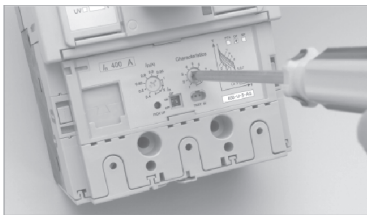


DIRECT OPENING ACTION

TemBreak²



User friendly adjustment



Clear Trip Indication



OFF



ON



TRIP

Frame	Pole	Current(A)	Type	Code	CATCODE	MRP [₹]
S400GF	3	125	Fix-Thermal	AB	XT2S400GF3FABU0	On request
	4		Fix-Thermal	AB	XT2S400GF4FABU0	
	3	160	Fix-Thermal	AF	XT2S400GF3FAFU0	
	4		Fix-Thermal	AF	XT2S400GF4FAFU0	
	3	200	Fix-Thermal	B0	XT2S400GF3FB0U0	
	4		Fix-Thermal	B0	XT2S400GF4FB0U0	
	3	225	Fix-Thermal	BB	XT2S400GF3FBBU0	
	4		Fix-Thermal	BB	XT2S400GF4FBBU0	
	3	250	Fix-Thermal	BE	XT2S400GF3FBEU0	
	4		Fix-Thermal	BE	XT2S400GF4FBEU0	
	3	320	Fix-Thermal	BF	XT2S400GF3FBFU0	
	4		Fix-Thermal	BF	XT2S400GF4FBFU0	
3	400	Fix-Thermal	D0	XT2S400GF3FD0U0		
4		Fix-Thermal	D0	XT2S400GF4FD0U0		
S630RF	3	500	Fix-Thermal	500	XT2S630RF3F500U0	On request
	4		Fix-Thermal	500	XT2S630RF4F500U0	
	3	630	Fix-Thermal	630	XT2S630RF3F630U0	
	4		Fix-Thermal	630	XT2S630RF4F630U0	
S800RF	3	630	Fix-Thermal	630	XT2S800RF3F630U0	On request
	4		Fix-Thermal	630	XT2S800RF4F630U0	
	3	800	Fix-Thermal	800	XT2S800RF3F800U0	
	4		Fix-Thermal	800	XT2S800RF4F800U0	
S400GJ	3	250	Adj-Thermal	BE	XT2S400GJ3FBEU0	On request
	4		Adj-Thermal	BE	XT2S400GJ4FBEU0	
	3	400	Adj-Thermal	D0	XT2S400GJ3FD0U0	
	4		Adj-Thermal	D0	XT2S400GJ4FD0U0	
S400GE	3	250	Electronic	BE	XT2S400GE3FBEU0	On request
	4		Electronic	BE	XT2S400GE4FBEU0	
	3	400	Electronic	D0	XT2S400GE3FD0U0	
	4		Electronic	D0	XT2S400GE4FD0U0	
S630GE	3	630	Electronic	630	XT2S630GE3F630U0	On request
	4		Electronic	630	XT2S630GE4F630U0	
S1000NE	3	1000	Electronic	1000	XT2S1000NE3F1000U0	101745
	4		Electronic	1000	XT2S1000NE4F1000U0	120290
S1250NE	3	1250	Electronic	1250	XT2S1250NE3F1250U0	126315
	4		Electronic	1250	XT2S1250NE4F1250U0	168360

Code - Current Rating *Ics = 72%

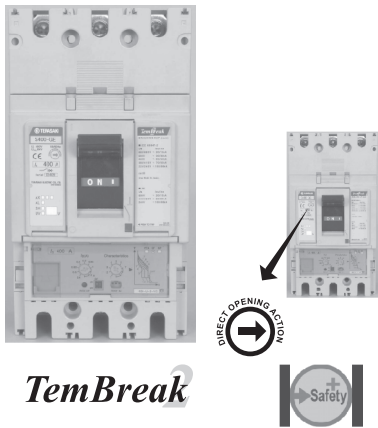
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Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

Plugin versions Available on request

Accessories are mentioned on page no 19

* For more details refer product catalogue

Total Protection Complete Control



Tembreak 2 MCCB with 120kA* breaking capacity

Frame	Pole	Current(A)	Type	Code	CATCODE	MRP [₹]
H225NF	3	125	Fix-Thermal	AB	XT2H225NF3FABU0	On request
	4		Fix-Thermal	AB	XT2H225NF4FABU0	
	3	160	Fix-Thermal	AF	XT2H225NF3FAFU0	
	4		Fix-Thermal	AF	XT2H225NF4FAFU0	
	3	200	Fix-Thermal	B0	XT2H225NF3FB0U0	
	4		Fix-Thermal	B0	XT2H225NF4FB0U0	
3	225	Fix-Thermal	BB	XT2H225NF3FBBU0		
4		Fix-Thermal	BB	XT2H225NF4FBBU0		

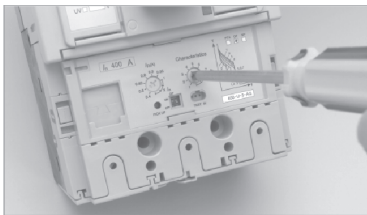
*Ics = 70%

Tembreak 2 MCCB with 125kA* breaking capacity

Frame	Pole	Current(A)	Type	Code	CATCODE	MRP [₹]
H100NF	3	10-40A	Fix-Thermal	■	XT2H100NF3F■U0	34640
	3	50-75A	Fix-Thermal	■	XT2H100NF3F■U0	34640
	3	100	Fix-Thermal	A0	XT2H100NF3FA0U0	36340
H125NJ	3	20-32A	Adj-Thermal	■	XT2H125NJ3F■U0	34940
	4		Adj-Thermal	■	XT2H125NJ4F■U0	46000
	3	40-80A	Adj-Thermal	■	XT2H125NJ3F■U0	34940
	4		Adj-Thermal	■	XT2H125NJ4F■U0	46000
	3	100	Adj-Thermal	A0	XT2H125NJ3FA0U0	34940
	4		Adj-Thermal	A0	XT2H125NJ4FA0U0	46000
H160NJ	3	125	Adj-Thermal	AB	XT2H125NJ3FABU0	35420
	4		Adj-Thermal	AB	XT2H125NJ4FABU0	47840
H250NJ	3	160	Adj-Thermal	AF	XT2H160NJ3FAFU0	36800
	4		Adj-Thermal	AF	XT2H160NJ4FAFU0	39560
H400NE	3	250	Adj-Thermal	AF	XT2H250NJ3FAFU0	On request
	4		Adj-Thermal	AF	XT2H250NJ4FAFU0	On request
	3	400	Electronic	BE	XT2H400NE3FBEU0	38640
	4		Electronic	BE	XT2H400NE4FBEU0	51520
H400NE	3	250	Electronic	BE	XT2H400NE3FBEU0	97705
	4		Electronic	BE	XT2H400NE4FBEU0	130180
	3	400	Electronic	D0	XT2H400NE3FD0U0	102580
	4		Electronic	D0	XT2H400NE4FD0U0	137080

*Ics = 70%

User friendly adjustment



Clear Trip Indication



OFF



ON



TRIP

Code - Current Rating

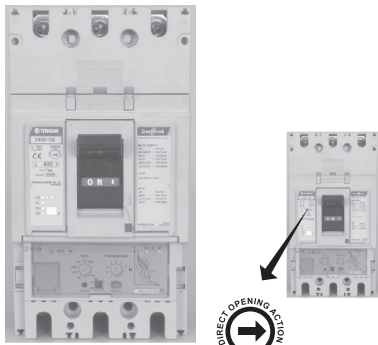
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Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

Plugin versions Available on request

Accessories are mentioned on page no 19

* For more details refer product catalogue

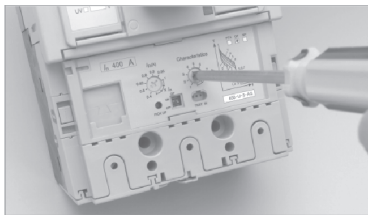
Total Protection Complete Control



TemBreak²



User friendly adjustment



Clear Trip Indication



OFF



ON



TRIP

Tembreak 2 MCCB with 125kA* breaking capacity

Frame	Pole	Current(A)	Type	Code	CATCODE	MRP [₹]
H800NE	3	630	Electronic	630	XT2H800NE3F630U0	205475
	4		Electronic	630	XT2H800NE4F630U0	276000
	3	800	Electronic	800	XT2H800NE3F800U0	215740
	4		Electronic	800	XT2H800NE4F800U0	287665

*Ics = 75%

Tembreak 2 MCCB with 200kA* breaking capacity

Frame	Pole	Current(A)	Type	Code	CATCODE	MRP [₹]
L100NF	3	10-40A	Fix-Thermal	■	XT2L100NF3F■U0	36800
	3	50-75A	Fix-Thermal	■	XT2L100NF3F■U0	36800
	3	100	Fix-Thermal	A0	XT2L100NF3FA0U0	41400
L125NJ	3	20-32A	Adj-Thermal	■	XT2L125NJ3F■U0	38365
	4		Adj-Thermal	■	XT2L125NJ4F■U0	49955
	3	40-80A	Adj-Thermal	■	XT2L125NJ3F■U0	39285
	4		Adj-Thermal	■	XT2L125NJ4F■U0	49955
	3	100	Adj-Thermal	A0	XT2L125NJ3FA0U0	43010
	4		Adj-Thermal	A0	XT2L125NJ4FA0U0	52440
	3	125	Adj-Thermal	AB	XT2L125NJ3FABU0	41310
	4		Adj-Thermal	AB	XT2L125NJ4FABU0	55060
L250NJ	3	160	Adj-Thermal	AF	XT2L250NJ3FAFU0	44435
	4		Adj-Thermal	AF	XT2L250NJ4FAFU0	59250
	3	250	Adj-Thermal	BE	XT2L250NJ3FBEU0	46645
	4		Adj-Thermal	BE	XT2L250NJ4FBEU0	62210
L400NE	3	250	Electronic	BE	XT2L400NE3FBEU0	122185
	4		Electronic	BE	XT2L400NE4FBEU0	162915
	3	400	Electronic	D0	XT2L400NE3FD0U0	128295
	4		Electronic	D0	XT2L400NE4FD0U0	171065

*Ics = 75%

Tembreak 2 MCCB with 200kA* breaking capacity

Frame	Pole	Current(A)	Type	Code	CATCODE	MRP [₹]
L160NJ	3	160	Adj-Thermal	AF	XT2L160NJ3FAFU0	49075
	4		Adj-Thermal	AF	XT2L160NJ4FAFU0	52670
L800NE	3	630	Electronic	630	XT2L800NE3F630U0	239945
	4		Electronic	630	XT2L800NE4F630U0	328825
	3	800	Electronic	800	XT2L800NE3F800U0	258895
	4		Electronic	800	XT2L800NE4F800U0	345200

*Ics = 100%

Code - Current Rating

Rating	15A	20A	30A	32A	40A	50A	60A	63A	75A	100A	125A	150A	160A	175A	200A	225A	250A	400A	630A	800A	1000A	1250A	1600A	2000A
■Code	15	20	30	32	40	50	60	63	75	A0	AB	AE	AF	AG	B0	BB	BE	D0	630	800	1000	1250	1600	2000

Plugin versions Available on request

Accessories are mentioned on page no 19

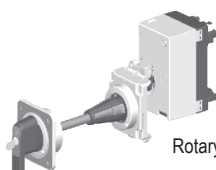
* For more details refer product catalogue

ACCESSORIES *TemBreak* MCCB..... BCH

ACCESSORIES FOR TEMBREAK-2 RANGE OF MCCB



Motor Operator



Rotary Handle

Type	Description	up to 125A	250A	400A & 630A	List Price [₹]
Aux Switch	1 Change over	T2AX00M3SWA			1440
Alarm Switch	1 Change over	T2AL00M3SWA			1440
Shunt Release	100-120VAC	T2SH00A10WA			3670
Shunt Release	200-240VAC	T2SH00A20WA			3330
Shunt Release	380-450VAC	T2SH00A40WA			3330
UV Release	200-240VAC	T2UV00A20NWA			4830
UV Release	380-450VAC	T2UV00A40NWA			4830
Motor Operator	110VAC	T2MC12A10NA	T2MC25A10NA		On Request
Motor Operator	220VAC	T2MC12A20NA	T2MC25A20NA		On Request
Motor Operator	240VAC	T2MC12A24NA	T2MC25A24NA		On Request
Motor Operator	100-240VAC			T2MC40A10NA	On Request
Rotary Handle	Panel Mounted (Ip54)	T2HP12R5BNA			6555
Rotary Handle	Panel Mounted (Ip54)				9110
Rotary Handle	Panel Mounted (IP54)		T2HP25R5BNA	T2HP40R5BNA	10820

Extended Terminals for All TEMBREAK-2 MCCBs

Frame	For	Cat Code	List Price [₹]
100A FRAME	3 Pole	ACMTP100	645
125A FRAME	3 Pole	ACMTP1253	615
	4 Pole	ACMTP1254	875
160A/250A FRAME	3 Pole	ACMTP2503	920
	4 Pole	ACMTP2504	1510
400A FRAME	3 Pole	ACMTP4003	2270
	4 Pole	ACMTP4004	2390

One set = 6 Nos. Links for 3 Pole MCCBs

One set = 8 Nos. Links for 4 Pole MCCBs

* For more details refer product catalogue

Switch Disconnecter Fuse Units



Suitable for DIN / BOLTED fuses in open execution

Rating (A) AC-23A	Cat No.	Fuse Type	Type	MRP [₹]
32A	PSFS323ND00	DIN	TPN	1640
32A	PSFS323ND000	DIN	TPN	1640
32A	PSFS323NB	Bolted	TPN	1640
32A	PSFS323B	Bolted	TP	1600
63A	PSFS633ND00	DIN	TPN	2270
63A	PSFS633ND000	DIN	TPN	2270
63A	PSFS633NB	Bolted	TPN	2270
63A	PSFS633B	Bolted	TP	2200
100	PSFS1003*	DIN/Bolted	TP	4245
100	PSFS1003N*	DIN/Bolted	TPN	4445
125	PSFS1253*	DIN/Bolted	TP	5610
125	PSFS1253N*	DIN/Bolted	TPN	6020
160	PSFS160*	DIN/Bolted	TP	6165
160	PSFS1603N*	DIN/Bolted	TPN	6700
200	PSFS2003B	Bolted	TP	7695
200	PSFS2003NB	Bolted	TPN	7900

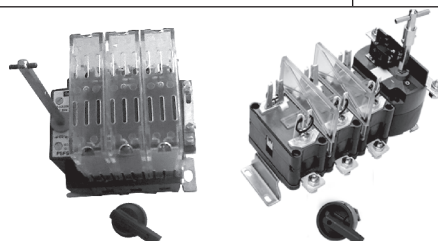
* Use suffix 'D' for DIN type, 'B' for bolted type

Switch Disconnecter

Rating (A) AC-23A	Cat No.	Fuse Type	Type	MRP [₹]
32A	PSSD323N	-	TPN	1505
63A	PSSD633N	-	TPN	2075
100A	PSSD1003N	-	TPN	4090
125A	PSSD1253N	-	TPN	5080
160A	PSSD1603N	-	TPN	5725
200A	PSSD2003N	-	TPN	6465

Fuse Switch Units Type FS

Rating (A) AC-23A	Cat No.	Fuse Type	Type	List Price [₹]
32A	FS0N	BOLTED	TP	1635
63A	FS1N	BOLTED	TP	2235
Shroud	AC21TS			145
1NO+1NC	AC21EB11	for FS0 / FS1N		435
Neutral	AC21L	for FS0 / FS1N-		190
Handle assembly	SP21FSOH	for FS0		275
Handle assembly	SP21FSOH	for FS1		275



Switch Disconnecter Fuse

- Conforms to IS 13947-3
- TPN/TP version
- AC 23A duty
- Mechanism with 4 Breaks per pole
- Handle with door interlock and padlock

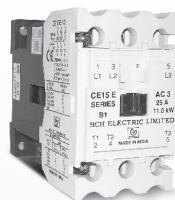
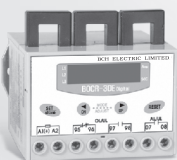
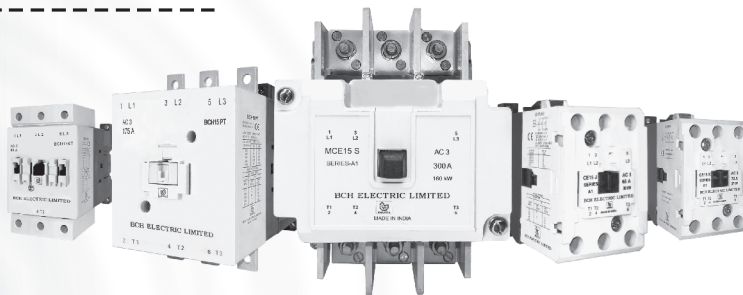
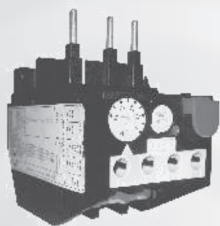
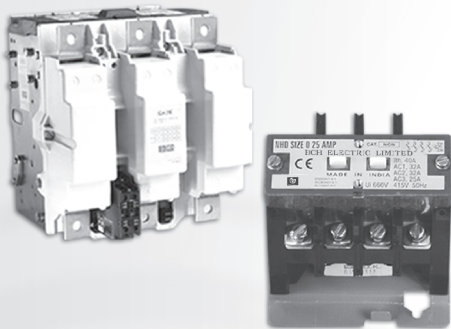


Controlgear

- DUROS FREEDOM CONTACTORS
6A - 1200A, AC3
- DEFINITE PURPOSE CONTACTORS
- CAP DUTY CONTACTORS
- AGRI CONTACTORS
 - 2 POLE
 - NHD SERIES
- CITATION SERIES 3 POLE
- VACUUM CONTACTORS

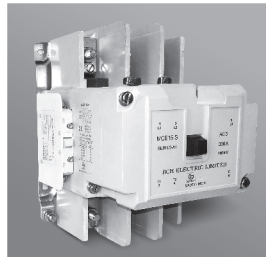
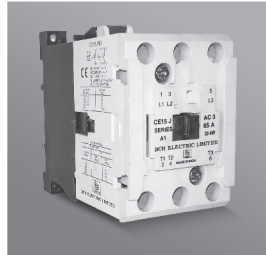
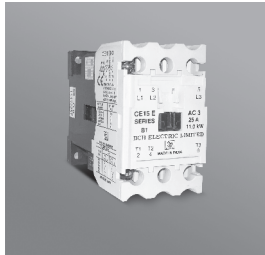
New

- **Contactors**
- **Overload Relay**
- **Electronic Over Current Relay**
- **Motor Protection Circuit Breaker**
- **Solid State Relay**
- **Push Buttons & Indicating Lights**



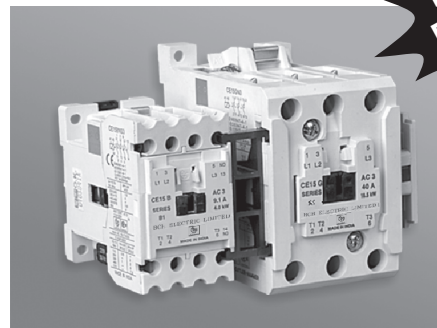
Contactors BCH

DUROS FREEDOM RANGE



- Conforms to IEC 60947-4-1 / IS 13947
- No derating upto -20°C to 60°C
- 3 Pole and 4 Pole versions
- Widest Range from 6A to 1200A in 7 frame sizes
- Snap Open design for easy inspection
- Self Lifting Screws for quick termination
- Superior grade material with high temperature withstand
- Ideal for stringent duty applications
- Most compact design
- Low VA burden coils
- Successfully tested for Type - 2 coordination

- Interlocking 2 Different frames using a common Mechanical Interlock (Upto 73A)



Design Flexibility



BCH Series : From 400A to 1200A

- Conforms to IEC60947-4-1 / IS 13947
- Insulation voltage upto 1000V
- Universal Control : Same coil for AC and DC Supply
- Delayed Drop Off feature for networks with transient power problem ensuring continuity of power supply
- Special magnet design for reduced shock and vibration
- Front open design for ease of inspection

Contactors BCH

Duros Freedom Series 3 Pole AC Control

Size	AC1 Rating	AC3 Rating 415 V			Aux. Contact	Cat. No.	MRP [₹]	Lot Size
		A	HP	KW				
A	20	6	3	2.2	1NO	CE15ANS3 ■ B	700	1
					1NC	CE15ANC3 ■ B		
B	20	9.1	5.5	4	1NO	CE15BNS3 ■ B	800	
					1NC	CE15BNC3 ■ B		
C	20	12	7.5	5.5	1NO	CE15CNS3 ■ B	910	
					1NC	CE15CNC3 ■ B		
D	32	16	10	7.5	1NO+1NC	CE15DN3 ■ B	1040	
					-	CE15DN3 ■	940	
	32	18	10	7.5	1NO+1NC	CE15D1N3 ■ B	1040	
					-	CE15D1N3 ■	940	
E	40	25	15	11	1NO+1NC	CE15EN3 ■ B	1560	
					-	CE15EN3 ■	1350	
F	40	32	20	15	1NO+1NC	CE15FN3 ■ B	2975	
					-	CE15FN3 ■	2730	
G	60	40	30	22	1NO+1NC	CE15GN3 ■	4350	
					-	CE15GN3 ■ NB	4130	
H	75	50	33.5	25	1NO+1NC	CE15HN3 ■	5450	
					-	CE15HN3 ■ NB	5150	
J	80	65	50	37	1NO+1NC	CE15JN3 ■	7550	
					-	CE15JN3 ■ NB	7250	
K	80	73	50	37	1NO+1NC	CE15KN3 ■	7800	
					-	CE15KN3 ■ NB	7550	
	80	75	50	37	1NO+1NC	CE15K1N3 ■	7800	
					-	CE15K1N3 ■ NB	7550	
K-1	115	80	53	40	1NO+1NC	BCH15KT.3.11. ■	9450	
L	125	95	62	47	1NO+1NC	BCH15LT.3.11. ■	11350	
M	135	110	80	60	1NO+1NC	BCH15MT.3.11. ■	13600	
N	230	150	100	75	1NO+1NC	BCH15NT.3.11. ■	18350	
P	250	175	125	95	1NO+1NC	BCH15PT.3.11. ■	23050	
R	300	200	150	100	1NO+1NC	MCE15RN3 ■ 7	25100	
S0	315	265	186	140	1NO+1NC	MCE15S0N3 ■ 7	31150	
S	315	300	220	160	1NO+1NC	MCE15SN3 ■ 7	35150	

■ For Coil Voltage Codes refer Table on page 31

Duros Freedom Series 3 Pole AC/DC Control

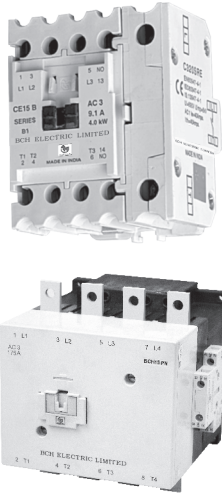
Size	AC1 Rating(A)	AC3 Rating 415 V			Aux. Contact	Cat. No.	MRP [₹]
		A	HP	KW			
BCH54	600	400	320	240	2NO+2NC	BCH54.3.22. ■	44200
BCH55	600	450	320	240	2NO+2NC	BCH55.3.22. ■	56000
BCH57	760	550	420	315	2NO+2NC	BCH57.3.22. ■	63450
BCH62	1000	700	533	400	2NO+2NC	BCH62.3.22. ■	126500
BCH64	1000	860	666	500	2NO+2NC	BCH64.3.22. ■	208000
BCH76	1200	1000	800	600	1NO+2NC	BCH76.3.12. ■	385000
BCH78	1350	1200	933	700	1NO+2NC	BCH78.3.12. ■	410000

■ For Coil Voltage Codes refer Table on page 31

For DC control circuit of contactor size BCH76/BCH78 add Rs.2600

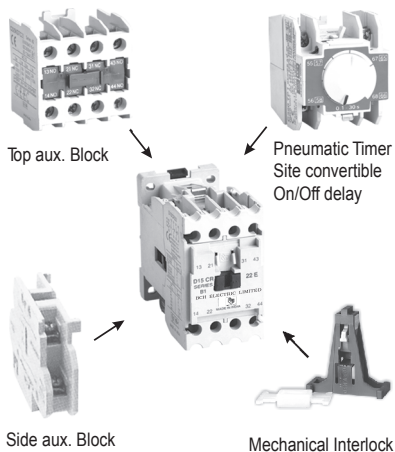
Duros Freedom series 4 Pole contactors (AC Control)

- Built in 4 Pole 20A and 200A onwards
- 100% rated add-on 4th pole for flexibility (32A to 80AAC1)
- Low energy consumption (seal VA up to 5 VA)



AC1 Rating (A)	Cat. No.	MRP [₹]
20	CE15CN4 ■ B	1175
32	CE15DN4 ■	1230
40	CE15EN4 ■	1855
60	CE15GN4 ■	4515
75	CE15HN4 ■	5940
80	CE15JN4 ■	6840
200	BCH15MN.4.11.■	17935
250	BCH15NN.4.11.■	19240
300	BCH15PN.4.11.■	34675

Common Accessories 'upto 73A'



Duros Freedom Series 3 Pole DC Control Type CE16 Pure DC

AC3 (A) at 415VAC	KW	Aux Contact	Cat No.	MRP [₹]
9.1	4	1NO	CE16BNS3*B	1245
		1NC	CE16BNC3*B	1245
12	5.5	1NO	CE16CNS3*B	1300
		1NC	CE16CNC3*B	1300
16	7.5	1NO+1NC	CE16DN3*B	1590
25	11	1NO+1NC	CE16EN3*B	2165
32	15	1NO+1NC	CE16FN3*B	4525

*Coil Codes :
DC control

24V	U1
48V	W1
110V	A1
220V	B1
60V	X1
125V	E1

Contactor : 3 Pole DC Control Type CE15

AC3 (A) at 415VAC	KW	Aux Contact	Cat No.	MRP [₹]
40	22	-	CE15GN3 ■	5180
50	25	-	CE15HN3 ■	6810
65	37	-	CE15JN3 ■	7875
73	37	-	CE15KN3 ■	9405

■ For Coil Voltage Codes refer Table on page 31

Control Relay

Aux Contact	Cat No.	MRP [₹]
2NO+2NC	D16CR22*	1330
3NO+1NC	D16CR31*	1330
4NO	D16CR40*	1330

*Coil Codes : Pure DC
DC control

24V	U1
48V	W1
110V	A1
220V	B1
60V	X1

DC Control

- Standard voltages 24VDC , 110VDC , 220VDC



Control Relays Freedom Series

Size	Contact Configuration	Cat No.	MRP [₹]		Lot Size
			AC	DC	
CR	2NO+2NC 3NO+1NC 4NO	D15CR22 ■ D15CR31 ■ D15CR40 ■	880	1330	1

■ For Coil Voltages Codes refer Table on page 31

Contactors BCH

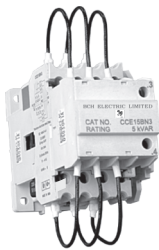


Control Relays Citation - M Series

Size	Control	Contact Configuration	Cat No.	MRP [₹]	Lot Size
CR	DC	2NO+2NC	DMD20CR22 ■	1665	1
	AC	4NO	MD20CR40 ■	1070	1
		3NO+1NC	MD20CR31 ■		
		2NO+2NC	MD20CR22 ■		

■ For Coil Voltages Codes refer Table on page 31

Capacitor Switching



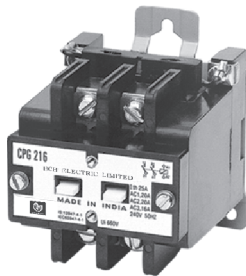
- Ideal solution for Switching single and multiple Capacitor banks upto 25 KVAR
- IP 20

Duros Freedom Series Capacitor Duty AC Control

Size	Capacitor KVAR at 415 V, 3 Ph, 50 Hz	Cat. No.	MRP [₹]
B	5	CCE 15BN3 ■	1780
D	10	CCE 15DN3 ■	1900
F	15	CCE 15FN3 ■	2750
G	20	CCE 15GN3 ■	3350
H	25	CCE 15HN3 ■	3600

■ For Coil Voltage Codes refer Table on page 31

2 Pole Contactors



- 16, 25 and 40 A rating
- Wide termination space

2 Pole - 16, 25 and 40A

Ith (A)	AC3 (A) 240V AC	Cat. No.	MRP [₹]	Lot Size
25	16	CPG 216 ■	870	1
45	25	CPG 225 ■	1240	
50	40	CPG 240 ■	1630	

■ For Coil Voltage Codes refer Table on page 31

4 Pole Contactors



- Superior Weld Resistant Contacts
- Rugged and heavy duty
- High Grade moulding for extremely long life
- Encapsulated Coil
 - : Shock Proof & Moisture Proof
 - : Withstand large voltage fluctuations

'NHD' Series 4 Pole AC Control

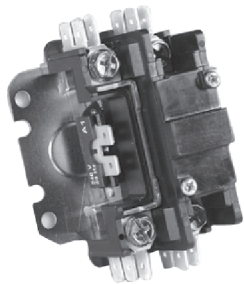
Size	AC3 Rating at 415 V				Cat. No.	MRP [₹]	Lot Size
	AC1 (A)	(A)	HP	KW			
00	25	16	10	7.5	C00N ■	1750	1
0	45	25	15	11	N0N ■	2830	
01	45	32	20	15	N01N ■	3660	
1	50	40	25	18.5	N1N ■	4470	
Description		Orientation		Cat. No.	List Price [₹]	Lot Size	
Auxiliary Contact Blocks - NHD		1NO+1NC		001CB11	200	1	
		2NO		001CB20			
		2NC		001CB02			

■ Standard coil voltages are 24, 110, 220/240 & 380/415 VAC, 50 Hz. For voltage codes refer Table on page 31

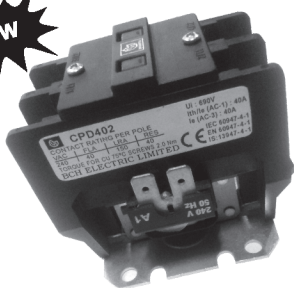
**Special Rating 12 Amp NHD also available on request (Kindly contact nearest sales office)

Definite Purpose Contactors

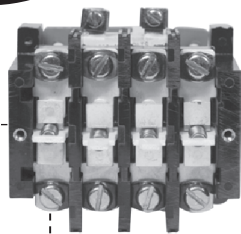
Coil voltage:240VAC



- Quick connect plugin terminals
- Specially designed low VA coil



Proven & time tested



- Wider Terminal space for reliable & durable termination
- Front open design for ease of inspection

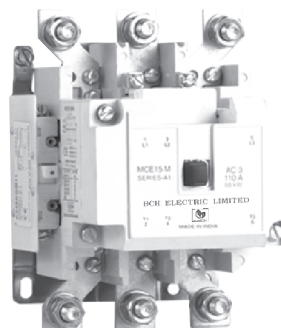
AC3 (A)	Type	Cat. No.	MRP [₹]
1 Pole			
25	1 Pole	CPD251CK	560
25	1 Pole with Neutral	CPD251NCK	620
40	1 Pole	CPD401CK	625
40	1 Pole with Neutral	CPD401NCK	715
2 Pole			
20	2P, 140-200VAC	CPD202BL	635
25	2P, 220-240VAC	CPD252H	695
25	2P, 415VAC	CPD252M	
40	2P, 220-240VAC	CPD402H	780
40	2P, 415VAC	CPD402M	

*wide band AC coil voltages for definite purpose Contactor				
Contactor	Cat No.	Voltage		
		170-240VAC	290-415VAC	140V-200VAC
25A 1P	CPD251*	KL	ML	BL

Citation Series 3 Pole AC Control

Size	AC3 Rating at 415 V			Cat. No. (with Aux. contact 2NO+2NC)	MRP [₹]	Cat. No. (with Aux. contact 1NO+1NC)	MRP [₹]	Cat. No. (without Aux. contact)	MRP [₹]
	Amps	HP	KW						
C4	32	20	15	C4NE22	4105	C4NE11	3840	C4NE00	3400
D	40	30	22	MC10DN22	6490	MC10DN11	5720	MC10DN00	5670
E	70	50	37	MC10EN22	11640	MC10EN11	11040	MC10EN00	11185

■ Standard coil voltages are 24, 110, 220, 240 & 415 VAC, 50 Hz. For voltage codes refer Table on page 31



Size	AC1 Rating	AC3 Rating 415 V			Aux. Contact	Cat. No.	MRP [₹]	Lot Size
		A	HP	KW				
L	140	80	53	40	1NO+1NC	MCE15LN3	5	1
M	150	95	62	47	1NO+1NC	MCE15M0N3	5	
M-5	150	110	80	60	1NO+1NC	MCE15MN3	5	
N	300	140	100	75	1NO+1NC	MCE15NN3	7	1
Q	300	185	120	90	1NO+1NC	MCE15QN3	7	

■ For Coil Voltage Codes refer Table on page 31

Duros-Freedom Series contactors Add-on accessories for sizes A to K, CR, BCH15KT to BCH15PT, R, S0 & S




Accessories	Configuration	Cat No.	Contactors Type	List Price [₹]
Aux. Contact Block (side Mounting)	1NO	C320KGSR10	CE15 & CR	135
	1NO+1NC	C320KGSR11		360
	1NC	C320KGSR01		135
	2NO	C320KGSR20		360
	1NO+1NC	BCH15S11	BCH15	440
	1NO+1NC	MC320KB11	MCE15R, MCE15S0 & MCE15S	510
	1NO+1NC (Late break type)	MC320KAS11		510
	2NO+2NC	EF22	BCH54 to BCH64	4865
	1NO+1NC	EB11	BCH76 to BCH78	7555
4th Neutral Switching Pole	800A	NP800/5	BCH54 to 57	21900
	1000A	NP1000/6	BCH62 to 64	26030
	1000A	NP1000/7	BCH76 to 78	29640
Aux. Contact Block (Front Mounting)	1NO	C320KGTC10	CE15, CR	135
	1NC	C320KGTC01		
	2NO	C320KGT*20		210
	2NC	C320KGT*02		
	1NO+1NC	C320KGT*11	380	
	2NO+2NC	C320KGT*22		
	3NO+1NC	C320KGT*31		
	4NO	C320KGT*40		
	1NO+3NC	C320KGT*13	BCH15	810
	4NC	C320KGT*04		
	4NO	BCH15T40		
	3NO+1NC	BCH15T31		
	2NO+2NC	BCH15T22	690	
	1NO+1NC	BCH15T11	240	
	1NO	BCH15T10	240	
	1NC	BCH15T01	390	
2NO+2NC	MC320KE22	MD, DMD control relay	390	
Pneumatic Timer Block "ON/OFF" Delay site selectable	1NO+1NC (0.1 to 30 sec)	C320TP1	CE15 & CR	1065
	1NO+1NC (0.1 to 180 sec)	C320TP2		
Mechanical Interlocks	-	C321KM60	CE15 & CR	340
	-	MC321KM3	MCE15R to MCE15S	1050
	Horizontal	BM5H	BCH54 to 57	6130
		BM6H	BCH62 to 64	10725
		BM7H	BCH76 to 78	28435
	Vertical	BM5V	BCH54 to 57	6130
		BM6V	BCH62 to 64	10725
		BM7V	BCH76 to 78	25225
	Horizontal	BM0H	BCH15KT/LT/MT	335
		BM3H	BCH15NT/PT	360

*Add suffix C for power contactors, R for control relays. The suffix C/R denote terminal marking as per standard EN5001 on BS5583 on add on aux. contact blocks used with contactors / control relays

Contactors BCH

Add-on accessories for sizes A to K, CR, BCH15KT to BCH15PT, R, S0 & S

Accessories	Configuration	Cat No.	Contactors Type	List Price [₹]
 Coil Surge Suppressors	24-48V (50/60Hz)	MC320LR11	CE15, CR	335
	110-240V (50/60Hz)	MC320LR12		
Mechanical latch #	§ to complete the cat no. suffix code given	AM5- §	BCH54 to BCH57	15610
		Am6 §	BCH62 to BCH64	22080
Terminal adapter kit	3 links with m10 nut & bolt	SP37TA	MCE15R, MCE15S0 &	795

Mechanical latch are supplied with AC coils only

§ Coil Voltage suffix code for Mechanical latch AM5 & AM6

Coil voltage	110-120	220-240	380-415	440-480
Suffix Code	AW4	BA4	LB4	CB4

Accessories for Citation contactors size - L, M, M-5, N, Q, C4, D & E type

Accessories	Configuration	Cat No.	Contactors Type	List Price [₹]
Aux. block side mounting	1NO+1NC	C320KGM11	L, M & M-5	490
	1NO+1NC	MC320KB11	N & Q	510
Aux. block add-on (Late break type)	1NO+1NC	MC320KAS11	L, M, M-5, N & Q	510
	1NO+1NC	AC34EA11	C4, D & E	405
Mechanical Interlock		MC321KM1	C4 & D	430
		MC321KM2	L, M, M-5 & E	470
		MC321KM3	N & Q	1050
Terminal adapter kit	3 links with m10 nut & bolt	SP37TA	N & Q	795
Base block	1NO+1NC	MC320KB2	C4 & D	360
	1NO+1NC	AC35EB11	E	435

Spare Contacts set for Duro Freedom Contactors

Size	Consisting of	Cat. No.	List Price [₹]
A	Complete top housing Consisting of fixed & moving contacts	SBANS3 SBANC3 SBAN4	655
B		SBBNS3 SBBNC3 SBBN4	695
C		SBCNS3 SBCNC3 SBCN4	760
D		SBDN3	925
E		SBEN3	1085
F		SBFN3	2140
G	6 Fixed contacts 3 Moving Contacts	6-65-4	1870
H	3 springs	6-65-6	2325
J	6 Arc Bonnets	6-65-15	3155
K	3 Spring Retainer	6-65-17	3260
BCH15KT	Complete set of 6 fixed & 3 moving contacts with hardware, contact springs, spring retainers and arc runners	CP-BCH15KT-3	3230
BCH15LT		CP-BCH15LT-3	3715
BCH15MT		CP-BCH15MT-3	4000
BCH15NT		CP-BCH15NT-3	6605
BCH15PT		CP-BCH15PT-3	6605
R	6 Fixed contacts 3 Moving contacts 12 CSK screws & washers	6-288	11510
S0	3 Springs Spring retainers	6-286-S0	15540
S	Self tapping screws & washers 6 Arc Chute assly & screws	6-286	15685
BCH54	Complete set of 6 fixed & 3 moving contacts with hardware, contact springs, spring retainers and arc runners	CP-BCH54-3	18125
BCH55		CP-BCH55-3	20885
BCH57		CP-BCH57-3	29440
BCH62		CP-BCH62-3	53795
BCH64		CP-BCH64-3	66135
BCH76		CP-BCH76-3	165200
BCH78		CP-BCH78-3	185640

Spare Contacts set for NHD & Citation Contactors

Size	Consisting of	Cat.No.	List Price [₹]
C00N N0N N01N N1N	(4 - Pole contact kit) 8 Fixed main contacts 4 Moving main contacts 4 Spring & 4 retainers	SP90A1 SP90B1 SP90D1 SP90C1	810 1960 2100 2250
C00N N0N N01N N1N	(1 - Pole contact kit) 2 Fixed main contacts 1 Moving main contacts 1 Spring & 1 retainers	SP90A01 SP90B01 SP90D01 SP90C01	200 485 505 530
CPG216 CPG225 CPG240	4 Fixed contacts 2 Main contacts 2 Spring retainers	CPG162PSP CPG252PSP CPG402PSP	405 1030 1140
C4	6 Fixed main contacts 6 Pan head screws 6 Helical lock washers	SP34K	1795
MC10D	6 Fixed Main Contacts 3 Compression springs 3 Retainers	6-334	2485
MC10E	Same as above plus 6 Blow outs 6 M5/M4 self tapping screws	6-335	4690
L	6 Fixed Contacts 6 Pan Head Screws	6-385-L0	3605
M	6 Helical Lock Washers	6-385-M	3820
M-5	3 Moving contacts 3 Springs, 3 Retainers 6 Blowouts 6 self tapping screws	6-385	4030
N	6 Fixed contacts 12 CSK screws & washers	6-293	7945
Q	3 Moving contacts 3 Springs, Spring Retainers, Self tapping screws & Washers	6-288-Q	11445

Spare ARC chambers - BCH15KT to BHC15PT, BCH54 to BCH78

Contactors	Cat. No.	List Price [₹]
BCH15KT	PF-BCH15KT	465
BCH15LT	PF-BCH15LT	
BCH15MT	PF-BCH15MT	
BCH15NT	PF-BCH15NT	820
BCH15PT	PF-BCH15PT	
BCH54/BCH55/BCH57 (for all 3 poles)	PF-BCH5	6150
BCH62/BCH64 (for all 3 poles)	PF-BCH6	15795
BCH76/78 (for single pole)	3PF-BCH78	34040

Contactors BCH

Spare Coil - size CR, A to K, MCE15R, MCE15S0, MCE15S, BCH15KT to BCHPT, BCH54 to BCH78

Size	For Size	Cat. No.	List Price [₹]
Magnetic coil	CR, A,B, C	MC15CW ■	360
	D, E, F	MC15FW ■	415
	G, H, J, K	MC15KW ■	1080
	BCH15KT/LT	B02. ■	1100
	BCH15MT	B022. ■	1640
	BCH15NT/PT	B031. ■	3280
	R, S0, S	9-2412- ■	2945
Magnetic coil (set of two)	BCH54/ BCH55/ BCH57	B51. ■	6115
Feeder group		FG51. ■	7435
Magnetic coil (set of two)	BCH62/ BCH64	B61. ■	18775
Feeder group		FG61. ■	24575
Magnetic coil (set of two)	BCH76/ BCH78	B8- ■	52025
Feeder group		FG78- ■	57515
■ To specify coil voltage please refer page no. 31			
Note : Coil set for BCH54 to BCH78 contactors consists of 2 half coils. Magnetic coil & Feeder group must have the same control voltage. For eg. If coil voltage is changed from 110V to 220V then Feeder group should also be changed to 220V			

Spare Coil - NHD & Citation Contactors

Description	Cat. No.	List Price [₹]	Lot size
Carrier for NHD	SP90CC	185	1
Carrier for CPG	CPG2PCC	115	1
Magnetic coil for NHD	SP90MC*	280	10
Magnetic coil for MCE15L, MCE15M0, MCE15M	9-2268- ■	1335	1
Magnetic coil for MCE15N & MCE15Q	9-2412- ■	2945	1
Magnetic coil for C4 & MC10D	9-2267- ■	835	1
Magnetic coil for MC10E type	9-2268- ■	1335	1
Magnetic coil for DC Citation Control Relay	9-2182-1- ■	480	1
Magnetic coil for AC Citation Control Relay	9-2182- ■	610	1
■ To specify coil voltage please refer page no. 31			

Coil Voltage Table BCH

COIL VOLTAGE: MASTER TABLE

PRODUCT	24V		48V		55V		110V		160-220V		220V		220-240V		230-360V		240V		250V		275V		190-400V		260-400V		380V		380-415V		415V		440V		550V		
	AC	DC	AC	DC	DC	DC	AC	DC	-	AC	DC	AC	DC	AC	DC	-	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC			
CR Relay	U	U3	W	W3	-	A	A3	-	B	B3	-	K	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CE15A-F	U	U3	W	W3	-	A	A3	-	B	B3	-	K	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CE15G-K	U	U3	W	W3	-	A	A3	-	B	B3	-	K	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BCH15KT-LT	U	-	W	-	-	A	-	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BCH15MT-PT	24	-	48	-	-	110	-	-	-	-	220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BCH15MN-PN	24	-	48	-	-	110	-	-	-	-	220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC15R-S	U	U3	-	-	-	A	A3	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BCH54-64	-	-	-	-	-	110	110	-	220	220	-	220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BCH76&78	-	-	-	-	-	A7	A17	-	B7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CPG216	U	-	-	-	-	A	-	BW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CPG225&240	U	-	-	-	-	A	-	BW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SHAKTI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C00N & N0N	U	-	-	-	-	A	-	BW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N01N & N1N	U	-	-	-	-	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C4 & D	-	-	-	-	-	A	-	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MC10EN	U	-	-	-	-	A	-	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MCE15L-M5	U	-	W	-	-	A	-	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MCE15N-Q	U	U3	-	-	-	A	A3	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MD20CR	U	-	-	-	-	A	-	-	B	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
912X	-	U1	-	-	-	Q1	A1R	A1	-	-	B1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
914;934X	-	U1	-	W1	-	Q1	A1R	A1	-	-	B1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
935X;924;915	-	U1	-	W1	-	Q1	A1R	A1	-	-	B1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
925	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
916&936	-	U1	-	W1	-	Q1	A1R	A1	-	-	B1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D912-D916	-	-	-	W1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1. For other coil voltages & wide band coil option please contact nearest sales office
 2. AC control is not available for 934, 935, 936 versions.
 3. For ordering spare coils for D912, D914, D915 and D916 Contactors, please order coils with 50% voltage rating as that of control voltage.
 Example to order coils for D914 X 22B1 (which is a 220V DC DP Contactor), please order spare coils with 110V DC rating.

Overload Relay BCH

with BCH relays choose the best protection for your motors

Citation Overload Relay



- Wide range : From 0.195 A to 600 A
- Built in Single Phasing Protection
- Ambient temperature compensated
- Test button for checking tripping mechanism
- Field convertible auto/manual reset
- Snap on cover
- Special Mechanism ensuring closest protection to motor
- Contacting mounting & separate mounting
- Successfully tested for Type-2 Coordination
- Suitable for almost all makes of Contactors
- Proven and tested

Citation-M Overload Relays (Direct Mounting) with built-in single phase protection

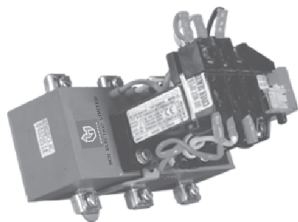
Relay Range	Cat. No.	MRP [₹]	Terminal Block for individual mounting	List Price [₹]
0.195 - 0.31	MC305ANA3A	1210	(Incoming) MC305TB1 (Outgoing) MC305TB3	85
0.30 - 0.48	MC305ANA3B			
0.47 - 0.75	MC305ANA3C			
0.72 - 1.14	MC305ANA3D			
1.07 - 1.70	MC305ANA3E			
1.58 - 2.50	MC305ANA3F			
2.40 - 3.80	MC305ANA3G			
3.80 - 6.00	MC305ANA3H			
6.00 - 9.30	MC305ANA3J			
8.90 - 13.50	MC305ANA3K			
13.20 - 20.00	MC305ANA3L	1350	(Incoming) MC305TB2 (Outgoing) MC305TB3	
17.40 - 24.00	MC305ANA3M	1350		
22.00 - 30.00	MC305ANA3N*	1900		
23.00 - 32.00	MC305ANA3P#	1940	(Incoming) MC305TB2 (Outgoing) MC305TB4	

* Overload relay type 'N' must be used with terminal block MC305TB3, # Overload relay type 'P' must be used with terminal block MC305TB4

DIN rail mounting kit with incoming terminal block

Relay Range (A)	Cat. No.	List Price [₹]
A to K	MC305DM1	165
L to N	MC305DM2	165

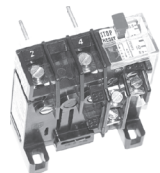
CT Operated Overload Relay



CT Operated Overload Relays-Individual Mounting

Relay Range (A)	Cat. No.	MRP [₹]
24.4-39.0	CT1MC305ANA3C	2040
37.6-60.0	CT2MC305ANA3C	2610
56.4-90.0	CT3MC305ANA3C	3650
84.6-135.0	CT4MC305ANA3C	
131.6-210.0	CT5MC305ANA3C	6950
188.0-300.0	CT6MC305ANA3C	7850
263.2-420.0	CT7MC305ANA3C	8450
376.0-600.0	CT8MC305ANA3C	9150

WP 2 Pole Overload Relay

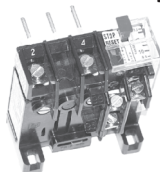


- Perfect protection to single phase Motors against overloads
- Ambient temperature compensated

2 Pole Overload Relays (Direct Mounting)

Relay Range (A)	Cat. No.	MRP [₹]
1.58-2.50	MC307ANA2F	615
2.40-3.80	MC307ANA2G	
3.80-6.00	MC307ANA2H	
6.00-9.30	MC307ANA2J	
8.90-13.50	MC307ANA2K	
13.20-20.00	MC307ANA2L	
17.40-24.00	MC307ANA2M	710
23.00-32.00	MC307ANA2P	900

WP Overload Relay



- Designed to withstand wide fluctuations in agricultural applications
- Appropriately sensitive relay for increased pump performance

WP Overload Relays for WP & Oil Starter

Relay Range (A)	Cat. No. (WP Starter / Oil Starter)	MRP [₹]
6.00 - 9.30	MC307ANA3J / MC307ANA3J-OS	1150
8.90 - 13.50	MC307ANA3K / MC307ANA3K-OS	
13.20 - 20.00	MC307ANA3L / MC307ANA3L-OS	1280
17.40 - 24.00	MC307ANA3M / MC307ANA3M-OS	
22.00 - 30.00	MC307ANA3N	1700
23.00 - 32.00	MC307ANA3P (Spare for Oil Starter)	1750

Overload Relay BCH

Duros Freedom Overload Relay



- Range : From 0.1A to 32A
- IEC:60947-4-1
- Relay class-10
- Built in Single Phasing Protection
- Ambient temperature compensated
- Test button for checking tripping mechanism
- Field convertible auto manual reset
- Contactor mounting

Freedom Overload Relays

Relay Range (A)	Cat. No.	MRP [₹]	Accessories
0.1-0.16	MC318ANA3A	1245	Adaptor for Individual mounting Cat. No. C318F1 List Price Rs. 250
0.16-0.25	MC318ANA3B		
0.25-0.40	MC318ANA3C		
0.40-0.63	MC318ANA3D		
0.63-1.00	MC318ANA3E		
1.0-1.40	MC318ANA3F		
1.3-1.80	MC318ANA3G		
1.7-2.4	MC318ANA3H		
2.2-3.1	MC318ANA3J		
2.8-4.0	MC318ANA3K		
3.5-5.0	MC318ANA3L		
4.5-6.5	MC318ANA3M		
6.0-8.5	MC318ANA3N		
7.5-11	MC318ANA3P		
10.0-14.0	MC318ANA3Q		
13.0-19.0	MC318ANA3R	1395	
18.0-25.0	MC318ANA3S		
24.0-32.0	MC318ANA3T	1910	

Vacuum Contactors..... BCH

Range: 225A to 600A 3P 1500V



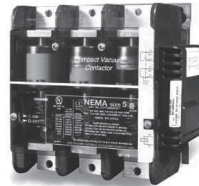
Features

- Suitable for worldwide applications and for use with all types of motors including high efficiency IEC motors & NEMA design E motors.
- Front accessible
- Compact & rugged design
- Light weight
- Fully phase insulated
- Long Electrical & Mechanical life
- Mounts in any plane
- Quiet in operation



1140V 300A

- Designed to Standards IEC 60947- 4, CSA22.2 & UL508
- Heavy Duty Mining Design
- Visual ON/OFF indicator
- Visual wear indicator
- Mounts in any plane
- 2NO+ 2NC aux. contacts as a standard
- Compact construction
- Front accessible



1500V 400A

- NEMA size 5, 270A, 600V AC UI508 listed CSA22.2 certified IEC947-4-1
- IEC HP/KW rated 400A, 660V/1000V/1500VAC
- Heavy Duty Mining Design
- Visual ON/OFF indicator
- Mounts in any plane
- 1NO+ 1NC aux. contacts as a standard
- Compact construction
- Front accessible



1500V 600A

- NEMA size 6, 540A, 600V AC - UL508 listed CSA22.2 certified IEC947-4-1
- IEC HP/KW rated 600A, 660V AC
- Heavy Duty Mining Design
- Visual ON/OFF indicator
- Mounts in any plane
- 1NO+ 1NC aux. contacts as a standard
- Compact construction
- Front accessible

Contactor Rating	Cat reference	Description	MRP [₹]
225A	CV77U033A12 -22 -B22	225A Vacu cont 1140V 3P 2NO+2NC 220VAC	89300
	CV77U033A12 -11 -B22	225A Vacu cont 1140V 3P 2NO+2NC 110VAC	89300
265A	CV77U033A12 -22 -B26	265A Vacu cont 1140V 3P 2NO+2NC 220VAC	99770
	CV77U033A12 -11 -B26	265A Vacu cont 1140V 3P 2NO+2NC 110VAC	99770
300A	CV77U033A12 -22 -B30	300A Vacu cont 1140V 3P 2NO+2NC 220VAC	109585
	CV77U033A12 -11 -B30	300A Vacu cont 1140V 3P 2NO+2NC 110VAC	
400A	CV77U034A06 -26	400A Vacu cont 1000V 3P 1NO+1NC 220VAC	138510
	CV77U034A06 -76	400A Vacu cont 1000V 3P 1NO+1NC 110VAC	
	CV77U034A06 -125	400A Vacu cont 1000V 3P 1NO+1NC 125VDC	
	CV77U034A06 -250	400A Vacu cont 1000V 3P 1NO+1NC 250VDC	
	CV77U034A15 -26	400A Vacu cont 1500V 3P 1NO+1NC 220VAC	
	CV77U034A15 -76	400A Vacu cont 1500V 3P 1NO+1NC 110VAC	
	CV77U034A15 -125	400A Vacu cont 1500V 3P 1NO+1NC 125VDC	
	CV77U034A15 -250	400A Vacu cont 1500V 3P 1NO+1NC 250VDC	
600A	CV77U036A06 -26	600A Vacu cont 1000V 3P 1NO+1NC 220VAC	179740
	CV77U036A06 -76	600A Vacu cont 1000V 3P 1NO+1NC 110VAC	
	CV77U036A06 -125	600A Vacu cont 1000V 3P 1NO+1NC 125VDC	
	CV77U036A06 -250	600A Vacu cont 1000V 3P 1NO+1NC 250VDC	
	CV77U036A15 -26	600A Vacu cont 1500V 3P 1NO+1NC 220VAC	
	CV77U036A15 -76	600A Vacu cont 1500V 3P 1NO+1NC 110VAC	
	CV77U036A15 -125	600A Vacu cont 1500V 3P 1NO+1NC 125VDC	
	CV77U036A15 -250	600A Vacu cont 1500V 3P 1NO+1NC 250VDC	

Electronic Overcurrent Relay BCH

BOCR SS



- Over Current
- Locked Rotor
- Phase Loss

BOCR SSD



- Over Current
- Locked Rotor
- Phase Loss

BOCR DS3



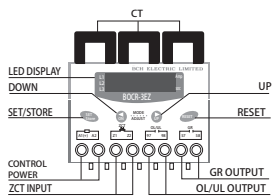
- Over Current
- Locked Rotor
- Phase Loss
- Phase Reversal

BOCR 3DE



- Over Current
- Phase Reversal
- Under Current
- Locked Rotor
- Phase Loss
- Phase imbalance

BOCR 3EZ



- Over Current
- Phase Reversal
- Under Current
- Locked Rotor
- Phase Loss
- Ground Fault
- Phase Unbalance

Bhartia Electronic Overcurrent Relay

Model	Cat. No.	Range	MRP [₹]
BOCR SS 05	MP21SS005S4	Electronic Over Current Relay 0.5-6A 24-240V AC /DC	2990
BOCR SS 05	MP21SS005W1	Electronic Over Current Relay 0.5-6A 380-440V AC	
BOCR SS 30	MP21SS030S4	Electronic Over Current Relay 3-30A 24-240V AC/DC	
BOCR SS 30	MP21SS030W1	Electronic Over Current Relay 3-30A 380-440V AC	
BOCR SS 60	MP21SS060S4	Electronic Over Current Relay 5-60A 24-240V AC/DC	
BOCR SS 60	MP21SS060W1	Electronic Over Current Relay 5-60A 380-440V AC	
BOCR SSD 05	MP22SSD005S4	Electronic Over Current Relay 0.5-6A 24-240V AC/DC	5750
BOCR SSD 30	MP22SSD030S4	Electronic Over Current Relay 3-30A 24-240V AC/DC	
BOCR SSD 60	MP22SSD060S4	Electronic Over Current Relay 10-60A 24-240V AC/DC	
BOCR DS3 05	MP34DS3005S4	Electronic Over Current Relay 0.5-6A 24-240V AC/DC	4830
BOCR DS3 30	MP34DS3030S4	Electronic Over Current Relay 3-30A 24-240V AC/DC	
BOCR DS3 60	MP34DS3060S4	Electronic Over Current Relay 5-60A 24-240V AC/DC	
BOCR 3DE	MP353DE800 Z4	Electronic Over Current Relay 0.5-60A 100-240V AC	16150
BOCR 3DE*	MP35FDE800Z4	Detachable Screen EOCR Model 3DE 0.5-60A 100-240 VAC	16190
BOCR 3EZ	MP363EZ800 Z4	Electronic Over Current Relay 0.5-60A 100-240V AC	17430
BOCR 3EZ*	MP36FEZ800Z4	Detachable Screen EOCR Model 3E2 0.5-60A 100-240V AC	17430

CTs

Cat No.	Description	MRP [₹]
2CT-D1-100-C	2CT EP 100/5	2250
2CT-D2-200-C	2CT EP 200/5	
2CT-D3-300-C	2CT EP 300/5	
2CT-D4-400-C	2CT EP 400/5	2670
3CT-H1-100-C	3CT version 100/5	3170
3CT-HH-150-C	3CT version 150/5	3220
3CT-H2-200-C	3CT version 200/5	3350
3CT-H3-300-C	3CT version 300/5	3550
3CT-H4-400-C	3CT version 400/5	3625
Z-CTs (For ground Fault protection, to be used with 3 EZ)		
Cat No.	Description	MRP [₹]
ZCT-035	ZCT version 35mm hole	2980
ZCT-080	ZCT version 80mm hole	3970
ZCT-120	ZCT version 120mm hole	8280

Above 60A, external CT is required

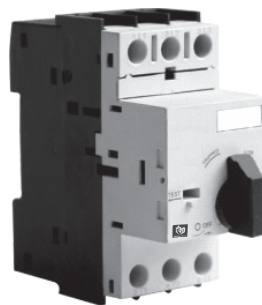
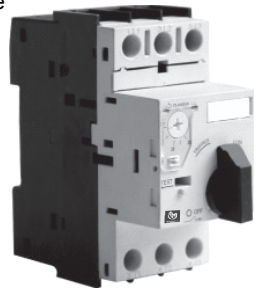
*Cable for EOCR-FDE & EOCR-FEZ model

Cat No.	Description	MRP [₹]
CABLE-15-003Q	CABLE-15-EP 3M FEZ/FDE	1110

Note : Cable must be ordered separately along with the EOCR detachable models i.e. EOCR-FDE & EOCR-FEZ

MPH range (0.1 to 32A) **NEW**

- ON/OFF Rotary knob with manual operation
- Clear trip indication with rotary knob
- 1 NO + 1 NC - Front & side mounted
- Trip indicator for visual discrimination between short circuit & over load tripping
- Undervoltage / Shunt Release
- Mag only version also available



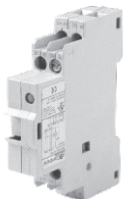
Accessories MPH range MPCB



Front mounted aux contact



Side mounted aux contact



Trip indicator - side mounted



UV/Shunt - side mounted



Extended handle - 32A MPCB



Plastic enclosure - 32A MPCB

Cat code	Description	MRP [₹]
(A) Thermal-Magnetic release		
MPH32-0.16	MPCB 3P TM 0.1- 0.16A	2575
MPH32-0.25	MPCB 3P TM 0.16-0.25A	2620
MPH32-0.4	MPCB 3P TM 0.25-0.4A	2620
MPH32-0.63	MPCB 3P TM 0.4-0.63A	2710
MPH32-1.0	MPCB 3P TM 0.63-1.0A	2870
MPH32-1.6	MPCB 3P TM 1.0-1.6A	2870
MPH32-2.5	MPCB 3P TM 1.6-2.5A	2870
MPH32-4.0	MPCB 3P TM 2.5-4.0A	2925
MPH32-6.3	MPCB 3P TM 4.0-6.3A	2990
MPH32-10	MPCB 3P TM 6.3-10.0A	3035
MPH32-16	MPCB 3P TM 10.0-16.0A	3360
MPH32-20	MPCB 3P TM 16.0-20.0A	4005
MPH32-25	MPCB 3P TM 20.0-25.0A	4305
MPH32-32	MPCB 3P TM 25.0-32.0A	6760
(B) With magnetic trip only (no Thermal release)		
MPH32M-0.16	MPCB 3P Mag only 0.16 A	2505
MPH32M-0.25	MPCB 3P Mag only 0.25 A	2545
MPH32M-0.4	MPCB 3P Mag only 0.4 A	2545
MPH32M-0.63	MPCB 3P Mag only 0.63 A	2640
MPH32M-1.0	MPCB 3P Mag only 1.0 A	2595
MPH32M-1.6	MPCB 3P Mag only 1.6 A	2595
MPH32M-2.5	MPCB 3P Mag only 2.5 A	2595
MPH32M-4.0	MPCB 3P Mag only 4.0 A	2750
MPH32M-6.3	MPCB 3P Mag only 6.3 A	2805
MPH32M-10	MPCB 3P Mag only 10 A	2780
MPH32M-16	MPCB 3P Mag only 16 A	3035
MPH32M-20	MPCB 3P Mag only 20 A	3250
MPH32M-25	MPCB 3P Mag only 25 A	3230
MPH32M-32	MPCB 3P Mag only 32 A	5660

Cat code	Description	List Price [₹]
MPHF11	Front aux contact 1NO+1 NC MPCB	455
MPHS11	Side aux contact 1NO+1 NC MPCB	600
MPHT11	MPCB Trip Indicator	on request
MPH024UR	UV Rel. 24V 50HZ MPCB	on request
MPH020UR	UV Rel. 20V 50HZ MPCB	on request
MPH115UR	UV Rel. 110-115V 50HZ MPCB	on request
MPH180UR	UV Rel. 180V 50HZ MPCB	on request
MPH240UR	UV Rel. 230-240V 50HZ MPCB	on request
MPH380UR	UV Rel. 380V 50HZ MPCB	on request
MPH415UR	UV Rel. 400-415V 50HZ MPCB	on request
MPH500UR	UV Rel. 500V 50HZ MPCB	on request
MPH024SR	Shunt Rel. 20-24V 50/60HZ MPCB	on request
MPH048SR	Shunt Rel. 40-48V 50/60HZ MPCB	on request
MPH240SR	Shunt Rel. 200-240V 50/60HZ MPCB	on request
MPH440SR	Shunt Rel. 365-440V 50/60HZ MPCB	on request
MPH127SR	Shunt Rel. 100-127V 50/60HZ MPCB	on request
MPH34	Extnd rotary handle 32A	995
B31SMA1	Plastic enclosure for MPH32 MPCB	1335

MPE Range (0.1 - 25A)



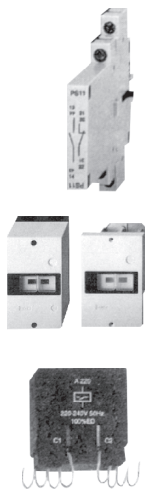
- Conforms to IEC 60947
- Perfect Coordinated system for Motor Control
- Electrical Life : 100000 Operations
- Excellent Current limiting characteristics
- Modular Snap fit Accessories
- 2 Pole version, Only Magnetic Trip Version available on request

MPCB (with thermal & magnetic release)

Cat ref	Setting Range (A)	Motor Rating in kW at 415 V	MRP [₹]
MPE-01	0.1...0.16	-	2180
MPE-02	0.16...0.25	0.06	
MPE-03	0.25...0.4	0.12	2405
MPE-04	0.4...0.63	0.18	
MPE-05	0.63...1	0.25, 0.37	2450
MPE-06	1...1.6	0.55	
MPE-07	1.6...2.5	0.75, 1.1	2500
MPE-08	2.5...4	1.5	
MPE-10	4...6.3	2.2, 3	2625
MPE-14	6.3...10	4, 5	
MPE-16	10...16	5.5, 9	2995
MPE-20	16...20	11	3230
MPE-22	20...25	12.5	3495



Accessories of MPE Range



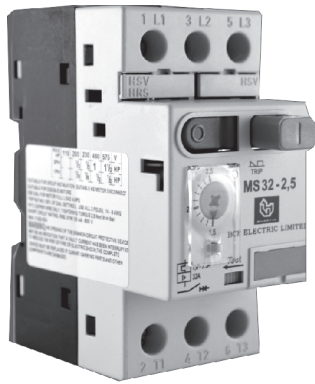
Reference	Contacts	List price [₹]
Auxiliary Switch		
MPA-0010	1NO	340
MPA-0001	1NC	
MPA-0011	1NO + 1NC	515
MPA-0020	2NO	
Enclosures (IP55)		
MPA-EF	Flush mounted	705
MPA-ES	Surface mounted	785
Voltage Releases		
MPA-U ■	Under Voltage Release	1120
MPA-S ■	Shunt Release	

- A: 110 VAC, K: 240 VAC, M: 415 VAC, U: 24 VAC, R: 42 VAC

Reference	Tap-o *	List price [₹]
Bus Bar		
MPA-BB245	2 Tap-o (45mm)	485
MPA-BB345	3 Tap-o (45mm)	670
MPA-BB445	4 Tap-o (45mm)	805
MPA-BB545	5 Tap-o (45mm)	880
MPA-BB263	2 Tap-o (63mm)	530
MPA-BB463	4 Tap-o (63mm)	795
MPA-BB1	Incoming Block	485

*centre to centre distance.

MS32 range (0.1 to 32A)



- Auxiliary switch for side mounting & flush mounting
- Indication of release with trip indicating auxiliary switch

Cat ref	Setting range (A)	Motor rating in KW at 415V	MRP[₹]
MS32-0.16	0.1-0.16	-	2250
MS32-0.25	0.16-0.25	0.06	
MS32-0.4	0.25-0.4	0.09	
MS32-0.63	0.4-0.63	0.12 to 0.18	2385
MS32-1.0	0.63-1.0	0.18 to 0.25	
MS32-1.6	1.0-1.6	0.37 to 0.55	2445
MS32-2.5	1.6-2.5	0.75	
MS32-4.0	2.5-4	1.1 to 1.5	2630
MS32-6.3	4-6.3	2.2	
MS32-10	6.3-10	3 to 4	2985
MS32-14.0	9-14	5.5	
MS32-18	13-18	7.5	3080
MS32-23	17-23	9 to 11	
MS32-27	20-27	11	3660
MS32-32	25-32	15	



Accessories - MS32 range

Cat ref	type	Contacts	List Price [₹]
HS11	Aux contact side mounting	1NO+1NC	515
HSV10	Aux contact top mounting	1NO	455
HSV01		1NC	455
HRS10	Trip indicating block top mounting	1NO	330
HRS01		1NC	330
MS32-UR	Under voltage release	-	1195
MS32-AR	Shunt release	-	1195

Note: For further details, please contact nearest sales office

Solid State Relays (SSR) Single Phase SSR's for Heating Applications SC9 Series 1-Phase ZERO CROSS Without LED

Cat. No.	MOQ	AC51 Rating	I^2t (A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SC941110L	10	12A	72	600V AC	12-280V AC	4-30V DC	1085
SC942110L	10	25A	288	600V AC	12-280V AC	4-30V DC	1270
SC944110L	10	40A	612	600V AC	12-280V AC	4-30V DC	1640

MOQ - Minimum Order Qty.



- Electronic Switching of loads - silent operation
- Life Over 100 million operations
- High Switching Frequency
- Ideal for dusty & corrosive atmosphere
- Impact & Vibration resistant
- Direct compatibility with PLC
- LED Indication as option

SC9 Series 1-Phase ZERO CROSS With LED

Cat. No.	MOQ	AC51 Rating	I^2t (A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SC941160L	10	12A	72	600V AC	12-280V AC	4-30V DC	1095
SC942160L	10	25A	288	600V AC	12-280V AC	4-30V DC	1290
SC944160L	10	40A	612	600V AC	12-280V AC	4-30V DC	1665
SC945160L	10	50A	1500	600V AC	12-280V AC	4-30V DC	3405
SC947160L	10	75A	5000	600V AC	12-280V AC	4-30V DC	3790

MOQ - Minimum Order Qty.

SC9 Series 1-Phase ZERO CROSS With LED

Cat. No.	MOQ	AC51 Rating	I^2t (A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SC962160L	10	25A	265	1200V AC	24-600V AC	5-30V DC	4590
SC965160L	10	50A	1500	1200V AC	24-600V AC	5-30V DC	5780
SC967160L	10	75A	5000	1200V AC	24-600V AC	5-30V DC	9015

MOQ - Minimum Order Qty.



SO9 Series 1-Phase ZERO CROSS With LED in okpac® Housing IP20 Protection

Cat. No.	MOQ	AC51 Rating	I ² t(A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SO942560*	10	25A	600	600V AC	12-280V AC	7-30V DC	2900
SO963460*	10	35A	1250	1200V AC	24-600V AC	3.5-32V DC	3470
SO945460*	10	50A	2500	600V AC	12-280V AC	3-32V DC	3865
SO967460*	10	90A	7200	1200V AC	24-600V AC	3.5-32V DC	4460

*Non Sock Items, allow 4-6 weeks delivery time

MOQ - Minimum Order Qty.

Innovation - Performance-Design

- Removable IP20 flaps.
- Only 29 mm height.
- Designed for all types of loads.
- TMS² Technology with very long life expectancy.
- Control Status LED.
- Very low zero cross level.
- UL/cUL, VDE (EN60950), IEC/EN60947-4-3, CE marking



SU9 Series 1-Phase ZERO CROSS With LED in okpac® Housing IP20 Protection



Cat. No.	MOQ	AC51 Rating	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SU942460*	44	25A	600V AC	12-280V AC	3-32V DC	On Request
SU963460*	44	35A	1200V AC	24-600V AC	3.5-32V DC	On Request
SU965460*	44	50A	1200V AC	24-600V AC	3.5-32V DC	1950
SU967460*	44	75A	1200V AC	24-600V AC	3.5-32V DC	2050

*Non Stock items, allow 4-6 weeks delivery time.

SU Range

- Designed for resistive load
- With pluggable connector on input
- IP20 protection with Removable
- For mounting on Heat sink or panel mount
- Over voltage protection on input
- Control Status LED
- Very low zero cross level
- Quick and easy connection
- UL/ cUL.

Single Phase SSR's for Capacitor Control Applications SO8 Series 1-Phase With LED in okpac® Housing IP20 Protection



Cat. No.	MOQ	AC51 Rating	I ² t(A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SO842074*	12	25A	600	600V AC	12-275V AC	3-32V DC	3540
SO863070*	12	35A	1250	1200V AC	24-510V AC	3.5-32V DC	3910
SO845070*	12	50A	2500	600V AC	12-275V AC	3-32V DC	4180
SO848070*	12	95A	14400	600V AC	12-275V AC	3-32V DC	6300
SO889060*	12	125A	24000	1600V AC	24-600V AC	3.5-32V DC	16745

*Non Sock Items, allow 4-6 weeks delivery time

MOQ - Minimum Order Qty.

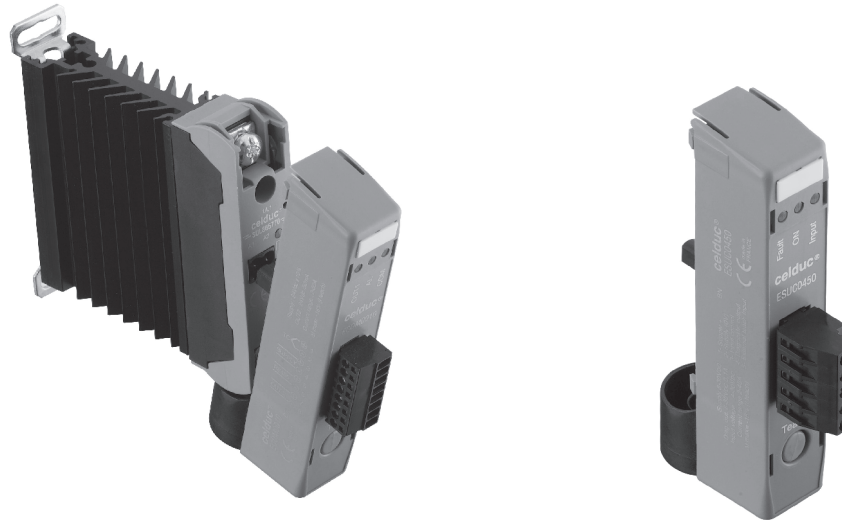
Solid State Relay BCH



Single phase SSR solutions with current monitoring & temp. controller PID

The 22.5mm pitch SSR solution

Two modules are available directly pluggable on SSR type SU and SUL



Save room / Save cost / Add more functions

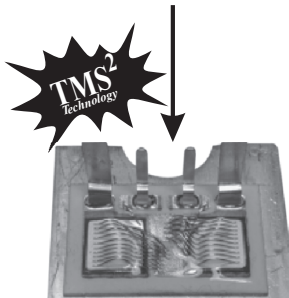
SU/SUL combined with	SU/SUL combined with									
ESUC (Current monitoring module)	ECOM0010 (Temp. controller PID, current monitor and communication interface in one unit)									
<p>Add to your SSR</p> <p>Diagnostic information for up to 5 heaters in parallel with :</p> <ul style="list-style-type: none"> > Permanent load current monitoring, > Current teaching function, > 2 alarm thresholds (+/-16%) > Partial load break detection, > Open load detection, > Detection of short-circuited SSR. <p>Product</p> <table border="1"> <thead> <tr> <th>reference</th> <th>Current range</th> <th>Control</th> </tr> </thead> <tbody> <tr> <td>ESUC0450</td> <td>2-40A 2-40A</td> <td>8-30VDC</td> </tr> <tr> <td>ESUC048</td> <td>2-40A 0 2-40A</td> <td>24-45VDC</td> </tr> </tbody> </table>	reference	Current range	Control	ESUC0450	2-40A 2-40A	8-30VDC	ESUC048	2-40A 0 2-40A	24-45VDC	<p>Add to your SSR</p> <ul style="list-style-type: none"> > Temperature controller with : <ul style="list-style-type: none"> • PID with automatic or manual settings, • Insulated inputs for J, K, T, E thermocouples, PT100 to come • Auxiliary output for heating, cooling, alarm or to control a 3 phase Solid State Relay, • Loop and heater break alarms. > Current monitoring and alarms up to 50A. > RS485 communication interface / Modbus RTU (others on request) > Power supply : 24Vdc +/- 10%
reference	Current range	Control								
ESUC0450	2-40A 2-40A	8-30VDC								
ESUC048	2-40A 0 2-40A	24-45VDC								
<p>Why choosing this function ?</p> <ul style="list-style-type: none"> > Quick fault detections (instantaneous alarm). > Maintenance. > To detect when a heater is broken which brings problems and is difficult to locate. > To maintain good quality production for plastic/rubber machines (specially thermosetting machines). > 22.5mm wide with integrated heatsink and DIN rail adaptor. 	<p>Why choosing this function ?</p> <ul style="list-style-type: none"> > The ECOM is the most compact solution available on the market that incorporates the latest measuring and control technology. > This solution can answer the needs of cost reduction of electrical cabinets (smaller), PLC (less analogue and digital I/O's) and wiring (bus communication). 									

For price and technical specifications, please contact nearest BCH branch office.

Solid State Relay BCH

Single Phase SSR's for Motor Control Applications SC7 Series 1-Phase Without LED (Random Switching)

Direct Copper Bonding
Technology



Cat. No.	MOQ	AC51 Rating	AC53 Rating	I ² t (A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SC741110L	10	12A	2.5A	72	600V AC	12-280 AC	4-30V DC	1065
SC761110L	10	12A	2.5A	72	1200V AC	24-520V AC	5-30V DC	1590
SC742110L	10	25A	5A	312	600V AC	12-280 AC	4-30V DC	1260
SC762110L	10	25A	5A	265	1200V AC	24-520V AC	5-30V DC	2255
SC744110L	10	40A	9A	612	600V AC	12-280 AC	4-30V DC	2440
SC764110L	10	50A	12A	1500	1200V AC	24-520V AC	5-30V DC	5105
SC767110L	10	75A	16A	5000	1200V AC	24-520V AC	5-30V DC	8740
SC768110L	5	95A	20A	11000	1200V AC	24-520V AC	5-30V DC	9015
SC769110L	5	125A	30A	20000	1200V AC	24-520V AC	5-30V DC	14535

MOQ - Minimum Order Qty.

- Fewer joints, fewer layers results in better thermal characteristics
- Extremely low temperature rise ensures long life

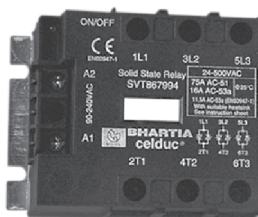
SO7 Series 1-Phase With LED in okpac® Housing IP20 Protection (Random Switching)

Cat. No.	MOQ	AC51 Rating	AC53 Rating	I ² t(A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SO745090	12	50A	12A	2500	600V AC	12-275V AC	3-32V DC	4920
SO767090	12	75A	16A	7200	1200V AC	24-510V AC	3.5-32V DC	7220
SO768090	12	95A	20A	14400	1200V AC	24-510V AC	3.5-32V DC	8465
SO769090	12	125A	30A	24000	1200V AC	24-510V AC	3.5-32V DC	12420

*Non Sock Items, allow 4-6 weeks delivery time

MOQ - Minimum Order Qty.

Three Phase SSR's SVT Series 3-Phase With LED (ZERO CROSS) IP20 Protection



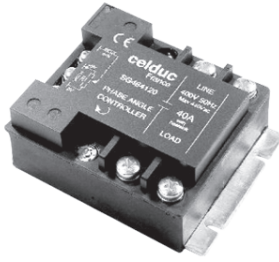
- IP20-RC and VDR Protection
- Designed for all types of load
- Thyristor technology

Cat. No.	MOQ	AC51 Rating	AC53 Rating	I ² t(A ² S)	Peak Voltage	Operating	Control Voltage	MRP [₹]
DC CONTROL								
SVT861394	5	12A	2.5A	72	1200V AC	24-520V AC	8.5-30V DC	15455
SVT864374	5	50A	12A	1500	1200V AC	24-520V AC	10-32V DC	18860
SVT868394E	5	95A	24A	5000	1200V AC	24-520V AC	8.5-30V DC	19780
SVT869394	5	125A	32A	20000	1200V AC	24-520V AC	8.5-30V DC	23460
AC CONTROL								
SVT864994	5	50A	12A	1500	1200V AC	24-520V AC	90-240V AC	19780
SVT967960	5	75A	-	1500	1200V AC	24-520V AC	90-240V AC	22265
SVT869994	5	125A	32A	20000	1200V AC	24-520V AC	90-240V AC	24380

MOQ - Minimum Order Qty.

Solid State Relay BCH

Proportional Controllers SG4 / SG5 Series 1-Phase Without LED



SG4 / SG5 Range Proportional Controllers Dierent Control Possibilities

- Phase angle control
 - Full wave pulse control
 - Full cycle Fast burst control
 - Soft starter
- Applications : Light dimmer, Heating, Regulation single ph. Variable Speed Control (Vibrating feeders etc).

Cat. No.	MOQ	AC51 Rating	I ² t(A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SG4 Series							
SG441020*	1	10A	72	600VAC	115-265V AC	0-10V DC	Contact nearest sales office for Prices.
SG444020*	3	40A	1500	600VAC	115-265V AC	0-10V DC	
SG444120*	3	40A	1500	600VAC	115-265V AC	0-5V / Pot [§]	
SG444420*	3	40A	1500	600VAC	115-265V AC	4-20mA	
SG464020*	3	40A	1500	1200VAC	200-460V AC	0-10V DC	
SG464120*	3	40A	1500	1200VAC	200-460V AC	0-5V / Pot [§]	
SG464420*	1	40A	1500	1200VAC	200-460V AC	4-20mA	
SG468020*	1	70A	5000	1200VAC	200-460V AC	0-10V DC	
SG468420*	1	70A	5000	1200VAC	200-460V AC	4-20mA	
SG469020*	3	110A	20000	1200VAC	200-460V AC	0-10V DC	
SG469120*	1	110A	20000	1200VAC	200-460V AC	0-5V / Pot [§]	
SG469420*	1	110A	20000	1200VAC	200-460V AC	4-20mA	
SG5 Series							
SG541020*	1	10A	72	600VAC	115-253V AC	0-10V DC	Contact nearest sales office for Prices.
SG541420*	1	10A	72	600VAC	115-253V AC	0-5V / Pot [§]	
SG541420*	1	10A	72	600VAC	115-253V AC	4-20mA	
SG544020*	3	40A	72	600VAC	115-253V AC	0-10V DC	
SG544120*	3	40A	72	600VAC	115-253V AC	0-5V / Pot [§]	
SG564020*	3	40A	612	1200VAC	200-440V AC	0-10V DC	
SG564120*	3	40A	612	1200VAC	200-440V AC	0-5V / Pot [§]	
SG564420*	3	40A	612	1200VAC	200-440V AC	4-20mA	

*Non Sock Items, allow 4-6 weeks delivery time

MOQ - Minimum Order Qty.

Phase Angle Controllers SO4 Series 1-Phase With LED in okpac® Housing IP20 Protection



SO4 new generation phase angle controllers allows numerous functions (Over Protection by Varistor)

- Phase angle control
- Full wave pulse control
- Fast burst control
- Soft starter
- Timers
- Flashing relay

Cat. No.	MOQ	AC51 Rating	I ² t(A ² S)	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SO445020*	2	50A	2500	600	90-280V AC	0-10V DC	Contact nearest sales office for Prices.
SO445120*	2	50A	2500	600	90-280V AC	0-5V DC	
SO445320*	2	50A	2500	600	90-280V AC	Pot [§]	
SO445420*	2	50A	2500	600	90-280V AC	4-20mA	
SO465020*	2	50A	2500	1200	200-480V AC	0-10V DC	
SO465320*	2	50A	2500	1200	200-480V AC	Pot [§]	
SO465420*	2	50A	2500	1200	200-480V AC	4-20mA	
SO467420*	2	95A	7200	1200	200-480V AC	4-20mA	
SO468020*	2	95A	7200	1200	200-480V AC	0-5V DC	
SO468120*	2	95A	7200	1200	200-480V AC	0-5V DC	
SO468420*	2	95A	7200	1200	200-480V AC	4-20mA	
SO469020*	2	125A	7200	1200	200-480V AC	0-10V DC	
SO469120*	2	125A	7200	1200	200-480V AC	0-5V DC	
SO469420*	2	125A	7200	1200	200-480V AC	4-20mA	

*Non Sock Items, please allow 4-6 weeks delivery time

Pot[§] = Potentiometer

MOQ - Minimum Order Qty.

Solid State Relay BCH

Reverser Relay SG/SV/SW Series - 3-Phase Without LED

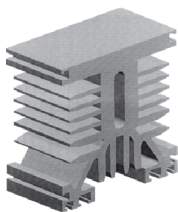
Cat. No.	MOQ	AC51 Rating	I ² t(A ² S)	Reversing Time	Peak Voltage	Operating Voltage	Control Voltage	MRP [₹]
SG969100*	3	6.6A	612	Adj.0.06s-4.0s	1200V AC	24-500V AC	12-30V DC	Contact nearest sales office for Prices.
SG969300*	3	8.5A	1500	Fixed 70ms	1600V AC	24-520V AC	12-30V DC	
SV969300*	3	8.5A	1500	Fixed 70ms	1600V AC	24-520V AC	12-30V DC	
SV969500*	1	16A	5000	Fixed 70ms	1600V AC	24-520V AC	12-30V DC	
SW960330*	3	4.5A	1500	Fixed 70ms	1600V AC	24-520V AC	12-30V DC	
SW961230*	3	8.5A	1500	Fixed 70ms	1600V AC	24-520V AC	12-30V DC	

*Non Sock Items. please allow 4-6 weeks delivery time

MOQ - Minimum Order Qty.



Common IP20 Protective Cover for SC series SSR.



Heat Sink - 65 mm

- Wide range of Heat sinks offers perfect coordination with all SSRs

Accessories for SSR

Cat. No.	MOQ	Description	List Price [₹]
SC1K4600	20	IP20 Cover SC*	25
SCHS6 DIN	20	Din Clip	120
SCHS2200	5	Heat Sink 2.2K/W	735
SCHS1100	5	Heat Sink 1.1 K/W	2385
SCHS0900	5	Heat Sink 0.9 K/W	2820
SCHS0300	5	Heat Sink 0.3K/W	4595

*IP20 Protective Cover for complete SC range
Refer to nearest branch office for heat sink selection

Suggested Heat Sink Rth values (K/W) for load rating at diff. Ambient Temperature

SSR Rating (A)	25°C	35°C	45°C	55°C
12A	2.2	2.2	2.2	1.1
25A	1.1	1.1	0.3	0.3
40A	0.3	0.3	0.3	0.3
50A	0.3	0.3	0.3	0.3
75A	0.3	0.3	0.3	0.3
95A	0.3	0.3	0.3	-
125A	0.3	0.3	-	-

* For Heat Sink Selection of S07 / S08 / S09 / SG4 / SG5 ranges refer to nearest sales office

Note: Apply heat sink compound between SSR base and external heat sink. In case of closely packed units the ambient temperature condition should be considered carefully. For proper protection, short-circuit protection device (SCPD) (having I²t rating lower than that of SSR I²t) must be used.

Contact nearest Branch Office for Price & technical details for following Special duty Solid State Relays

- SSR with AC Controls
- PCB Mounted SSR
- DC Relays
- Soft Starters
- SSR Integrated with heatsink-Softlife range
- SSR with spring terminals
- Celpac® range - 22.5 & 45 mm pitch with system diagnostics
- SSR for transformer starting
- Three Phase Universal digital Proportional Controllers - SVTA - SWTA range

Solid State Relay

BCH

Other range of relays and sensors

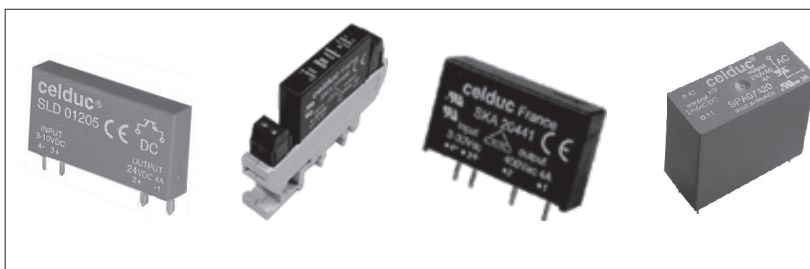
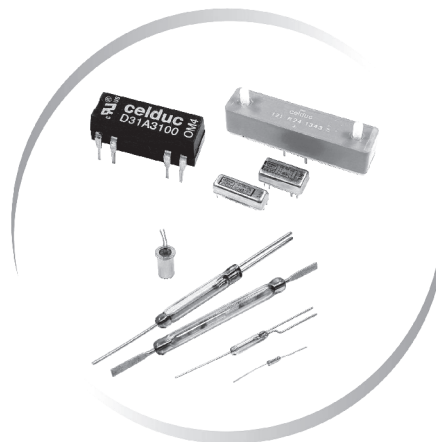
Magnetic sensors for Level, safety, speed, proximity & speed

Used for monitoring or controlling level, clearance, movement, position and rpm recording etc. These sensors can be used anywhere in consumer goods or industrial sectors like automotive, aircraft or telecommunications.



Reed Switches & Relays

Reed switches are used in magnetic proximity sensors & reed relays. The range meets the demands of the increasing number of new applications.



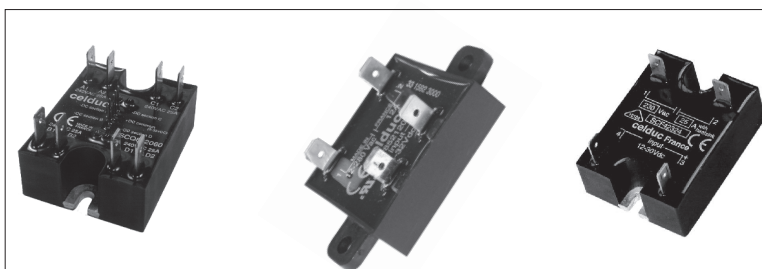
SLIM range (SP/ST/SL/XK) - AC/DC control

SP-ST: 1.0-5.0A

SKA/SKB: standard range/ 2.0- 5.0A

SKL: For mounting on heatsink / 16.0-75.0A

SKH: with an integrated heatsink/ 16.0-25.0A

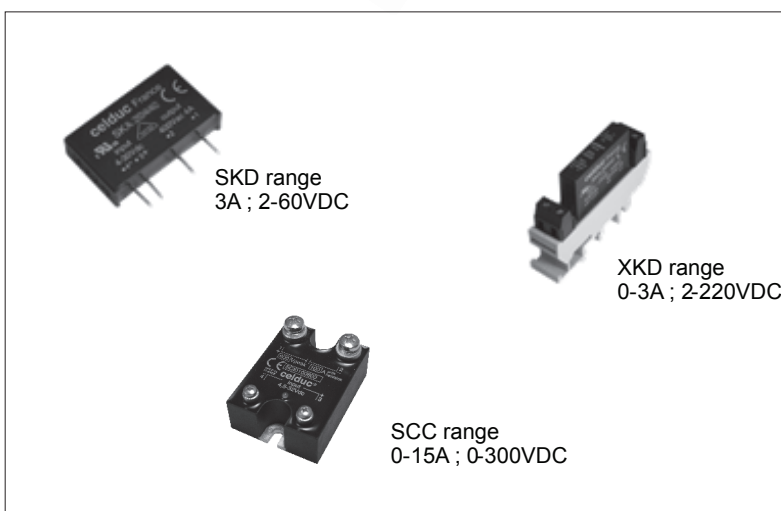


SSR with faston terminals (easy to connect) - AC/DC control

SF range : 10.0-20.0A

SCF range: to control resistive loads/ 25A

SCFL range – EMC optimised (low RFI)/ 25A



SKD range
3A ; 2-60VDC

XKD range
0-3A ; 2-220VDC

SCC range
0-15A ; 0-300VDC

DC Solid State Relays (up to 150A 1200VDC)

These relays are designed to switch DC loads i.e. solenoid valves, brakes, indicators & motors.

Applications

DC Motors (travelling cranes, cranes, vehicles, ...)

Batteries (ships, solar systems, ...)

Heaters (air conditioning in trains, tramways, ...)

Electro-magnet (induction motor braking, ...)

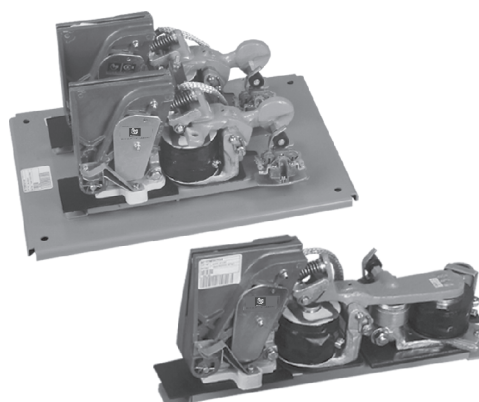
DC power supplies (converters like choppers, inverters, ...)

For price and technical specifications, please contact nearest BCH branch office.

Effective from 01.07.2017

DC Mill Duty Contactor

No. of poles	(A)	Auxilliary Contacts	Cat. No.	MRP [₹]
50 Amperes				
Single pole Normally Open	15A 25A 50A	2NO+2NC 2NO+2NC 2NO+2NC	912x1522 ■ 912x2522 ■ 912x5022 ■	22080
Double pole Normally Open	15A 25A 50A	2NO+2NC 2NO+2NC 2NO+2NC	D912x1522 ■ D912x2522 ■ D912x5022 ■	47475
Mechanically Interlocked 2 Nos. SP NO	15A 25A 50A	2NO+2NC 2NO+2NC 2NO+2NC	M912x1522 ■ M912x2522 ■ M912x5022 ■	52660
150 Amperes				
Single pole Normally Open	150A	2NO+2NC	914x22 ■	37715
Double pole Normally Open	150A	2NO+2NC	D914x22 ■	80865
Mechanically Interlocked 2 Nos. SP NO	150A	2NO+2NC	M914x22 ■	85335
Single pole Normally Closed	150A	1NO+1NC	924x11 ■	38845
Single pole Normally Open with Holdout Coil #	150A	1NO+1NC	934x11 ■	40885
Single pole Normally Open with AC Blow out Coil	150A	2NO+2NC	974x22 ■	47815
300 Amperes				
Single pole Normally Open	300A	2NO+2NC	915x22 ■	54765
Double pole Normally Open	300A	2NO+2NC	D915x22 ■	116640
Mechanically Interlocked 2 Nos. SP NO	300A	2NO+2NC	M915x22 ■	121270
Single pole Normally Closed	300A	1NO+1NC	925x11 ■	55045
Single pole Normally Open with Holdout Coil #	300A	1NO+1NC	935x11 ■	59435
Single pole Normally Open with AC Blow out Coil	300A	2NO+2NC	975x22 ■	69225



- From 50 A to 600 A
- Conforms to NEMA Standards
- Ready to use mechanically interlocked version
- Normally closed version
- Hold on coil for time delay
- Mechanical life : 20 million operation
- Electrical life : 1 million operation

Unique Arc
quenching system with
blow out coils for
switching heavy duty
loads

DC Mill Duty Contactor

No. of poles	(A)	Auxilliary Contacts	Cat. No.	MRP [₹]
600 Amperes				
Single pole Normally Open	600A	2NO+2NC	916x22 ■	122065
Double pole Normally Open	600A	2NO+2NC	D916x22 ■	253465
Mechanically Interlocked 2 Nos. SP NO	600A	2NO+2NC	M916x22 ■	257570
Single pole Normally Closed	600A	1NO+1NC	926x11 ■	125470
Single pole Normally Open with Holdout Coil#	600A	1NO+1NC	936x11 ■	155080
Single pole Normally Open with AC Blow out Coil	600A	2NO+2NC	976x22 ■	159610

For 934 / 935 / 936 with holdout coil, suffix voltage code from table for 150, 300 & 600 Amps replace 'x' by 'y' for surface mounting rear connection, 'z' for elevated mounting rear connection

* Add Rs. 2500/- for AC Control

Double Pole DC Mill Duty Contactor

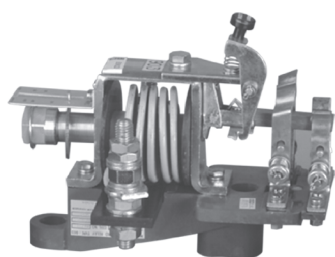
A	Auxilliary Contacts	Cat. No.	Unit Price [₹]
150A	2NO+2NC	954x22 ■	Contact Branch office for Price
300A	2NO+2NC	955x22 ■	

DC Contactors BCH

DC Mill Duty Contactors - Spares

Description	Qty. Reqd.	50A		150A		300A		600A	
		Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
DC Arc Chute Assy. Consisting of a. LHArc Shield b. RHArc Shield c. DC Blow Out Arc Horn d. DC Blow Out Arc Piece e. DC Blow Out Spacer Assy. f. Polarity Wire g. Latch Strips (Top & Bottom) h. Hardware for Polarity Wire & Latch	1 Set	9C9J101*	11175	9C9P101	19150	9C9T101	27770	9C9V101	60460
AC Arc Chute Assy. Consisting of a. LHArc Shield b. RHArc Shield c. AC Blow Out Pole Piece d. AC Blow Out Spacer Assy. e. Polarity Wire f. Latch Strips (Top & Bottom) g. Hardware for Polarity Wire & Latch	1Set	-	-	9C9P102	On request	9C9T102	On request	9C9V102	On request
Fixed & Moving Contacts	1 Set	9C9J105	2420	9C9P105	3330	9C9T105	5410	9C9V105	14740
Contact Lever with Braid	1 Set	9C9J106	2945	9C9P106	4810	9C9T106	6370	9C9V106	11060
Set of Armature Spares Consisting of a. Adjusting Pin b. Contact lever spring c. Contact lever spring pin with circlip d. Armature hinge pin e. Armature Securing pin	1 Set	9C9J107	1040	9C9P107	1450	9C9T107	2095	9C9V107	3045
Set of Armature Spares for 924, 925, 926 Consisting of a. Adjusting Pin b. Contact lever spring c. Contact lever spring pin with circlip d. Armature hinge pin e. Armature Securing pin f. Armature spring g. Spring retaining washer	1 Set	-	-	9C9P108	1770	9C9T108	2630	9C9V108	3780
Set of Armature Spares for 934/935/936 Consisting of a. Adjusting pin b. Contact lever spring c. Contact lever hinge pin d. Armature hinge pin e. Armature securing pin f. Armature spring g. Spring retaining washer h. Adjusting screw	1 Set	-	-	9C9P109	2115	9C9T109	3130	9C9V109	4010
Terminal Block	1	9C9J110	1345	9C9P110	1770	9C9T110	2480	9C9V110	3100
No Volt Coil for 912, 914, 915, 916, 934, 935 & 936 **Suffix voltage code	1	9C9J111■	5010	9C9P111■	7670	9C9T111■	10095	9C9V111■	17405
No Volt Coil for 924, 925, 926 **Suffix voltage code	1	-	-	9C9P112■	10095	9C9T112■	15690	9C9V112■	25350
Coil clamp for 914 & 934	1	-	-	9C9P118	185	-	-	-	-
Coil clamp for 924, 915, 935, 916 & 936	1	-	-	9C9P118	185	9C9T118	185	9C9V118	On request

- Suffix coil voltage code from table on page 31
 - Please add Rs. 2500 for AC control
- * Only item a & b is supplied in this set



- Magnetic Operated Overload relay for heavy duty applications
- From 1.5A to 600A
- Instantaneous and Time delay tripping
- Manual and automatic resetting
- 1NO + 1NC Contacts

DC Mill Duty Contactors - Spares & Accessories

Description	Cat. No.	List Price [₹]
1NO+1NC Auxilliary Contact Block	AC10E11	4445
2NO Auxilliary Contact Block	AC10E20	4445
2NC Auxilliary Contact Block	AC10E02	4445
Single unit driver with mounting plate (50 A)	9C9J115	690
Double unit driver with mounting plate (50 A)	9C9J116	1005
Single unit driver with mounting plate (150-600A)	9C9P116	750
Double unit driver with mounting plate (150-600A)	9C9P117	1100
Hold out coil for 934, 935 & 936	9C9P113-■	12190
Condenser 50 + 50uF for 934, 935 & 936	9C9P114	750
Mechanical interlock for 150/300/600A	AC10M4/M8/M12	4955
Rectifier 110/240 V	SP30R	2500

■ Suffix voltage code from Table on page 31

DC Magnetic Overload Relays *

Cat. No.	Coil No.	Continuous Rating	Range Amps	MRP [₹]
B3A23	159-10	2.8	1.5 to 3.5	12930
B3B23	159-5	3.9	3 to 7	
B3C23	159-4	5.4	5 to 13	
B3E23	159-3	10.9	8 to 24	
B3F23	159-2	16.9	10 to 30	
B3G23	159-1	21.9	20 to 40	
B3H23	159-8	34.9	25 to 65	
B3J23	159-6	50.0	35 to 75	
B3K23	179-39	69.0	40 to 120	15140
B3L23	179-38	109.0	70 to 190	
B3M23	179-37	179.0	100 to 300	
B3N23	179-36	250.0	200 to 600	16515
B3Y23	179-36.2	199.0	200 to 600	
B3P23		549.0	300 to 900	20090
B3R23		500.0	500 to 1500	

* With 1NO + 1NC Contacts

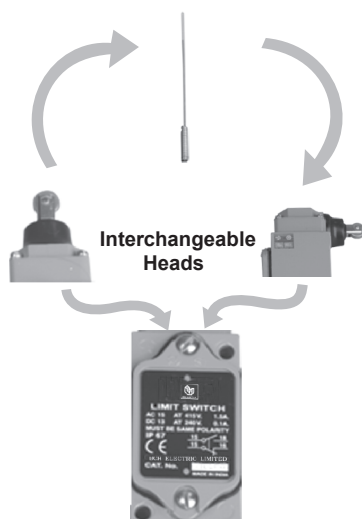
Hold Out Coil details for 934/935/936

Hold out coil code	Voltage
494-1	400/500
494-2	100/125
494-5	200/250 & 400/550
494-7	400/450
492-12	100/125
494-43	200/250 & 400/550

Heavy Duty Limit Switch - Snap Action Type NL IP 67

Type	Description	Cat. No. Screw Terminal (1NO+1NC)	MRP [₹]	Cat.No. Precabled (1NO+1NC)	MRP [₹]	Cat. No. Screw Terminal (2NO+2NC)	MRP [₹]	Cat. No. Precabled (2NO+2NC)	MRP [₹]
Roller Lever	Standard-38MM Standard-76.2mm Adjustable	NLL1 NLL2 NLLA	1385	NLL1C NLL2C NLLAC	1505	NLL1-22 NLL2-22 NLLA-22	2115	NLL1-22C NLL2-22C NLLA-22C	2190
	Maintained Type Maintained Type Maintained Type	NLL1M NLL2M NLLAM	1555	NLL1MC NLL2MC NLLAMC	1625	NLL1M-22 NLL2M-22 NLLAM-22	2340	NLL1M-22C NLL2M-22C NLLAM-22C	2385
Push Roller	Top Side	NLTPR	1385	NLTPRC	1505	NLTPR-22	2115	NLTPR-22C	2190
		NLSPR	1515	NLSPRC	1625	NLSPR-22	2280	NLSPR-22C	2385
Push Button	Top Adjustable Side Adjustable	NLTPBA	1385	NLTPBAC	1505	NLTPBA-22	2065	NLTPBA-22C	2190
		NLSPBA	1515	NLSPBAC	1625	NLSPBA-22	2280	NLSPBA-22C	2385
Cat Whisker	Nylon Rod Steel Rod	NLCW	1215	NLCWC	1305	NLCW-22	2010	NLCW-22C	2115
		NLJW	1385	NLJWC	1480	NLJW-22	2115	NLJW-22C	2190
Fork Type	Roller in same line Offset Rollers	NLLF NLLFO	1555	NLLFC NLLFOC	1625	NLLF-22 NLLFO-22	2345	NLLF-22C NLLFO-22C	2385
	Roller in same line Maintained Offset Rollers Maintained	NLLFM		NLLFMC		NLLFOM-22		NLLFOM-22C	
		NLLFOM	1820	NLLFOMC	1890	NLLFM-22	2540	NLLFM-22C	2585

- IP 67 degree of Protection
- Choice of 16 Operating Heads
- Interchangeable heads ensures complete modularity and flexibility
- Zinc Die cast body for Heavy duty applications
- Easily replaceable contact blocks
- Precabled version with 2m cable length



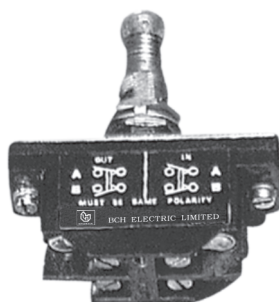
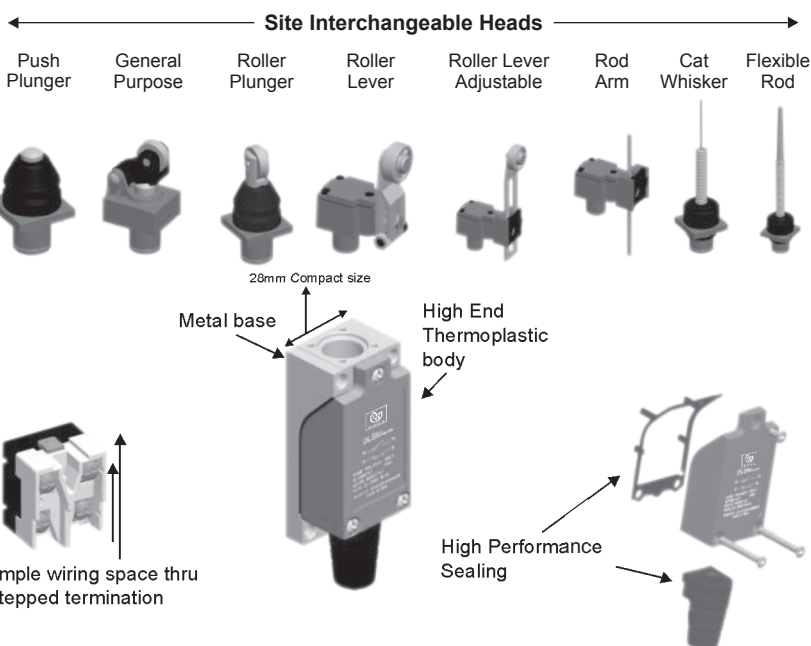


Mini Limit Switch NEW

Type		Cat. No.	MRP [₹]
General Purpose Type		DLSMAR	905
Top Plunger	Standard	DLSMPP	
Push Roller	Standard	DLSMRP	
	Cross	DLSMRPX	
Roller Lever	39mm	DLSMRL	940
	Adjustable	DLSMRLA	
Rod Arm	Adjustable	DLSMJWA	995
Cat's Whisker	Steel Spring	DLSMSW	
Flexible Rod	Nylon	DLSMSR	

Applications

- Lifts and Escalators
- Machine Tools
- Food and Beverages
- Textile Machines
- Packaging & Printing Machines



Precision Limit Switch

- Conforming to IEC 60947-5-1
- Compact Design requiring less mounting space
- Zinc Die cast base & high end polyamide cover ensuring robustness & excellent aesthetics
- Unique Cross bar contacts for enhanced reliability
- Dust proof, Water proof & Oil resistance construction
- Snap action contacts
- Frequency of operation 7200 Oprns / hr

Type of Operator	1NO+1NC		2NO+2NC		Lot Size
	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]	
Roller Lever	PSRL-L or R	545	PSRL-L-2 or R-2	660	1
Six Inch Lever	PSSIL-L or R		PSSIL-L-2 or R-2		
Top Push Roller	PSTPR*		PSTPR*-2		
Top Push Button	PSTPB		PSTPB-2		
Type	Cat. No	List Price [₹]	Cat. No	List Price [₹]	Lot Size
Spare Contact Block	SP20S1	510	SP20S2	645	

* A or B

Limit Switches BCH

Limit Switch for 125°C Application*

Type	Cat. No.	MRP [₹]
with 1NO + 1NC Roller Lever Top Push Roller	LL1-150S-M LTPR-150S-M	On Request

*Refer to our nearest sales office for specification & details

Heavy Duty General Purpose Limit Switch

Snap Action Type L	Angular Roller Top Plunger	LLGS LPGS	915
-----------------------	-------------------------------	--------------	-----

Oil Tight Limit Switch - Snap Action Type L IP 65

Type	Description	Cat. No.	MRP [₹]
Roller Lever	Standard-38MM	LL1	1920
	Standard-76.2mm	LL2	
	Adjustable	LLA	
Push Roller	Maintained Type LL1	LL1M	2005
	Maintained Type LL2	LL2M	
	Maintained Type LLA	LLAM	
Push Button	Top	LTPR	1920
	Side	LSPR	2165
Cat Whisker	Top Adjustable	LTPBA	2190
	Side Adjustable	LSPBA	
Fork Type	Nylon Rod	LCW	1575
	Steel Rod	LJW	1960
Fork Type	Roller in same line	LLF	1770
	Offset Rollers	LLFO	1770
	Roller in same line	LLFM	2070
	Maintained	LLFOM	2070
	Offset Rollers		
Maintained			

Oil Tight Limit Switch - Spares

Description	Suitable for	Cat. No.	List Price [₹]
38 mm lever	NLL1, LL1	SP40L1	300
76.2 mm lever	NLL2, LL2	SP40L2	380
Adjustable lever	NLLA, LLA	SP40LA	380
Operating Head	LLGS, LPGS	SP40HLG	565
Operating Head	Lever	SP40HL	605
Operating Head	Top	SP 40HTP*	605
	Plunger	SP 40HSP*	675
Operating Head	Cat Whisker	SP40CW	415
	Steel Rod	SP40JW	565
Limit Switch Unit Assembly 1NO+1NC	Type 'L' & 'NL' (Except LLGS / LPGS)	SP40S1	870
Limit Switch Unit Assembly 2NO+2NC		SP40S2	1440
Limit Switch Unit Assembly 1NO+1NC	LLGS / LPGS	SP40S1WOM	565
Fork lever in Line	LLF	SP40LF	470
Fork lever Offset	LLFO	SP40LFO	470
Operating Head Maintained	Lever	SP40HLM	705
Oil tight Conduit		SP40CE	330

* B = Button R = Roller

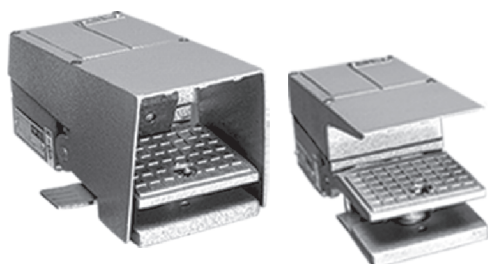
Foot Switch BCH

Number of Contact Blocks	Total contacts available	No. of position	Description	Cat. No.	MRP [₹]	Lot Size
One	1NO+1NC	2	With Guard	FSGX1	3040	1
One	1NO+1NC	2	With Shield	FSSX1	3045	
One	1NO+1NC	2	With Latch	FSGX1L	3205	
Two	4NO+4NC	2	With Shield & Latch	FSSY2L	4300	
One	2NO+2NC	2	With Guard	FSGX2	3305	
One	2NO+2NC	2	With Latch	FSGX2L	3445	
Two	2NO+2NC	2	With Guard	FSGY1	3730	
Two	2NO+2NC	2	With Latch	FSGY1L	3970	
Two	4NO+4NC	2	With Guard	FSGY2	4355	
Two	4NO+4NC	2	With Latch	FSGY2L	4435	
Two	1NO+1NC	3	With Guard	FSGZ1M	3795	
Two	4NO+4NC	3	With Latch	FSGZ2M	4340	

Note : Latching unit (with suffix L) is provided with X & Y versions only.

Spares for Foot Switch

Description	Suitable For	Cat No.	List Price [₹]
Spare Contact Block 1NO+1NC	FSG/FSS	SP20S1	510
Spare Contact Block 2NO+2NC	FSG/FSS	SP20S2	645
Spare Cover with Guard	FSG	SP20CG	1215



- 2 Position and 3 Position
- 1NO+1NC/2NO+2NC/4NO+4NC contact blocks
- Guard and Shielded versions
- Oil tight and water tight enclosure for contact block
- Mechanical and electrical life : 10 million operation
- Suited for heavy duty applications such as :
 - Machine Tools
 - Rubber and Tyre making machines
 - SPMs
 - Welding Machines
- Suffix X1 = One Block of 1NO+1NC
 X2 = One Block of 2NO+2NC
 Y1 = Two Blocks of 1NO+1NC
 Y2 = Two Blocks of 2NO+2NC

Oil Tight Push Button & Indicating Lights - 'Type T' E 30.5 mm



Range

- Non illuminated and illuminated
- Flush
- Extended
- Mushroom head
- Lever and key type selector switch
- Indicators-Direct/Resistor/Transformer type
- Conforms to EN/IEC-60947-5/IS-13947-5

Features

- Protection degree - IP65
- Rugged construction
- Ideal for motor control centers and control panels
- Proven time tested design

Type	Description	Cat. No.	MRP [₹]	Lot Size
Actuator	Standard flush Button			
	Red	TSFB-R	175	20
	Green	TSFB-G		
	Black	TSFB-B		
	Yellow	TSFB-Y		
	Blue	TSFB-BL		
Amber	TSFB-A			
Actuator	Long Button			
	Red	TLB-R	175	10
	Green	TLB-G		
	Black	TLB-B		
	Yellow	TLB-Y		
	Blue	TLB-BL		
Amber (Orange)	TLB-A			
Actuator	Mushroom Head			
	-Spring return Red	TMH-R	225	10
	-Spring return Green	TMH-G	225	
	-Turn to release Red	TMHL-R	250	
-Turn to release Green	TMHL-G	250		
Actuator	Selector Actuator -2 or 3 position	TSSA ***	460	10
Actuator	Cylindrical Lock -2 or 3 positions	TCL***	670	10
Station	Start/Stop Pushbutton	E20EA	795	1
Contact Block	1NO +1NC	050N1	220	20
	2NO	050N2		
	2NC	050N3		
Aluminium Diecast Enclosure	One button	TEN-1	630	1
	Two buttons	TEN-2	840	
	Three buttons	TEN-3	995	
	Four buttons	TEN-4	1155	
Accessories	Wrench for retaining ring	TWN	220	1
	Plug for hole	TPL	95	
	Legend plate	050L^	35	

Note: * Position-2 or 3 • Function M-maintained, S-Springreturn
 ■ Cam code 1/2/3 ^ Suffix Legend Code

Oil Tight Indicating Light - E 30.5mm

Description	Application	Cat. No.	List Price [₹]	Lot Size
(Without lens) Direct type	AC & DC	TILD•10	325	1
Transformer type	AC	TILT•10	410	1
Polycarbonate Lens	-	LENS*	40	10
Spare Bulb	AC & DC	SP61L#	45	1

* Lens available in colours given below # Suffix voltage code lamp

Voltage Code (Direct type lamps)

Volts	6	12	24	48	110	220	240	415
Code	P	S	U	W	A	B	K	M

Voltage Code (Transformer type lamps)

Volts	110/6	110/24	220/6	240/24	415/6
Code	A	A/U	B	K/U	M

Illuminated Push Button - E 30.5mm

Description	Cat. No.	List Price [₹]	Lot Size
Actuator with bulb & terminals @	TIPB ■	285	10
Signal lamp transformer	TR ■	235	10
Bulb-6V or 24V	SP61L#	45	1
Legend plate	050L^	35	1
Plastic lens	L2°	35	1

@ Prices are exclusive of lens

^ Suffix Legend plate code

° Suffix colour code: Milky White 1, Clear 2, Yellow 3, Blue 4, Red 5 & Green 6.

- For Contact Block, please refer Push Button Type T.
- The illuminated buttons can be supplied for 6V or 24V direct operations.
- The Transformers are available in 110/6V, 220/6V, 110/24V & 240/24V

Push Button BCH

Suffix Colour Code - 30.5 mm

Colour	Suffix	Colour	Suffix
Red	1P	Yellow	5P
Green	2P	Clear	7P
Blue	3P		
Amber	4P		

Legend Plate - Suffix Code for E30 & 22.5

Inscription	Suffix code	
	Type T	E22
Start	1	34
Stop	2	35
Inch	3	14
Forward	4	07
Reverse	5	41
UP	6	40
Down	7	04
Slow	9	33
Fast	10	06
Raise	11	-
Left	-	18
Motor Run	-	22
Motor Stop	-	23
Overload Tripped	-	30
Overload Reset	-	31
Power On	-	32
Stop Reset	-	36
Test	-	37
Trip	-	38
Lower	12	-
Off	13	24
On	14	26
Jog	15	-
Emergency Stop	16	05
Reset	17	-
High	19	12
Run	20	-
Close	21	03
Open	22	27
Blank	23	01
On-Off	28	-

Push Button 22.5mm BCH

Push Button & Indicating Lights - 22.5 mm



Description	Type	Cat. No.	MRP[₹]	Lot Size	
Push Button Actuators with Mounting Adaptor	Opaque	Flush	HEA11*M	75	10
		Extended	HEA12*M	80	
	Illuminated**	Flush	HEB11*M	105	
		Extended	HEB12*M	110	
	Mushroom Head 28mm Colour - Red/Black	Momentary	HEA21*M	95	10
		Twist to Release	HEA23*M	140	
		Stayput Key Release	HEA25*M	275	
		Mushroom Head 40mm Colour - Red/Black	Momentary	HEA22*M	
Light Source Units (LSU)	Basic Unit with Mounting Adaptor	Lamp Holder & Lens	HPL22*	65	10
	LSU with Bulb-Direct Type	6/12/24/48/60/110V ac/dc	HLSUD#	70	
	LSU with Bulb-Resistance Type ■	110V ac/dc & 240V ac	HLSUR#	80	
	LSU with Bulb-Transformer Type @	Primary : 110V/240V/415V ac Secondary : 6 & 12V ac	HLSUT#	260	
LED Indicating Light	Standard 6/12/24/48/60/110/240/415V ac*** 6-60V ac/dc; 110 & 240V dc	Color - R/Y/G/A	HFB2X*#	160	10
		Blue	HFB2XL#	325	1
		Clear	HFB2XC#	455	1
	Universal 24-240V ac/dc	Color - R/Y/G/A	HFB2X*UH4	210	
		Blue	HFB2XLUH4	405	
	Surge Protected 12-60V ac/dc; 110/240/415V ac; 110/240V dc	Color - R/Y/G/A	HFB2S*#	205	10
		Blue	HFB2SL#	350	1
		Clear	HFB2SC#	490	1
	Low Voltage Glow Protected 110V/240/415V ac	Color - R/Y/G/A	HFB2P*□	240	10
		Blue	HFB2PLH	435	1
Surge & Low Voltage Glow Protected 110V/240/415V ac	Color - R/Y/G/A	HFB2SP*□	245	10	
	Blue	HFB2SPLH	440	1	
Selector Operators with Mounting Adaptor	Selector Key Operator (Color - Black)	2pos Maintained	Pls refer Ordering Sequence & Circuit Combination Table for exact Cat. Ref.	255	1
		2pos Spr Ret R>L		255	
		3pos Maintained		265	
		3pos Spr Ret L>C		265	
		3pos Spr Ret R>C		265	
		3pos Spr Ret L>C<R		265	
	Selector Knob or Lever Opaque	2pos Maintained		185	
		2pos Spr Ret R>L		185	
		3pos Maintained		185	
		3pos Spr Ret L>C		205	
		3pos Spr Ret R>C		205	
		3pos Spr Ret L>C<R		205	
	Selector Knob or Lever Illuminated *	2pos Maintained		220	
		2pos Spr Ret R>L		220	
		3pos Maintained		220	
		3pos Spr Ret L>C		245	
		3pos Spr Ret R>C		245	
		3pos Spr Ret L>C<R		245	

* Colour Code Table 1 # Voltage Code Table 2 @ For extended bulb version, use code HLSUTE#
 ■ Not suitable for illuminated push button types
 ** Light Source Unit (LSU) needs to be ordered separately.
 *** LED indicating light (standard) 550VAC, Prices are available on request.

Push Button 22.5mm BCH

Push Button - 22.5 mm



Description	Type	Cat. No.	List Price [₹]	Lot Size
Contact Block		1NO	HCB10	65
		1NC	HCB01	
	Early Make	1NO	HCB10EM	70
	Late Break	1NC	HCB01LB	
		1NO+1NC	HCB11	105
		2NO	HCB20	

Ordering Sequence for Selector Operators

H	E				M
		A - Opaque ; B - Illuminated	Table 3 - Position/Cam	Table 4 - Type	Table 1 Color

Suffix Code Tables

Applicable for	(*) Color	Code
Opaque, Illuminated	Red	R
Opaque, Illuminated	Yellow	Y
Opaque, Illuminated	Green	G
Opaque, Illuminated	Blue	L
Opaque	Black	B
Illuminated	Amber	A
Opaque	White	W
Illuminated	Clear	C

Selector Operator Version	Code
Sel. Lever 2 pos	8L
Sel. Key 2 pos	8Y
Sel. Knob 2 pos	8K
Sel. Lever 3 pos Cam1	6L
Sel. Key 3 pos Cam1	6Y
Sel. Knob 3 pos Cam1	6K
Sel. Lever 3 pos Cam2	7L
Sel. Key 3 pos Cam2	7Y
Sel. Knob 3 pos Cam2	7K

Applicable for	Type	Code
Selector Operator	Maintained in All Position	D
Selector Operator	Spring Return Right>Centre	R
Selector Operator	Spring Return Left>Centre	T
Selector Operator	Spr. Return Left>Centre<Right	S

Suffix Code Tables

Applicable for	(*) Voltage	Code
LSU, LED	6V AC/DC (DIRECT)	P4
LSU, LED	12V AC/DC (DIRECT)	S4
LSU, LED	24V AC/DC (DIRECT)	U4
LSU, LED	48V AC/DC (DIRECT)	W4
LSU, LED	60V AC/DC (DIRECT)	Y4
LSU	110V AC/DC (DIRECT)	A4
LSU	110V AC/DC (RESISTOR)	A4
LED	110/120V AC	E
LED	110/120V DC	E1
LED	220/240V AC	H
LED	220/240V DC	H1
LSU	110V/6V (TRANSFORMER)	AP
LSU	110V/24V (TRANSFORMER)	AU
LSU	240V/6V (TRANSFORMER)	KP
LSU	240V/24V (TRANSFORMER)	KU
LSU	415V/6V (TRANSFORMER)	MP
LSU	415V/24V (TRANSFORMER)	MU
LED	415V AC	M
LED	220/240V AC (DIODE+RESISTOR)	H

Note : Key type Sel Operator available in Opaque version & Black color only.

Push Button 22.5mm BCH

	Description	Type	Cat. No.	List Price [₹]	Lot Size
Spares & Accessories	Filament Bulb	Normal Bulb	9ED2#	30	10
	Filament Bulb	Extended Bulb	9ED3#	30	
	Mounting Adaptor		HMR	30	
	Lens for Indicating Lamp		H8ED1*	30	1
	Knob for Illum. Selector Actuator		H9ED1K*	30	
	Lever for Illum. Selector Actuator		H9ED1L*	30	
	Legend Plate with Std Inscription	Flush/Extended PB	8EA9 +	30	
	Rubber Boot for IP66 Protection		HRB*	40	
	Padlock to Prevent Operation		8EA1	60	

* Color Code Table 1 # Voltage Code Table 2 + See E 30 marking

SELECTION CRITERIA FOR 3 POSITION SELECTOR OPERATOR CAM:

Selector Operators with CAM1 :

- When the Selector operator lever / knob is moved to the left side, it operated the left side contact block.
- When the Selector operator lever / knob is moved to the right side, it operates the right side contact block.

Selector Operator with CAM2 :

- When the Selector operator lever / knob is moved to the left side, it operates the left side contact block.
- When the Selector operator lever / knob is moved to the right side, it operates **both the right side contact block and the left side contact blocks.**

Push Button & Indicating lights

FLEXI22



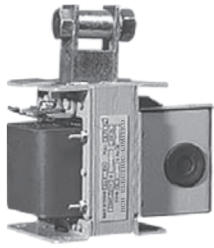
Range

- Flush and Extended Push buttons
- Selector Operators knob & lever
- Non Illuminated and illuminated type
- Mushroom head-28mm, 40mm, 60mm (coming soon)
- LED Indicating lights
- Filament type Indicating lights

Features

- Chrome plated metal bezel
- Modular Snapfit construction
- Oil Tight, Water tight and corrosion-resistant.
- IP65 Degree of Protection
- Anti Rotation Mounting
- Possibility to add 10 Contacts (Coming Soon)
- Operating temperature -20° C to 60° C

AC Solenoids & Brakes BCH

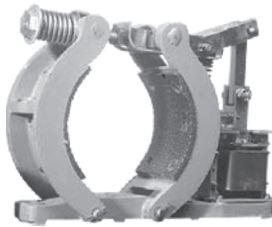


AC Solenoid - Pull Type

GST to be charged extra

Type	Stroke Length mm	Max. Pull (Continuous Duty) Kg.	Cat. No.	List Price [₹]
B	25.0	1.25	SLB-	3025
D	31.4	6.75	SLD-	4470

* The standard coil voltages are 110, 220 & 415 V 50 Hz. AC



AC Solenoid Brake - Type S

GST to be charged extra

Type of Brake	Wheel dia.		Max. Torque		Duty	Brake		Drum	
	Inch	mm	Lb. ft.	Nm		Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
S-4	4	101.6	10	13.6	Continuous	S-42 ■	7985	AC50D4	1355
S-5	5.5	139.7	25	34.0	Continuous Intermittent	S-51 ■	11270	AC50D5	1870
			35	48.0		S-52 ■			
S-7	7	177.8	50	68.0	Continuous Intermittent	S-71 ■	13075	AC50D7	2105
			75	102.0		S-72 ■			

Range

- Solenoids:
 - Type : SLB - 25 mm stroke length
 - Type : SLD - 31.4 mm stroke length
- AC Brakes
 - 4" Dia
 - 5.5" Dia
 - 7" Dia
- Drums

Features

- Class F insulation of the coil
- Continuous & Intermittent duty
- Long life & ease of maintenance
- Ideally suited for applications such as :
 - Cranes
 - Hoists
 - Machines
 - Valves
 - Conveyers

AC Solenoid Brake - Type S-10



GST to be charged extra

S-250	9.84	250	109	147.0	Continuous	S-2501*	27660	AC50D25	4265
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- The standard coils are 110, 220 & 415 V 50 Hz. AC

■ To complete Cat. No. suffix voltage code given below

- Brake drums are of standard specification

- For Intermittent duty (S-250 brake), please contact branch office

AC Solenoid Brakes - Voltage Codes

Coil Voltage	110	220	415
AC	A	B	M

Spares For AC Solenoid Brake

GST to be charged extra

Description	Brake Size : 4"		Brake Size : 5.5"		Brake Size : 7"		Brake Size : 10"	
	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
Brake lining	SP50L1	1010	SP50L2	1505	SP50L3	2020	SP50L4	3975
Brake shoe Assembly*	SP50SA1	2840	SP50SA2	3665	SP50SA3	6050	SP50SA4	12195
Brake Coil -Continuous -Intermittent	SP50MC01	1465	SP50MC21 ■ SP50MC22 ■	2925	SP50MC21 ■ SP50MC22 ■	2925	SP50MCE31 ■	7735
Brake Drum	AC50D4	1355	AC50D5	1870	AC50D7	2105	AC50D25	4265

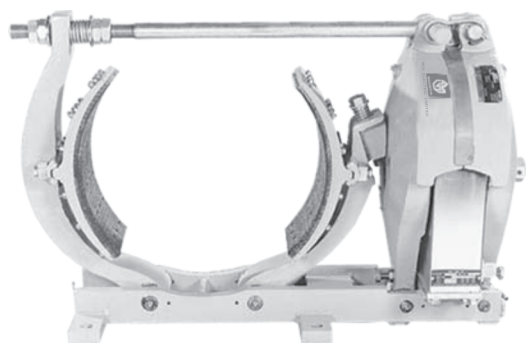
- Prices are per set of 2 nos.,

brake shoe assembly is with lining.

■ To Complete Cat. No. suffix voltage code is given in table, above.

***GST to be charged extra on all AC Brakes & Brake Spares**

DC Brakes..... BCH



- Shunt and Series type versions in sizes :
8 Inch to 30 Inch
160 mm to 800 mm
- Conforms to NEMA and AISE Standards
- Fail safe operation
- Unique design for maximum torque and minimum shoe wear
Brakes equivalent to Russian 'TK П' design also available

Proven and time tested

Heavy duty encapsulated coil with class 'F' insulation

Optional Features

- Limit Switch Attachment
- Manual Release
- Residual magnetism adjustment

DC Electromagnetic Brakes

GST to be charged extra

Shunt Type				Resistance & Rectifier Panel			
Drum Size	Cat.No.	Torque	List Price [₹]	Single Brake		2 Brakes Simult. Operation	
		KG-M		Cat.No.	List Price [₹]	Cat.No.	List Price [₹]
150mm	SMH150	8	33640	CAC1*MAE	35665	CAC2*MAE	49555
160mm	SMH160						
8"/200mm	SMH8	13.8	39600	CACA1*MAE	39760	CACJ2*MAE	51530
	SMH200	13.8					
10"/250mm	SMH10	27.7	48620	CACB1*MAE	42190	CACK2*MAE	58275
	SMH250	27.7					
13"/300mm	SMH13	76.0	79605	CACC1*MAE	45705	CACL2*MAE	67120
	SMH300	76.0					
16"/400mm	SMH16	138.8	128140	CACD1*MAE	52630	CACM2*MAE	73750
	SMH400	138.8					
19"/500mm	SMH19	277.0	204805	CACE1*MAE	63640	CACN2*MAE	93180
	SMH500	277.0					
23"/600mm	SMH23	555.0	326965	CACF1*MAE	82065	CACP2*MAE	117890
	SMH600	555.0					
30"/700mm	SMH30	1242.0	728135	CACG1*MAE	324005	-	-
	SMH700	1242.0					
800mm	SMH800	1242.0	788895	CACG1*MAE	324005	-	-

- * For control supply i.e. A=110 V, B=220 V, K=240V and M=415 V AC
- DC Electromagnetic Brakes are suitable to operate on:
 - For AC Power - Resistance & Rectifier Panel
 - For DC Power - Series Resistance Box
- All Brakes are Supplied for Continuous Duty
 - Resistance & Rectifier Panel is supplied without transformer.
 - Control Transformer (Optional) can be supplied at extra cost.
 Please add Rs. 4440/- per unit with the LP of Resistance & Rectifier Panel. Please add 'TR' with respective panel cat. ref. to obtain final cat. Code of such panel with control transformer.

■ Prices of 'Brakes with Asbestos free liners' available on request.

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes**

DC Brakes..... BCH

Resistance Boxes for DC Electromagnetic Brakes

GST to be charged extra

Shunt Type			Permanent Series Resistance Box for 230 V DC Supply For Single Brake		Permanent Series Resistance Box for 230 V AC Supply For Single Brake		Permanent & Economy Resistance Box for 415 V AC Supply For Single Brake		Permanent & Economy Resistance Box for 415 V AC Supply For Double Brake	
Size	Cat. No.	Torque KGM	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
150mm	SMH150	8	CDCS101D	4905	CARS10KE	4485	CARS10ME	9065	CARS20ME	On request
160mm	SMH160									
8"/200mm	SMH8	13.8	CDCA101D	5090	CARA10KE	4635	CARA10ME	9060	CARA20ME	On request
	SMH200	13.8	CDIA101D*							
10"/250mm	SMH10	27.7	CDCB101D	6045	CARB10KE	5340	CARB10ME	9060	CARB20ME	On request
	SMH250	27.7	CDIB101D*							
13"/300mm	SMH13	76.0	CDCC101D	6975	CARC10KE	6335	CARC10ME	10375	CARC20ME	On request
	SMH300	76.0	CDIC101D*							
16"/400mm	SMH16	138.8	CDCD101D	7470	CARD10KE	6805	CARD10ME	12060	CARD20ME	On request
	SMH400	138.8	CDID101D*							
19"/500mm	SMH19	277.0	CDCE101D	7995	CARE10KE	7295	CARE10ME	13390	CARE20ME	On request
	SMH500	277.0	CDIE101D*							
23"/600mm	SMH23	555.0	CDCF101D	9105	CARF10KE	8195	CARF10ME	14395	CARF20ME	On request
	SMH600	555.0	CDIF101D*							
30"/700mm	SMH30	1242.0	CDCG101D	22085	-	-	CARG10ME	24845	-	-
	SMH700	1242.0	CDIG101D*							
800mm	SMH800	1242.0	CDIG101D*	22085	-	-	CARG10ME	24485	-	-

1. DC Electromagnetic Brakes are suitable to operate on:
 For AC Power - Resistance & Rectifier Panel
 For DC Power - Series Resistance Box

- All Brakes are Supplied for Continuous Duty
 * These cat. references are meant for intermittent duty

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

DC Brakes..... BCH

Series Type - DC Electromagnetic Brakes

GST to be charged extra

Brake Size	Motor Frame No. (Max.)	Half Hour Rating			One Hour Rating			List Price [₹]
		Torque KGM	Max. FLC (A)	Cat. No.	Torque KGM	Max. FLC (A)	Cat. No.	
8"/200mm	402,802A,403, 602, 802B	13.8	29	SME8H1 SME200H1	8.97	21	SME801 SME20001	81600
			44	SME8H2 SME200H2		31	SME802 SME20002	
10"/250mm	404,603,802C, 406,604,803	27.7	57	SME10H1 SME250H1	18.0	40	SME1001 SME25001	116425
			77	SME10H2 SME250H2		57	SME1002 SME25002	
13"/300mm	408,606,804, 410,608,806	76.0	126	SME13H1 SME300H1	49.4	95	SME1301 SME30001	157450
			176	SME13H2 SME300H2		132	SME1302 SME30002	
16"/400mm	412,610,808	138.8	245	SME16H1 SME400H1	90.2	185	SME1601 SME40001	246890
19"/500mm	414,612,810, 416,614,812	277.0	368	SME19H1 SME500H1	180.0	272	SME1901 SME50001	379285
			500	SME19H2 SME500H2		360	SME1902 SME 50002	
23"/600mm	418,616,814 618,816	555.0	740	SME23H1 SME600H1	361.0	540	SME2301 SME60001	613645
			960	SME23H2 SME600H2		730	SME2302 SME60002	

- During ordering, besides brake drum dia, please confirm duty rating, current rating & motor frame Nos.
- Above current ratings are for 230 V DC Series Motors.
- To convert KGM to LB.FT. multiply by 7.25

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

GST to be charged extra

Spares & Accessories - DC Electromagnetic Brakes

Description	150/160mm		8"/200mm		10"/250mm		13"/300mm	
	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]
 Coil Shunt	9GDS01	23030	9GDA01	25095	9GDB01	29845	9GDC01	48155
Coil Series for inch for mm	9GDS02/ 9GDS03	-	9GDA02/ 9GDA03	60690	9GDB02/ 9GDB03	95135	9GDC02/ 9GDC03	123045
 Torque Adj. Screw Assembly	9GDS04	2180	9GDA04	2275	9GDB04	2275	9GDC04	3975
 Torque Spring	9GDS05	5955	9GDA05	6225	9GDB05	7355	9GDC05	11915
 Wedge Assembly with Bolt, Spring and Washers for inch/mm	9GDS20/ 9GDS22	835	9GDA20/ 9GDA22	965	9GDB20/ 9GDB22	1120	9GDC20/ 9GDC22	1720
 Pin set for Lever & Armature Consisting of a) Pin Lever 2 Nos. b) Pin armature 2 Nos.	9GDS06	2995	9GDA06	3145	9GDB06	3145	9GDC06 9GDC06-2#	3975
 Coller Set of Lever & Armature Consisting of a) Coller Lever 4 Nos. b) Coller Armature 4 Nos.	9GDS07	2995	9GDA07	3145	9GDB07	3145	9GDC07	3975
 Bush Set for Lever & Armature Consisting of a) Bush Lever 4 Nos. b) Bush Armature 4 Nos.	9GDS08	5955	9GDA08	6255	9GDB08	6255	9GDC08	6815
 Pull Rod Assembly with nuts, spring & washer	9GDS29	2430	9GDA29	2540	9GDB29	3145	9GDC29	4845
 Grease Nipple (1 set consist 8 Nos.)	9GDS09	835	9GDA09	890	9GDB09	890	9GDC09	895
*  Shoe Assembly with Clamp & Bolts (1 set consist 2 Nos.) for inch/mm	9GDS10/ 9GDS11	6200	9GDA10/ 9GDA11	6180	9GDB10/ 9GDB11	7670	9GDC10/ 9GDC11	11915
*  Shoe Lining without Bolts for inch for mm (1 set consist 2 Nos.)	9GDS12/ 9GDS13	2095	9GDA12/ 9GDA13	2180	9GDB12/ 9GDB13	2745	9GDC12/ 9GDC13	3975
*  Shoe Lining with Bolts for inch for mm (1 set consist 2 Nos.)	9GDS23/ 9GDS26	2840	9GDA23/ 9GDA26	3145	9GDB23/ 9GDB26	3975	9GDC23/ 9GDC26	5685
 Dust Cover (made of jeans cloth & painted with fire retardent al. paint)	-	-	9GDA30	3500	9GDB30	3500	9GDC30	4170
 mm Size Cast Steel Drum without Hard Chrome Plaiting	9GDS14	6875	9GDA14	7570	9GDB14	11655	9GDC14	19655
mm Size Cast Steel Drum with Hard Chrome Plaiting	9GDS14P	9295	9GDA14P	10835	9GDB14P	16705	9GDC14P	28480
Cast Steel Drum without Hard Chrome Plating* for inch	-	-	9GDA15	7745	9GDB15	11925	9GDC15	20170
Cast Steel Drum with Hard Chrome Plating* for inch	-	-	9GDA15P	11120	9GDB15P	16885	9GDC15P	29260

* For brakes manufactured upto September 07.

For brakes manufactured after September 07 (pins are different).


















* Prices of 'Asbestos free' Shoe Assembly / Shoe Lining without Bolt / Shoe Lining with Bolt available on request.

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

DC Brakes..... BCH

Spares & Accessories - DC Brakes

GST to be charged extra

Description	16"/400 mm		19"/500 mm		23"/600 mm		30"/700mm		
	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]	Cat No.	List Price [₹]	
 Coil Shunt	9GDD01	72920	9GDE01	101100	9GDF01	161565	9GDG01	360290	
 Coil Series	for inch	9GDD02	9GDE02	9GDF02	9GDG02	-	-	-	
	for mm	9GDD03	9GDE03	9GDF03	9GDG03	365060	-	-	
 Torque Adj. Screw Assembly	9GDD04	5945	9GDE04	8480	9GDF04	13560	9GDG04	28425	
 Torque Spring	9GDD05	18320	9GDE05	25365	9GDF05	41995	9GDG05	90150	
 Wedge Assembly with Bolt, for Spring and Washers	for inch for mm	9GDD20/ 9GDD22	9GDE20/ 9GDE22	9GDF20/ 9GDF22	9GDG20/ 9GDG22	2275	3420	5380	11935
 Pin set for Lever & Armature Consisting of	for inch	9GDD06*	9GDE06*	9GDF06*	9GDG06	4845	4845	6815	On Request
	for mm	9GDD06-2#	9GDE06-2#	9GDF06-2#	9GDG06	4845	4845	6815	On Request
 Collar Set of Lever & Armature Consisting of	a) Collar Lever 4 Nos.	9GDD07	9GDE07	9GDF07	9GDG07	3420	3705	4630	On Request
	b) Collar Armature 4 Nos.	9GDD07	9GDE07	9GDF07	9GDG07	3420	3705	4630	On Request
 Bush Set for Lever & Armature Consisting of	a) Bush Lever 4 Nos.	9GDD08	9GDE08	9GDF08	9GDG08	6815	7305	9350	On Request
	b) Bush Armature 4 Nos.	9GDD08	9GDE08	9GDF08	9GDG08	6815	7305	9350	On Request
 Pull Rod Assembly with nuts, spring & washer	9GDD29	7355	9GDE29	10175	9GDF29	13685	9GDG29	35825	
 Grease Nipple (set consist 8 Nos.)	9GDD09	915	9GDE09	1590	9GDF09	1570	9GDG09	1750	
 Shoe Assembly with Clamp & Bolts	for inch (1 set consist 2 Nos.) for mm	9GDD10/ 9GDD11	9GDE10/ 9GDE11	9GDF10/ 9GDF11	9GDG10/ 9GDG11	18350	25385	40600	90150
 Shoe Lining without Bolts	for inch (1 set consist 2 Nos.) for mm	9GDD12/ 9GDD13	9GDE12/ 9GDE13	9GDF12/ 9GDF13	9GDG12/ 9GDG13	6235	10175	15065	28485
 Shoe Lining with Bolts	for inch (1 set consist 2 Nos.) for mm	9GDD23/ 9GDD26	9GDE23/ 9GDE26	9GDF23/ 9GDF26	9GDG23/ 9GDG26	7670	12700	19740	35230
 Dust Cover (made of jeans cloth & painted with fire reterdent al. paint).	9GDD30	4515	9GDE30	5585	9GDF30	5855	-	-	
 mm Size Cast Steel Drum without Hard Chrome Plaiting	9GDD14	24570	9GDE14	39470	9GDF14	55655	-	-	
	mm Size Cast Steel Drum with Hard Chrome Plaiting	9GDD14P	36590	9GDE14P	57650	9GDF14P	85145	-	-
 Cast Steel Drum without Hard Chrome Plating*	for inch	9GDD15	9GDE15	9GDF15	9GDG15	25295	40780	56445	-
 Cast Steel Drum with Hard Chrome Plating*	for inch	9GDD15P	9GDE15P	9GDF15P	9GDG15P	37750	59670	88080	149240

* For brakes manufactured upto September 07.

For brakes manufactured after September 07 (pins are different).

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

Spares - DC Brakes BCH

Spare Selenium Type Bridge Rectifiers

GST to be charged extra

Rectifier Code / Part No.	Recommended to operate brake at 415V AC		Qty. per set	List Price [₹]
	Individual	Simultaneous		
9GDX01	1x8"/200mm	-	2	7070
9GDX02	1x10"/250mm	2x8"/200mm	2	11035
9GDX03	1x13"/300mm 1x16"/400mm	2x10"/250mm	2	14950
9GDX04	1x19"/500mm	2x13"/300mm 2x16"/400mm	2	19740
9GDX05	1x23"/600mm	2x19"/500mm	2	28165
9GDX06	-	2x23"/600mm	2	56360
9GDX07	1x30"/700 & 800mm	-	2	78150

Spare Resistances

GST to be charged extra

Cat. No.	Ohms	Watts	List Price [₹]
9GDX32	32	200	1300
9GDX42	42	200	
9GDX52	52	200	
9GDX80	80	200	
9GDX112	112	200	

Optional Features - DC Brakes

GST to be charged extra

Brakes Size		Manual Release List Price [₹]	Residual Magnetism Adjustment List Price [₹]	Limit Switch Attachment List Price [₹]	
Inch	mm			1NO+1NC (LSA)	2NO+2NC (LSA-2)
8	150/160/200	2910	5610	5910	
10	250	2910			
13	300	3980			
16	400	4270			
19	500	6585			
23	600	9310			

Note : Add following codes to complete brakes code with optional features.

- MR = For Manual Release
- RM = For Residual Magnetism
- LS = For Limit Switch (1NO+1NC)
- LS-1 = For Limit Switch (2NO+2NC)
- RR = For Manual Release + Residual Magnetism
- RL = Residual Magnetism + Limit Switch
- ML = For Manual Release + Limit Switch
- RS = For Manual Release + Residual Magnetism + Limit Switch
- LSA = Limit Switch with fitting Arrangement (1NO + 1NC)
- LSA-2 = Limit Switch (2NO + 2NC) with fitting Arrangement

***GST to be charged extra on all DC Brakes, Brake Spares, Resistance & Rectifier Panel & Resistance Boxes.**

Plugs & Sockets BCH



Metal Clad - Plugs & Sockets Type 'MP' & 'MS'

Rating	Pins	Type	Cat No.	MRP [₹]
20A, 250V	2P + E	Plug	MP20	160
		Socket	MS20	175
30A, 440V	3P + E	Plug	MP30	350
		Socket	MS30	350



Plastic Plugs & Socket Type 'PS'

Rating	Pins	Type	Cat No.	MRP [₹]
20A, 250V	3	Plug	PS16AA7	175
		Flush Mounting Socket	PS16BA7	215
		Socket with Wall Mounting Box	PS16DA7	265
20A, 415V	4	Plug	PS16AA1	225
		Flush Mounting Socket	PS16BA1	285
		Socket with Wall Mounting Box	PS16DA1	330
32A, 415V	3	Plug	PS32AA7	420
		Socket	PS32BA7	405
	4	Plug	PS32AA1	420
		Socket	PS32BA1	445
	5	Plug	PS32AA5	460
		Socket	PS32BA5	465

- Self Locking design : Extremely safe
- Plug cannot be pulled out in fully engaged position
- Auto closing socket shutter
- Reliable Earthing
- Shrouded Terminals for safety

Heavy duty Metal-Control 'SS'



Heavy Duty Metal - Control Plugs & Sockets Type 'SS'

Rating	Pins	Type	Cat No.	MRP [₹]
12A, 415V (Control)	12	Panel Mounting Socket	2499/12	995
		Plug with inclined Handle	299/12B	995

Heavy duty Metal-Power 'SS'



Heavy Duty Metal - Power Plugs & Sockets Type 'SS'

Rating	Pins	Type	Cat No.	MRP [₹]
30A, 415V	3	Panel Mounting Socket	2415B	595
		Plug with inclined Handle	215B	595
30A, 415V	4	Panel Mounting Socket	2413B	620
		Plug with inclined Handle	213B	620
30A, 415V	5	Panel Mounting Socket	2417B	655
		Plug with inclined Handle	217B	655

Note : *Loose Conduit Box Straight (Cat. No. 9J101) List Price - Rs. 215/- each
 : *Loose Conduit Box Inclined (Cat. No. 9J102) List Price - Rs. 225/- each
 *Spare Handle Inclined (Cat. No. 9J108) List Price - Rs. 100/- each.

Plugs & Sockets BCH

Heavy Duty Metal Plug & Sockets Type 'DS' - 5 Pin (with Integral Switching Device)

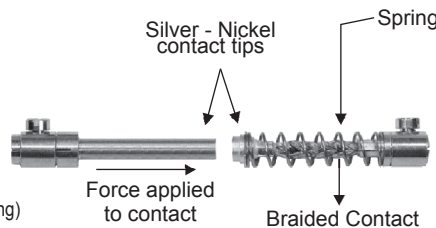
Rating	Pins	Type	Cat No.	MRP [₹]	List Price [₹]
16A, 415V	5	Plug	DS1A7A1	920	-
		Socket	DS1B7A1	1140	-
		Conduit Box	SP91WB	-	630
		Handle Assembly	SP91PH	-	135
32A, 415V	5	Plug	DS3A7A1	1615	-
		Socket	DS3B7A1	2025	-
		Conduit Box	SP93WB	-	720
		Handle Assembly	SP93PH	-	145
63A, 415V	5	Plug	DS6A7A1	2590	-
		Socket	DS6B7A1	3340	-
		Conduit Box	SP96WB	-	1100
		Handle Assembly	SP96PH	-	215
125A, 415V	5	Plug	DS9A7A1	7570	-
		Socket	DS9B7A1	10610	-
		Conduit Box	SP99WB	-	5315
		Handle Assembly	SP99PH	-	665

Note : Power Receptacles with or without SFU/SDFU/MCB/MCCB having loop-in / loop-out facility is available on request.

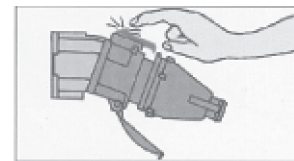


- Range from 16A to 125 A
- 5 Pin configuration (3P+N+E)
- Plug cannot come out in ON condition (Integral Interlocking)

- Spring loaded Butt type contacts
- Self aligning and self wiping



Quick Disconnect

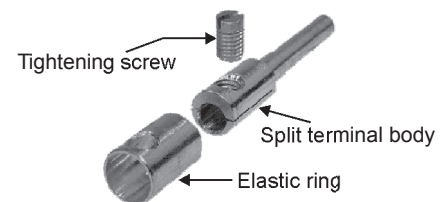


- Self aligning self wiping
- Spring loaded for consistent pressure
- Silver nickle material for extremely low temperature rise

Safety Disk



Vibration proof termination



Plug & Socket Box BCH

Metal Clad - Plug & Socket Box Type 'MPSEU'



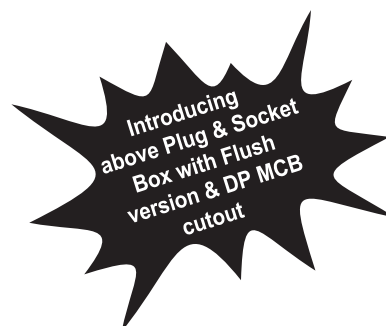
Rating	Pins	Mounting	Type	Cat No.	MRP [₹]
20A, 250V	2P + E	Universal	Plug & Socket Box - SP-MCB Cutout	MPSEU201	815
20A, 250V	2P + E	Universal	Plug & Socket Box - DP-MCB Cutout	MPSEU202	815
30A, 440V	3P + E	Universal	Plug & Socket Box - TPN-MCB Cutout	MPSEU301	2030



20A



30A



Plastic - Plug & Socket Box Type 'PSEU / PSEF'



Rating	Pins	Mounting	Type	Cat No.	MRP [₹]	
20A, 250V	3	Universal	Plug & Socket Box with SP MCB Cutout	PSEU201	935	
		Universal	Plug & Socket Box with DP-MCB Cutout	PSEU202	935	
	Flush	Universal	Plug & Socket Box with SP MCB Cutout	PSEF201	935	
		Universal	Plug & Socket Box with DP-MCB Cutout	PSEF202	935	
32A, 415V	4	Universal	Plug & Socket Box with 4P MCB Cutout	PSEU324	2135	
			5	Universal	Plug & Socket Box with 4P MCB Cutout	PSEU325
	Flush	Universal	4	Plug & Socket Box with 4P MCB Cutout	PSEF324	2135
			5	Universal	Plug & Socket Box with 4P MCB Cutout	PSEF325

Heavy Duty Metal - Plug & Socket Box Type 'SSEU'

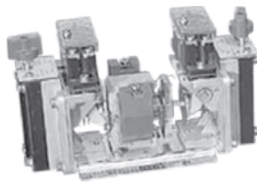
Rating	Pins	Mounting	Type	Cat No.	MRP [₹]	
30A, 415V	3	Universal	Plug & Socket Box with SP MCB Cutout	SSEU305-MCB1P	2420	
		Universal	Plug & Socket Box with DP MCB Cutout	SSEU303	2420	
	4	Universal	4	Plug & Socket Box with 4P MCB Cutout	SSEU304	2475
			5	Universal	Plug & Socket Box with 4P MCB Cutout	SSEU305



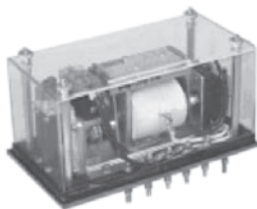
Stainless Steel Cover Plug & Socket Box Type 'PSEU-SSC'/SSEU-SSC'

Rating	Pins	Mounting	Type	Cat No.	MRP [₹]
20A, 250V	3	Universal	P&S Box with 'PS' P&S and SP MCB Cutout	PSEU201-SSC	1205
	5		P&S Box with 'PS' P&S and 4P MCB Cutout	PSEU325-SSC	2500
30A, 415V	3	Universal	Plug & Socket Box with SP MCB Cutout	SSEU303-SSC-MCB1P	2785
	3	Universal	Plug & Socket Box with DP MCB Cutout	SSEU303-SSC	2785
	4	Universal	4	SSEU304-SSC	2845
	5		Universal	Plug & Socket Box with 4P MCB Cutout	SSEU305-SSC

Pneumatic Timer



Timer for Railway Application



- 30 sec / 60 sec/180 sec
- AC and DC Supply
- 1 NO+1NC / 2 NO+2NC Contact Blocks
- Completely enclosed timing head ensures excellent timings in adverse environmental conditions
- Encapsulated coil for better resistance against moisture and corrosion
- Completely maintainable i.e Coil , Contact blocks and Timing head can be replaced
- Special timer for Railway application



Pneumatic Timers Time Delay Relay-Electro Pneumatic

Type	Time (Secs.)	Contact Configuration		Cat No.	MRP [₹]	
		Timed Block	Instantaneous Block		AC	DC
PN	30	1NO + 1NC	-	KRTPN10--0	3010	4510
	60	1NO + 1NC	-	KRTPN10--1	3115	4770
	180	1NO + 1NC	-	KRTPN10--3	3520	5205
	30	2NO + 2NC	-	KRTPN20--0	3385	4835
	60	2NO + 2NC	-	KRTPN20--1	3460	4895
	180	2NO + 2NC	-	KRTPN20--3	3715	5255
PNI	30	1NO + 1NC	1NO + 1NC	KRTPN11--0	3670	5260
	60	1NO + 1NC	1NO + 1NC	KRTPN11--1	4170	5745
	180	1NO + 1NC	1NO + 1NC	KRTPN11--3	4565	5820
	30	2NO + 2NC	2NO + 2NC	KRTPN22--0	4605	6005
	60	2NO + 2NC	2NO + 2NC	KRTPN22--1	4655	6320
	180	2NO + 2NC	2NO + 2NC	KRTPN22--3	4995	6680
		On-Delay Block	Off-Delay Block			
PCN	30	1NO + 1NC	1NO + 1NC	KRTPCN11--0	4980	6670
	60	1NO + 1NC	1NO + 1NC	KRTPCN11--1	5230	6725
	180	1NO + 1NC	1NO + 1NC	KRTPCN11--3	5940	7430
	30	2NO + 2NC	2NO + 2NC	KRTPCN22--0	5600	7320
	60	2NO + 2NC	2NO + 2NC	KRTPCN22--1	5865	7410
	180	2NO + 2NC	2NO + 2NC	KRTPCN22--3	6615	8080

PN, PNI Time Delay Relay will be supplied only as on-delay
 ■ To complete Cat. No. Suffix voltage code from Table

Timer for Railway Application

Type	Time (Secs.)	Contact Configuration		Cat No.	MRP [₹]	
		Timed Block	Instantaneous Block		AC	DC
PN	120	2NO + 2NC	-	KRTPN20A-2R	3625	-
	150	2NO + 2NC	-	KRTPN20A-3R	3625	-

^ 110V AC coil voltage, without knob

Accessories for Time Delay Relay

Description	Cat.No.	List Price [₹]	Lot Size
Contact Block 1NO+1NC Timed	SP20S3+	675	1
2NO+2NC Timed	SP20S4+	890	
1NO+1NC Inst.	SP20S5+	675	
2NO+2NC Inst.	SP20S6+	890	
Magnet Coil AC-PN Relays	SP20MC ■	840	1
AC-PNI & PCN Relays	SP20MC1 ■	840	
DC Relays	SP20MC2 ■	2755	1
Return Spring* (PNI & PCN)	SP20RS	150	1
Coil Clip*	SP20CC	250	
Magnet frame assembly without coil	SP20 MA/MA1	1400	1
Knob Assembly	SP20KA	35	10

- High Repeat Accuracy
- Operating Temperature - 40° to +65°
- Mechanical and Electrical Life - 10 million operations

Voltage Sux Code

Coil Voltage	24	110	220	240	415
AC Suffix M Code*	U	A	B	K	M
DC Suffix - Code	U1	A1	B1	K1	-

* KRTPN timers with 550V AC coil voltage, Prices available on request

+ These are supplied with plastic cover
 * For DC Timers only
 ■ To complete suffix voltage code refer to the table

Motor Starters BCH

Direct On Line Starters



- DOL upto 30 HP
- Heavy duty 4 Pole Contactor
- Wide Band Coil Voltages (190-400V, 220-240V, 380-415V)
- Encapsulated & Hermetically sealed coil
- Easy inspection & maintenance

Auto Start Direct on line Starters

- Automatically starts the Motor when the power comes back
- Upto 24 A relay rating
- Time delay before restart to settle power supply fluctuations
- Monitors power supply condition before restarting
- Protection against single phasing, phase imbalance & phase reversal



Star Delta Starters



- Semi Automatic upto 25 HP
- Fully Automatic upto 375 HP
- Wide Band Coil Voltages (230-360V, 260-400V, 380-415V)
- Single Phase & Overload Protection

Mini Manual Starters

- Range : 3 - Ph : upto to 10 HP
 : 1 - Ph : upto 4 HP
- Proven time tested product
- Flush and base mounting



Mini Manual with UVT coil



- Automatic Version of Mini Manual Starter
- Prevents motor from restarting when power comes back
- Trips the starter automatically in low voltage conditions

Manual Star Delta Starters

- Contactor based superior design with 25 A heavy duty switch
- Momentary Star position ensures perfect transition
- Ideal for Oil Mills, Flour Mills and agro industries



Citation DOL Motor Starters (with 380/415 V coil)

Citation Motor Starter



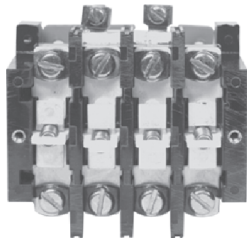
- Range upto 30 HP
- Encapsulated and hermetically sealed coil : Moisture proof and shock resistant
- Easy inspection and maintenance
- 10 tank processed, Powder coated enclosure for excellent finish and durability



HP / KW	Overload Relay Range (A)	Contactor Type	Contactor Rating	Cat. No. SS ENCLOSURE	MRP [₹]	Cat. No. OPEN EXECUTION	MRP [₹]
0.5 / 0.37	0.72 - 1.14	C00N	16A	NADLEN	2850	NADLENI	2780
0.75 / 0.55	1.07 - 1.70	C00N	16A	NAELENI		NAELENI	
1 / 0.75	1.58 - 2.50	C00N	16A	NAFLENI		NAFLENI	
2 / 1.5	2.4 - 3.8	C00N	16A	NAGLENI		NAGLENI	
3 / 2.2	3.8 - 6.0	C00N	16A	NAHLENI		NAHLENI	
5 / 3.7	6.0 - 9.3	C00N	16A	NAJLENI		NAJLENI	
7.5 / 5.5	8.9 - 13.5	C00N	16A	NAKLENI	NAKLENI		
10 / 7.5	13.2 - 20.0	C00N	16A	NALLENI	3015	NALLENI	2915
12.5 / 10	17.4 - 24.0	CP20	20A	NALLEN/MOR	3625	NALLENI/MOR	3550

For 220 / 240 V coil replace suffix 'N' with 'H' in the Cat. Code

Direct on line (Shakti) Starter in SS Enclosure with 190-400 V coil voltage



Easy Inspection
Easy maintenance

Overload Relay Range (A)	Shakti	MRP [₹]	Shakti WP	MRP [₹]	Back Up Fuse (A)	Lot Size
2.4 - 3.8	SAGZ	2110	SAWPGZ	1980	16	1
3.8 - 6.0	SAHZ		SAWPHZ		20	
6.0 - 9.3	SAJZ		SAWPJZ		25	
8.9 - 13.5	SAKZ		SAWPKZ		36	
13.2 - 20.0	SALZ	2300	SAWPLZ	2080	50	
17.4 - 24.0	SAMZ	2400	SAWPMZ	2210	63	

For 380 / 415 V replace 'Z' with 'N' and for 220 / 240 V replace 'Z' with 'H' in the Cat. Code

Direct on line (Shakti) Starter in Open Execution with 190-400 V coil voltage



Heavy duty, encapsulated Coil



Overload Relay Range (A)	Shakti	MRP [₹]	Shakti WP	MRP [₹]	Back Up Fuse (A)	Lot Size
2.4 - 3.8	SAGZI	2045	SAWPGZI	1925	16	1
3.8 - 6.0	SAHZI		SAWPHZI		20	
6.0 - 9.3	SAJZI		SAWPJZI		25	
8.9 - 13.5	SAKZI		SAWPKZI		36	
13.2 - 20.0	SALZI	2240	SAWPLZI	2020	50	
17.4 - 24.0	SAMZI	2330	SAWPMZI	2110	63	

For 380 / 415 V replace 'Z' with 'N' and for 220 / 240 V replace 'Z' with 'H' in the Cat. Code

Motor Starters BCH

Citation DOL Motor Starters in SS Enclosure (with 380-415 V coil)

(A) With NHD Contactor

Cat. No.	Overload Relay Range (A)	Contactor Type	Contactor Rating	HP / KW	MRP [₹]
NAMLEN	17.4 - 24.0	N0N	25A	15 / 11	4540
NAPLEN/MOR	17.4 - 24.0	N01N	32A	15 / 11	6690
NAPLEN	23.0 - 32.0	N01N	32A	20 / 15	7220
NANLEN	22.0 - 30.0	N1N	40A	20 / 15	7990
NACT1LEN	24.0 - 39.0	N1N	40A	25 / 18.5	12260

(B) With Citation D Contactor

NACT2LEDM	37.6 - 60.0	Citation D	40A	30 / 22	12470
NACT2LEEM	37.6 - 60.0	Citation E	70A	40 / 30	16500

Auto Start DOL Starter (With 5 Sec Delay Auto Switch)

HP / KW	Overload Relay Range (A)	Standard Model Cat.No.	Standard Model MRP [₹]	Premium Model Cat.No.	Premium Model MRP [₹]
1.5 / 1.2	2.4 - 3.8	ASAGZ	2960	ASXGZ	3360
3 / 2.2	3.8 - 6.0	ASAHZ		ASXHZ	
5 / 3.7	6.0 - 9.3	ASAJZ		ASXJZ	
7.5 / 5.5	8.9 - 13.5	ASAKZ		ASXKZ	
10 / 7.5	13.2 - 20	ASALZ	3090	ASXLZ	3490
15 / 11	17.4 - 24	ASAMZ	3290	ASXMZ	3695

For 380-415V replace "Z" with "N" and for 275-420V replace with "MB" in Cat Code.

Mini Manual Motor Starter upto 4HP-1 Phase

(Surface Mtg.)

Cat. No.	Overload Relay Range (A)	1 Phase/240V Recommended HP	MRP [₹]
AMLE-10-SP	0.23 - 0.47	-	975
AMLE-20-SP	0.46 - 0.80	-	
AMLE-30-SP	0.85 - 1.55	1 / 8	
AMLE-40-SP	1.60 - 3.20	1 / 6	
AMLE-50-SP	3.50 - 6.50	0.5 / 0.75	
AMLE-60-SP	6.80 - 11.7	1 / 2	
AMLE-70-SP	11.0 - 20.0	2 / 4	

For Flush mounting replace 'E' by 'C' and reduce price by Rs. 50

Mini Manual Motor Starter (20A) upto 4HP-1 Phase

(Surface Mtg.) with UV coil

Cat. No.	Overload Relay Range (A)	1 Phase/240V Recommended HP	MRP [₹]
AMLEH-10-SP	0.23 - 0.47	-	1310
AMLEH-20-SP	0.46 - 0.80	-	
AMLEH-30-SP	0.85 - 1.55	1 / 8	
AMLEH-40-SP	1.60 - 3.20	1 / 6	
AMLEH-50-SP	3.50 - 6.50	0.5 / 0.75	
AMLEH-60-SP	6.80 - 11.7	1 / 2	
AMLEH-70-SP	11.0 - 20.0	2 / 4	

Mini Manual Motor Starter upto 10HP-3 Phase

(Surface Mtg.)

Cat. No.	Overload Relay Range (A)	3 Phase/415V Recommended HP	MRP [₹]
AMLE-10	0.23 - 0.47	-	1310
AMLE-20	0.46 - 0.80	-	
AMLE-30	0.85 - 1.55	0.50 / 0.75	
AMLE-40	1.60 - 3.20	1.00 / 1.50	
AMLE-50	3.50 - 6.50	3.00	
AMLE-60	6.80 - 11.7	5.00	
AMLE-70	11.0 - 20.0	10.00	

For Flush mounting replace 'E' by 'C' and reduce price by Rs. 50

Mini Manual Motor Starter (20A) upto 10HP-3 Phase

(Surface Mtg.) with UV coil

Cat. No.	Overload Relay Range (A)	3 Phase/415V Recommended HP	MRP [₹]
AMLEN-10	0.23 - 0.47	-	1500
AMLEN-20	0.46 - 0.80	-	
AMLEN-30	0.85 - 1.55	0.50 / 0.75	
AMLEN-40	1.60 - 3.20	1.00 / 1.50	
AMLEN-50	3.50 - 6.50	3.00	
AMLEN-60	6.80 - 11.7	5.00	
AMLEN-70	11.0 - 20.0	10.00	

Motor Starters BCH

Citation Star Delta Starter



- Range upto 375 HP
- Semi Automatic & Fully Automatic Version
- High accuracy pneumatic timer in Fully Automatic Version



Fully Automatic Citation Star Delta Starter in Sheet Steel Enclosure with NHD Contactor & Pneumatic Timers

Cat. No.	Overload Relay Range (A)	Contactor Type	Contactor Rating	HP/KW	MRP [₹]
NASAGLEN	2.4 - 3.8	C00N	16A	3 / 2.2	10460
NASAHLEN	3.8 - 6.0	C00N	16A	5 / 3.7	
NASAJLEN	6.0 - 9.3	C00N	16A	10 / 7.5	
NASAKLEN	8.9 - 13.5	C00N	16A	15 / 11	
NASAKLEN / LOR	13.2 - 20.0	C00N	16A	15 / 11	10605
NASALLEN	13.2 - 20.0	N0N	25A	20 / 15	12080
NASAMLEN	17.4 - 24.0	N0N	25A	25 / 18.5	12080
NASA01PLEN	23.0 - 32.0	N01N	32A	35 / 26	15150
NASANLEN	22.0 - 30.0	N1N	40A	35 / 26	21255
NASACT1LEN	24.4 - 39.0	N1N	40A	40 / 30	26250

Note : For other Coil Voltages refer table on page 31

Fully Automatic Citation Star Delta Starter in Sheet Steel Enclosure with Citation M Contactor & Pneumatic Timers

Cat. No.	Overload Relay Range (A)	Contactor Type(Citation)	Contactor Rating	HP/KW	MRP [₹]
NASACT1LEDM	24.0 - 39.0	D	40A	40 / 30	29615
NASACT2LEDM	37.6 - 60.0	D	40A	50 / 37	30640
NASACT2LEEM	37.6 - 60.0	E	70A	75 / 55	53100
NASACT3LEEM	56.4 - 90.0	E	70A	85 / 65	56480
NASACT3LEC5M	56.4 - 90.0	M-5	110A	100 / 75	72820
NASACT4LEC5M	84.6 - 135.0	M-5	110A	135 / 100	74450
NASACT4LENM	84.6 - 135.0	N	140A	150 / 110	79660
NASACT5LEC6M	131.6 - 210.0	S	300A	250 / 185	138890
NASACT6LEC6M	188.0 - 300.0	S	300A	375 / 280	156250

Note : For other Coil Voltages refer table on page 31

Single Phase DOL with 2-P CPG Contactor & 2-P OLR (160-220V)

Cat. No.	Overload Relay Range (A)	Contactor Rating	HP/KW	MRP [₹]
NAHBW-SP	3.8 - 6.0	16A	0.75/ 0.55	1680
NAJBW-SP	6.0 - 9.3	16A	1 / 0.75	
NAKBW-SP	8.9 - 13.5	16A	1.5 / 1.10	
NALBW-SP	13.2 - 20.0	25A	2 / 1.5	1730
NAMBW-SP	17.4 - 24.0	25A	3 / 2.2	

Semi Automatic Citation Star Delta Starter in SS Enclosure with NHD Contactor

Cat. No.	Overload Relay Range (A)	Contactor Type	Contactor Rating	HP/KW	MRP [₹]
NASSGLEN	2.4 - 3.8	C00N	16A	3 / 2.2	6960
NASSHLEN	3.8 - 6.0	C00N	16A	5 / 3.7	
NASSJLEN	6.0 - 9.3	C00N	16A	10 / 7.5	
NASSKLEN	8.9 - 13.5	C00N	16A	15 / 11	
NASSKLEN / LOR	13.2 - 20.0	C00N	16A	15 / 11	7140
NASSLLEN	13.2 - 20.0	N0N	25A	20 / 15	10500
NASSMLLEN	17.4 - 24.0	N0N	25A	25 / 18.5	10500
NASSPLEN	23.0 - 32.0	N0N	25A	25 / 18.5	10820
NASS01PLEN	23.0 - 32.0	N01N	32A	35 / 26	13150
NASSNLEN	22.0 - 30.0	N1N	40A	35 / 26	18900
NASS01CT1LEN	24.0 - 39.0	N01N	32A	40 / 30	19750

Note : For other Coil Voltages refer table on page 31

Semi Automatic Shakti Star Delta Starter in SS Enclosure with 260-400 V coil

Cat. No.	Overload Relay Range (A)	HP/KW	MRP [₹]
SASSGLEG	2.4 - 3.8	3 / 2.2	6550
SASSHLEG	3.8 - 6.0	5 / 3.7	
SASSJLEG	6.0 - 9.3	10 / 7.5	
SASSKLEG	8.9 - 13.5	15 / 11	
SASSKLEG/LOR	13.2 - 20.0	15 / 11	6690
SASSKLEN-M	17.4 - 24.0	15 / 11	6830

For 380 / 415V Coil Voltage replace Suffix 'G' by 'N'

Fully Automatic Shakti Star Delta Starter in SS Enclosure with 260-400 V coil & Electronic Timer

Cat. No.	Overload Relay Range (A)	HP/KW	MRP [₹]
SASAGLEG	2.4 - 3.8	3 / 2.2	7450
SASAHLEG	3.8 - 6.0	5 / 3.7	
SASAJLEG	6.0 - 9.3	10 / 7.5	
SASAKLEG	8.9 - 13.5	15 / 11	
SASAKLEG/LOR	13.2 - 20.0	15 / 11	7580
SASAKLEN/MOR	17.4 - 24.0	15 / 11	7700

For 380 / 415V Coil Voltage replace Suffix 'G' by 'N'

Motor Starters BCH

DOL Reversing Starter in SS Enclosure (with 380-415V Coil)

Cat. No.	Overload Relay Range (A)	Contactory Type	Contactory Rating	HP / KW	MRP [₹]
NARFLEN	1.58 - 2.50	C00N	16A	1.00 / 0.75	7600
NARGLEN	2.40 - 3.80	C00N	16A	2.00 / 1.50	
NARHLEN	3.80 - 6.00	C00N	16A	3.00 / 2.20	
NARJLEN	6.00 - 9.30	C00N	16A	5.00 / 3.70	
NARKLEN	8.90 - 13.50	C00N	16A	7.50 / 5.50	
NARLLEN	13.20 - 20.0	N0N	25A	10.0 / 7.50	9280
NARMLLEN	17.40 - 24.0	N1N	40A	15.0 / 11.0	10400
NARNLEN	22.0 - 30.0	N1N	40A	20.0 / 15.0	15280

Manual Star Delta Starter (with 260-400 V Coil)

Cat. No.	Contactory Rating	HP	MRP [₹]
HASSGLEG	16A	3 HP	3850
HASSHLEG	16A	5 HP	3850
HASSJLEG	16A	10 HP	4220
HASSKLEG	25A	15 HP	4220
Cat. No.	Description	List Price [₹]	
HASSW15	Selector Switch for MSD Starter	1950	

For 380-415 V coil voltage replace suffix "G" with "N" in the Cat. Code

Spares for Starter and Submersible Pump Starter

Spares for Shakti Starters

Description	Cat. No.	List Price [₹]
Contact Kit	SHA	780
Coil 190- 400 V	SHZ	280
Contact Carrier	SHCC	170
Start & Stop Push Button Assembly	SHPB	200
Contactory for DOL	SHCO	1670
Contactory for Star Delta	SHACO	1670
Autounit (for ASX & OISDY) 6 Wire	CPNYAU*-5S	1000
Autounit (for ASX & OISDY) 6 Wire	CPNYAU*-5M	1000
Terminal Block 30A 6 way (Auto DOL)	CPTB630	170
Auto Manual Switch 3 position (Auto DOL)	CPAMS-3P/ASX	330

Spares for Citation M Starters

Description	Cat. No.	List Price [₹]
Start & Stop push button assembly for DOL & SD (upto150 HP)	SP100PB3	235
Start actuator Block for DOL	SP100CB	200
Start actuator Block for SD	SP100CBS	200
Terminal Block for Star/ Delta Starters	SP100TB	185
Terminal Block for Star/ Delta Starters (40-50 HP)	CPTB975	530
Electronic Timer (Star Delta)	SPSATG	800

Spares for 3 phase Submersible Pump Starter

Description	Cat. No.	List Price [₹]
Autounit (2 Position) 3 Wire	CPAU* - 5S or 5M	935
Autounit (3 Position) 5 Wire	CPYAU* - 5S or 5M	935
Ammeter 25A	CPAM25	390
Ammeter 50A	CPAM50	390
Ammeter 100A	CPAM100	400
Voltmeter 500V	CPVM500	390
Electronic Timer (Star Delta)	SPSATG	800
Terminal Block 15A 2 way	CPTB215	45
Terminal Block 60A 3 way	CPTB360	130
Terminal Block 60A 6 way	CPTB660	230
Terminal Block 100A 3 way	CPTB3100	475
Mounting Bracket Set	CPMB	90
Auto Manual Switch 2 position	CPAMS-2P	250
Auto Manual Switch 3 position	CPAMS-3P	270
Voltmeter Selector Switch	CPVSS	280

Spares for 1 phase Submersible Pump Starter

Description	Cat. No.	List Price [₹]
"ON" Indication Lamp	ILR-B	60
Ammeter 10A	SPAM-10	390
Ammeter 15A	SPAM-15	390
Ammeter 25A	SPAM-25	390
Ammeter 50A	SPAM-50	390
Voltmeter 300V	SPVM-300	390
Terminal Block 30A 5 way (Mini version)	CPTB530	85
Terminal Block 30A 5 way (Contactory version)	CPTB530H	160
Terminal Block 30A 3 way	CPTB330	65
"ON" Push Button GREEN upto 24A relay range	SPGC	195
"ON" Push Button GREEN For 32A relay range	SPGB	195
"OFF" Push Button RED	SPRC	155
Add-on Terminal Block for 23-32A relay (outgoing side)	MC305TB4	90
Terminal Block 40A 2 way	CPTB240	95

Motor Starters BCH



- Starter can be operated from anywhere with the help of mobile
- ON – OFF Status of the water pump can be known
- Availability of power supply at pump end can be known

BCH GSM Controller (Compatible With The Complete BCH Starter Family)

Cat. No.	Description	MRP [₹]
BCH-GSM	BCH GSM Controller	5200

Fully Automatic Citation Star Delta Starter with Citation M Contactor, Pneumatic Timer & Electronic Over Current Relay

- Available range is 50, 75 & 100 HP
- 50 & 75 HP models are with EOCR (MP21SS060W1)
- 100 HP Model is with EOCR (MP21SS005W1) & 100/5 A CT (2CT-D1-100Q)
- With Ammeter & Voltmeter
- With R, Y, B, Power ON & Motor Trip LED indicator

Cat. No.	EOCR Range (A)	Contactor Type (Citation)	Contactor Rating (A)	HP / KW	MRP [₹]
NASASS60LEDM-P	5-60 Amp	D	40A	50 / 37	33250
NASASS60LEEM-P	5-60 Amp	E	70A	75 / 55	55100
NASA2CTD1CLEM5M-P	0.5-6 Amp	M-5	110A	100 / 75	79515

Oil Immersed Fully Automatic Star Delta Starter with Ammeter & Voltmeter



- Fully Automatic Star Delta Starter
- Overload range from 13A to 32A

Cat. No.	Overload Relay Range (A)	HRC Fuse Rating (EE Type) (max)	MRP [₹]
OISDPYWPLY	13.2 - 20A	35 Amp.	9620
OISDPYWPLN			
OISDPYWPMY	17.4 - 24A	50 Amp.	10120
OISDPYWPMN			
OISDPYWPPY	23 - 32A	63 Amp.	10200
OISDPYWPPN			

'N' for 380-415VAC coil & 'Y' for 240-400VAC coil

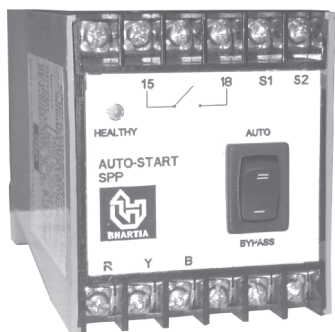
Industrial DOL Starters with Freedom Contactor & Overload Relay



- As per IS/IEC 60347-4-1
- Consists of Freedom Contactor & Over Load Relay
- Upto 10 HP DOL.
- Inbuilt Single phase protection
- Auto manual reset option
- High mechanical & electrical life

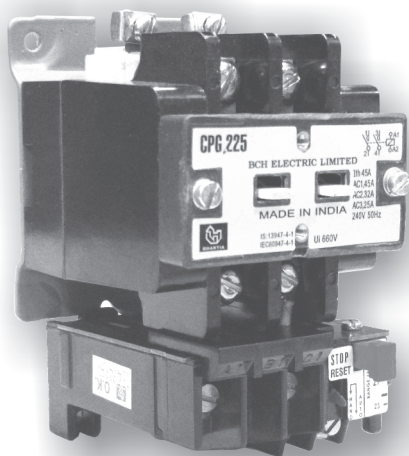
Cat Code	KW / HP	Overload Relay Range (A)	MRP [₹]
CEBFM	0.37/0.5	1.0-1.4	Price On Request
CEBGM	0.55/0.75	1.3-1.8	
CEBHM	0.75/1.0	1.7-2.4	
CEBJM	1.1/1.5	2.2-3.1	
CEBKM	1.5/2.0	2.8-4.0	
CEBMM	2.2/3.0	4.5-6.5	
CEBPM	3.7/5.0	7.5-11	
CECPM	3.7/5.0	7.5-11	
CECQM	5.5/7.5	10-14	
CEDQM	5.5/7.5	10-14	
CEDRM	7.5/10	13-19	

M - 415VAC (for other coil voltages, please contact nearest sales office)



Auto Switch & Single Phase Preventer

Cat Code	Product Description	List Price [₹]
ACPAUN-5S	Auto Unit with 5 Sec delay, 380-415 VAC	770
ACPAUZ-5S	Auto Unit with 5 Sec delay, 230-400 VAC	770
ACPAUN-5M	Auto Unit with 5 Min delay, 380-415 VAC	770
ACPAUZ-5M	Auto Unit with 5 Min delay, 230-400 VAC	770

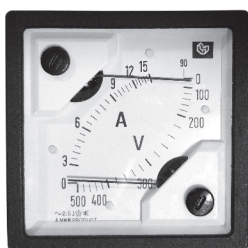


CPG+OLR Combination (Interior)

Cat Code CPG216*OLR#	Product Description	MRP [₹]
CPG216HOLRJ	2P 16A 220-240V CONTR WITH 6-9.3A O/L	1545
CPG216HOLRK	2P 16A 220-240V CONTR WITH 8.9-13.5A O/L	1545
CPG216HOLRL	2P 16A 220-240V CONTR WITH 13.2-20 O/L	1650
CPG216BWOLRJ	2P 16A 160-220V CONTR WITH 6-9.3A O/L	1545
CPG216BWOLRK	2P 16A 160-220V CONTR WITH 8.9-13.5A O/L	1545
CPG216BWOLRL	2P 16A 160-220V CONTR WITH 13.2-20 O/L	1650
CPG216NOLRJ	2P 16A 380-415V CONTR WITH 6-9.3A O/L	1545
CPG216NOLRK	2P 16A 380-415V CONTR WITH 8.9-13.5A O/L	1545
CPG216NOLRL	2P 16A 380-415V CONTR WITH 13.2-20 O/L	1650

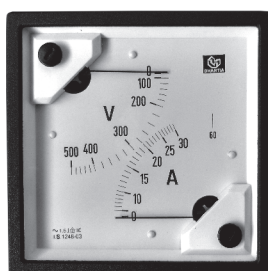
- Consists of 2P CPG Contactor & 2P Overload relay
- Available with 16 & 25 Amp contactor

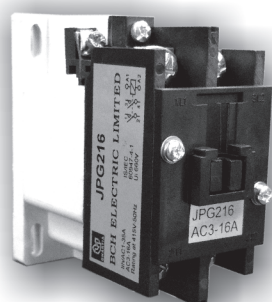
Cat Code CPG225*OLR#	Product Description	MRP [₹]
CPG225HOLRL	2P 25A 220-240V CONTR WITH 13.2-20A O/L	2010
CPG225HOLRM	2P 25A 220-240V CONTR WITH 17.4-24A O/L	2010
CPG225HOLRP	2P 25A 220-240V CONTR WITH 23-32A O/L	2170
CPG225BWOLRL	2P 25A 160-220V CONTR WITH 13.2-20A O/L	2010
CPG225BWOLRM	2P 25A 160-220V CONTR WITH 17.4-24A O/L	2010
CPG225BWOLRP	2P 25A 160-220V CONTR WITH 23-32A O/L	2170
CPG225NOLRL	2P 25A 380-415V CONTR WITH 13.2-20A O/L	2010
CPG225NOLRM	2P 25A 380-415V CONTR WITH 17.4-20A O/L	2010
CPG225NOLRP	2P 25A 380-415V CONTR WITH 23-32A O/L	2170



Dual Meter (Combination of Ammeter & Voltmeter)

Cat. No.	Product Description	List Price [₹]
CPAM10VM300	COMBINED AM 0-10-60A & VM 0-300V,S-72	580
CPAM15VM300	COMBINED AM 0-15-90A & VM 0-300V,S-72	580
CPAM25VM300	COMBINED AM 0-25-150A & VM 0-300V,S-72	580
CPAM30VM300	COMBINED AM 0-30-180A & VM 0-300V,S-72	580
CPAM50VM300	COMBINED AM 0-50-300A & VM 0-300V,S-72	580
CPAM10VM500	COMBINED AM 0-10-60A & VM 0-500V,S-72 EN	600
CPAM15VM500	COMBINED AM 0-15-90A & VM 0-500V,S-72 EN	580
CPAM30VM500	COMBINED AM 0-30-180A & VM 0-500V,S-72 EN	600
CPAM60VM500	COMBINED AM 0-60-360A & VM 0-500V,S-72 EN	600
CPAM30-60VM500S72	Combined AM 0-30-60A & VM 0-500V,S-72	580
CPAM60-120VM500S72	Combined AM 0-60-120A & VM 0-500V,S-72	600
CPAM30-60VM500S96	Combined AM 0-30-60A & VM 0-500V,S-96	670
CPAM60-120VM500S96	Combined AM 0-60-120A & VM 0-500V,S-96	800





- Complies with IS/IEC 60947-4-1
- Wide band coil 154 - 264* V AC
- Weld resistant Silver Alloy contacts
- High Mechanical Endurance

2 Pole JPG Contactor - 16, 20 & 25 Amp

Ith (A)	AC 3 (A) at 415V AC	Cat. No.	MRP [₹]	
35	16	JPG216*	760	
40	20	JPG220*	920	
45	25	JPG225*	1070	
Description		Orientation	Cat. No.	List Price [₹]
Auxiliary Contact Blocks - JPG		1NO+1NC	JPGCB11	190
		2NO	JPGCB20	190
		2NC	JPGCB02	190
Spare Coil		-	JPGMC*	250

* N = 380 - 415V, H = 220 - 240V, BA=170 - 225V

1-Ph SPS with 2 Pole JPG Contactor & Single Pole MCB (with Dual meter) with 154-264* V AC Coil



Cat. No.	HP Rating	SP MCB "C" curve	Contactor Rating (A)	Run Capacitor (mfd)	Start Capacitor (mfd)	MRP [₹]
CPJPMCB10H080	0.75 HP	10 Amp	20 Amp	25	60/80	3300
CPJPMCB10H100				25	80/100	3300
CPJPMCB10H120				36	100/120	3430
CPJPMCB16H120	1 HP	16 Amp		36	100/120	3410
CPJPMCB16H150				50	120/150	3625
CPJPMCB25H150	1.5 HP	25 Amp		50	120/150	3640
CPJPMCB25H2R36S250				36+36	200/250	4200
CPJPMCB32H200	2 HP	32 Amp		72	150/200	4020
CPJPMCB40H250	3 HP	40 Amp		25 Amp	100	200/250

1-Ph SPS with 2 Pole JPG Contactor & 2 Pole Overload Relay (with Dual meter) with 154-264* V AC Coil



Cat. No.	HP Rating	Relay Range	Contactor Rating (A)	Run Capacitor (mfd)	Start Capacitor (mfd)	MRP [₹]
CPJPHH-SP	0.5/0.75 HP	3.8 - 6.0 A	20 Amp	25	80-100	On Request
CPJPHH-RC36SC100		3.8 - 6.0 A		36	80-100	
CPJPJH-SP	1 HP	6.0 - 9.3 A		36	100-120	
CPJPJH-RC50SC120		6.0 - 9.3 A		50	100-120	
CPJPKH-SP	1.5 HP	8.9 - 13.5 A		50	120-150	
CPJPKH-RC60SC150		8.9 - 13.5 A		60	120-150	
CPJPKH-RC72SC150		8.9 - 13.5 A		72	120-150	
CPJPLH-SP	2 HP	13.2 - 20.0 A		72	150-200	
CPJPLH-RC100SC200		13.2 - 20.0 A		100	150-200	
CPJPMH-SP	3 HP	17.4 - 24.0 A	25 Amp	100	200-250	

Submersible Pump Starters



Three Phase

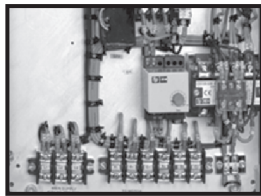
- Direct on line : upto 24 A relay rating
- Star Delta : upto 135 A (100 HP) relay rating
- Protections :
 - Phase failure
 - Phase imbalance
 - Phase reversal
- Short Circuit Protection Thru MCB : In case of Premium models
- Ammeter and Voltmeter
- On/Off and Trip indications
- Powder coated enclosure with PU gasket ensuring excellent finish and reliability
- Provision for connecting Dry run preventor



On/Trip Indicators



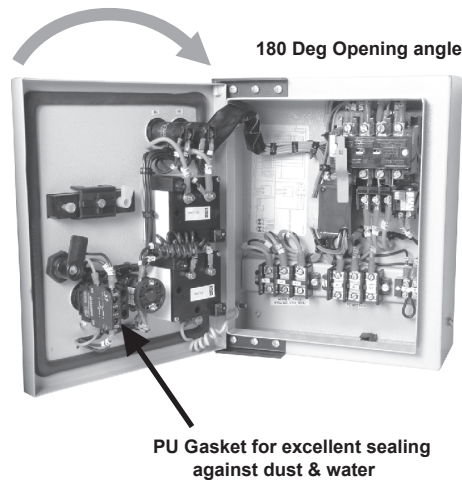
Isolated Terminal blocks for better termination



Properly laid down wires, bunched with cable ties Ferrules for ease of identification

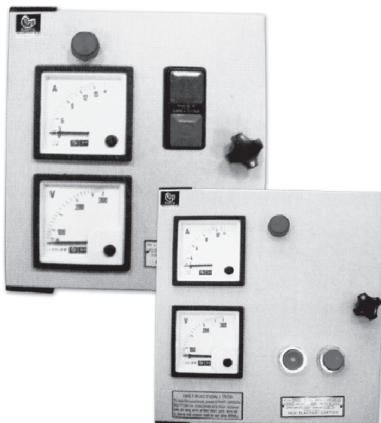


Phase indicators (For std & Premium models)



180 Deg Opening angle

PU Gasket for excellent sealing against dust & water



Single Phase

With Mini DOL (up to 11.0 - 20.0 A Relay)

- Economy Model (Without Ammeter)
- Standard Model (With Ammeter)
- Premium Model (With Ammeter & Voltmeter)

With 2 Pole Contactor + 2 Pole Relay (up to 23.0 - 32.0 A Relay)

- Economy Model (With Ammeter)
- Standard Model (With Ammeter & Voltmeter)
- Provision for connecting dry run preventor

Motor Starters BCH

Citation Submersible Pump Starters with 2 Position Selection (with Auto Switch)

Range	Contactor Type	Contactor Rating	DOL			
			Economy (without Short Circuit Protection)		Premium (with Short Circuit Protection)	
			Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
2.4 - 3.8 Amp	C00N	16 A	CPEANAGN*	6110	CPPANAGN*	8540
3.8 - 6.0 Amp	C00N	16 A	CPEANAHN*	6110	CPPANAHN*	8540
6.0 - 9.3 Amp	C00N	16 A	CPEANAJN*	6110	CPPANAJN*	8540
8.9 - 13.5 Amp	C00N	16 A	CPEANAKN*	6110	CPPANAKN*	8540
13.2 - 20 Amp	C00N	16 A	CPEANALN*	6350	CPPANALN*	8895
17.4 - 24 Amp	N0N	25 A	CPEANAMN*	6600	CPPANAMN*	9315
23.0 - 32 Amp	N01N	32 A	CPEANA01PN	8150	-	-

Range	Contactor Type	Contactor Rating	Star Delta			
			Economy (without Short Circuit Protection)		Premium (with Short Circuit Protection)	
			Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
6.0 - 9.3 Amp	C00N	16 A	CPSDEAJN*	11970	CPSDPAJN*	14480
8.9 - 13.5 Amp	C00N	16 A	CPSDEAKN*	11970	CPSDPAKN*	14480
13.2 - 20 Amp	C00N	16 A	CPSDEALN-C00	12200	-	-
13.2 - 20 Amp	N0N	25 A	CPSDEALN*	12350	CPSDPALN*	15020
17.4 - 24 Amp	N0N	25 A	CPSDEAMN*	12690	CPSDPAMN*	15440
22 - 30 Amp	N1N	40 A	CPSDEANN	23350	-	-
23.0 - 32 Amp	N01N	32 A	CPSDEA01PN	18180	-	-
24.4 - 39 Amp	N1N	40 A	CPSDEACT1N	23350	-	-

*For 260-400 V coil voltage replace suffix "N" with "G" in the Cat. Code (for Starter with C00N & N0N contactors only)

N=380-415 V

For LV- 230-360V coil voltage, kindly contact nearest sales office

For Auto switch with 5 min time delay option, kindly contact nearest sales office

Citation Submersible Pump Starters with Meters & indicators (without Auto Switch)

Range	Contactor Type	Contactor Rating	DOL	
			Economy (without Short Circuit Protection)	
			Cat. No.	MRP [₹]
2.4 - 3.8 Amp	C00N	16 A	CPEANGN*	5800
3.8 - 6.0 Amp	C00N	16 A	CPEANHN*	5800
6.0 - 9.3 Amp	C00N	16 A	CPEANJN*	5800
8.9 - 13.5 Amp	C00N	16 A	CPEANKN*	5800
13.2 - 20 Amp	C00N	16 A	CPEANLN*	6020
17.4 - 24 Amp	N0N	25 A	CPEANMN*	6280

Range	Contactor Type	Contactor Rating	Star Delta	
			Economy (without Short Circuit Protection)	
			Cat. No.	MRP [₹]
6.0 - 9.3 Amp	C00N	16 A	CPSDEJN*	11750
8.9 - 13.5 Amp	C00N	16 A	CPSDEKN*	11750
13.2 - 20 Amp	N0N	25 A	CPSDELN*	12120
17.4 - 24 Amp	N0N	25 A	CPSDEMN*	12400
23 - 32 Amp	N01N	32 A	CPSDE01PN	17870
22 - 30 Amp	N1N	40 A	CPSDENN	23200
24.4 - 39 Amp	N1N	40 A	CPSDECT1N	23250

*For 260-400 V coil voltage replace suffix "N" with "G" in the Cat. Code (for Starter with C00N & N0N contactors only)

N=380-415 V

For LV- 230-360V coil voltage, kindly contact nearest sales office

Motor Starters BCH

Citation Submersible Pump Starters with 3 Position Selection (with Auto Switch)

Range	Contactor Type	Contactor Rating	DOL			
			Economy (without Short Circuit Protection)		Premium (with Short Circuit Protection)	
			Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
1.58 - 2.50 Amp	C00N	16 A	CPEYNAFN*	6380	--	
2.4 - 3.8 Amp	C00N	16 A	CPEYNAGN*	6380	--	
3.8 - 6.0 Amp	C00N	16 A	CPEYNAHN*	6380	--	
6.0 - 9.3 Amp	C00N	16 A	CPEYNAJN*	6380	CPPYNAJN*	8900
8.9 - 13.5 Amp	C00N	16 A	CPEYNAKN*	6380	CPPYNAKN*	8900
13.2 - 20 Amp	C00N	16 A	CPEYNALN*	6650	CPPYNALN*	9270
17.4 - 24 Amp	N0N	25 A	CPEYNAMN*	6900	CPPYNAMN*	9695
23.0 - 32 Amp	N01N	32 A	CPEYNA01PN	8300	--	

Range	Contactor Type	Contactor Rating	Star Delta			
			Economy (without Short Circuit Protection)		Premium (with Short Circuit Protection)	
			Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
3.8 - 6.0 Amp	C00N	16 A	CPSDEYHN*	12070	--	
6.0 - 9.3 Amp	C00N	16 A	CPSDEYJN*	12070	CPSDPYJN*	14540
8.9 - 13.5 Amp	C00N	16 A	CPSDEYKN*	12070	CPSDPYKN*	14540
13.2 - 20 Amp	N0N	25 A	CPSDEYLN*	12420	CPSDPYLN*	15120
17.4 - 24 Amp	N0N	25 A	CPSDEYMN*	12710	CPSDPYMN*	15550
23.0 - 32 Amp	N01N	32 A	CPSDEY01PN	18850	--	
22 - 30 Amp	N1N	40 A	CPSDEYNN	23480	CPSDPYNN	25930
24.4 - 39 Amp	N1N	40 A	CPSDEYCT1N	24910	CPSDPYCT1N	29610
37.6 - 60 Amp	Citation E	70 A	CPSDEYCT2M	39550	CPSDPYCT2M	44520
56.4 - 90 Amp	Citation E	70 A	CPSDEYECT3M	42690	--	
56.4 - 90 Amp	Citation M-5	110 A	CPSDEYCT3M	55600	CPSDPYCT3M	58680
84.6 - 135 Amp	Citation M-5	110 A	CPSDEYCT4M	57940	CPSDPYCT4M	62750

*For 260-400 V coil voltage replace suffix "N" with "G" in the Cat. Code (for Starter with C00N & N0N contactors only)

N=380-415 V

"LA" Coil (320-400 V) for Citation E Contactor is available

For LV- 230-360V coil voltage, kindly contact nearest sales office

For Auto switch with 5 min time delay option, kindly contact nearest sales office

Shakti DOL Submersible Pump Starters (with Auto Switch)

Economy Version (Without Short Circuit Protection)		Cat. No.	Range	MRP [₹]
		2 Position Selection (Auto/ Bypass)	CPEASAFZ	1.58 - 2.5 Amp
CPEASAGZ	2.4 - 3.8 Amp		5500	
CPEASAHZ	3.8 - 6.0 Amp		5500	
CPEASAJZ	6.0 - 9.3 Amp		5500	
CPEASAKZ	8.9 - 13.5 Amp		5600	
CPEASALZ	13.2 - 20 Amp		6100	
CPEASAMZ	17.4 - 24 Amp		6350	
3 Position Selection (Maunal - Manual SPP-Auto)	CPEYSAGZ	2.4 - 3.8 Amp	5800	
	CPEYSAHZ	3.8 - 6.0 Amp	5800	
	CPEYSAJZ	6.0 - 9.3 Amp	5800	
	CPEYSAKZ	8.9 - 13.5 Amp	5800	
	CPEYSALZ	13.2 - 20 Amp	6300	
	CPEYSAMZ	17.4 - 24 Amp	6600	

For 380-415 V coil voltage replace suffix "Z" with "N" in the Cat. Code

For Auto switch with 5 min time delay option, kindly contact nearest sales office

Motor Starters BCH

1-Phase SPS With Mini Manual DOL Starter (With Ammeter + Voltmeter)

Cat.	HP	Relay Range (Amp.)	Run Capacitor (mfd)	MRP [₹]
CPPM50-25-SP	0.5 HP/ 0.75 HP	3.5 - 6.5 Amp	25	2450
CPPM50-20-SP	0.5 HP/ 0.75 HP	3.5 - 6.5 Amp	20	2450
CPPM50H-25-SP	0.5 HP/ 0.75 HP	3.5 - 6.5 Amp	25	2790
CPPM60-36-SP	1 HP	6.8 - 11.7 Amp	36	2465
CPPM60-25-SP			25	2465
CPPM60H-36-SP			36	2810
CPPM60-50-SP	1.5 HP	6.8 - 11.7 Amp	50	2600
CPPM60H-50-SP			50	2960
CPPM70-50-SP	2 HP	11.0 - 20.0 Amp	50	2640
CPPM70-36-SP			36	2640
CPPM70H-50-SP			50	3000

1-Phase SPS With 2 Pole Contactor + Relay (With Ammeter) with 160-220 V Coil

Cat.	HP	Relay Range (Amp.)	Contactor Rating	Run Capacitor (mfd)	Start Capacitor (mfd)	MRP [₹]
CPNEHBW-SP	0.5 HP/ 0.75 HP	3.8 - 6.0 Amp	16A	25	80/100	3360
CPNEJBW-SP	1 HP	6.0 - 9.3 Amp	16A	36	100/120	3510
CPNEKBW-SP	1.5 HP	8.9 - 13.5 Amp	16A	50	120/150	3730
CPNELBW-SP	2 HP	13.2 - 20.0 Amp	16A	72	150/200	4060
CPNEMBW-SP	3 HP	17.4 - 24.0 Amp	25A	100	200/250	4760
CPNEPBW-SP	5 HP	23.0 - 32 Amp	40A	100+50	200/250	7170

For Dry Run Protection (Extra Terminal shall be provided) Kindly add Rs. 155/- for up to 1.5 HP & add Rs. 250/- for 2 & 3 HP in above Prices & suffix "D" in the cat code (i.e. CPNEHBW-SPD)

1-Phase SPS With 2 Pole Contactor + Overload Relay (With Ammeter + Voltmeter) with 160-220 V Coil

Cat.	HP	Relay Range (Amp.)	Contactor Rating	Run Capacitor (mfd)	Start Capacitor (mfd)	MRP [₹]			
CPNSHBW-SP	0.5 HP/ 0.75 HP	3.8 - 6.0 Amp	16 Amp	25	80/100	3625			
CPNSHBW-SP(RC36)				36	80/100	3625			
CPNSHBW-RC25-SC120				25	100/120	3760			
CPNSHBW-RC30-SC200				30	150/200	4260			
CPNSJBW-SP	1 HP	6.0 - 9.3 Amp	16 Amp	36	100/120	3740			
CPNSJBW-RC20SC100				20	80/100	3740			
CPNSJBW-RC25SC100				25	80/100	3770			
CPNSJBW-RC50SC100				50	80/100	3880			
CPNSJBW-RC60SC150				60	120/150	4050			
CPNSJBW-RC72SC150				72	120/150	4150			
CPNSJBW-SP(RC30)				30	100/120	3770			
CPNSJBW-SP(RC50)				50	100/120	3880			
CPNSJBW-SP(SC100)				36	80/100	3900			
CPNSJBW-RC36-SC200				36	150/200	4300			
CPNSKBW-SP				1.5 HP	8.9 - 13.5 Amp	16 Amp	50	120/150	3970
CPNSKBW-RC30SC120							30	100/120	3900
CPNSKBW-RC36SC120	36	100/120	3920						
CPNSKBW-SP(RC36)	36	120/150	4025						
CPNSKBW-SP(RC72)	36+36	120/150	4070						
CPNSKBW-RC50-SC200	50	150/200	4340						
CPNSLBW-SP	2 HP	13.2 - 20.0 Amp	16 Amp	72	150/200	4360			
CPNSLBW-RC100SC150				100	120/150	4390			
CPNSLBW-RC90SC150				45+45	120/150	4390			
CPNSLBW-SP(SC150)				72	120/150	4475			
CPNSLBW-RC72-SC250				72	200/250	4720			
CPNSMBW-SP	3 HP	17.4 - 24.0 Amp	25 Amp	100	200/250	5015			
CPNSPBW-SP	5 HP	23.0 - 32 Amp	40 A & 16 A	100+50	200/250	7190			

For Dry Run Protection (Extra Terminal shall be provided) Kindly add Rs. 155/- for up to 1.5 HP & add Rs. 250/- for 2 & 3 HP in above Prices & suffix "D" in the cat code (i.e. CPNSHBW-SPD)

Oil Immersed Starters BCH

Direct on Line

Cat No.	Relay Range	HRC Fuse Rating (EE Type) (max)	MRP [₹]
OISWPGN OISWPGT	2.4-3.8A	16A	2220
OISWPHN OISWPHT	3.8-6.0A	20A	2220
OISWPJN OISWPJT	6.0-9.3A	25A	2220
OISWPKN OISWPKT	8.9-13.5A	36A	2220
OISWPLN OISWPLT	13.2-20A	50A	2220
OISWPMN OISWPMT	17.4-24A	63A	2450

Note : The last alphabet in the Cat No. indicates coil voltage : N-380/415 V ; T-220/400V

Fully Automatic Star Delta Starter

Cat No.	Relay Range	HRC Fuse Rating (EE Type) (max)	MRP [₹]
OISDAWPJ*	6 - 9.3A	20A	6690
OISDAWPK*	8.9 - 13.5A	32A	6690
OISDAWPL*	13.2 - 20A	35A	6690
OISDAWPM*	17.4 - 24A	56A	7150
OISDAWPP*	23 - 32A	63A	7220

Replace '**' with 'N' for 380-415VAC coil & with 'Y' for 240-400VAC coil

Star Delta - Semi Automatic

Cat No.	Relay Range	HRC Fuse Rating (EE Type) (max)	MRP [₹]
OISDSWPJN OISDSWPJT	6.0-9.3A	20A	6000
OISDSWPKN OISDSWPKT	8.9-13.5A	32A	6000
OISDSWPLN OISDSWPLT	13.2-20A	35A	6000
OISDSWPMY OISDSWPMT	17.4-24A	50A	6450
OISDSWPPN OISDSWPPY	23-32A	63A	6530

Fully Automatic Star Delta Starter

with SPP & 3 positions Auto Manual Switch

Cat No.	Relay Range	HRC Fuse Rating (EE Type) (max)	MRP [₹]
OISDYWPJ*	6 - 9.3A	20A	7830
OISDYWPK*	8.9 - 13.5A	32A	7830
OISDYWPL*	13.2 - 20A	35A	7830
OISDYWPM*	17.4 - 24A	56A	8320
OISDYWPP*	23 - 32A	63A	8390

Oil Immersed Starters



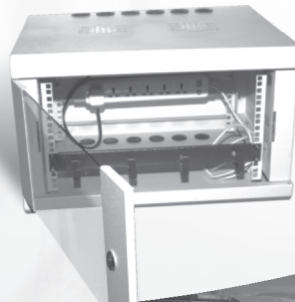
Spares for Oil Starter

Description	Cat No.	List Price [₹]
Contact Kit without coil for DOL - Power & Auxiliary Contacts (set of fix contact, moving contact, hex screw, spring washer, spring clip, spring cap, contact spring)	OCK	335
Power Kit without coil set for all 3 contactor of Star Delta Starter (fix contact, moving contact, hex screw, spring washer, spring clip, spring cap, contact spring)	Upto L Relay - OCKSD20	820
	M, P Relay - OCKSD30	950
Auxiliary Contact Kit set for Star Delta Starter	Upto L Relay - OCKSDAUX20	180
	M, P Relay - OCKSDAUX30	180
Coil - Main & Delta Contactor (220-400V) (240-400V) (380/415V)	OCT	350
	OCY	
	OCN	
Coil - Star Contactor (220-400V) (240-400V) (380/415V)	OCT - STAR	240
	OCY - STAR	
	OCN - STAR	
ON Push Button OFF Push Button	OPB-ON OPB-OFF	100
Incoming Mounting Kit for 20A	OCTKSD20	110
Incoming Mounting Kit for 30A	OCTKSD30	150
Overload Relay for Oil Starter - Pls refer along with all other Overload Relay Page 16		

Enclosure Systems



- Bhartia Boxes IP: 55, IP: 66
- 'BCH-SS' (Stainless Steel) Boxes
- Terminal Boxes IP:55 & IP:66
- Techno - Modular Enclosures
- Smartline - Modular Enclosures
- Semi-Modular Enclosure
- TEOS Plus Enclosure
- Compartmentalized Enclosure (Fixed & Draw-out)
- IT Racks - 19" and ETSI Racks

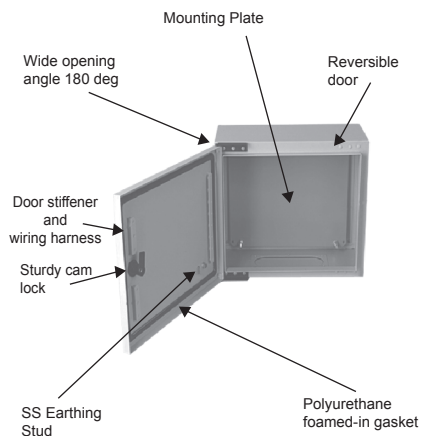


Bhartia Boxes



- 51 Different Versions
- Single/Double door versions
- Min. Size : 200 X 200 X 150
- Max Size : 1200 X 1400 X 400
- IP 55/IP66

Double door version



Technical Particulars (BHARTIA BOXES)

- Fabricated from 1.2mm / 1.6mm CRCA sheet steel (Sizes upto BIL-50180 made from 1.2mm CRCA, beyond this using 1.6mm CRCA)
- Foamed-in PU gasket
- Hinged door, interchangeable LHS / RHS, opening angle 180 deg for standard hinge & 120 deg for concealed hinge in bigger sizes.
- IP-55 & 66 Degree of protection
- Cable gland plate 2mm thick provided at bottom
- Cam locking arrangement
- Powder coated to RAL : 7035 structure finish
- Mounting Plate made up of 2.0mm Galvanised steel

Note : Cutout charges will be extra

: Wall mounting bracket set is an additional accessory (for Bhartia Box & Terminal box it is not a part of standard packing)

Type	Cat. No.	MOQ	List Price [₹]
Set of Wall Mounting bracket (small)	BIL-WM-S	1	95
Set of Wall Mounting bracket (big)	BIL-WM-B	1	120

Note :

* Set of wall mounting bracket (small) is suitable for all range of terminal boxes and Bhartia boxes upto size : 400x500x200mm.

* Set of wall mounting bracket (big) is suitable for Bhartia boxes beyond size : 400x500x200mm.

Type	Size (WxHxD) mm	IP-55 Range			IP-66 Range	
		MOQ Nos.	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
SINGLE DOOR BOX	200x200x150	1	BIL-50000	1575	BIL-60000	1630
SINGLE DOOR BOX	200x300x150	1	BIL-50010	1895	BIL-60010	2000
SINGLE DOOR BOX	250x300x150	1	BIL-50020	1980	BIL-60020	2100
SINGLE DOOR BOX	300x300x150	1	BIL-50030	2090	BIL-60030	2150
SINGLE DOOR BOX	300x300x200	1	BIL-50050	2270	BIL-60050	2450
SINGLE DOOR BOX	300x400x150	1	BIL-50060	2360	BIL-60060	2600
SINGLE DOOR BOX	300x400x200	1	BIL-50080	2680	BIL-60080	2800
SINGLE DOOR BOX	400x300x150	1	BIL-50090	2280	BIL-60090	2630
SINGLE DOOR BOX	400x300x200	1	BIL-50110	2640	BIL-60110	2750
SINGLE DOOR BOX	400x400x150	1	BIL-50120	2660	BIL-60120	2850
SINGLE DOOR BOX	400x400x200	1	BIL-50140	2820	BIL-60140	3090
SINGLE DOOR BOX	400x500x150	1	BIL-50150	2980	BIL-60150	3350
SINGLE DOOR BOX	400x500x200	1	BIL-50170	3160	BIL-60170	3480
SINGLE DOOR BOX	500x500x200	1	BIL-50180	3750		
SINGLE DOOR BOX	400x600x200	1	BIL-50190	3900	BIL-60190	3780
SINGLE DOOR BOX	500x600x200	1	BIL-50210	4390	BIL-60210	4330
SINGLE DOOR BOX	500x700x200	1	BIL-50220	4990		
SINGLE DOOR BOX	500x700x300	1	BIL-50230	5710		
SINGLE DOOR BOX	600x400x200	1	BIL-50240	3890	BIL-60240	4220
SINGLE DOOR BOX	600x400x300	1	BIL-50250	5040		
SINGLE DOOR BOX	600x500x200	1	BIL-50260	4500	BIL-60260	5040
SINGLE DOOR BOX	600x600x200	1	BIL-50270	4700		
SINGLE DOOR BOX	600x600x300	1	BIL-50280	5620		
SINGLE DOOR BOX	600x700x200	1	BIL-50290	5630		
SINGLE DOOR BOX	600x800x200	1	BIL-50300	5650		
SINGLE DOOR BOX	600x800x300	1	BIL-50320	6480		
SINGLE DOOR BOX	600x1000x200	1	BIL-50330	7120		
SINGLE DOOR BOX	600x1000x300	1	BIL-50340	8075		
SINGLE DOOR BOX	800x800x300	1	BIL-50310	7550		
SINGLE DOOR BOX	800x1000x200	1	BIL-50350	8400		
SINGLE DOOR BOX	800x1000x250	1	BIL-50360	8600		
SINGLE DOOR BOX	800x1000x300	1	BIL-50390	8700		
SINGLE DOOR BOX	800x1200x300	1	BIL-50395	11000		
DOUBLE DOOR BOX	1000x800x200	1	BIL-50500	9100		
DOUBLE DOOR BOX	1000x800x300	1	BIL-50520	10400		
DOUBLE DOOR BOX	1000x1000x300	1	BIL-50540	12100		
DOUBLE DOOR BOX	1000x1200x300	1	BIL-50550	13870		
DOUBLE DOOR BOX	1000x1400x300	1	BIL-50560			
DOUBLE DOOR BOX	1200x1400x300	1	BIL-50570			
DOUBLE DOOR BOX	1000x1400x400	1	BIL-50580			
DOUBLE DOOR BOX	1200x1400x400	1	BIL-50590			

MOQ. Minimum order quantity in nos.

Canopy for Bhartia Boxes

Size (WxHxD) mm	Cat. No.	MOQ Nos.	List Price [₹]	Size (WxHxD) mm	Cat. No.	MOQ Nos.	List Price [₹]
200WX150D	BIL-12-CAN-2015	1	448	600WX200D	BIL-16-CAN-6020	1	847
250WX150D	BIL-12-CAN-2515	1	496	600WX300D	BIL-16-CAN-6030	1	1041
300WX150D	BIL-12-CAN-3015	1	532	800WX300D	BIL-16-CAN-8030	1	1271
300WX200D	BIL-12-CAN-3020	1	593	800WX200D	BIL-16-CAN-8020	1	1029
400WX150D	BIL-12-CAN-4015	1	605	800WX250D	BIL-16-CAN-8025	1	1150
400WX200D	BIL-12-CAN-4020	1	678	1000WX200D	BIL-16-CAN-1020	1	1210
500WX200D	BIL-12-CAN-5020	1	762	1000WX300D	BIL-16-CAN-1030	1	1488
500WX300D	BIL-12-CAN-5030	1	932				

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no 131.



- Fabricated from 1.2/1.6 mm stainless steel sheet
- Mounting Plate made up of 2.0mm Galvanised steel
- SS grade 304
- Foamed - in PU gasket
- Box upto BIL - 90405020 is made up of 1.2 mm SS & above of 1.6 MM SS.
- 120 deg door open-able concealed hinge door with cam locking arrangement.

'BCH - SS' (Stainless Steel)

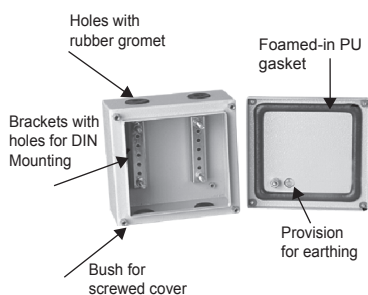
Type	Size (WxHxD) mm	MOQ Nos.	Cat No.	List Price [₹]
SINGLE DOOR BOX	200X300X150	3	BIL-90203015	4350
SINGLE DOOR BOX	300X300X200	3	BIL-90303020	6040
SINGLE DOOR BOX	400X400X200	3	BIL-90404020	8140
SINGLE DOOR BOX	400X500X200	3	BIL-90405020	9200
SINGLE DOOR BOX	400X600X200	3	BIL-90406020	11240
SINGLE DOOR BOX	500X600X200	3	BIL-90506020	13440
SINGLE DOOR BOX	600X600X200	3	BIL-90606020	14180
SINGLE DOOR BOX	600X800X200	3	BIL-90608020	16600
SINGLE DOOR BOX	500X700X300	3	BIL-90507030	17250
SINGLE DOOR BOX	800X800X300	3	BIL-90808030	24670

MOQ - Minimum order quantity in nos.
Note - SS grade 304

Terminal Boxes



- 43 Different Versions
- Min. Size : 150 X 150 X 80
- Max Size : 800 X 400 X 120
- IP 55/IP66



Technical Particulars (TERMINAL BOXES)

- Fabricated from 1.2mm CRCA sheet steel
- Powder coated to shade RAL 7035 Structure finish
- Foamed-in PU gasket
- Provided with screwed cover on top
- IP-55 & 66 Degree of protection
- Brackets provided inside to facilitate DIN rail mounting
- Holes with Rubber Grommet provided to facilitate cable entry in IP 55 terminal boxes

Note: Cutout charges will be extra

Box Size (W x H x D)	IP-55 Range			IP-66 Range	
	MOQ	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
150x150x80	5	BIL-70000	850	BIL-80000	880
200x150x80	-			BIL-80100	980
300x150x80	5	BIL-70010	1020	BIL-80010	1140
200x200x80	5	BIL-70020	970	BIL-80020	1050
300x200x80	5	BIL-70030	1060	BIL-80030	1100
400x200x80	-			BIL-80110	1180
600x200x80	-			BIL-80130	1600
150x150x120	5	BIL-70040	950	BIL-80040	1010
200x150x120	-			BIL-80150	1040
300x150x120	5	BIL-70050	1100	BIL-80050	1130
200x200x120	5	BIL-70060	1110	BIL-80060	1180
300x200x120	5	BIL-70070	1230	BIL-80070	1250
400x200x120	5	BIL-70080	1390	BIL-80080	1430
300x300x120	5	BIL-70090	1470	BIL-80090	1550
400x150x120	-			BIL-80170	1400
400x300x120	5	BIL-70180	1725	BIL-80180	1950
400x400x120	5	BIL-70190	2000	BIL-80190	2150
500x200x120	5	BIL-70200	1640	BIL-80200	1790
500x300x120	5	BIL-70210	1990	BIL-80210	2100
600x200x120	5	BIL-70220	1850	BIL-80220	1950
600x300x120	5	BIL-70230	2250	BIL-80230	2380
600x400x120	5	BIL-70240	2580	BIL-80240	2530
800x200x120	5	BIL-70250	2600	BIL-80250	2650
800x400x120	5	BIL-70260	3280	BIL-80260	3200

MOQ-Minimum order quantity in nos.

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no 131.

Enclosure Systems BCH

Techno Modular Enclosures

Size of Enclosure (W x H x D in mm)	Cat. No.	Enclosure Version*				Plinth		Side Covers (Pair)	
		Ver 001 LP [₹]	Ver 002 LP [₹]	Ver 003 LP [₹]	Ver 004 LP [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
600 x 1800 x 400	TME 061804	16320	18170	13010	14960	TPL 061804	1620	TSC 061804	3230
800 x 1800 x 400	TME 081804	19630	21500	15100	17360	TPL 081804	1840	TSC 081804	3230
1000 x 1800 x 400	TME 101804	26850	29100	20790	22800	TPL 101804	2060	TSC 101804	3230
1200 x 1800 x 400	TME 121804	31050	34390	23370	25940	TPL 121804	2270	TSC 121804	3230
600 x 1800 x 500	TME 061805	17420	19180	14110	15880	TPL 061805	1740	TSC 061805	3700
800 x 1800 x 500	TME 081805	20290	22820	16210	18080	TPL 081805	1950	TSC 081805	3700
1000 x 1800 x 500	TME 101805	28050	29830	22150	24380	TPL 101805	2175	TSC 101805	3700
1200 x 1800 x 500	TME 121805	31460	35620	25150	27610	TPL 121805	2350	TSC 121805	3700
800 x 1800 x 600	TME 081806	21610	23630	17590	19740	TPL 081806	2000	TSC 081806	4100
600 x 2000 x 400	TME 062004	17640	19800	13840	16380	TPL 062004	1620	TSC 062004	3450
800 x 2000 x 400	TME 082004	20900	22490	15930	18140	TPL 082004	1840	TSC 082004	3450
1000 x 2000 x 400	TME 102004	29940	31610	23260	24930	TPL 102004	2060	TSC 102004	3450
1200 x 2000 x 400	TME 122004	31450	34770	25730	29150	TPL 122004	2270	TSC 122004	3450
600 x 2000 x 500	TME 062005	19060	20640	15960	17310	TPL 062005	1740	TSC 062005	4000
800 x 2000 x 500	TME 082005	20950	23100	16430	18600	TPL 082005	1950	TSC 082005	4000
1000 x 2000 x 500	TME 102005	29670	32470	23595	25780	TPL 102005	2175	TSC 102005	4000
1200 x 2000 x 500	TME 122005	33280	35500	25430	28770	TPL 122005	2350	TSC 122005	4000
600 x 2000 x 600	TME 062006	19380	21250	16870	18280	TPL 062006	1840	TSC 062006	4470
800 x 2000 x 600	TME 082006	22310	23600	17750	19350	TPL 082006	2000	TSC 082006	4470
1000 x 2000 x 600	TME 102006	29600	34500	23930	28000	TPL 102006	2250	TSC 102006	4470
1200 x 2000 x 600	TME 122006	32320	36620	26660	29990	TPL 122006	2400	TSC 122006	4470
600 x 2000 x 800	TME 062008	19900	21390	16600	18690	TPL 062008	2000	TSC 062008	5510
800 x 2000 x 800	TME 082008	22990	24750	18800	20620	TPL 082008	2230	TSC 082008	5510
1000 x 2000 x 800	TME 102008	33040	35230	25140	28000	TPL 102008	2390	TSC 102008	5510
1200 x 2000 x 800	TME 122008	34020	38480	28450	31370	TPL 122008	2620	TSC 122008	5510
600 x 2200 x 600	TME 062206	21790	23860	17280	20520	TPL 062206	1840	TSC 062206	5250
800 x 2200 x 600	TME 082206	24680	26250	19820	21890	TPL 082206	2000	TSC 082206	5250
1000 x 2200 x 600	TME 102206	34150	36820	28060	30710	TPL 102206	2250	TSC 102206	5250
1200 x 2200 x 600	TME 122206	35500	39580	27120	30210	TPL 122206	2400	TSC 122206	5250
600 x 2200 x 800	TME 062208	23770	25790	18220	21040	TPL 062208	2000	TSC 062208	6830
800 x 2200 x 800	TME 082208	28640	30330	22030	24040	TPL 082208	2230	TSC 082208	6830
1000 x 2200 x 800	TME 102208	36330	38540	29500	31690	TPL 102208	2390	TSC 102208	6830
1200 x 2200 x 800	TME 122208	39370	41520	32230	34390	TPL 122208	2620	TSC 122208	6830

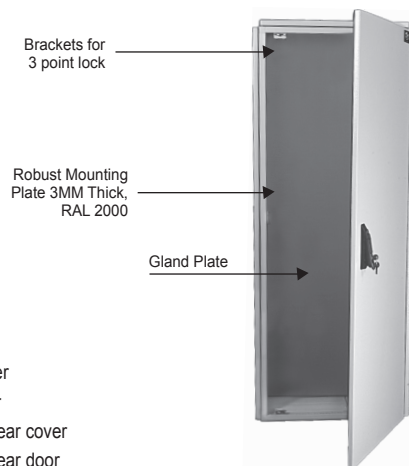
*Baying kit (BIL-14280) Rs. 1100/- is also available for Enclosure Version. For extra accessories, please contact nearest branch office.

MOQ-Minimum order quantity in nos.

Note : Cutout charges will be extra

Freight charges will be extra at actuals

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no 131.



Modular Enclosures

- Enclosures
- Minimum size in mm :
600 x 1800 x 400 (W x H x D)
- Maximum size in mm :
1200 x 2200 x 800 (W x H x D)
- IP 54 / IP 55 degree of protection
- Wide range of accessories

Features

- Completely modular in all the three axis
- Powder coated surface (RAL 7035) for excellent finish and durability
- PU Gasket ensuring higher degree of ingress protection
- 3mm mounting plate as a standard
- Manufactured on CNC Turret punch press for higher precision, finish and repeated accuracy
- Ideal for :
 - Special purpose machines
 - Control panels
 - Drives
 - Starter enclosures
 - Accessories for mounting 19" equipment

Enclosure Versions

- 001 - with mounting plate and rear cover
- 002 - with mounting plate and rear door
- 003 - without mounting plate and with rear cover
- 004 - without mounting plate and with rear door

To Order And Calculate List Price

- (a) Choose Cat. No. and LP of Enclosure version from 001, 002, 003 or 004
- (b) Add Cat. No. and LP of Plinth
- (c) Add Cat. No. and LP of Side Covers pair

General Technical Particulars

- IP54/55 degree of protection
- Fabricated from 2/1.6 mm CRCA/GPSP (frame made up of 2.0mm GPSP, doors & covers made up of 1.6 mm CRCA).
- Fully bolted construction
- Mounting plate 3mm thick - standard & Powder Coated to RAL-2000
- Plinth (optional) 100mm high fabricated from 2mm
- Cable entry provision is given from Bottom as standard
- Foamed-in PU gasket
- Powder coated to RAL : 7035 structure finish
- Hinge design allows 120 deg. Door opening
- 3 point lock provided as standard
- Door stiffener with provision of drilling holes for wiring harness.
- Side Covers - Pair : consisting of 1no. LHS and 1no. RHS cover
- To calculate limiting dimension of the enclosure, add 44mm to the width to account for Side Covers,
- 22mm to the height for Top Cover & 44mm to the depth on account of Front and Rear door / cover.

Note : upto 800 mm width single door
1000 mm & 1200 mm width double leaf door

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no 131.

Smartline Modular Enclosure BCH

SmartLine TME

Size of Enclosure (W x H x D in mm)	Cat. No.	Enclosure Version*				Plinth		Side Covers (Pair)	
		Ver 001 LP [₹]	Ver 002 LP [₹]	Ver 003 LP [₹]	Ver 004 LP [₹]	Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
600 x 1800 x 500	SLE 061805	15230	17550	13120	15010	TPL 061805	1740	SLSC 061805	2950
800 x 1800 x 600	SLE 081806	19150	21760	15570	18170	TPL 081806	2000	SLSC 081806	3350
600 x 2000 x 600	SLE 062006	16630	19300	14470	16350	TPL 062006	1840	SLSC 062006	3650
800 x 2000 x 600	SLE 082006	19210	22250	16120	18330	TPL 082006	2000	SLSC 082006	3650
1200 x 2000 x 600	SLE 122006	27450	31270	23600	26250	TPL122006	2400	SLSC 122006	3650
600 x 2000 x 800	SLE 062008	16990	20350	15390	17340	TPL 062008	2000	SLSC 062008	4560
800 x 2000 x 800	SLE 082008	19990	22990	16950	19670	TPL 082008	2230	SLSC 082008	4560
1200 x 2000 x 800	SLE 122008	28930	33820	24200	27130	TPL 122008	2620	SLSC 122008	4560

Note : Cutout / customization charges will be extra.

*Baying kit (**BIL-14280**) Rs. 1100/- is also available for Enclosure Version. For extra accessories, please contact nearest branch office.

Enclosure Versions

- 001 - With mounting plate and rear cover.
- 002 - With mounting plate and rear door
- 003 - Without mounting plate and with rear cover
- 004 - Without mounting plate and with rear door

To Order and Calculate List Price

- (a) Choose Cat. No. and LP of Enclosure version from 001, 002, 003 or 004
- (b) Add Cat. No. and LP of Plinth
- (c) Add Cat. No. and LP of Side Covers pair

General Technical Particulars

- IP-54 degree of protection
- Fabricated from CRCA/GPSP (frame made up of GPSP, doors & covers made up of CRCA sheet).
- Modular construction
- Mounting plate and cable entry plate made up of Galvanized steel [Unpainted]
- Plinth (optional) 100mm high fabricated from CRCA sheet.
- Cable entry provision is given from Bottom as standard
- Foamed-in PU gasket
- Powder coated to RAL : 7035 structure finish
- Hinge design allows 120 deg. Door opening
- 3 point lock provided as standard
- Door stiffener with provision of drilling holes for wiring harness.
- Side Covers - Pair: consisting of 1no. LHS and 1no. RHS cover
- To calculate limiting dimension of the enclosure, add 44mm to the width to account for Side Covers, 22mm to the height for Top Cover & 44mm to the depth on account of Front and Rear door / cover.

Note : Upto 800 mm width single door. 1000 mm & 1200 mm width double leaf door

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no 131.

Semi-Modular Floor Standing Enclosure BCH

Size of Enclosure (W x H x D in mm)	Cat. No.	List Price [₹]	Plinth		Side Covers (Pair)	
			Cat. No.	List Price [₹]	Cat. No.	List Price [₹]
600X1800X400	FCS 061804	On Request	FCS-PL 061804	On Request	FCS-SC 061804	On Request
600X1800X500	FCS 061805		FCS-PL 061805		FCS-SC 061805	
800X1800X600	FCS 081806		FCS-PL 081806		FCS-SC 081806	
600X2000X600	FCS 062006		FCS-PL 062006		FCS-SC 062006	
800X2000X500	FCS 082005		FCS-PL 082005		FCS-SC 082005	
800X2000X600	FCS 082006		FCS-PL 082006		FCS-SC 082006	
800X2000X800	FCS 082008		FCS-PL 082008		FCS-SC 082008	
1000X2000X600	FCS 102006		FCS-PL 102006		FCS-SC 102006	
1000X2000X800	FCS 102008		FCS-PL 102008		FCS-SC 102008	
1200X2000X500	FCS 122005		FCS-PL 122005		FCS-SC 122005	
1200X2000X600	FCS122006		FCS-PL122006		FCS-SC122006	
1200X2000X800	FCS 122008		FCS-PL 122008		FCS-SC 122008	

Note : Sizes are available in all FOUR version like TME.

Enclosure Versions

Ver-001 - With mounting plate and rear cover.

Ver-002 - With mounting plate and rear door

Ver-003 - Without mounting plate and with rear cover

Ver-004 - Without mounting plate and with rear door

To Order and Calculate List Price

(a) Choose Cat. No. and LP of Enclosure version from 001, 002, 003 or 004

(b) Add Cat. No. and LP of Plinth

(c) Add Cat. No. and LP of Side Covers pair

Note:

- Cutout / customization charges will be extra.
- Baying Kit (BIL-FCS-14280) LP Rs. 1000/- is also available for Enclosure Versions.
- For extra accessories, Please contact nearest branch office.

Technical Particulars (Semi-Modular Enclosure)

- Unique symmetric front and rear welded frame with modular depth member which resultant fastest assembly and uniformity.
- IP-55 Degree of Protection
- Front and Rear Frame welded & depth members are modular
- Fabricated from 2.0mm/1.6mm CRCA
- Mounting plate made of 2mm thick Galvanized sheet
- Cable entry from bottom of panel as standard
- Powder coated to RAL-7035 Structure finish
- Limiting dimension of the enclosure are same as per sizes given
- Adjustable mounting plate depth wise
- Foamed-in PU gasket
- 3 point lock provided as standard
- Door stiffener with provision of drilling holes for wiring harness.
- Side Covers - Flush Type Side cover Pair consisting of 1no LHS and 1no RHS cover

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no 131.



TEOS Plus Enclosure BCH-TEKPAN

TEOS Plus Enclosure

Size of Enclosure (W x H x D in mm)	Cat. No.	List Price [₹]
600 x 1800 x 500	TEOS061805	On Request
800 x 1800 x 600	TEOS081806	
600 x 2000 x 600	TEOS062006	
800 x 2000 x 600	TEOS082006	
800 x 2000 x 800	TEOS082008	
1200 x 2000 x 600	TEOS122006	
1000 x 2000 x 800	TEOS102008	
1200 x 2000 x 800	TEOS122008	

Front Door, Rear Door, Rear Cover & Mounting plate shall be supplied as per requirement.

Plinth Corner

Description	Cat. No.	List Price [₹]
PLINTH CORNER PART H100mm	708.100	On Request

Supply included:- 4 pcs 100mm height corner & mounting accessories.

Plinth Front Cover

Description	Cat. No.	List Price [₹]
PLINTH FRONT PROFILE :600	709.160	On Request
PLINTH FRONT PROFILE :800	709.180	
PLINTH FRONT PROFILE :1000	709.100	
PLINTH FRONT PROFILE :1200	709.120	

Supply included:- 2 pcs 100mm height front cover & mounting accessories.

Plinth Side Cover

Description	Cat. No.	List Price [₹]
PLINTH SIDE PROFILE :500	710.150	On Request
PLINTH SIDE PROFILE :600	710.160	
PLINTH SIDE PROFILE :800	710.180	

Supply included:- 2 pcs 100mm height side cover & mounting accessories.

Side Cover

Description	Cat. No.	List Price [₹]
Pair of side cover 500*1800	706.185	On Request
Pair of side cover 600*1800	706.186	
Pair of side cover 600*2000	706.206	
Pair of side cover 800*1800	706.188	
Pair of side cover 800*2000	706.208	

Supply included:- 2 pcs side cover & mounting accessories

Technical Particulars (TEOS Plus Enclosure)

- Multifold (12-Fold) structure with 100% Modularity.
- IP-65 Degree of Protection.
- SEISMIC Tested for Zone-4 and UL Certified.
- Easy Assembly & Logistic advantages.
- 4-Point lock with Swing Handle.
- Powder coated to RAL: 7035 Structure Finish.

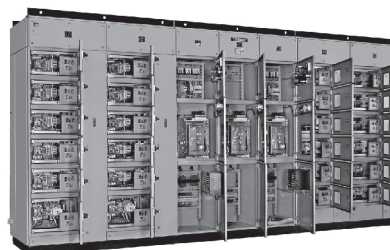


Note :

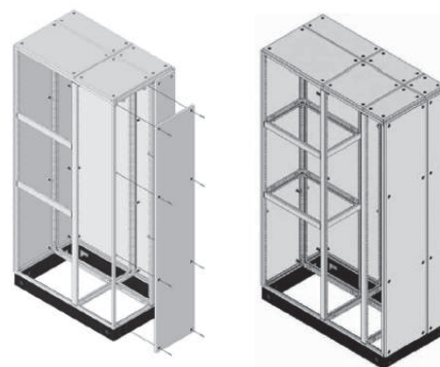
- Upto 800 mm width single door. 1000 mm & 1200 mm width double leaf door
- Cutout / customization charges will be extra
- For extra accessories, please contact nearest branch office.

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no 131.

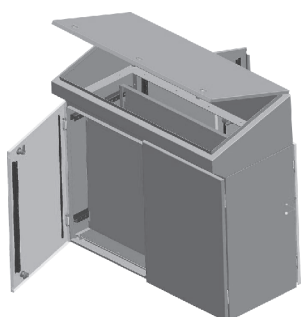
Highlights of **BCH** Compartmentalized **MCC / PCC / PMCC** Solution (Fixed & Drawed Type)

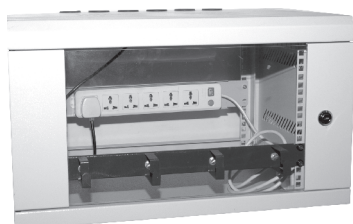


- 100% Modular Structure; can be dispatched in flat pack.
- Flexible compartmentalized -up to From 4.
- IP 54 degree of protection with polyurethane foam gasket.
- Compartment size available from 200mm height & multiplies of 100mm.
- Additional accessories like Cable support, Busbar support, Limit Switch and Lamp brackets are available.
- Adjustable mounting plates (Depth wise at the pitch of 25mm).
- Panel can be expended in all 3 dimensions and bayed together by using Baying Kit.
- All Structure members (Corner & Cross bar) having M6 extrude hole at 25mm intervals, No need of any Captive hardware.
- Standard Module dimension for Drawout Enclosures.
 - ▷ Single Front :- 900(W) x 2400(H) x 600(D)
 - ▷ Double Front :- 900(W) x 2400(H) x 1200(D)
- Draw-out feeder available from 200mm height (2SU) to 800mm height (8SU).
- Colours :- RAL-7035 (Structure finish) for structure, doors, covers & internal parts RAL-2000 (smooth finish) for Mounting plates, Ral-9000 (Smooth Finish) for Plinth .
- Sheet thickness 2.0mm GPSP for structure, 2.0mm CRCA for Mounting Plate & Mounting rail, 1.6mm CRCA for Doors & Covers, 1.2mm CRCA for Separation plates.



BCH Control Desk





Key Attributes:

- Aesthetic & robust construction
- Mounting Fan /s in top doesn't take usable "U" space.
- Special type of Wallmounting hardware.
- Provision for earthing available in the cabinets.
- Highly corrosion resistant in nature.
- Power coated to shade RAL : 7035 structure finish.

19" Wall Mount Racks

Dimensions (H x W x D) mm	MOQ Nos.	Cat. No.	List Price [₹]
6UX550X400	1	BIL-W-6-5504	3390
9UX550X400	1	BIL-W-9-5504	3890
6UX550X500	1	BIL-W-6-5505	3740
9UX550X500	1	BIL-W-9-5505	4350
12UX550X500	1	BIL-W-12-5505	4840
15UX550X500	1	BIL-W-15-5505	5690

MOQ-Minimum order quantity in nos.

Standard Configuration: Wallmount cabinet, 2-Pairs of 19" rail.

Notes : Accessories viz. Shelves, Fans, power strips, cable managers captive H/W & wall mounting hardware etc. will be extra as per the accessories list furnished in the price list.
Wall mount racks price do not include freight & will be extra at actuals



Key Attributes:

- Floor mounting robust design.
- Lockable & removable side panels.
- 2-pairs of adjustable 19" rails.
- Front door with toughened glass & perforation.
- High load bearing capacity.
- Rear vented door.
- Provision for fan mounting in top which doesn't take usable "U" Space.
- Superior cable management facility in extra wide racks.
- 4-integrated vertical cable managers are default design of 800mm wide racks.
- Rear space saving split door with 3-point secure locking in extra wide (800mm) racks.
- Power coated to shade RAL : 7035 structure finish.

19" Networking Racks

Dimensions (H x W x D) mm	MOQ Nos.	Cat. No.	List Price [₹]
24U X 600 X 600	1	BIL-N-062406	18950
24U X 600 X 800	1	BIL-N-062408	20950
24U X 800 X 600	1	BIL-N-082406	23750
24U X 800 X 800	1	BIL-N-082408	25950
30U X 600 X 600	1	BIL-N-063006	20950
30U X 600 X 800	1	BIL-N-063008	22950
30U X 800 X 600	1	BIL-N-083006	25950
30U X 800 X 800	1	BIL-N-083008	28440
36U X 600 X 600	1	BIL-N-063606	22950
36U X 600 X 800	1	BIL-N-063608	25450
36U X 800 X 600	1	BIL-N-083606	28450
36U X 800 X 800	1	BIL-N-083608	30900
42U X 600 X 600	1	BIL-N-064206	26450
42U X 600 X 800	1	BIL-N-064208	28350
42U X 800 X 600	1	BIL-N-084206	31140
42U X 800 X 800	1	BIL-N-084208	34430
45U X 600 X 600	1	BIL-N-064506	30440
45U X 600 X 800	1	BIL-N-064508	31940
45U X 800 X 600	1	BIL-N-084506	33430
45U X 800 X 800	1	BIL-N-084508	36430

MOQ-Minimum order quantity in nos.

Notes : 1) Networking racks price do not include freight & this will be extra at actuals.
For more details visit : www.bchindia.com/technorack

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no 131.

19" Server Racks

Key Attributes:

- Floor mounting robust design.
- Lockable & removable side panels.
- 2-pairs of adjustable 19" rails.
- Front door with toughened glass & perforation.
- High load bearing capacity.
- Rear vented door.
- Provision for fan mounting in top which doesn't take usable "U" Space.
- Superior cable management facility in extra wide racks.
- 4-integrated vertical cable managers are default design of 800mm wide racks.
- Rear space saving split door with 3-point secure locking
- locking in extra wide (800mm) racks.
- Power coated to shade RAL : 7035 structure finish.

Dimensions (H x W x D) mm	MOQ Nos.	Cat. No.	List Price [₹]
24U X 600 X 900	1	BIL-S-062409	21410
24U X 600 X 1000	1	BIL-S-062410	22750
30U X 600 X 900	1	BIL-S-063009	24200
30U X 600 X 1000	1	BIL-S-063010	25150
36U X 600 X 900	1	BIL-S-063609	26550
36U X 600 X 1000	1	BIL-S-063610	27950
42U X 600 X 900	1	BIL-S-064209	29840
42U X 600 X 1000	1	BIL-S-064210	31740
42U X 800 X 1000	1	BIL-S-084210	36530
45U X 600 X 900	1	BIL-S-064509	34490
45U X 600 X 1000	1	BIL-S-064510	36490

MOQ - Minimum order quantity in nos.

Notes: Server racks price do not include freight & this will be extra at actuals.

STANDARD CONFIGURATION: Basic frame, Top & bottom, Front Glass door with perforation, Rear vented door, Lockable & detachable side panels, 2-Pairs of 19" rails with depth members.



Key Attributes:

- Includes 1-Pair of 21" rails.
- Integrated side panels.
- Grouting arrangements along with grouting bolts as std. BOM
- Provision for power & detachable Cable entry/exit in top & bottom.
- Power coated to shade RAL : 7035 structure finish.

ETSI Racks

Dimensions (H x W x D) mm	MOQ Nos.	Cat. No.	List Price [₹]
2200 X 600 x 300	1	ITE-062203	7680
2200 X 600 x 600	1	ITE-062206	12380

MOQ - Minimum order quantity in nos.

Notes: Above ETSI configuration do not include front & rear door and covers.

All other accessories will be extra & will be furnished on request.
The prices mentioned above do not include freight.



Key Attributes:

- 1-Pair of vertical cable manager is default design.
- Surface pretreated and advance powder coated
- Grouting bolts as std. BOM.
- Power coated to shade RAL : 7035 structure finish.

19" Open Racks

Dimensions (H x W) mm	MOQ Nos.	Cat. No.	List Price [₹]
36U X 600	1	ITE-OF-0636	5000
45U X 600	1	ITE-OF-0645	5890

MOQ - Minimum order quantity in nos.

Notes: 1) Above Open Rack configuration does not include Shelves, Doors and Covers. All other accessories prices will be extra and will be furnished on request.

2) The Prices above do not include Freight and this will be extra at actuals.

For more details, visit : www.bchindia.com/technorack

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no 131.

Accessories for 19" Racks

Fixed Shelf/Stationary Shelf

- Compatible to keep monitor, servers, non 19" Networking & allied equipments.

Key-Board Tray

- Sliding & rotatory type.

Canteliver Shelf

- It can accomodate light weighted networking & allied equipments like modem, routers etc.

Equipment Support Angle

- "L" type angles. Useful to keep non 19" heavy duty equipment in rack mounting position.

Sliding Shelf

- Useful to keep servers, networking & allied equipment which are required to slide out for operational & other purpose.

Fans/Fan Tray

- 220V 90 CFM Capacity. Can be mounted at the top either directly or through Fan housing unit (Fan Tray)

6-Point 5A Hor. Power Strip

- All universal type socket along with on/off switch with fuse & indicator. Internal strips are made up of Berellium copper that has high rate of heat & mechanical tolerance.
- Other 5A or 5/15A Power strips have Indian style (Anchor) Sockets with on/off switch/MCB.

Castors

- 1-Set includes 4Nos. of castors, 2Nos. with foot operated brake & remaining 2 are free.

Levelling Feet

- 1-Set includes 4Nos. of Levelling Feet.

Stability Plate

- It Prevents the racks from toppling while taking out heavy duty servers.

Shelves

Description	Cat No.	List Price [₹]
Fixed Shelf (600mmD)	BIL-A-FS-L-06	865
Fixed Shelf (800mmD)	BIL-A-FS-L-08	1330
Fixed Shelf (900mmD)	BIL-A-FS-L-09	1480
Fixed Shelf (1000mmD)	BIL-A-FS-L-10	1590
Modem Tray	BIL-A-MD	820
Key board tray (Sliding & Rotatory)	BIL-A-KB-06	2550
Canteliver Shelf (1U)	BIL-A-CS-1	510
Canteliver Shelf (2U)	BIL-A-CS-2	770
Equipment Support Angle (600mmD)	BIL-A-ESA-06	310
Equipment Support Angle (800mmD)	BIL-A-ESA-08	360
Equipment Support Angle (900mmD)	BIL-A-ESA-09	450
Equipment Support Angle (1000mmD)	BIL-A-ESA-10	520
Sliding Shelf (900mmD)	BIL-A-SS-09	2550
Sliding Shelf (1000mmD)	BIL-A-SS-10	2650

Thermal Management

Description	Cat No.	List Price [₹]
1-Fan (Direct mounted)	BIL-A-SF	865
Fan-tray with 2-Fans (FHU)	BIL-A-FHU-2FANS	1840
Fan-tray with 4-Fans (FHU)	BIL-A-FHU-4FANS	3210

Cable Management

Description	Cat No.	List Price [₹]
Horizontal Cable Manager (1U)	BIL-A-HCM-1U	205
Horizontal Cable Manager (2U)	BIL-A-HCM-2U	260
Vertical Cable Manager (24U)	BIL-A-VCM-24U	310
Vertical Cable Manager (30U)	BIL-A-VCM-30U	410
Vertical Cable Manager (36U)	BIL-A-VCM-36U	460
Vertical Cable Manager (42U)	BIL-A-VCM-42U	510
Vertical Cable Manager (45U)	BIL-A-VCM-45U	560

Power Management

Description	Cat No.	List Price [₹]
6-Point 5Amp Horizontal Power Strip (19")	BIL-A-HPS-5AMP	835
5-Point 5/15Amp Horizontal Power Strip (19")	BIL-A-HPS-15AMP	1124
12-Point 5Amp Vertical Power Strip	BIL-A-12VPS-5AMP	1633
10-Point 5/15Amp Vertical Power Strip	BIL-A-10VPS-15AMP	1890
Earth continuity Kit (Earthing Kit)	BIL-A-ECT	635

Stability Management

Description	Cat No.	List Price [₹]
Castors (1-Set) Heavy Duty	BIL-A-CAS-HD	3020
Castors (1-Set) Light Duty	BIL-A-CAS	1790
Levelling Feet (1-Set)	BIL-A-LF	260
Stability Plate	BIL-A-SP	1540

Miscellaneous

Description	Cat No.	List Price [₹]
BAYING KIT	BIL-A-BK	290
BLANKING PANEL (1U)	BIL-A-BP-1U	110
BLANKING PANEL (2U)	BIL-A-BP-2U	140
BLANKING PANEL (3U)	BIL-A-BP-3U	200
BLANKING PANEL (4U)	BIL-A-BP-4U	290
BLANKING PANEL (5U)	BIL-A-BP-5U	340
Captive H/w (set of 10)	BIL-A-Captive-M6	140
Wallmounting H/w (set of 4)	BIL-A-wallmounting W	150

Notes : Packing & forwarding will be extra if accessories are ordered separately.

* List Prices are Ex-works Faridabad. For detail Refer Enclosure Selling Terms & Conditions on page no 131.

Wires & Cables

- **Special Application Cables & Thermocouples**
- **3-Core Flat Cables for Submersible Pump Applications**
- **Single & Multi Core PVC Flexible Cables**
- **FR & FRLS Cables**



BCH Three Core Flat Cables with annealed bare & bunched copper conductor insulated & sheathed with PVC for submersible pump motors for voltage grade 1100 V as per I.S. 694 / 1990 upto 4.0 sqmm, conforming to & marked with I.S. 694 / 1990 upto 4.0 sqmm & generally conforming to I.S. 694 / 1990 above 3 core 4.0 sqmm.

3 Core Flat Cable PVC Insulated Type CS- 500 Mtrs

BCH Code	Flat Cable	LP Per 500 Mtrs in [₹]
CS0010BM	1.0 Sqmm x 3 core Flat cable	On Request
CS0015BM	1.5 Sqmm x 3 core Flat cable	
CS0025BM	2.5 Sqmm x 3 core Flat cable	
CS0040BM	4.0 Sqmm x 3 core Flat cable	
CS0060BM	6.0 Sqmm x 3 core Flat cable	
CS0080BM	8.0 Sqmm x 3 core Flat cable	
CS0100BM	10 Sqmm x 3 core Flat cable	
CS0160BM	16 Sqmm x 3 core Flat cable	
CS0250BM	25 Sqmm x 3 core Flat cable	
CS0350BM	35 Sqmm x 3 core Flat cable	

BCH Three Core Flat Cables with annealed bare & bunched copper conductor insulated & thick sheathed with PVC for submersible pump motors for voltage grade 1100 V as per I.S. 694 / 1990 upto 4.0 sqmm, conforming to & marked with I.S. 694 / 1990 upto 4.0 sqmm & generally conforming to I.S. 694 / 1990 above 3 core 4.0 sqmm. with higher insulation & sheath thicknesses

3 Core Flat Cable PVC Insulated Thick Type CFT- 500 Mtrs

BCH Code	Flat Cable	LP Per 500 Mtrs in [₹]
CFT-03-0010BM	1.0 Sqmm x 3 core Flat cable Thick	On Request
CFT-03-0015BM	1.5 Sqmm x 3 core Flat cable Thick	
CFT-03-0025BM	2.5 Sqmm x 3 core Flat cable Thick	
CFT-03-0040BM	4.0 Sqmm x 3 core Flat cable Thick	
CFT-03-0060BM	6.0 Sqmm x 3 core Flat cable Thick	
CFT-03-0100BM	10 Sqmm x 3 core Flat cable Thick	
CFT-03-0160BM	16 Sqmm x 3 core Flat cable Thick	

BCH Three Core Flat Cables with annealed bare & bunched copper conductor XLPE insulated & PVC sheathed for submersible pump motors of voltage grade 1100 V. suitable for heavy duty usage and areas having frequent supply undervoltage / overvoltage conditions.

3 Core Flat Cable XLPE Insulated Type CFTX- 500 Mtrs

BCH Code	Flat Cable	LP Per 500 Mtrs in [₹]
CFTX-03-0015BM	1.5 Sqmm x 3 core Flat cable XLPE insulated Thick	On Request
CFTX-03-0025BM	2.5 Sqmm x 3 core Flat cable XLPE insulated Thick	
CFTX-03-0040BM	4.0 Sqmm x 3 core Flat cable XLPE insulated Thick	
CFTX-03-0060BM	6.0 Sqmm x 3 core Flat cable XLPE insulated Thick	
CFTX-03-0100BM	10 Sqmm x 3 core Flat cable XLPE insulated Thick	
CFTX-03-0160BM	16 Sqmm x 3 core Flat cable XLPE insulated Thick	

Note : For price, please contact our nearest sales office.

Single & Multi Core PVC Flexible Cables As Per IS 694: 1990 - With ISI Marking

- Individual conductors drawn from 99.98% bright electrolytic grade copper with more than 100% conductivity
- Special formulation of PVC compounds as per IS 5831:1984 ensures longer and trouble free service life.
- Use only RoHS insulation and sheathing compounds. Ensures cleaner environment and better health.
- Online measurement and monitoring of O.D., core dia and dielectric strength.
- Suitable for -15 to +70°C.

Cat. No.	Conductor Area (nominal)	Safe Current Carrying Capacity 2 wires, Single Phase		Price Per 100 mtrs
		In conduit / Trunking	Unenclosed clipped directly to a surface or on cable tray	
Single Core	(Sq. mm)	(Amp.)	(Amp.)	in [₹]
CR01-0005A-AAA	0.5	4	4.5	On Request
CR01-0008A-AAA	0.75	7	8	
CR01-0010A-AAA	1	11	12	
CR01-0015A-AAA	1.5	13	16	
CR01-0025A-AAA	2.5	18	22	
CR01-0040A-AAA	4	24	29	
CR01-0060A-AAA	6	31	37	
CR01-0100A-AAA	10	42	51	
CR01-0160A-AAA	16	57	68	
CR01-0250A-AAA	25	71	86	
CR01-0350A-AAA	35	91	100	
CR01-0500A-AAA	50	120	145	
Generally Conforming to IS 694:1990				
CR01-0700A-AAA	70	-	214	On Request
CR01-0950A-AAA	95	-	260	
CR01-1200A-AAA	120	-	305	
CR01-1500A-AAA	150	-	355	
CR01-1850A-AAA	185	-	415	
CR01-2400A-AAA	240	-	500	
CR01-3000A-AAA	300	-	560	

Note : Standard packing of 100m, 500m & 1000m available. For price of 500m & 1000m , please contact nearest sales office.

Single Core FR Cables As Per IS 694: 1990 - With ISI Marking

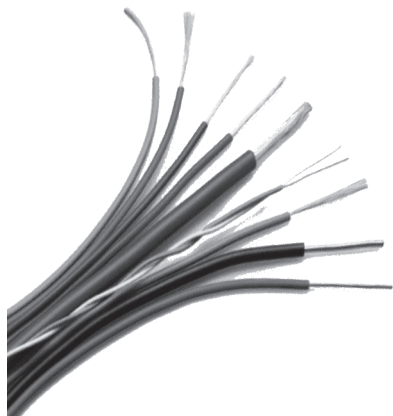
Cat. No.	Conductor Area (nominal)	Safe Current Carrying Capacity 2 wires, Single Phase		Price Per 100 mtrs
		In conduit / Trunking	Unenclosed clipped directly to a surface or on cable tray	
Single Core	(Sq. mm)	(Amp.)	(Amp.)	in [₹]
CRFR01-0005A-AAA	0.5	4	4.5	
CRFR01-0008A-AAA	0.75	7	8	
CRFR01-0010A-AAA	1	11	12	
CRFR01-0015A-AAA	1.5	13	16	
CRFR01-0025A-AAA	2.5	18	22	
CRFR01-0040A-AAA	4	24	29	
CRFR01-0060A-AAA	6	31	37	
CRFR01-0100A-AAA	10	42	51	
CRFR01-0160A-AAA	16	57	68	
CRFR01-0250A-AAA	25	71	86	
CRFR01-0350A-AAA	35	91	100	
CRFR01-0500A-AAA	50	120	145	

Note: Standard packing of 100m, 90m & 180m available. For prices of 90m & 180m, please contact nearest sales office.

Single Core FRLS Cables As Per IS 694: 1990 - With ISI Marking

Cat. No.	Conductor Area (nominal)	Safe Current Carrying Capacity 2 wires		Price Per 100 mtrs
		In conduit / Trunking	Unenclosed clipped directly to a surface or on cable tray	
Single Core	(Sq. mm)	(Amp.)	(Amp.)	in [₹]
CRLS01-0005A-AAA	0.5	4	4.5	
CRLS01-0008A-AAA	0.75	7	8	
CRLS01-0010A-AAA	1	11	12	
CRLS01-0015A-AAA	1.5	13	16	
CRLS01-0025A-AAA	2.5	18	22	
CRLS01-0040A-AAA	4	24	29	
CRLS01-0060A-AAA	6	31	37	
CRLS01-0100A-AAA	10	42	51	
CRLS01-0160A-AAA	16	57	68	
CRLS01-0250A-AAA	25	71	86	
CRLS01-0350A-AAA	35	91	100	
CRLS01-0500A-AAA	50	120	145	

Note: Standard packing of 100m, 90m & 180m available. For prices of 90m & 180m, please contact nearest sales office.



Wires & Cables BCH

Multi Core PVC Flexible Cables

Cat. No. 2 Core	Cat. No. 3 Core	Cat. No. 4 Core	Conductor area (Normal)	Current Rating (Amps)
CR02-0005A-AAA	CR03-0005A-AAA	CR04-0005A-AAA	0.5	4
CR02-0008A-AAA	CR03-0008A-AAA	CR04-0008A-AAA	0.75	7
CR02-0010A-AAA	CR03-0010A-AAA	CR04-0010A-AAA	1	12
CR02-0015A-AAA	CR03-0015A-AAA	CR04-0015A-AAA	1.5	15
CR02-0025A-AAA	CR03-0025A-AAA	CR04-0025A-AAA	2.5	20
CR02-0040A-AAA	CR03-0040A-AAA	CR04-0040A-AAA	4	27
CR02-0060A-AAA	CR03-0060A-AAA	CR04-0060A-AAA	6	35
CR02-0100A-AAA	CR03-0100A-AAA	CR04-0100A-AAA	10	46
CR02-0160A-AAA	CR03-0160A-AAA	CR04-0160A-AAA	16	62
CR02-0250A-AAA	CR03-0250A-AAA	CR04-0250A-AAA	25	80
CR02-0350A-AAA	CR03-0350A-AAA	CR04-0350A-AAA	35	102
CR02-0500A-AAA	CR03-0500A-AAA	CR04-0500A-AAA	50	138

Cat. No. 5 Core	Cat. No. 6 Core	Cat. No. 7 Core	Conductor area (Normal)	Current Rating (Amps)
CR05-0005A-AAA	CR06-0005A-AAA	CR07-0005A-AAA	0.5	4
CR05-0008A-AAA	CR06-0008A-AAA	CR07-0008A-AAA	0.75	7
CR05-0010A-AAA	CR06-0010A-AAA	CR07-0010A-AAA	1	12
CR05-0015A-AAA	CR06-0015A-AAA	CR07-0015A-AAA	1.5	15
CR05-0025A-AAA	CR06-0025A-AAA	CR07-0025A-AAA	2.5	20
CR05-0040A-AAA	CR06-0040A-AAA	CR07-0040A-AAA	4	27
CR05-0060A-AAA			6	35

Cat. No. 8 Core	Cat. No. 10 Core	Cat. No. 12 Core	Conductor area (Normal)	Current Rating (Amps)
CR08-0005A-AAA	CR10-0005A-AAA	CR12-0005A-AAA	0.5	4
CR08-0008A-AAA	CR10-0008A-AAA	CR12-0008A-AAA	0.75	7
CR08-0010A-AAA	CR10-0010A-AAA	CR12-0010A-AAA	1	12
CR08-0015A-AAA	CR10-0015A-AAA	CR12-0015A-AAA	1.5	15
CR08-0025A-AAA	CR10-0025A-AAA	CR12-0025A-AAA	2.5	20
CR08-0040A-AAA	CR10-0040A-AAA	CR12-0040A-AAA	4	27

Cat. No. 14 Core	Cat. No. 16 Core	Cat. No. 18 Core	Conductor area (Normal)	Current Rating (Amps)
CR14-0005A-AAA	CR16-0005A-AAA	CR18-0005A-AAA	0.5	4
CR14-0008A-AAA	CR16-0008A-AAA	CR18-0008A-AAA	0.75	7
CR14-0010A-AAA	CR16-0010A-AAA	CR18-0010A-AAA	1	12
CR14-0015A-AAA	CR16-0015A-AAA	CR18-0015A-AAA	1.5	15
CR14-0025A-AAA	CR16-0025A-AAA	CR18-0025A-AAA	2.5	20
CR14-0040A-AAA	CR16-0040A-AAA	CR18-0040A-AAA	4	27

Cat. No. 19 Core	Cat. No. 24 Core	Cat. No. 25 Core	Conductor area (Normal)	Current Rating (Amps)
CR19-0005A-AAA	CR24-0005A-AAA	CR25-0005A-AAA	0.5	4
CR19-0008A-AAA	CR24-0008A-AAA	CR25-0008A-AAA	0.75	7
CR19-0010A-AAA	CR24-0010A-AAA	CR25-0010A-AAA	1	12
CR19-0015A-AAA	CR24-0015A-AAA	CR25-0015A-AAA	1.5	15
CR19-0025A-AAA	CR24-0025A-AAA	CR25-0025A-AAA	2.5	20
CR19-0040A-AAA	CR24-0040A-AAA	CR25-0040A-AAA	4	27

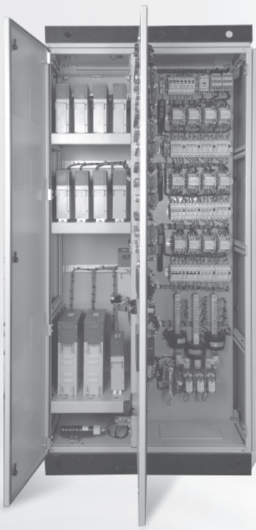
Cat. No. 30 Core	Cat. No. 36 Core	Conductor area (Normal)	Current Rating (Amps)
CR30-0005A-AAA	CR36-0005A-AAA	0.5	4
CR30-0008A-AAA	CR36-0008A-AAA	0.75	7
CR30-0010A-AAA	CR36-0010A-AAA	1	12
CR30-0015A-AAA	CR36-0015A-AAA	1.5	15
CR30-0025A-AAA	CR36-0025A-AAA	2.5	20
CR30-0040A-AAA	CR36-0040A-AAA	4	27

The conductor construction given above is indicative only and will be such that all requirements of strand diameter and conductor resistance as per IS 694:1990 and IS 8130:1984 are met.

Sizes 0.5 to 4 Sq. mm from 2 to 5 cores with ISI mark, rest all generally conforming to the IS. Standard packing available in 100 meter coils, longer lengths on drums (500m to 1000m)

Power Factor Control Products

- **LT Power Capacitors - Box Type**
- **LT Power Capacitors - Cylindrical Type**
- **Automatic Power Factor Controllers (APFC Relays & Intelligent Power Factor Controllers (IPFC Relays**
- **Network Analysers**
- **APFC Panels**



LT Power Capacitors.....

BCH

MPP Can type capacitors



Heavy edge Zn Al Alloy MPP film

MPP Capacitors (IS13340)
MPP capacitors are manufactured using Zn-Al metallized polypropylene film. These modules are provided with pressure interrupter arrangement for safety against bursting due to internal pressure arised due to prolonged high voltage / current. The modules are assembled in a aluminium case or CRCA container

MPP Can type Heavy Duty Capacitors

KVAR	Type	Rated Voltage (V)	BCH CAT Code	LP [₹]
1	MPP - CYL-HD	440	BCHMCH001B	350
2	MPP - CYL-HD	440	BCHMCH002B	700
3	MPP - CYL-HD	440	BCHMCH003B	1050
4	MPP - CYL-HD	440	BCHMCH004B	1400
5	MPP - CYL-HD	440	BCHMCH005B	1535
7.5	MPP - CYL-HD	440	BCHMCH007B	2300
9	MPP - CYL-HD	440	BCHMCH009B	2760
10	MPP - CYL-HD	440	BCHMCH010B	2850
12.5	MPP - CYL-HD	440	BCHMCH012B	3565
15	MPP - CYL-HD	440	BCHMCH015B	4280
20	MPP - CYL-HD	440	BCHMCH020B	5705
25	MPP - CYL-HD	440	BCHMCH025B	7130
30	MPP - CYL-HD	440	BCHMCH030B	8555

MPP Can type Normal Duty Capacitors(440V)

KVAR	Type	Rated Voltage (V)	BCH CAT Code	LP [₹]
1	MPP - CYL-ND	440	BCHMCN001B	255
2	MPP - CYL-ND	440	BCHMCN002B	505
3	MPP - CYL-ND	440	BCHMCN003B	760
4	MPP - CYL-ND	440	BCHMCN004B	1010
5	MPP - CYL-ND	440	BCHMCN005B	1180
7.5	MPP - CYL-ND	440	BCHMCN007B	1775
9	MPP - CYL-ND	440	BCHMCN009B	2125
10	MPP - CYL-ND	440	BCHMCN010B	2125
12.5	MPP - CYL-ND	440	BCHMCN012B	2660
15	MPP - CYL-ND	440	BCHMCN015B	3190
20	MPP - CYL-ND	440	BCHMCN020B	4250
25	MPP - CYL-ND	440	BCHMCN025B	5315
30	MPP - CYL-ND	440	BCHMCN030B	6375

MPP Can type Heavy Duty Capacitors(480V)

KVAR	Type	Rated Voltage (V)	BCH CAT Code	LP [₹]
11.2	MPP - CYL-HD	480	BCHMCH011C	3330
12.4	MPP - CYL-HD	480	BCHMCH012C	3680
14	MPP - CYL-HD	480	BCHMCH014C	4160
16.8	MPP - CYL-HD	480	BCHMCH016C	4985
18.6	MPP - CYL-HD	480	BCHMCH018C	5520
22.4	MPP - CYL-HD	480	BCHMCH022C	6640
24.8	MPP - CYL-HD	480	BCHMCH024C	7360
28.1	MPP - CYL-HD	480	BCHMCH028C	8335

MPP Can type Heavy Duty Capacitors(525V)

KVAR	Type	Rated Voltage (V)	BCH CAT Code	LP [₹]
6.6	MPP - CYL-HD	525	BCHMCH006D	2190
7.5	MPP - CYL-HD	525	BCHMCH007D	2485
11.2	MPP - CYL-HD	525	BCHMCH011D	3540
13.8	MPP - CYL-HD	525	BCHMCH013D	4370
19.8	MPP - CYL-HD	525	BCHMCH019D	6255
20	MPP - CYL-HD	525	BCHMCH020D	6325
25	MPP - CYL-HD	525	BCHMCH025D	7910
30	MPP - CYL-HD	525	BCHMCH030D	9485
33.1	MPP - CYL-HD	525	BCHMCH033D	10470

LT Power Capacitors..... BCH

MPP Box type capacitors



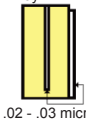
MPP Box type Normal Duty Capacitors

KVAR	Type	Rated Voltage (V)	BCH CAT Code	LP [₹]
5	MPP-BOX-ND	440	BCHMBN005B	1240
7.5	MPP-BOX-ND	440	BCHMBN007B	1840
10	MPP-BOX-ND	440	BCHMBN010B	2485
12.5	MPP-BOX-ND	440	BCHMBN012B	3105
15	MPP-BOX-ND	440	BCHMBN015B	3725
20	MPP-BOX-ND	440	BCHMBN020B	4970
25	MPP-BOX-ND	440	BCHMBN025B	6210

MPP Box type Heavy Duty Capacitors

KVAR	Type	Rated Voltage (V)	BCH CAT Code	LP [₹]
5	MPP-BOX-HD	440	BCHMBH005B	1600
7.5	MPP-BOX-HD	440	BCHMBH007B	2400
10	MPP-BOX-HD	440	BCHMBH010B	3200
12.5	MPP-BOX-HD	440	BCHMBH012B	4000
15	MPP-BOX-HD	440	BCHMBH015B	4800
20	MPP-BOX-HD	440	BCHMBH020B	6405
25	MPP-BOX-HD	440	BCHMBH025B	8005

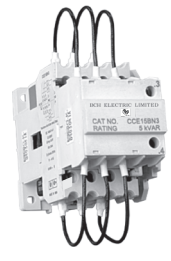
Heavy edge Zn Al Alloy MPP film



MPP Capacitors (IS13340)

MPP capacitors are manufactured using Zn-Al metallized polypropylene film. These modules are provided with pressure interrupter arrangement for safety against bursting due to internal pressure arised due to prolonged high voltage / current. The modules are assembled in a aluminium case or CRCA container

Capacitor Switching



- Ideal solution for Switching single and multiple Capacitor banks upto 25 KVAR
- IP 20

Duros Freedom Series Capacitor Duty AC Control

Size	Capacitor KVAR at 415 V, 3 Ph, 50 Hz	Cat. No.	MRP [₹]
B	5	CCE 15BN3■	1780
D	10	CCE 15DN3■	1900
F	15	CCE 15FN3■	2750
G	20	CCE 15GN3■	3350
H	25	CCE 15HN3■	3600

- For Coil Voltage Codes refer Table on page 31

LT Power Capacitors.....BCH

APP Box type Single Layer Capacitors(440V)

KVAR	Type	Rated Voltage (V)	BCH CAT Code	LP[₹]
1	APP-BOX	440	BCHAPS001B	660
2	APP-BOX	440	BCHAPS002B	1325
3	APP-BOX	440	BCHAPS003B	1985
4	APP-BOX	440	BCHAPS004B	2650
5	APP-BOX	440	BCHAPS005B	3220
7.5	APP-BOX	440	BCHAPS007B	4830
9	APP-BOX	440	BCHAPS009B	5795
10	APP-BOX	440	BCHAPS010B	5980
12.5	APP-BOX	440	BCHAPS012B	7475
15	APP-BOX	440	BCHAPS015B	8970
20	APP-BOX	440	BCHAPS020B	11960
25	APP-BOX	440	BCHAPS025B	14950
30	APP-BOX	440	BCHAPS030B	17940
50	APP-BOX	440	BCHAPS050B	29900



APP Capacitors

Double thick double hazy pp film

Aluminium foil

Non self healing APP capacitors manufactured using double hazy and double thick polypropylene films between two electrodes of thick aluminium foil have extended foil construction to ensure low watt losses

APP Box type Single Layer Capacitors(480V)

KVAR	Type	Rated Voltage (V)	BCH CAT Code	LP[₹]
5.6	APP-BOX	480	BCHAPS005C	3865
6.7	APP-BOX	480	BCHAPS006C	4625
11.3	APP-BOX	480	BCHAPS011C	6755
12.5	APP-BOX	480	BCHAPS012C	7475
14.4	APP-BOX	480	BCHAPS014C	8610
15.5	APP-BOX	480	BCHAPS015C	9270
17	APP-BOX	480	BCHAPS017C	10165
19	APP-BOX	480	BCHAPS019C	11360
22.4	APP-BOX	480	BCHAPS022C	13395
25	APP-BOX	480	BCHAPS025C	14950
28.1	APP-BOX	480	BCHAPS028C	16805
31.5	APP-BOX	480	BCHAPS031C	18835
33.9	APP-BOX	480	BCHAPS033C	20270

APP Box type Single Layer Capacitors(525V)

KVAR	Type	Rated Voltage (V)	BCH CAT Code	LP[₹]
6.9	APP-BOX	525	BCHAPS006D	4760
9.2	APP-BOX	525	BCHAPS009D	6350
12.5	APP-BOX	525	BCHAPS012D	7645
13.8	APP-BOX	525	BCHAPS013D	8445
15.4	APP-BOX	525	BCHAPS015D	9420
17.2	APP-BOX	525	BCHAPS017D	10525
18.5	APP-BOX	525	BCHAPS018D	11315
20.6	APP-BOX	525	BCHAPS020D	12605
22.6	APP-BOX	525	BCHAPS022D	13830
25	APP-BOX	525	BCHAPS025D	15295
27.5	APP-BOX	525	BCHAPS027D	16825
30.6	APP-BOX	525	BCHAPS030D	18720
33.1	APP-BOX	525	BCHAPS033D	20250
37.5	APP-BOX	525	BCHAPS037D	22945

'LT Capacitor of any other rating or specification can be made on request'

'For Shunt reactors, Detuned filters and Thyristor switches (TSM) please contact our sales office'

Intelligent Power Factor Controllers (IPFC)

Steps	CAT code	Voltage	Brief description	MRP [₹]
12 STEP - 3φ	RG3-12C	230V	12 Step intelligent PFC	30015
12 STEP - 3φ	RG3-12CS	230V	12 Step intelligent PFC with RS 485 communication	33070
15 STEP - 3φ	RG3-15C	230V	15 Step , Intelligent PFC relay	31460
15 STEP - 3φ	RG3-15CL	230V	15 Step , Intelligent PFC relay with 3 steps for reactor	On request
15 STEP - 3φ	RG3-15CS	230V	15 Step , Intelligent PFC relay with RS485 communication	38060
15 STEP - 3φ	RG3-15CLS	230V	15 Step , Intelligent PFC relay with 3 steps for reactor and RS485 communication	On request

Note : **RG3-8/12/15 and RG3-12/15CS available in 230V only



- 3-Phase / 3CTs
- Connecting Single-Phase & 3-Phase Capacitors
- Compensation of Each Phase
- Measures : A, Cos-φ, Total W, Total VAR, Total VA, Total KWH, Total KVAh
- Harmonic Measurement (up to 19th)
- THD 1% THD V%
- Programmable THD Protection
- Programmable Discharge Time
- Programmable THD Alarm
- Password Protection for setup
- Overheat Protection (Optional)
- RS-485 Communication (Optional)
- RG-15C - Intelligent relay PFC with smart switching with all 15 steps relay connection
- RG-15C - Intelligent relay PFC with smart switching with all 15 steps relay connection with communication

Automatic Power Factor Controllers (APFC)

Steps	CAT code	Voltage	Brief description	MRP [₹]
6 STEP - 1 φ	RG-6T-230-96	230V	PFC (96X96) WITH 6 STEPS , 230 V	11440
6 STEP - 1 φ	RG-6T-415-96	415V	PFC (96X96) WITH 6 STEPS , 415 V	11440
6 STEP - 1 φ	RG-6T-230	230V	PFC (144X144) WITH 6 STEPS, 230 V	12035
6 STEP - 1 φ	RG-6T-415	415V	PFC (144X144) WITH 6 STEPS, 415 V	12035
8 STEP - 1 φ	RG-8T-230	230V	PFC (144X144) WITH 8 STEPS, 230 V	12600
8 STEP - 1 φ	RG-8T-415	415V	PFC (144X144) WITH 8 STEPS, 415 V	12600
8 STEP - 3 φ	RG3-8T-230	230V	PFC 144X144, 8 STEPS, 230V UNBALANCELOAD	18355
12 STEP - 1 φ	RG-12T-230	230V	PFC (144X144) WITH 12 STEPS, 230 V	17290
12 STEP - 1 φ	RG-12T-415	415V	PFC (144X144) WITH 12 STEPS, 415 V	17290
12 STEP - 3 φ	RG3-12T-230	230V	PFC 144X144, 12 STEPS, 230V UNBALANCELOAD	20495

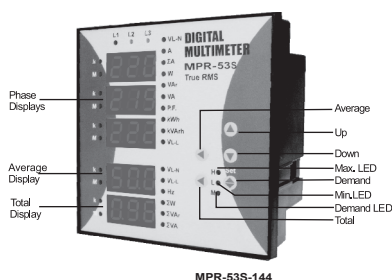
Note : **RG3-8/12/15 and RG3-12/15CS available in 230V only

Digital Network Analysers BCH

Sl. No.	Description	Cat. No	MRP [₹]
MPR-53 Series			
1	With Pulse Output, LED Display (96x96 mm)	MPR-53-96	12940
2	With Pulse Output, LED Display (144x144 mm)	MPR-53-144	On Request
3	With Pulse Output, LED Display (DIN)	MPR-53-DIN	13465
MPR-53S Series			
4	With RS-485 PC Communication (MODBUS-RTU Protocol) and Pulse Output, LED Display (96x96 mm)	MPR-53S-96	17580
5	With RS-485 PC Communication (MODBUS-RTU Protocol) and Pulse Output, LED Display (144x144 mm)	MPR-53S-96	On Request
6	With RS-485 PC Communication (MODBUS-RTU Protocol) and Pulse Output, LED Display (DIN)	MPR-53S-DIN	On Request
MPR-60S Series			
7	With Total Harmonic Measurement, LCD Display (THD V%, THD I%) (96x96 mm)	MPR-60S	24625
8	With Total Harmonic Measurement, LCD Display + Digital Input and Digital Output (THD V%, THD I%) (96x96mm)	MPR-60S-10	On Request
MPR-63 Series			
9	With Harmonic Measurement, LCD Display (THD V%, THD I%, up to 31th harmonic for Current & Voltage separately) (96x96mm)	MPR-63	30820
10	With Harmonic Measurement, LCD Display + Digital Input and Digital Output (THD V%, THD I%, up to 31th harmonic for Current & Voltage separately) (96x96mm)	MPR63-10	On Request
MPR-SW - SOFTWARE FOR MONITORING & SAVING PARAMETERS FOR MPR SERIES			
11	For 1 MPR Series	MPR-SW-1	On Request
12	For 5 MPR Series	MPR-SW-5	On Request
13	For 10 MPR Series	MPR-SW-10	On Request
14	For 15 MPR Series	MPR-SW-15	On Request
15	For 20 MPR Series	MPR-SW-20	On Request
ACCESSORIES FOR MPR SERIES			
16	RS232 TO RS485 Converter with Serial Cable & Power Adaptor	RS-C1	On Request
17	RS-485 / USB Converter for communicating PC with USB Cable	RS-USB2	On Request
18	Amplifies the Communication Data Signal* 1	RPT-1	On Request

Note : *RPT-1 must be used for each 20 devices.
For any other variants please contact sales office

MPR 53 S-144 (144x144 mm)



Measured Parameters

- Phase - Neutral Voltages (V_{LN})
- Phase - Phase Voltages (V_{LL})
- Average Phase - Neutral Voltage
- Phase - Phase Voltage
- Phase Currents (I)
- Total Current ($\hat{a} I$)
- Power Factor (P.F) Frequency (Hz)
- Active Power (P)
- Max. And Min. Demand Values
- Reactive Power (Q)
- Apparent Power (S)
- Total Active Power ($\hat{a} P$)
- Total Reactive Power ($\hat{a} Q$)
- Total Apparent Power ($\hat{a} S$)
- Active Energy - Import (kWh)
- Active Energy - Export (kWh)
- Reactive Energy - Capacitive (kVAh)
- Reactive Energy - Inductive (kVAh)

MPR 63/MPR63-10



MPR-63 / MPR63-10 :
THD V%, THD I%,
up to 31th harmonic for
current and voltage separately.
= Digital Output
= Digital Input (only for MPR63-10)

MPR-60S / MPR60S-10 :
THD V%, THD I%
= Digital Output
= Digital Input (only for MPR60S-10)



Measured Parameters

- 2nd, 3rd, 4th ... 31th Harmonic for I and V.
- Phase - Neutral Voltages (V_{LN})
- Phase - Phase Voltages (V_{LL})
- Average Phase - Neutral Voltage
- Average Phase - Phase Voltage
- Phase Currents (I)
- Neutral Current
- Total Current ($\hat{a} I$)
- Power Factor (P.F)
- Cos ϕ
- Frequency (Hz)
- Max., Min. and Demand Values
- Active Power (P)
- Reactive Power (Q)
- Apparent Power (S)
- Total Active Power ($\hat{a} P$)
- Total Reactive Power ($\hat{a} Q$)
- Total Apparent Power ($\hat{a} S$)
- Active Energy - Import (kWh)
- Active Energy - Export (kWh)
- Reactive Energy - Capacitive (kVAh)
- Reactive Energy - Inductive (kVAh)
- Total Harmonic Distortion for Voltage (THD V %)
- Total Harmonic Distortion for Current (THD I %)

3Phase Automatic Power Factor Correction (APFC) Panels NEW

Key Features

- Advanced Micro Controller based Power Factor Controller with Self-diagnostic Sensing and Control of Capacitor Bank Stages.
- High performance 'BCH' Cylindrical & Box type Capacitors.
- Capacitor duty Contactors for reliable & trouble free operation.
- Choice of Bhartiya-Celduc's world class Solid State Relay (SSR) with TMS² technology as an option.
- Choice of selection of Capacitors as per application & site conditions.
- Thoughtfully designed Panels with provision for louvres & cooling fan for proper ventilation to manage heat load.
- Enclosure with Epoxy based paint shade RAL 7032
- PU Foam Gasketing for sustained Ingress Protection of the Panel.



Five Standard Versions of APFC Panels are available depending upon Switching Sequence, Mode of Control (Automatic & Manual options) & Type of Capacitors (Cylindrical / Box type) used.

VERSION 1 - With BCH MPP Heavy Duty Cylindrical Capacitors & **WITHOUT** Manual option.

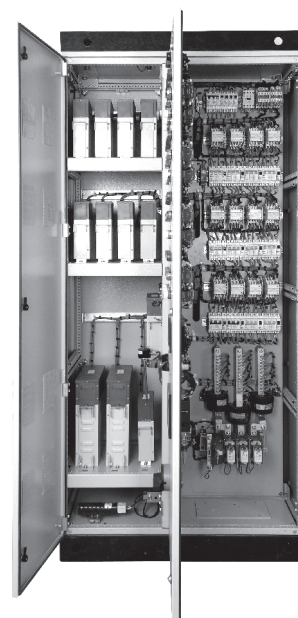
VERSION 2 - With BCH MPP Heavy Duty Reinforced Cylindrical Capacitors & **WITHOUT** Manual option.

VERSION 3 - With BCH MPP Heavy Duty Cylindrical Capacitors & **WITH** Manual option.

VERSION 4 - With BCH MPP Heavy Duty Reinforced Cylindrical Capacitors & **WITH** Manual option.

VERSION 5 - With BCH MPP-BH Heavy Duty Long Life, Box Type Capacitors & **WITH** Manual option.

(Other tailor made versions on request)



Common Features

CAPACITOR RATING - 40 to 200KVA_r in Standard Ratings of 40, 50, 60, 75, 100, 125, 150, 175 & 200 KVA_r with suitable banking arrangement.

MOUNTING - Wall Mounting up-to 75KVA_r & Floor Mounting above 75 KVA_r ratings.

INCOMING - BCH-RESILIENT 3-P MCCB with Rotary handle.

OUTGOING - TP MCB or HRC fuses with fuse base as standard (BCH-RESILIENT 3-P MCCB or SDFU and Compartmentalized outgoing feeders can also be provided depending upon size of panel on request).

CONTACTORS - BCH Capacitor Duty Contactors as standard (BCH-Celduc SSR's on request).

R-Y-B INDICATIONS - BCH Flexi-22 LED's.

AMMETER/VOLTMERS - Provided for VERSIONS 3, 4 & 5 only.

For prices contact our nearest sales office.

APFC Panels BCH

Version 1 & Version 2 - Cylindrical Type Capacitors & WITHOUT Manual Option

Version 1 & 2	KVA _r	Output Steps	Cat No. Vesion1/2	Incomer MCCB	Switching Sequence												Aprox Dimension W x H x D (mm)
					1	2	3	4	5	6	7	8	9	10	11	12	
	40	16x2.5	APFC40-1/2	100A(10KA)	2.5	2.5	5	10	20								800x1000x300
	50	20x2.5	APFC50-1/2	100A(10KA)	2.5	5	7.5	10	25								800x1000x300
	60	12x5	APFC60-1/2	125A(15KA)	5	10	10	15	20								800x1000x300
	75	15x5	APFC75-1/2	150A(15KA)	5	10	15	20	25								800x1000x300
	100	20x5	APFC100-1/2	200A(15KA)	5	10	15	20	25	25							600x1800x500
	125	25x5	APFC125-1/2	225A(15KA)	5	10	10	25	25	25	25						600x1800x500
	150	30x5	APFC150-1/2	250A(25KA)	5	10	10	25	25	25	25	25					900x1600x500
	175	35x5	APFC175-1/2	400A(35KA)	5	10	10	25	25	25	25	25	25				900x1600x500
	200	40x5	APFC200-1/2	400A(35KA)	5	10	10	25	25	25	25	25	25	25			1000x1600x500

Version 3 & Version 4 - Cylindrical Type Capacitors & WITH Manual Option

Version 3 & 4	KVA _r	Output Steps	Cat No. Vesion3/4	Incomer MCCB	Switching Sequence												Aprox Dimension W x H x D (mm)
					1	2	3	4	5	6	7	8	9	10	11	12	
	40	16x2.5	APFC40-3/4	100A(10KA)	2.5	2.5	5	10	20								800x1000x300
	50	20x2.5	APFC50-3/4	100A(10KA)	2.5	5	7.5	10	25								800x1000x300
	60	12x5	APFC60-3/4	125A(15KA)	5	10	10	15	20								800x1000x300
	75	15x5	APFC75-3/4	150A(15KA)	5	10	15	20	25								800x1000x300
	100	20x5	APFC100-3/4	200A(15KA)	5	10	15	20	25	25							600x1800x500
	125	25x5	APFC125-3/4	225A(15KA)	5	10	10	25	25	25	25						600x1800x500
	150	30x5	APFC150-3/4	250A(25KA)	5	10	10	25	25	25	25	25					900x1600x500
	175	35x5	APFC175-3/4	400A(35KA)	5	10	10	25	25	25	25	25	25				900x1600x500
	200	40x5	APFC200-3/4	400A(35KA)	5	10	10	25	25	25	25	25	25	25			1000x1600x500

Version 5 - Box Type Capacitors & WITH Manual Option

Version 5	KVA _r	Output Steps	Cat No. Vesion 5	Incomer MCCB	Switching Sequence												Aprox Dimension WxHxD(mm)
					1	2	3	4	5	6	7	8	9	10	11	12	
	40	8x5	APFC40-5	100A(10KA)	5	10	10	15									900x1200x600
	50	10x5	APFC505	100A(10KA)	5	10	15	20									900x1200x600
	60	12x5	APFC605	125A(15KA)	5	10	20	25									900x1200x600
	75	15x5	APFC755	150A(15KA)	5	10	10	25	25								900x1200x600
	100	20x5	APFC100-5	200A(15KA)	5	10	10	25	25	25							900x1200x600
	125	25x5	APFC125-5	225A(15KA)	5	10	10	25	25	25	25						1000x1800x600
	150	30x5	APFC150-5	250A(25KA)	5	10	10	25	25	25	25	25					1000x1800x600
	175	35x5	APFC175-5	400A(35KA)	5	10	10	25	25	25	25	25	25				1000x1800x600
	200	40x5	APFC200-5	400A(35KA)	5	10	10	25	25	25	25	25	25	25			1200x1800x600

Note: The Dimensions indicated above are without foundation frame and lifting angle/lifting hooks

Motors

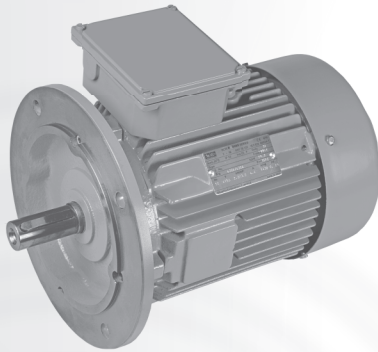
ENDURA

Low Voltage AC TEFC Squirrel
Cage Induction Motors

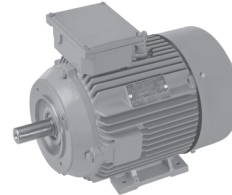
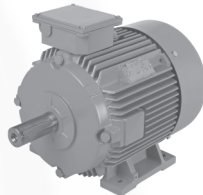
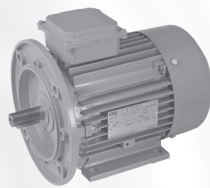
**EFF1
EFF2**

50°C
ambient temperature

Class F

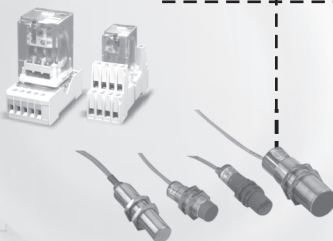
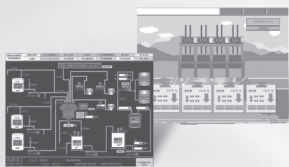


- **0.12 HP to 425 HP**
- **2 to 8 Poles**
- **Vector Plus with forced cooling**
- **Upto 40 intermediate standard ratings**
- **High efficiency, consistent - life long**
- **Low loss for entire life**
- **Inverter duty motor**
- **No deration upto 50° C**
- **Dual coat winding wire as standard feature**
- **6 terminals across the range**
- **Top, LHS, RHS termination flexibility**
- **CE marking**



Automation Products

- Programmable Logic Relays
- AC Drives
- Soft Starters
- Digital DC Drives
- e-prox Sensors
- Plug-in Relays
- Electronic Timers
- Digital Timer / Programmable Counter



Programmable Logic Relay BCH

Programmable Logic Relay

Compact, Modular, Flexible, Economic and Capable
 Surface mounting & DIN rail mounting
 Controls 82 inputs/outputs including 8 analog inputs.
 Output rating 10Amp for relay and 2Amp for transistor.
 Programming through "SUPER CAD" FBD programming software or LCD programming panel.
 Removable and separately installable LCD display panel.
 Voice module offers auto telephone dialing and pre recorded alarms.
 Industrial wireless remote control module offer 6 wireless remote control input points.
 Three no. extension I/O can be used as distributed I/O up to max. 6 mtrs. in length

Product Description	Cat. Ref. No	MRP [₹]
100~240VAC 8 AC IN/4 R Out Control unit	SR-12MRAC	On Request
100~240VAC 14 AC IN/8 R Out Control unit	SR-22MRAC	
100~240VAC 12 AC IN/8 R Out Expansion Unit	SR-20ERA	
12~24VDC 8 DC IN (A) /4 R Out Control unit	SR-12MRDC	On Request
12~24VDC 14 DC IN (A) /8 R Out Control unit	SR-22MRDC	
12~24VDC 12 DC IN (A) /8 R Out Expansion Unit	SR-20ERD	
12~24VDC 8 DC IN (A) /4 T Out Control unit	SR-12MTDC	On Request
12~24VDC 14 DC IN (A) /8 T Out Control unit	SR-22MTDC	
12~24VDC 12 DC IN (A) /8 T Out Expansion Unit	SR-20ETD	
100~240VAC type receiver module	SR-RCA	On Request
12~24VDC type receiver module	SR-RCD	
DC3V Transmitter module	SR-TC	
100~240VAC AC voice module	SR-VPA	
12~24 VDC DC voice module	SR-VPD	
Human Machine Interface (LCD panel)	SR-HMI-B	
Progammig cable - RS232-9 PIN D	SR-CP	
Progammig cable - USB	SR-DUSB	
AC Type remote Connecting bridge	SR-ECBA	
DC Type remote Connecting bridge	SR-ECBD	
Remote mounting rack for LCD panel	SR-EHC	
Programming Panel	SR-WRT	
Recording cable	SR-AUD	
Long connecting antenna of SR-RCA/SR-RCD	SR-EANT	

For prices contact our nearest sales office.



AC Drives BCH

SINUS N Drive



Rating (Kw)	Drive Series	Product Code	Supply Details	Remark	Current (A)	MRP [₹]
0.37	SINUS N	SINUS N 2S0001XBK2	Input - 1 phase 200 - 240V AC, Output - 3 phase, 240V AC	With EMC	2.5	14200
0.37	SINUS N	SINUS N 2S0001XIK2		W/o EMC	2.5	13300
0.75 - 1.1	SINUS N	SINUS N 2S0002XBK2		With EMC	5	16100
0.75 - 1.1	SINUS N	SINUS N 2S0002XIK2		W/o EMC	5	15200
1.5 - 1.8	SINUS N	SINUS N 2S0003XBK2		With EMC	8	19800
1.5 - 1.8	SINUS N	SINUS N 2S0003XIK2		W/o EMC	8	18200
2.2 - 3	SINUS N	SINUS N 2S0005XBK2		With EMC	12	24000
2.2 - 3	SINUS N	SINUS N 2S0005XIK2		W/o EMC	12	22300

SINUS M Drive



- 0.4~22Kw 380-480Vac, 3 phase
- Sensorless vector and V/F control
- Integrated braking module
- Build in PID function

Rating (Kw)	Drive Series	Product Code	Supply Details	Remark	Current (A)	MRP [₹]
0.37 - 0.55	SINUS M	SINUS M 4T0001BA2K2	Input - 3 phase 415V AC, Output - 3 phase, 415V AC	With EMC	1.25	21750
0.75 - 0.9	SINUS M	SINUS M 4T0002BA2K2		With EMC	2.50	23700
1.5	SINUS M	SINUS M 4T0003BA2K2		With EMC	4.00	26600
2.2	SINUS M	SINUS M 4T0005BA2K2		With EMC	6.00	28600
3.4	SINUS M	SINUS M 4T0007BA2K2		With EMC	9.00	35200
5.5	SINUS M	SINUS M 4T0011BA2K2		With EMC	12.00	45500
7.5	SINUS M	SINUS M 4T0014BA2K2		With EMC	16.00	53500
11	SINUS M	SINUS M 4T0017BA2K2		With EMC	24.00	93850
15	SINUS M	SINUS M 4T0020BA2K2		With EMC	30.00	108000
18.5	SINUS M	SINUS M 4T0025BA2K2		With EMC	39.00	136950
22	SINUS M	SINUS M 4T0030BA2K2	With EMC	45.00	161100	

*SINUS M available in 1 phase to 3 phase version also





Sinus Penta Drive

- 4.5 - 3000 KW, 3 Phase 380 - 415 VAC
- One Drive - Five functions
 - Vector modulation IFD functionality for general-purpose applications
 - Sensorless vector VTC functionality for high torque-demanding applications
 - Vector FOC functionality with an encoder for accurate torque requirements and a wide speed range
 - Vector SYN functionality for applications with brushless, synchronous motors
 - RGN functionality for the inverter application as an AC/DC converter for the DC supply of multiple drives
- In built Braking chopper upto 132KW rating (S30)
- Serial communication port RS485 – MODBUS RTU Protocol
- Starting Torque upto 240% max
- PID function / second PID function
- Control keypad panel with 12 keys and large back-lit LCD
- Intelligent cooling system
- Encoder feedback
- Full compatibility with teleservice software, "REMOTE DRIVE" on internet
- Compatible with Easy Harmonics, tool for the calculation of Harmonic currents

Drive Model				LIGHT			STANDARD			HEAVY			STRONG		
	Inom.	Imax.	Ipeak	Overload up to 120%			Overload up to 140%			Overload up to 175%			Overload up to 200%		
	A	A	A	Motor power 380 - 415 VAC			Motor power 380 - 415 VAC			Motor power 380 - 415 VAC			Motor power 380 - 415 VAC		
				KW	HP	A	KW	HP	A	KW	HP	A	KW	HP	A
SINUS P 0005	10.5	11.5	14	4.5	6	9	4	5.5	8.4	3	4	6.4	2.2	3	4.9
SINUS P 0007	12.5	13.5	16	5.5	7.5	11.2	4.5	6	9.0	4	5.5	8.4	3	4	6.4
SINUS P 0009	16.5	17.5	19	7.5	10	14.5	5.5	7.5	11.2	4.5	6	9	4	5.5	8.4
SINUS P 0011	16.5	21	25	7.5	10	14.8	7.5	10	14.8	5.5	7.5	11.2	4.5	6	9
SINUS P 0014	16.5	25	30	7.5	10	14.8	7.5	10	14.8	7.5	10	14.8	5.5	7.5	11.2
SINUS P 0016	27	30	36	11	15	21	9	12.5	18	9	12.5	18	7.5	10	15
SINUS P 0017	30	32	37	15	20	29	11	15	21	9	12.5	18	7.5	10	15
SINUS P 0020	30	36	43	15	20	29	15	20	29	11	15	21	9.2	12.5	18
SINUS P 0025	41	48	58	22	30	41	18.5	25	35	15	20	29	11	15	21
SINUS P 0030	41	56	67	22	30	41	22	30	41	18.5	25	35	15	20	29
SINUS P 0034	57	63	76	30	40	55	25	35	46	22	30	41	18.5	25	35
SINUS P 0036	60	72	86	30	40	55	30	40	55	25	35	46	22	30	41
SINUS P 0040	72	80	88	37	50	67	30	40	55	25	35	46	22	30	41
SINUS P 0049	80	96	115	45	60	80	37	50	67	30	40	55	25	35	46
SINUS P 0060	88	112	134	50	70	87	45	60	80	37	50	67	30	40	55
SINUS P 0067	103	118	142	55	75	98	55	75	98	45	60	80	32	45	59
SINUS P 0074	120	144	173	65	90	114	65	90	114	50	70	87	37	50	67
SINUS P 0086	135	155	186	75	100	133	75	100	133	55	75	98	45	60	80
SINUS P 0113	180	200	240	100	135	180	90	125	159	75	100	133	55	75	98
SINUS P 0129	195	215	258	110	150	191	100	135	180	80	110	144	65	90	114
SINUS P 0150	215	270	324	120	165	212	110	150	191	90	125	159	75	100	133
SINUS P 0162	240	290	324	132	180	228	132	180	228	110	150	191	90	125	159
SINUS P 0180	300	340	408	160	220	273	150	200	264	132	180	228	110	150	191
SINUS P 0202	345	420	504	200	270	341	160	220	273	160	220	273	132	180	228
SINUS P 0217	375	460	552	220	300	375	220	270	375	185	250	321	150	200	260
SINUS P 0260	425	560	672	250	340	425	250	340	425	220	300	375	185	250	321
SINUS P 0313	480	600	720	280	380	480	280	380	480	250	340	421	200	270	341
SINUS P 0367	550	680	792	315	430	528	315	430	528	280	380	480	220	300	375
SINUS P 0402	680	850	1020	400	550	680	400	550	680	355	485	589	280	380	480

For prices contact our nearest sales office.



ASAB Series Soft Starter

- 23A - 1600 A, 200V - 525V AC, 380V-690V AC
- 3 wire and 6 wire connection
- Allowed overload from 300%- 450% of nominal
- Various motor protections builtin
- 5/5 programmable I/Os
- Integrated Multimeter

Starting Functions

- Constant current start mode
- Current ramp start mode
- Torque control
- Kick start
- Inbuilt bypass contractor upto 220AMP

Protection Functions

- Thermal motor protection
- Motor thermistor input (PTC)
- Phase imbalance
- Phase sequence
- Electronic shearpin
- Undercurrent
- Shorted SCR
- ...and many more

Modello Model 200-525V	Size	Start per Hour	Bypassed ratings In-line connection				Start per Hour	Bypassed ratings Inside Delta connection			
			300%, 10s Light Dty	350%, 15s	400%, 20s	450%, 30s Hvy Dty		300%, 10s Light Dty	350%, 15s	400%, 20s	450%, 30s Hvy Dty
			N°	Amps	Amps	Amps		Amps	Amps	Amps	Amps
ASAB-0023B/5/12/2	G1 no fan	10	23	20	17	15	10	35	30	26	22
ASAB-0043B/5/12/2	G1 no fan	10	43	37	31	26	10	65	59	51	44
ASAB-0053B/5/12/2	G1 no fan	10	53	53	46	37	10	80	80	69	55
ASAB-0076B/5/12/2	G1 no fan	6	76	64	55	47	6	114	96	83	70
ASAB-0097B/5/12/2	G1	6	97	82	69	58	6	146	123	104	87
ASAB-0100B/5/12/2	G1	6	100	88	74	61	6	150	132	112	92
ASAB-0105B/5/12/2	G1	6	105	105	95	78	6	158	158	143	117
ASAB-0145B/5/12/0	G2	6	145	123	106	90	6	218	184	159	136
ASAB-0170B/5/12/0	G2	6	170	145	121	97	6	255	217	181	146
ASAB-0200B/5/12/0	G2	6	200	189	160	134	6	300	283	241	200
ASAB-0220B/5/12/0	G2	6	220	210	178	148	6	330	315	268	223
Non Bypassed Ratings In-line connection Non Bypassed ratings Inside delta connection											
ASAB-0255C/5/12/0	G3	6	255	231	201	176	6	383	346	302	264
ASAB-0380C/5/12/0	G4	6	380	380	359	299	6	570	570	539	449
ASAB-0430C/5/12/0	G4	6	430	430	368	309	6	645	645	552	464
ASAB-0620C/5/12/0	G4	6	620	620	540	434	6	930	930	810	651
ASAB-0650C/5/12/0	G4	6	650	650	561	455	6	975	975	842	683
ASAB-0790C/5/12/0	G4	6	790	790	714	579	6	1185	1185	1071	868
ASAB-0930C/5/12/0	G4	6	930	930	829	661	6	1395	1395	1244	992
ASAB-1200C/5/12/0	G5	6	1200	1200	1200	1071	6	1800	1800	1800	1606
ASAB-1410C/5/12/0	G5	6	1410	1410	1319	1114	6	2115	2115	1979	1671
ASAB-1600C/5/12/0	G5	6	1600	1600	1600	1353	6	2400	2400	2400	2030

* To complete cat code suffix : 7 - for 380 - 690V AC. For Price List of suffix 7 pl. contact our sales office.

* For the prices of above mentioned products please contact our nearest sales office.



ASAC Series Soft-Starter

- Power supply voltage Range: 200-440VAC
- RS-485 Communication Port
- Compact size & Range 7.5KW - 110KW
- Internal By-pass contactor
- 400% Max allowed overload of nominal current.
- Full Compatibility with teleservice software "Remote Drive" on internet

Protection Functions

- Motor Overload
- Phase loss
- Excess start Time
- Phase Sequence
- Motor thermistor I/P
- Power circuit fault
- Supply Frequency
- Communication Failure

BIL Product Reference	Motor Rating Kw	MRP [₹]	Remark
200 - 440 VAC, IP:20			
ASAC-0/007/4/1	7.5	34000	Without Motor Protection & with Inbuilt Bypass contactor.
ASAC-0/015/4/1	15	34500	
ASAC-0/018/4/1	18.5	35000	
ASAC-0/022/4/1	22	36700	
ASAC-0/030/4/1	30	40500	
ASAC-0/037/4/1	37	48500	
ASAC-0/045/4/1	45	59500	
ASAC-0/055/4/1	55	61000	
ASAC-0/075/4/1	75	92500	
ASAC-0/090/4/1	90	101500	
ASAC-0/110/4/1	110	109500	
200 - 440 VAC, IP:20			
ASAC-1/007/4/1	7.5	47500	With Motor Protections & Inbuilt Bypass contactor.
ASAC-1/015/4/1	15	53000	
ASAC-1/018/4/1	18.5	54500	
ASAC-1/022/4/1	22	57600	
ASAC-1/030/4/1	30	64100	
ASAC-1/037/4/1	37	71500	
ASAC-1/045/4/1	45	87500	
ASAC-1/055/4/1	55	92000	
ASAC-1/075/4/1	75	109600	
ASAC-1/090/4/1	90	144000	
ASAC-1/110/4/1	110	156500	

Soft Starters & DC Drives BCH

HSN Code - 8504



Medium Voltage Soft-Starter

- Power supply 2300VAC to 15000VAC, Rated current 200A to 600A
- 3 types of motor starting (Constant Current, Current Ramp, Torque Control)
- Allowed overload 600% of nominal current
- Class A EMC
- Operating temperature 0 to 50 deg
- Protections: Under / Overvoltage, Supply Frequency, Phase sequence,
- Shorted SCR, Motor Overload, Ground Fault, Undercurrent, Current Imbalance etc
- 5 Remote control inputs (3 Fixed & 2 Programmable)
- 6 Relay Outputs
- Analog output (1 Programmable)
- Serial output (RS-485 Modbus -RTU)

Digital DC Drives



- From 10A to 4500A (2.4 KW to 2205 KW)
3 Phase 220-690VAC
- 2 & 4 Quadrant digital drive
- Local control from keypad
- 12/7 programmable I/Os
- Predictive control and field boost
- Feedback from dynamo/encoder/armature
- Auto switching in armature F/B against
encoder/tacho feed back failure

Digital DC Drives

Cat. No.	Armature Current (A)	Field Current (A)
DCREG*.10 POT440V	10	5
DCREG*.20 POT440V	20	5
DCREG*.40 POT440V	40	5
DCREG*.70 POT440V	70	5
DCREG*.100 POT440V	100	5
DCREG*.150 POT440V	150	15
DCREG*.180 POT440V	180	15
DCREG*.250 POT440V	250	15
DCREG*.350 POT440V	350	15
DCREG*.410 POT440V	410	35
DCREG*.500 POT440V	500	35
DCREG*.600 POT440V	600	35
DCREG*.900 POT440V	900	35
DCREG*.1200 POT440V	1200	35

* to complete cat code suffix : 2- for II Quadrant drive 4 - for IV Quadrant drive
For above 1200 Amp rating details contact our nearest sales office.

For prices contact our nearest sales office.

HSN Code - 8536



- Sizes from 8mm to 30mm Dia
- Switching Distance from 1.5mm to 15mm
- IP 67, CE Marked
- Sensors with Linear output (4 - 20 mA/0-10VDC)

General Specifications

- High switching capacity
- 200mA upto 12mm Dia
- 400mA for 18mm and 30mm Dia
- Wide range of outputs
- Voltages AC/DC
- Status LED Indication
- Built in Short circuit protection

Special Versions

- Non Standard sizes from 4mm to 80mm dia
- High temperature sensors upto 125 Deg C
- Square / Slot / Rectangular sensors
- Sensor with shielded cable

ePROX Range

Standard Version of Inductive Proximity Switches

Cat. No.	Dia (mm)	Nominal Sn Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version Nominal Voltage 12-30V DC 3 Wire Output LED Indication Integrated cable 3C/2M						
DINE8SP10	8	1.5	PNP-NO	100	925	10
DINE8SN10	8	1.5	NPN-NO	100	925	
DINE12SP10	12	2	PNP-NO	200	735	
DINE12SN10	12	2	NPN-NO	200	735	
DINE18SP10	18	5	PNP-NO	200	780	
DINE18SN10	18	5	NPN-NO	200	780	
DINE30SP10	30	10	PNP-NO	400	955	
DINE30SN10	30	10	NPN-NO	400	955	
Non Flush Version Nominal Voltage 12-30V DC 3 Wire Output LED Indication Integrated cable 3C/2M						
DINE8NP10	8	2	PNP-NO	100	925	10
DINE8NN10	8	2	NPN-NO	100	925	
DINE12NP10	12	4	PNP-NO	200	735	
DINE12NN10	12	4	NPN-NO	200	735	
DINE18NP10	18	8	PNP-NO	200	780	
DINE18NN10	18	8	NPN-NO	200	780	
DINE30NP10	30	15	PNP-NO	400	955	
DINE30NN10	30	15	NPN-NO	400	955	
Flush Version Nominal Voltage 240V AC* 2 Wire Output LED Indication Integrated cable 3C/2M						
DINE12SA10	12	2	NO	200	910	10
DINE12SA01	12	2	NC	200	910	
DINE18SA10	18	5	NO	400	915	
DINE18SA01	18	5	NC	400	915	
DINE30SA10	30	10	NO	400	1080	
DINE30SA01	30	10	NC	400	1080	
Non Flush Version Nominal Voltage 240V AC* 2 Wire Output LED Indication Integrated cable 3C/2M						
DINE12NA10	12	4	NO	200	910	10
DINE12NA01	12	4	NC	200	910	
DINE18NA10	18	8	NO	400	915	
DINE18NA01	18	8	NC	400	915	
DINE30NA10	30	15	NO	400	1080	
DINE30NA01	30	15	NC	400	1080	

*110V AC input voltage is also available

ePROX Range

Capacitive Proximity Switches



- Sizes: 18mm and 30mm dia
- Switching Distance: upto 15mm
- IP 67, CE Compliance

General Specifications

- Max. load current : 400mA
- Wide range of outputs
- Built in Short circuit & polarity reversal protection
- Sensitivity adjustment thru trimmer

Cat. No.	Dia (mm)	Nominal Sn Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version 12-30V DC 3 Wire Output LED Indication Integrated 3C/2M						
DCAE18SN10	18	1 to 5	NPN-NO	400	1900	10
DCAE18SP10	18	1 to 5	PNP-NO	400	1900	
DCAE30SN10	30	1 to 10	NPN-NO	400	2180	
DCAE30SP10	30	1 to 10	PNP-NO	400	2180	
Non Flush Version 12-30V DC 3 Wire Output LED Indication Integrated 3C/2M						
DCAE18NN10	18	2 to 10	NPN-NO	400	1900	10
DCAE18NP10	18	2 to 10	PNP-NO	400	1900	
DCAE30NN10	30	3 to 15	NPN-NO	400	2180	
DCAE30NP10	30	3 to 15	PNP-NO	400	2180	

Photoelectric Sensors



- Size : M18 cylindrical
- Mode : diffuse, retro and thru beam
- LED indication
- Sensing distance 20cm to 5mtr.

Special Versions

- Sensors in Rectangular housing

Cat. No.	Dia (mm)	Nominal Sn Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Nominal Voltage : 12-30V DC Diffuse Scan DC 4-W Output LED Indication Prewired with 2 m Cable						
DPHE18D2N11	18	200	NPN-NO+NC	200	2895	10
DPHE18D2P11	18	200	PNP-NO+NC	200	2895	
Nominal Voltage : 12-30V DC Retro Reflective DC 4-W Output LED Indication Prewired with 2 m Cable						
DPHE18RRN11	18	1000	NPN-NO+NC	200	2900	10
DPHE18RRP11	18	1000	PNP-NO+NC	200	2900	
Nominal Voltage : 12-30V DC Through Beam DC 4-W Output LED Indication Prewired with 2 m Cable						
DPHE18TBRP11	18	5000	PNP-NO+NC	200	3490	10
DPHE18TBRN11	18	5000	NPN-NO+NC	200	3490	

Note :

- Prices for Thru Beam, Photo Sensors are inclusive of emitters & receivers.
- Prices for Retro Reflective Sensors are inclusive of reflectors.



Standard Version of Inductive Proximity Switches

Cat. No.	Dia (mm)	Nominal Sn Distance (mm)	Output	Connector Size	MRP [₹]	Lot Size
Flush Version Nominal Voltage 12-30V DC 3 Wire Output LED Indication, 200 mA Load upto 12mm & 400 mA for 18 mm						
DINE8SP10K	8	1.5	PNP-NO	M8 Connector	955	10
DINE8SN10K	8	1.5	NPN-NO	M8 Connector	955	
DINE12SP10K	12	2	PNP-NO	M12 Connector	950	
DINE12SN10K	12	2	NPN-NO	M12 Connector	950	
DINE18SP10K	18	5	PNP-NO	M12 Connector	950	
DINE18SN10K	18	5	NPN-NO	M12 Connector	950	
DINE30SP10K	30	10	PNP-NO	M12 Connector	1070	
DINE30SN10K	30	10	NPN-NO	M12 Connector	1070	
Non Flush Version Nominal Voltage 12-30V DC 3 Wire Output LED Indication						
DINE8NP10K	8	2	PNP-NO	M8 Connector	955	10
DINE8NN10K	8	2	NPN-NO	M8 Connector	955	
DINE12NP10K	12	4	PNP-NO	M12 Connector	975	
DINE12NN10K	12	4	NPN-NO	M12 Connector	975	
DINE18NP10K	18	8	PNP-NO	M12 Connector	955	
DINE18NN10K	18	8	NPN-NO	M12 Connector	955	
DINE30NP10K	30	15	PNP-NO	M12 Connector	1080	
DINE30NN10K	30	15	NPN-NO	M12 Connector	1080	
Cat. No.	Description Female Connectors				MRP [₹]	
DM8K3	M8 3-Wire straight connector w/o LED & 2 m cable				735	10
DM8K390LE	M8 3-Wire "L" type connector with LED & 2 m cable				735	
DM12K4	M12 4-Wire straight connector w/o LED & 2 m cable				495	
DM12K490	M12 4-Wire "L" type connector w/o LED & 2 m cable				720	
DM12K490LE	M12 4-Wire "L" type connector with LED & 2 m cable				765	
Linear Output Inductive Proximity Sensor - Nominal Voltage 24V DC, 2m Integrated Cable						
DINE18LIN	18	5	0 - 10V	2 m long PVC Cable	1635	10
DINE18LINMA	18	5	4 - 20 mA		1635	

Standard Version DC 2 Wire Proximity Switches

Cat. No.	Dia (mm)	Nominal Sensing Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version Nominal Voltage 24V DC 2 Wire Output LED Indication, Integrated 3C/2m long PVC Cable 65mm long tubular Metallic Housing						
DINE8SD10	8	1.5	NO	200	1130	10
DINE12SD10	12	2	NO	200	775	
DINE18SD10	18	5	NO	400	805	
DINE30SD10	30	10	NO	400	1050	
Non Flush Version, Nominal Voltage 12-30V DC 2 Wire Output LED Indication, Integrated 3C/2m long PVC Cable 65mm long tubular Metallic Housing						
DINE8ND10	8	2	NO	200	1130	10
DINE12ND10	12	4	NO	200	775	
DINE18ND10	18	8	NO	400	805	
DINE30ND10	30	15	NO	400	1050	

Note : for NC output, replace suffix 10 by 01



Short Housing Inductive Proximity Switch-45mm length

Cat. No.	Dia (mm)	Nominal Sensing Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version Nominal Voltage 12-30V DC, 3 Wire Output, LED Indication, Integrated 3C/2m long PVC Cable						
45mm long tubular Metallic Housing						
DINE8SP10S	8	1.5	PNP-NO	200	1175	10
DINE8SN10S	8	1.5	NPN-NO	200	1175	
DINE12SP10S	12	2	PNP-NO	200	795	
DINE12SN10S	12	2	NPN-NO	200	795	
DINE18SP10S	18	5	PNP-NO	400	820	
DINE18SN10S	18	5	NPN-NO	400	820	
Non Flush Version, Nominal Voltage 12-30V DC, 3 Wire Output, LED Indication, Integrated 3C/2m long PVC Cable						
45mm long tubular Metallic Housing						
DINE8NP10S	8	2	PNP-NO	200	1175	10
DINE8NN10S	8	2	NPN-NO	200	1175	
DINE12NP10S	12	4	PNP-NO	200	790	
DINE12NN10S	12	4	NPN-NO	200	790	
DINE18NP10S	18	8	PNP-NO	400	805	
DINE18NN10S	18	8	NPN-NO	400	805	

Square / Rectangular Proximity Switch

Cat. No.*	Size (mm)	Nominal Sensing Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush Version, Nominal Voltage 12-30V DC, 3 Wire Output, LED Indication, Integrated 3C/2m long PVC Cable, Plastic Housing						
DINE1717SP10P	17x17x30	5	PNP-NO	200	820	10
DINE2020SN10P	20x20x38	5	NPN-NO	200	825	
DINE5025SP10P	50x25x10	5	PNP-NO	200	855	
DINE1717SN10P	17x17x30	5	NPN-NO	200	820	
DINE2020SP10P	20x20x38	5	PNP-NO	200	825	
DINE5025SN10P	50x25x10	5	NPN-NO	200	855	

High Ambient Temperature (up to 125°C) Proximity Switch

Cat. No.*	Size (mm)	Nominal Sensing Distance (mm)	Output	Max. Load (mA)	MRP [₹]	Lot Size
Flush/Non Flush Version, Nominal Voltage 230V AC, 2 Wire Output, LED Indication, Integrated 3C/2m long Cable, SS Housing						
DINE30SA10HT **	30	4	NO	200	3150	10
DINE30NA10HT **	30	6	NO	200	3150	
DINE18SA10HT **	18	2	NO	200	2995	
DINE18NA10HT **	18	3	NO	200	2995	

* For NC Output, Replace Suffix 10 by 01

** For 110V AC input, Replace A by 2A

Plug in Relays-ASPU Series BCH

Plug In Relays - Universal (ASPU)



Cat. No.	Coil Voltage	Contacts	MRP [₹]	Lot Size		
8 Pin - contact rating 10A (Res.) at 24V DC/240V AC, LED Indication						
ASPU206DLE	6V DC	2 C/O	295	10		
ASPU212DLE	12V DC		295			
ASPU224DLE	24V DC		295			
ASPU248DLE	48V DC		325			
ASPU2110DLE	110V DC		325			
ASPU206ALE	6V AC		325			
ASPU212ALE	12V AC		325			
ASPU224ALE	24V AC		345			
ASPU2110ALE	110V AC		345			
ASPU2240ALE	240V AC		380			
11 Pin - contact rating 10A (Res.) at 24V DC/240V AC, LED Indication						
ASPU312DLE	12V DC		3 C/O		360	10
ASPU324DLE	24V DC	360				
ASPU348DLE	48V DC	370				
ASPU3110DLE	110V DC	380				
ASPU312ALE	12V AC	400				
ASPU324ALE	24V AC	400				
ASPU3110ALE	110V AC	400				
ASPU3240ALE	240V AC	425				
8 Pin - Contact rating 10A (Res.) at 24V DC/240V AC, LED Indication & Manual testing/latching lever						
ASPU212DLET	12V DC	2 C/O		400	10	
ASPU224DLET	24V DC		400			
ASPU2110DLET	110V DC		425			
ASPU212ALET	12V AC		425			
ASPU224ALET	24V AC		425			
ASPU2110ALET	110V AC		425			
ASPU2240ALET	240V AC		510			
11 Pin - Contact rating 10A (Res.) at 24V DC/240V AC, LED Indication & Manual testing/latching lever						
ASPU312DLET	12V DC	3 C/O	445	10		
ASPU324DLET	24V DC		455			
ASPU3110DLET	110V DC		510			
ASPU312ALET	12V AC		475			
ASPU324ALET	24V AC		480			
ASPU3110ALET	110V AC		510			
ASPU3240ALET	240V AC		555			

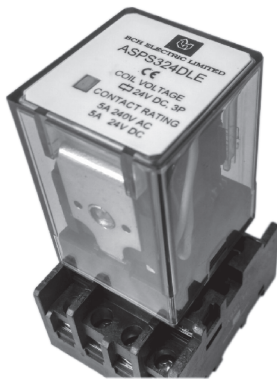
Sockets

Cat. No.	Coil Voltage	Contacts	MRP [₹]	Lot Size
10A, 240V AC, Screw Terminals, 35mm DIN Rail Mounting				
ASSU11	-	SOCKET 11 PIN FOR ASPS/ASPU Relay	150	10
ASSU8	-	SOCKET 8 PIN FOR ASPS/ASPU Relay	95	
ASPUCL	-	HOLDING CLAMP FOR ASPS/ASPU Relay	25	20

* For price of other coil voltage, please contact our nearest sales office.

Plug in Relays-ASPS Series BCH

Plug In Relays - Universal (ASPS)



Cat. No.	Coil Voltage	Contacts	MRP[₹]	Lot Size
8 Pin - contact rating 5A (Res.) at 24V DC/240V AC, LED Indication				
ASPS206DLE	6V DC	2 C/O	270	10
ASPS212DLE	12V DC		250	
ASPS224DLE	24V DC		250	
ASPS248DLE	48V DC		300	
ASPS2110DLE	110V DC		300	
ASPS206ALE	6V AC		290	
ASPS212ALE	12V AC		280	
ASPS224ALE	24V AC		280	
ASPS2110ALE	110V AC		280	
ASPS2240ALE	240V AC		325	
11 Pin - contact rating 5A (Res.) at 24V DC/240V AC, LED Indication				
ASPS312DLE	12V DC	3 C/O	315	10
ASPS324DLE	24V DC		315	
ASPS348DLE	48V DC		370	
ASPS3110DLE	110V DC		370	
ASPS324ALE	24V AC		305	
ASPS3110ALE	110V AC		325	
ASPS3240ALE	240V AC		360	

Sockets

Cat. No.	Coil Voltage	Contacts	MRP[₹]	Lot Size
10A, 240V AC, Screw Terminals, 35mm DIN Rail Mounting				
ASSU11	-	SOCKET 11 PIN FOR ASPS/ASPU Relay	150	10
ASSU8	-	SOCKET 8 PIN FOR ASPS/ASPU Relay	95	
ASPUCL	-	HOLDING CLAMP FOR ASPS/ASPU Relay	25	20

* For price of other coil voltage, please contact our nearest sales office.

Plug in Relays-ASPM Series.....BCH



Plug In Relays - Miniature (ASPM)

Cat. No.	Coil Voltage	Contacts	MRP[₹]	Lot Size
14 Pin - contact rating 5A (Res.) at 24V DC/240V AC, LED Indication				
ASPM412DLE	12V DC	4 C/O	225	20
ASPM424DLE	24V DC		225	
ASPM448DLE	48V DC		230	
ASPM4110DLE	110V DC		230	
ASPM424ALE	24V AC		250	
ASPM4110ALE	110V AC		260	
ASPM4240ALE	240V AC		260	
8 Pin - contact rating 5A (Res.) at 24V DC/240V AC, LED Indication				
ASPM212DLE	12V DC	2 C/O	195	20
ASPM224DLE	24V DC		195	
ASPM248DLE	48V DC		225	
ASPM2110DLE	110V DC		225	
ASPM224ALE	24V AC		225	
ASPM2110ALE	110V AC		225	
ASPM2240ALE	240V AC		225	

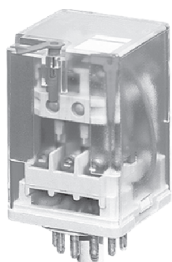
Sockets

Cat. No.	Coil Voltage	Contacts	MRP[₹]	Lot Size
5A, 240V AC, Screw Terminals, 35mm DIN Rail Mounting				
ASSM14	-	SOCKET 14 PIN FOR ASPM Relay	130	20
ASSM8	-	SOCKET 8 PIN FOR ASPM Relay	105	

* For price of other coil voltage, please contact our nearest sales office.

Plug in Relays-ARPU Series.....BCH

Universal Relays



- Type ARPU
- 10 Amp (Res) Contact rating
- 2 Change over / 3 Change over
- Silver Nickle Contacts
- Built in Mechanical Indicator/ Latching facility
- Wide Coil Voltages
- With and without LED
- 8 Pin / 11 Pin Socket



Socket & Clamp

35 mm DIN rail mounting Rating : 10 A, 250V



Plug In Relays - Universal (ARPU)

Cat. No.	Coil Voltage	Contacts	MRP [₹]	Lot Size
8 Pin, Contact rating = 10A (Res.) at 24V DC/250V AC; Mechanical indicator with manual testing/latching lever				
ARPU212D	12 V DC	2 C/O	455	10
ARPU224D	24V DC			
ARPU248D	48V DC			
ARPU2110D	110V DC			
ARPU224A	24V AC			
ARPU248A	48V AC			
ARPU2110A	110V AC			
ARPU2230A	230V AC			
8 Pin, Contact rating = 10A (Res.) at 24V DC/250V AC; LED Indication & Mechanical indicator with manual testing/latching lever				
ARPU212DLE	12 V DC	2 C/O	490	10
ARPU224DLE	24V DC			
ARPU248DLE	48V DC			
ARPU2110DLE	110V DC			
ARPU224ALE	24V AC			
ARPU248ALE	48V AC			
ARPU2110ALE	110V AC			
ARPU2230ALE	230V AC			
11 Pin, Contact rating = 10A (Res.) at 24V DC/250V AC; Mechanical indicator with manual testing/latching lever				
ARPU312D	12 V DC	3 C/O	490	10
ARPU324D	24V DC			
ARPU348D	48V DC			
ARPU3110D	110V DC			
ARPU324A	24V AC			
ARPU348A	48V AC			
ARPU3110A	110V AC			
ARPU3230A	230V AC			
11 Pin, Contact rating = 10A (Res.) at 24V DC/250V AC; LED Indication & Mechanical indicator with manual testing/latching lever				
ARPU312DLE	12 V DC	3 C/O	520	10
ARPU324DLE	24V DC			
ARPU348DLE	48V DC			
ARPU3110DLE	110V DC			
ARPU324ALE	24V AC			
ARPU348ALE	48V AC			
ARPU3110ALE	110V AC			
ARPU3230ALE	230V AC			

Sockets

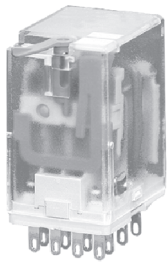
Cat. No.	Type	MRP [₹]	Lot Size
10A, 250V AC, Screw Terminals, 35mm DIN Rail Mounting			
ARSU11	11 Pin Socket	255	10
ARSU8	8 Pin Socket	245	
ARPUCL	Holding Clamp	30	

Subject to availability

Plug in Relays-ARPM Series BCH

HSN Code - 8536

Miniature Plug in Relays

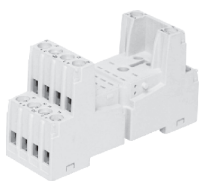


- Type ARPM 2/4
- 12/6 Amp. (Res.) Contact rating
- 2 Change over / 4 Change over
- Silver Nickel Contacts
- Built in Mechanical Indicator/Latching facility
- Wide Coil Voltages
- 8 Pin / 14 Pin Socket



Socket & Clamp ARSM

35 mm DIN rail mounting
Rating : 6A, 12A, 300V



Plug in Relays - Miniature (ARPM)

Cat. No.	Coil Voltage	Contacts	MRP [₹]	Lot Size
14 Pin, Contact rating = 6A (Res.) at 24V DC/250V AC; Mechanical indicator with manual testing/latching lever				
ARPM412D	12 V DC	4 C/O	295	10
ARPM424D	24V DC		270	
ARPM448D	48V DC		315	
ARPM4110D	110V DC		310	
ARPM424A	24V AC		310	
ARPM448A	48V AC		315	
ARPM4110A	110V AC		295	
ARPM4230A	230V AC		310	
14 Pin, Contact rating = 6A (Res.) at 24V DC/250V AC; LED Indication & Mechanical indicator with manual testing/latching lever				
ARPM412DLE	12 V DC	4 C/O	320	10
ARPM424DLE	24V DC		315	
ARPM448DLE	48V DC		345	
ARPM4110DLE	110V DC		345	
ARPM424ALE	24V AC		345	
ARPM448ALE	48V AC		345	
ARPM4110ALE	110V AC		330	
ARPM4230ALE	230V AC		345	
8 Pin, Contact rating = 12A (Res.) at 24V DC/250V AC; Mechanical indicator with manual testing/latching lever				
ARPM212D	12 V DC	2 C/O	285	10
ARPM224D	24V DC		245	
ARPM248D	48V DC		340	
ARPM2110D	110V DC		330	
ARPM224A	24V AC		290	
ARPM248A	48V AC		340	
ARPM2110A	110V AC		260	
ARPM2230A	230V AC		290	
8 Pin, Contact rating = 12A (Res.) at 24V DC/250V AC; LED Indication & Mechanical indicator with manual testing/latching lever				
ARPM212DLE	12 V DC	2 C/O	310	10
ARPM224DLE	24V DC		290	
ARPM248DLE	48V DC		340	
ARPM2110DLE	110V DC		330	
ARPM224ALE	24V AC		330	
ARPM248ALE	48V AC		350	
ARPM2110ALE	110V AC		310	
ARPM2230ALE	230V AC		330	

Sockets

Cat. No.	Type	MRP [₹]	Lot Size
Screw Terminals, 35mm DIN Rail Mounting			
ARSM14	14 Pin Socket	245	10
ARSM8	8 Pin Socket	190	
ARPMCL	Holding Clamp	30	

Subject to availability

Electronic Timers BCH

HSN Code - 9107



- On Delay
- Off Delay
- Cyclic
- Multifunction
- Star Delta
- Special version for Compressor application
- AC / DC Supply
- Widest timing range from 0.1 sec to 10 Hours in Single Unit
- Calibrated time scale for easy time setting
- DIN rail mounting
- Excellent repeat accuracy

Electronic Timers

Description	Cat.No.	MRP [₹]
Timer Encapsulated on delay Timer Type SAS-P (Solid State output) Voltages : 240V AC, 110V AC, 48V AC/DC, 24V AC/DC Time Range : 1 sec. or 0.1-10 Sec. or 1-100 Sec., or 3-300 Sec.	SST00-0-	880
Encapsulated on delay timer type SAS-CB (Solid State output) (Compressor/Heat pump) Voltages : 240V AC, 110V AC, 48V AC/DC, 24V AC/DC Time Range : 180 Sec. fixed	SST02-00	880
Chronos Delay on make type BAR 0.1 Sec. - 10 Hrs. 240V AC; 24V AC/DC or 110V AC; 24V AC/DC or 12V DC	SBT00-00	1580
Delay on break type BCR 0.1 Sec. - 10 Hrs. 240V AC; 24V AC/DC or 110V AC; 24V AC/DC or 12V DC	SBT01-00	1730
Recycling type BDR 0.1 Sec. - 10 Hrs. 240V AC; 24V AC/DC or 110V AC; 24V AC/DC	SBT02-00	2230
Multifunction type BLR 0.1 Sec. - 10 Hrs. 240V AC; 24V AC/DC or 110V AC; 24V AC/DC	SBT03-00	1750
Star-Delta Timer Type DQR-0.2-20 Sec./1-100 Sec.; 415/240, 110V: AC	SDT00-0-	1600

- Voltage Code
- Timing Range for Star-Delta Timers & SAS Timer

Voltage Codes

Type	Voltage	Voltage Code
B	240V AC; 24 V AC/DC	1
	110 V AC; 24 V AC/DC	2
	12 V DC	5
D	240 V AC	1
	415 V/240 V AC	0
	110 V AC	2
SAS	240V AC	1
	110V AC	2
	48V AC/DC	3
	24V AC/DC	4

Timing Code

Type	Timing	Code
DQR (Star Delta Timer)	20 Sec.	0
	40 Sec.	1
	100 Sec.	2
SAS	1 Sec.	0
	10 Sec.	1
	100 Sec.	2
	300 Sec.	3

Electronic Timers BCH

On Delay



- Fixed Voltage, Fixed Time
- Wide range of input supply - 220VAC; 110VAC; 24V AC/DC
- Large calibrated dial for easy and accurate time setting
- LED indications for Input supply and Output status
- Surface mounting & DIN rail mounting
- 1 changeover relay output (SPDT)
- All Purpose On Delay timer

Multi Function



- 4 Functions - On delay, Interval, Off delay, Single Shot
- Multi Time Range - Sec / Min / Hr
- Universal Voltage - 24 V- 230VAC/DC
- Large calibrated dial for easy and accurate time setting
- Compact Design
- LED indications for Input supply and Output status
- Surface mounting & DIN rail mounting
- 1 changeover relay output (SPDT)
- All Purpose Timer



- Selectable Counter, Chronometer or Timer functions.
- Up Counter, Down Counter, Up / Down Counter
- Up Chronometer, Down Chronometer
- Timer with On Delay, Interval, Off Delay, Single Shot and Cyclic Functions.
- Two presets with SPDT relays & solid state open collector
- Selectable Decimal Point
- EEPROM Data back-up
- 7 Segment 6 digit High LCD Display

IBT Electronic Timer Fixed Voltage; Fixed Time Range - IBTA

Cat Ref.	Time Range	Function	Voltage	MRP [₹]
IBT00101	0.6-6 Sec	On Delay	240V AC	855
IBT00201	0.6-6 Sec	On Delay	110V AC	855
IBT00301	0.6-6 Sec	On Delay	24V AC/DC	855
IBT00401	0.6-6 Sec	On Delay	12V DC	855
IBT00102	3-30 Sec	On Delay	240V AC	855
IBT00202	3-30 Sec	On Delay	110V AC	855
IBT00302	3-30 Sec	On Delay	24V AC/DC	855
IBT00402	3-30 Sec	On Delay	12V DC	855
IBT00103	6-60 Sec	On Delay	240V AC	855
IBT00203	6-60 Sec	On Delay	110V AC	855
IBT00303	6-60 Sec	On Delay	24 V AC/DC	855
IBT00403	6-60 Sec	On Delay	12V DC	855
IBT00104	18-180 Sec	On Delay	240V AC	855
IBT00204	18-180 Sec	On Delay	110V AC	855
IBT 00304	18-180 Sec.	On Delay	24 V AC/DC	855
IBT00404	18-180 Sec.	On Delay	12V DC	855

Universal Voltage, Multi Time, Multi Function - IBTMU

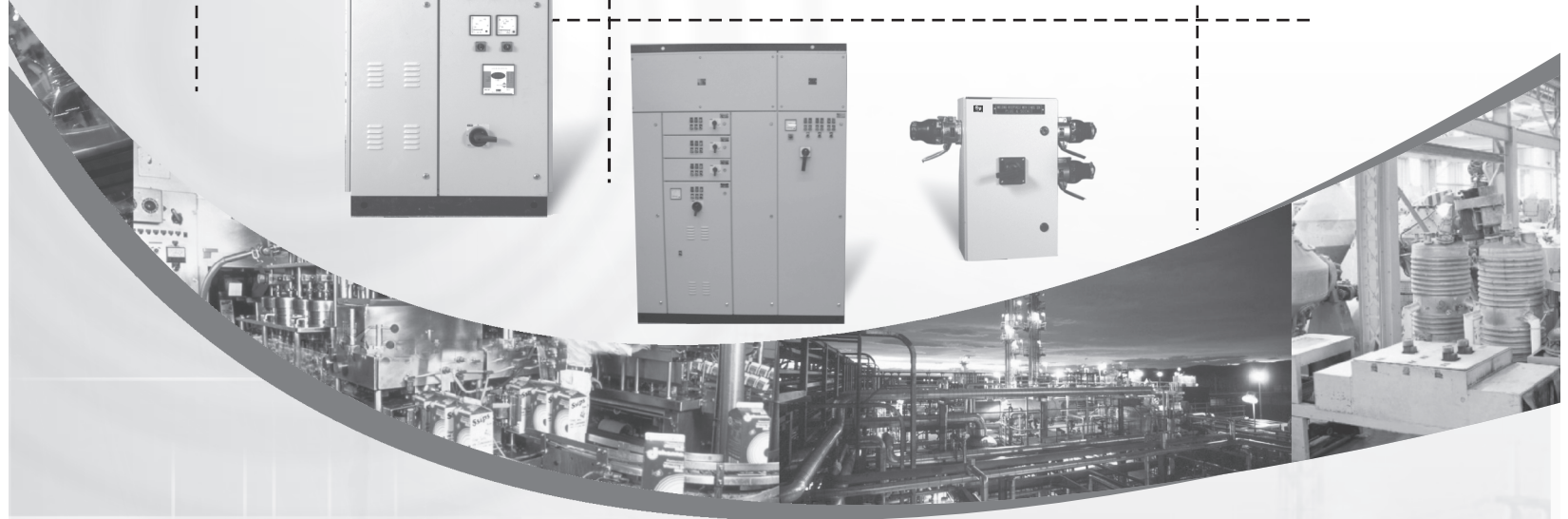
Cat Ref.	Time Range	Function	Voltage	MRP [₹]
IBT04500	0.1S - 10 Hr.	On Delay, Off Delay, Interval, Single Shot	24-240V AC/DC	1655

Digital Timer / Programmable Counter - IBC

Voltage	Description	Cat No.	MRP [₹]
115/230 VAC	Counting Range:0-999999 Counter: Up,Down,Up/Down Timer : A-On delay,B-Single shot C-Off delay,H-Interval D-Cycling timer Chronometer: Up,Down	IBC00100	On Request
12/24 VDC	Counting Range:0-999999 Counter: Up,Down,Up/Down Timer : A-On delay,B-Single shot C-Off delay,H-Interval D-Cycling time Chronometer: Up, Down	IBC00200	On Request

Custom Built Products

- **MCC & PCC**
- **Crane Control Panels**
- **Punch Grid Resistors & Panels, NGR & DBR**
- **Special Purpose Starters**
- **Power Receptacles**
- **Auto Transformer Starters**



Motor Control Centres (MCC) & Power Control Centres (PCC)



BCH MCC & PCC

- Latest Design Concepts & Manufacturing Process.
- Robust Construction and Durable Finish for Rugged Application.
- Techno Modular Design with flexibility in construction / fully bolted with concealed hinges for all doors.
- Suitable for Indoor and Outdoor installations with IP-54 / 55 as per IEC 60529 : 2001
- Fixed & Withdrawable type in Single front & Double Front Execution upto Form-4B.
- Bus Bar Rating upto 6300A with E91E grade Aluminium / Electrolytic grade Copper Bus Bars.
- Type tested for Short Circuit 800A to 4000A for 50 KA rms / 1sec and 105KA peak fault withstand as per IS: 8623 and IEC: 61439.
- Type tested for Temperature Rise 800A to 4000A from CPRI Bhopal as per IS: 8623 and IEC: 61439.
- 10 Tank spray based tricationic phosphating treatment and electrostatic coating with epoxy based powder.
- Standard Paint Shades : RAL-7035, RAL-7032 and 631 as per IS:5 Structure Finish Powder Coating.
- All doors & covers are provided with PU Foam gasket to ensure the Ingress Protection.
- PU Foam gasket temperature withstand capacity -40 Deg C to + 100 Deg C.
- Panel height upto 2500mm (including 100mm High Plinth/Base).
- Panel Width 900mm Withdrawable execution & for Fixed Execution depends on application.
- 600mm for Single Front Withdrawable , 1200mm for Double Front Withdrawable & For Fixed Execution depends on application.

All tailor made solutions on request and based on specific enquiries. Contact nearest branch location for detailed proposal as per exact requirement.



AC Crane Control Bridge and Trolley Motion

This controller provides reversing and plugging operation of slip ring induction motors in heavy duty cranes on Trolley services. Upto 5 motor speeds are achieved in conjunction with a master controller.

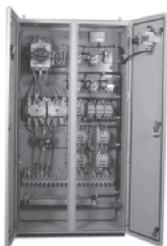
Design Features

- Simplified reliable circuitary
- Inverse Time delay Magnetic Overload protection
- Time Limit acceleration
- Speed Control by series resistors
- No Volt protection
- Special Unique plugging circuit with a voltage relay
- CRCA Sheet steel construction of the panel.
- 7 Tank pretreated panels for extremely long life
- Panels for indoor and outdoor protection



AC Crane Control Hoisting Motion

- Plain rotor resistance
- AC Single phase dynamic braking
- Counter torque lowering
- Oprotor Control
- Creep Speed



DC Crane Control Hoisting Motion

This control is for use with series wound motors drive for crane hoists and is arranged for reversing and dynamic lowering service. control

Design Features

- Simplified reliable circuitary
- Inductive time limit acceleration on hoisting & lowering
- Better speed control on light or heavy loads when hoisting or lowering
- CRCA Sheet steel construction of the panel.
- 7 Tank pretreated panels for extremely long life



DC Crane Control (Bridge and Trolley motion)

This controller provides reversing and plugging operation of series wound motors in heavy duty cranes on Trolley services. Upto 5 motor speeds are achieved in conjunction with a master controller.

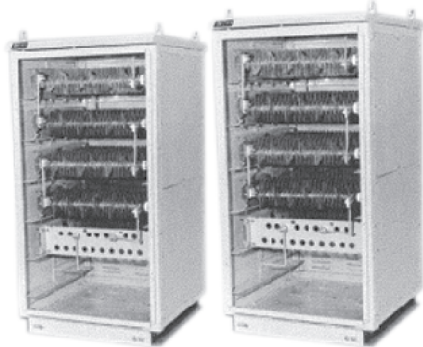
Design Features

- Simplified, reliable circuitary
- Rectifier controlled plugging
- Instantaneous and Inverse time delay magnetic overload protection
- No volt protection
- Heavy duty DC Contactors equipped with magnetic blowouts
- CRCA Sheet steel construction of the panel.
- 7 Tank pretreated panels for extremely long life

Resistors & Starters.....BCH

GST to be charged extra on PGR Prices

Punched Grid Resistors



PGRs are 10 minutes rated integrating period :10 minutes temp. rise : 375 deg over ambient

Type	Resistance Per Bank	Continuous Rating	LP
	Ohms	Amps	[₹]
WL10	0.1	225	11955
W12	0.125	200	10575
WL16	0.16	185	12215
WL20	0.2	150	12475
WL25	0.25	134	11010
WL32	0.32	118	9750
WL40	0.4	113	11275
WL50	0.5	100	9520
WL62	0.62	84	12300
WL80	0.8	75	11140
WL100	1	67	10360
WL125	1.25	64	11530
WL160	1.6	57	9950
WL200	2	54	11075
WL250	2.5	48	9775
WL320	3.2	43	8555
WL400	4	40	11930
WL500	5	35	8655
WL625	6.25	33	9885
WL800	8	29	9220
WL1200	12	24	9885
WL1600	16	20	9585

Range & Specifications

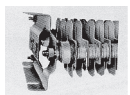
- Speed Control Resistors
- Starting Resistors for AC and DC Motors
- Dynamic Braking Resistors
- Neutral Grounding Resistors (upto 11KV)

Features

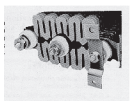
- Special Chromium Steel Alloy (AISI406) for :
 - Higher resistivity (approx 70% higher than others)
This results in overall light and compact unit
 - Low temperature coefficient (approx 72% lower than others)
This means negligible change in resistance values despite grid temperature variations (very important parameter in applications like crane controls)



Unbreakable and corrosion free Grids . Suitable for extreme vibration conditions



Drawout type of banks for ease of removal while replacements



Three rod construction for higher mechanical strength



Individual grids are T.I.G. welded for consistent current path



Unique design using staggered grid pattern ensuring maximum air circulation

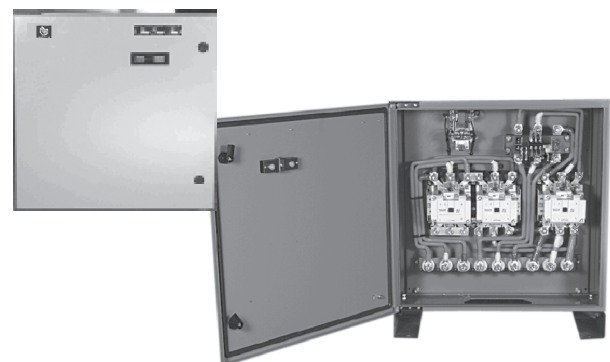


Terminal designed for 2 types of conductors ensuring flexibility

We also manufacture NGRs & DBRs

Special Purpose Starters

- Direct ON Line Starters upto 500 HP
- Star Delta Starters upto 650 HP
- Closed Transition Star Delta Starters upto 650 HP
- Automatic Stator Rotor Starting Panels upto 1000 HP
- DC starter upto 600A



Power Receptacles.....BCH

Power Receptacles

Range

- Single / Multiple outlet boxes
- 16/32/63/125A rating
- With or without protection
- Option of back up protection with :
MCBs
SDFUs
MCCBs
- Modular and compact construction
- Loop in / Loop out facility
- Higher degree of Ingress Protection
- 7 Tank processed powder coated enclosure
- PU Gasketing for excellent sealing against dust and water



Plugs and Socket outlets with / without protection, mounted in CRCA enclosure of suitable size

Single Outlet	Incomer (1 No.)			Standard Version Cat reference	Loop in loop out version Cat reference
	Switch Type	MCCB Type	MCB		
1 No DS1A7A1 and 1 No. DS1B7A1	PSFS323ND000/ PSFS323ND00	-	-	PR16SDF-1	PR16SDF-1-LILO
1 No DS1A7A1 and 1 No. DS1B7A1	-	-	16A,TPN	PR16MCB-1	PR16MCB-1-LILO
1 No DS1A7A1 and 1 No. DS1B7A1	-	-	-	PR16WP-1	PR16WP-1-LILO
1 No DS3A7A1 and 1 No. DS3B7A1	PSFS323ND000/ PSFS323ND00	-	-	PR32SDF-1	PR32SDF-1-LILO
1 No DS3A7A1 and 1 No. DS3B7A1	-	-	32A,TPN	PR32MCB-1	PR32MCB-1-LILO
1 No DS3A7A1 and 1 No. DS3B7A1	-	-	-	PR32WP-1	PR32WP-1-LILO
1 No DS6A7A1 and 1 No. DS6B7A1	PSFS633ND000/ PSFS633ND00	-	-	PR63SDF-1	PR63SDF-1-LILO
1 No DS6A7A1 and 1 No. DS6B7A1	-	XFE063N+ separate Neutral Link + Rotary Handle	-	PR63MCCB-1	PR63MCCB-1-LILO
1 No DS6A7A1 and 1 No. DS6B7A1	-	-	63A,TPN	PR63MCB-1	PR63MCB-1-LILO
1 No DS6A7A1 and 1 No. DS6B7A1	-	-	-	PR63WP-1	PR63WP-1-LILO
1 No DS9A7A1 and 1 No. DS9B7A1	PSFS1253ND	-	-	PR125SDF-1	PR125SDF-1-LILO
1 No DS9A7A1 and 1 No. DS9B7A1	-	XF2H125NV+ separate Neutral Link + Rotary Handle	-	PR125MCCB-1	PR125MCCB-1-LILO
1 No DS9A7A1 and 1 No. DS9B7A1	-	-	-	PR125WP-1	PR125WP-1-LILO

Double Outlet

2 No DS6A7A1 and 2 No. DS6B7A1	-	XF2H125NV+ separate Neutral Link + Rotary Handle	-	PR63MCCB-2	PR63MCCB-2-LILO
2 No DS6A7A1 and 2 No. DS6B7A1	PSFS1253ND	-	-	PR63SDF-2	PR63SDF-2-LILO

* Prices : Available on request

Auto Transformer Starter Panels upto 800 HP

Advantages

- Good Starting Torque and current performance
- Possibility of adjusting starting parameters
- No break in supply to the motor during starting
- Best suited when maximum reduction of Inrush current is desired or motor requires longer acceleration time with Good starting torque

- Blowers
- Pumps
- Compressors
- Extruders
- Crushers

Range & Specifications

- Available upto 800HP
- Standard Tappings : 50% , 65% and 80%
- Air Cooled design
- 7 Tank pre treated bolted construction enclosure
- Superior gasket

Protections

- Short Circuit
- Overload and Single Phasing (Thru Overload relay)
- Under voltage
- Other protections available on request

Metering and indication

- Voltmeter with selector switch
- Ammeter with selector switch
- R, Y, B phase indication
- Motor ON, OFF and Trip indication



BCH advantage over conventional Oil Cooled design

CONVENTIONAL OIL COOLED	BCH AIR COOLED
AT is provided as a separate Unit	Panel Size is compact as AT is a part of the panel
Additional Wiring between AT and panel	Less wiring
Oil to be filled, which adds cost to the panel	No extra cost
Maintenance is costly as oil to be regularly monitored for its level , viscosity. When sludge is formed it needs to be replaced	Practically NO maintenance
Moisture in the oil can burn the Transformer so ATS cannot be installed in moisture prone areas	Suitable for all atmospheric conditions
Less initial cost but high running cost	Slightly high Initial cost but very less running cost

Auto Transformer BCH

BIL Auto Transformer Starter - STANDARD RATINGS	MODEL 1 - BASIC ATS : PU door-gasket Enclosure, 3nos. Power Contactor, Citation OLR, Start/Stop PB, Motor ON LED		MODEL 2 - PREMIUM Version : PU door- gasket Enclosure, MCCB Incomer, 3nos. Power Contactor, Citation OLR, Electronic SPP, Ammeter/voltmeter with selector switches, Start/Stop PB, Phase & Motor ON/Trip LEDs.	
HP	Cat. No.	MRP [₹]	Cat. No.	MRP [₹]
7.5	ATEA10/KOR	Contact Nearest Sales Office for Prices	ATPA10/KOR	Contact Nearest Sales Office for Prices
10	ATEA10		ATPA10	
15	ATEA15		ATPA15	
20	ATEA20		ATPA20	
25	ATEA25		ATPA25	
30	ATEA30		ATPA30	
35	ATEA40		ATPA40	
40	ATEA40		ATPA40	
50	ATEA50		ATPA50	
60	ATEA60		ATPA60	
75	ATEA75		ATPA75	
100	ATEA100		ATPA100	
125			ATPA125	
150			ATPA150	
175			ATPA175	
200			ATPA200	
225			ATPA225	
250			ATPA250	
300			ATPA300	
350			ATPA350	
400		ATPA400		

TERMS & CONDITIONS

Prices ●●●●

The prices given in this list is effective as on date and is subject to change without notice.

Jurisdiction ●●●●

The courts at Faridabad only will have jurisdiction to settle all the disputes raised.

Order Changes ●●●●

Alterations made after receipt and confirmation of order are subject to price and delivery revisions and any other expenses or levies.

Duties and Taxes ●●●●

- Maximum Retail Price (MRP) is inclusive of GST as may be applicable.
- List Price (except for Enclosures, AC / DC Brakes, Brake Panels, AC / DC Brake Spares & PGR) is inclusive of GST as my be applicable.

In case where any GST exemption has been claimed, the purchaser is responsible for providing the necessary GST exemption form within the specified period, failing which the purchaser would be liable for the payment of full GST plus applicable interest and penalties.

For Enclosures, AC / DC Brakes, Brake Panels, AC / DC Brake Spares & PGR ●●●●

- The prices given in this list is effective as on date and is subject to change without notice.
- Prices are Ex-works Faridabad inclusive of Packing & forwarding.
- List price does not include GST and the same will be charged extra as applicable.
- Freight is inclusive (Within India) for Bhartia Boxes, Stainless Steel Boxes and Terminal Boxes range, AC / DC Brakes, Brake Panels, AC / DC Brake Spares & PGR. For all other product ranges freight will be charged extra.
- The duties, taxes and other statutory levies are based on rates prevailing at the time of billing. Any subsequent revision of those rates having retrospective effective shall be to customer's account.
- In case where any GST exemption has been claimed, the purchaser is responsible for providing the necessary GST exemption from within the specified period, failing which the purchaser would be liable for the payment of full GST plus applicable interest and penalties
- **Alteration** made after receipt and confirmation of order are subject to price and delivery revision and any other expenses or levies
- **Jurisdiction** : The courts at Faridabad only will have jurisdiction to settle all the dispute raised

a strong commitment
to serve better
always ...



**Switchgear | Controlgear | Enclosures | Motor Starters & Submersible Pump Starters |
Brakes and Crane Controls | MCC | PCC | Customised Solutions | Automation |
Wires & Cables | Motors | Reactive Power Management**



BCH ELECTRIC LIMITED

Power Control Products

Starters & Submersible
Pump Starters

Industrial Enclosures

Industrial Products

Wires & Cables

Motor Control Products

Customised Solution

Automation

a strong commitment to serve better always ...



BCH ELECTRIC LIMITED

Visit us at : www.bchindia.com

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CIN : U31103WB1965PLC026427, Customercare No. 1800-103-9262, E-mail : marketing@bchindia.com

Registered Office : Block 1E, 216, Acharya Jagadish Chandra Bose Road, Kolkata - 700 017

Works 1 : 20/4, Mathura Road, Faridabad -121 006 (Haryana) Tel. : 0129-4063000/4293000 Fax : 0129-2304016

Works 2 : 64-68, Sector-7, IIE, Pant Nagar, Rudrapur, Udham Singh Nagar - 263 153 (Uttarakhand) Tel. : 05944-250214/16 Fax : 05944-250215

Sales Offices :

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Near Swastik Char Rasta,
C.G. Road, Navrangpura,
Ahmedabad- 380 009
Tel. : 079-26565719/40074482
Fax : 079-26565719
E-mail : ahmedabad@bchindia.com

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Bangalore - 560 027
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Fax : 080-22236759
E-mail : bangalore@bchindia.com

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SCO 121-22-23, 1st Floor,
Sector 34-A, Chandigarh - 160 022
Tel. : 0172-5078957/2666122
Fax : 0172-5049905
E-mail : chandigarh@bchindia.com

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Tel. : 044-24337046, 24337047
Fax : 044-24337047
E-mail : chennai@bchindia.com

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Coimbatore - 641 018
Tel. : 0422-2305311
Fax : 0422-2302599
E-mail : coimbatore@bchindia.com

Dehradun

8, Co-operative Industrial Estate,
Patel Nagar, Dehradun-248001
E-mail : dehradun@bchindia.com

Faridabad

20/4, Mathura Road,
Faridabad - 121 006 (Haryana)
Tel. : 0129-2304016
E-mail : faridabad@bchindia.com

Hyderabad

1-8-303/48/13/102, Arya One,
2nd Floor, P. G. Road,
Secunderabad - 500 003
Tel. : 040-66206263/27890306
Fax : 040-66207273
E-mail : hyderabad@bchindia.com

Indore

330-331, Indraprastha Tower,
3rd Floor, 6, M.G. Road,
Indore - 452 001
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25, Hathroi, Gopalbari,
Jaipur - 302 001
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Fax : 0141-2363521
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'Q' Road, Bistupur,
Jamshedpur - 831 001
Tel. : 0657-2321097/2321481
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Kolkata

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Acharya Jagadish Chandra Bose Road,
Kolkata - 700 017
Tel. : 033-22871728
E-mail : kolkata@bchindia.com

Lucknow

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Lucknow - 226 001
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Feroze Gandhi Market,
Ludhiana - 140 001
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Fax : 0161-5021807
E-mail : ludhiana@bchindia.com

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A-151, Mittal Tower,
Nariman Point,
Mumbai - 400 021
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Flat No. T/12, 3rd Floor
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Behind Railway Station, Bajerla
Nagpur (M.S.) - 440018
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25A, Barakhamba Road,
New Delhi - 110 001
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Pandri, Rajpur - 492 004
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Trichy

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19/1, Puthur High Road,
Ramalinga Nagar,
Trichy - 620 017
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Vadodara

301, Third Floor, "Florence Classic",
10, Ashapur Co-Op. Hsg. Soc. Ltd., Opp. VUDA Housing,
Near Cow Circle, Akota, Vadodara - 390 020
Tel. : +91-265-6548444/2345068/2345069
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E-mail : vadodara@bchindia.com

Other Branch Locations

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Hubli : hubli@bchindia.com, **Madurai :** madurai@bchindia.com, **Vishakapatnam :** vizag@bchindia.com, **Surat :** surat@bchindia.com

Resident Engineer Locations

Baddi	Gurgaon	Madurai	Rajahmundry
Bardhaman	Haridwar	Muzaffarnagar	Salem
Bhilai	Hubli	Nagpur	Surat
Bhubaneswar	Hospet	Nashik	Udaipur
Cochin	Jodhpur	Patna	Vapi
Dehradun	Kakinada	Puducherry	Vishakhapatnam
Durgapur	Kota	Rajkot	Warangal

Since product improvement is a continuous process, the data furnished in this brochure may undergo revision without prior notice.