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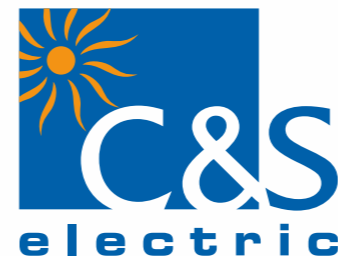
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NOTE: Innovations and product improvement are a continuous process we therefore reserve the right to update the contents of this documents based on related developments without any prior notice.

We touch your electricity everyday!



Protects from ○ **OVERLOAD** ○ **SHORT CIRCUIT** ○ **SHOCK**



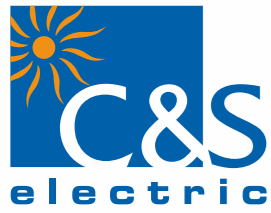
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Circuit Protection

Industrial | Residential | Commercial

Final Distribution Products

We touch your electricity everyday!



C&S Electric Ltd. is a leading manufacturer of electrical and electronic equipment in India. It is one of India's largest exporters of industrial switchgear & power busbar products. C&S Electric products are used in applications ranging from power generation, transmission and distribution, protection and final consumption.

C&S Electric has the following product verticals:

- LV Switchgear
- LV Switchboards
- LV & MV Busducts
- LV Bustrunking
- Protection and Measurement Devices

MANUFACTURING FACILITIES



C&S Controlgear Plant at Noida



C&S Switchgear Plant at Noida



World-Class Manufacturing Plants at SIDCUL, Haridwar

MARKET LEADER

C&S is one of the leading supplier in the LV Switchgear business segment and a market leader in the busbar business with more than 50% share in Indian market.

11 MANUFACTURING PLANTS

C&S Electric have 11 state-of-the-art manufacturing facilities in Noida, Haridwar & Guwahati, which are equipped with latest tools and systems to ensure highest level of quality and services.

600+ STOCKISTS

A dedicated network of channel partners, ensuring access to the farthest corners of India, with an obsession for customer services. In addition C&S products are available in 8000+ retail counters nationally.

EXPORTS TO OVER 85 COUNTRIES

C&S exports the entire range of products across all 7 continents, thus reaffirming its position as one of India's largest exporters of industrial electrical products.

5000+ WORKFORCE

5000+ Workforce including over 371 engineers, dedicated sales team of 424 people & millions of satisfied customers.

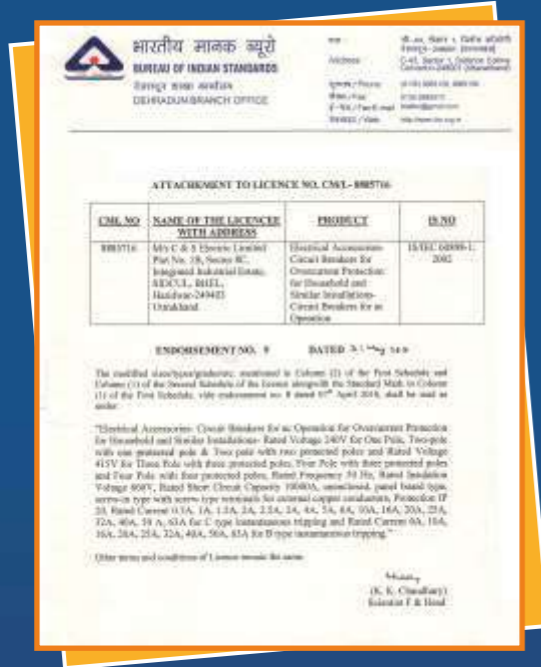
R&D

4 Govt. approved labs/centres, over 20,000 sqft. space dedicated to R&D, 70 R&D engineers, state of the art testing & design facilities ... & most of the all a passion for innovation & excellence.

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Certifications



As power distribution needs play a pivotal role in all the significant sectors namely Commercial, Industrial and Residential, improved Breaker performance through better electrical safety, higher operational endurance, continued service and reduced cost have become of paramount importance. C&S Wintrip MCBs have been engineered to constantly fulfill the above requirements. With these features C&S is setting new standards for user friendly and superlative electrical circuit protection.

The C&S MCB is a high performing Thermal Magnetic current limiting device with the ability to disconnect short circuits up to 10kA. The range is available in tripping characteristics types B, C, D and K for 1P, 1P+N, 2P, 3P, 3P+N & 4P configurations in 0.5 - 125A current ratings.

All metal components for operating mechanism of Wintrip circuit breaker are specially treated for high self lubrication leading to repeat accuracy during service life. The MCBs conform to Standards: IEC 60898-1:2015 and IS/IEC 60947-2:2016 and stand guaranteed for best quality for optimum performance.



WiNtrip

WiNtrip

Safe **Convenient** **Energy Saving** **Wide range**

IP 20 Degree Protection

Terminals are finger touch proof. Prevents electrical shock by accidental touch.



Trip Free Mechanism

MCB trips even if held in ON position.

Padlocking Facility

Dolly can be padlocked in
- OFF position for personal safety during maintenance
- ON positing for extremely critical loads



Current Limiting Design - Class 3

Minimum let through energy under fault condition due to ultra fast contact separation and rapid quenching of the arc. This reduces stress on connected loads and cables.

High Terminal Capacity with Deep Serrations

Ensures proper termination and firm connection to accommodate 35 sq mm cable.



Bi-connect Termination Possible

Choice to use Busbar and/or cable in the same terminal, provides reliable termination

Din Rail Mounting

Two stage snapping device for simple effortless and firm seating on 35 mm Din Rail, easy & efficient mounting.



Combination Head Captive Screws

Safe and provides the flexibility of both +/- Head screw driver.

Low Power Consumption

Cost effective and energy saving. The Watt loss of WiNtrip MCBs is extremely low providing valuable energy savings over its entire life cycle.



Legend Plate

Ensures circuit identification and enhanced safety



Wide range

0.5 to 125A
1P, 1P+N, 2P, 3P, 3P+N & 4P configurations
B, C & D Tripping Characteristic

Air circulation

When two poles are placed adjacent to each other, these channels form a tunnel resulting in effective air circulation around individual poles.



2 Position dolly

Clear indication of the operational status of device.



Features - Construction

Housing

WiNtrip MCBs are made up of engineered thermo plastic for self lubrication and critical performance. The housing and other moulded components are fire retardant having high melting point, low water absorption and high dielectric strength therefore enabling it to withstand high temperature.

Operating Mechanism

WiNtrip Circuit Breakers are based on Thermal Magnetic technology. The protection is ensured by combining a temperature receptive mechanism (bimetal) and a current sensitive electro-magnetic device. The thermal operation provides protection from normal overload and the electro-magnetic device against large overloads and short circuits.

Superior Contact Mechanism

The mechanism comprises of fixed and moving contacts made up of silver graphite for surety, extended life span and anti-weld properties. These contacts have low contact resistance resulting in reduced voltage drop and low watt loss commensurating to energy savings.

High Tech Arc Blower

Protects from hazards of overloads and short-circuits. The arc under the influence of magnetic field is moved into the arc chute where it is quickly extinguished and quenched.

Maximum Backup Protection

To protect the WiNtrip circuit breakers against higher short circuit current, fuses should be installed at the incoming side. The current rating of these fuse links should not be more than the values stated in the table.

MCB Rating	Back-up Fuse Rating
1A	25A
4A	50A
6A	80A
10A	100A
63A	100A

Legend Plate

Easy identification of circuits irrespective of position on the Distribution Board. Very useful during maintenance. A unique feature.

Altitude Correction Factor - FDP Product Range: MCB & RCCB

Altitude (m)	Normal Barometric Pressure (kPa)	Thermal Rating Correction Factor (Ie)
2000	7	1.00
3000	11.5	0.93
4000	15.2	0.88
5000	18.7	0.82

Watt Loss

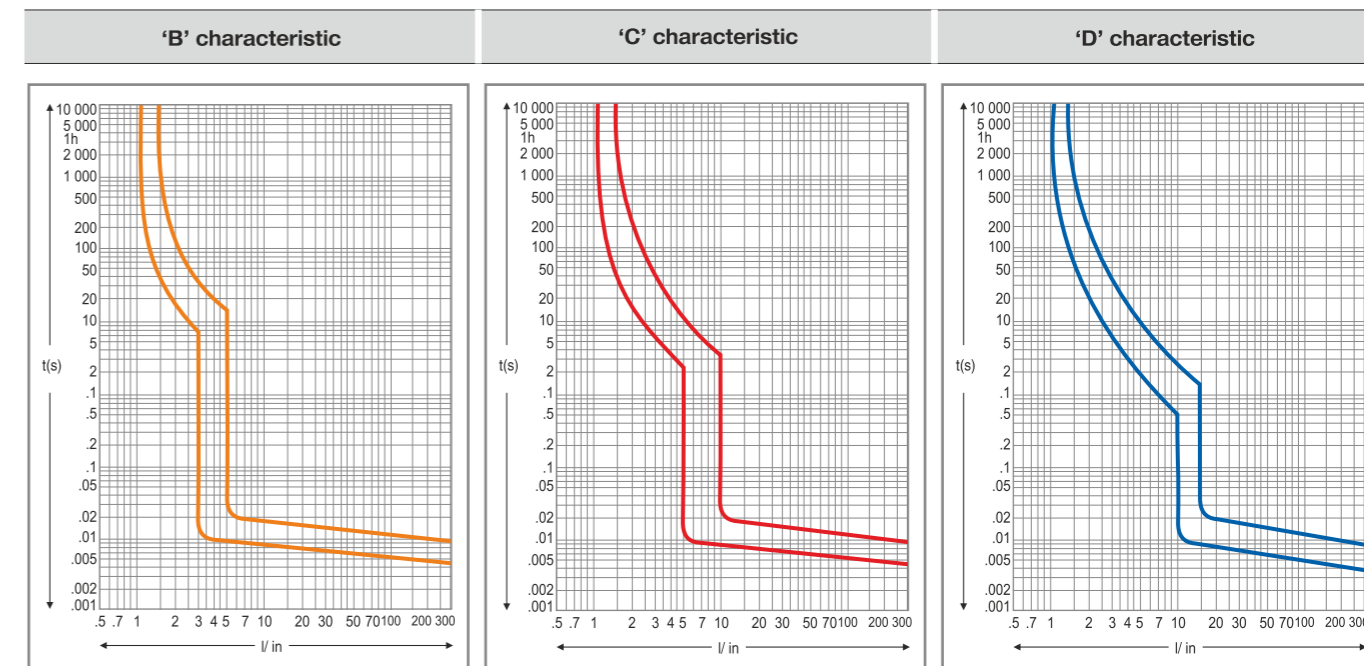
Rating (Amp)	Maximum Watt Loss	Maximum watt loss in SP
6	3.0W	1.12W
10	3.0W	1.83W
16	3.5W	2.44W
20	4.5W	3.07W
25	4.5W	2.96W
32	6.0W	3.92W
40	7.5W	4.2W
63	13.0W	6.06W
80	15.0W	8.2W
100	15.0W	9.5W
125	20.0W	14.0W

Note: 80A, 100A, 125A as per IEC 60947-2

Wintrip

MCB-AC	Wintrip MCB			Wintrip Isolator
Standard Conformity	IS/IEC60898-1-2015			IS/IEC60947-3
Type	B	C	D	
Rated Current (In)	6-63A	0.5-63A	0.5-63A	25-125A
Rated Voltage AC (Ue)	240/415V			240/415V
Utilization Category				AC22A
Rated Frequency Hz	50/60Hz			50Hz
No. of Poles (Execution)	1P, 1P+N, 2P, 3P, 3P+N & 4P			1P, 2P, 3P & 4P
Rated Short Circuit Breaking Capacity	10kA	10kA	10kA	
Rated Insulation Voltage (Ui)	660V			660V
Magnetic Release Setting	(3-5)In	(5-10)In	(10-20)In	
Rated Impulse Voltage (Uimp)	4kV			6kV
Electrical/Mechanical Life	10,000 20,000			10,000 10,000
Ambient Temperature	-25°C to +70°C			-25°C to +70°C
Energy Limiting Class	ELC 3			N/A
Mounting	Dinrail Size 35.5mm			
Line Terminal Capacity	35 mm ²			50mm ²
Degree of Protection	IP 20			IP 20
Resistance to Shock	40mm free fall			40mm free fall
Ambient reference temperature	30°C			30°C
Installation Position	Vertical/Horizontal			Vertical/Horizontal
Rated Short time withstand Current ICW (kA)	N.A			300A for 25A, 1500A for 125A withstand duration: 1sec
Rated Short Circuit Making Capacity (Icm) (kA)	N.A			500A for 25A & 2200A for 125A

Technical Data - Tripping Curves



Type	Application	Thermal Test Current		Tripping Time In≤63A	Electro Magnetic Test Current		Tripping Time (t)
		Low	High				
B	Lighting & Distribution with no surge Current	1.13xIn		>1hour	3xIn		≥0.1s
			1.45xIn	<1hour		5xIn	<0.1s
C	Inductive Load with surge Current	1.13xIn		>1hour	5xIn		≥0.1s
			1.45xIn	<1hour		10xIn	<0.1s
D	High Inductive Load & High Inrush Current	1.13xIn		>1hour	10xIn		≥0.1s
			1.45xIn	<1hour		20xIn	<0.1s

Temperature derating

In plant engineering situations, where ambient temperature is higher than the regulatory reference temperature of 30°C, the circuit breakers may be subjected to untimely tripping, i.e. opening when not required, since the increase in temperature is interpreted as a current surge. Ambient temperature, as a matter of fact, affects the initial deformation of the bimetal. At a temperature above 30°C the thermal release trips faster, behaving like a relay with a lower nominal current. It is therefore imperative to take into account nominal current derating if the circuit breaker is installed in an ambient temperature above 30°C.

The table gives the max. operating current referring to the different temperatures.

In(A)	Temperature					
	25°C	30°C	35°C	40°C	45°C	50°C
2	2.04	2	1.96	1.9	1.86	1.82
6	6.24	6	5.82	5.52	5.28	4.98
10	10.40	10	9.7	9.2	8.8	8.3
16	16.5	16	15.5	15	14.4	14.1
20	20.6	20	19.4	18.8	18	17.6
25	25.8	25	24.3	23.5	22.5	22
32	33	32	31.04	30.1	28.8	28.2
40	41.2	40	38.8	37.6	36	35.2
63	64.89	63	61.79	60	58	56.07

Wintrip

Wintrip



Description	In(A)	Reference		
		'B' Curve	'C' Curve	'D' Curve
<p>Single Pole</p>	0.5		CSMB1C0.5	CSMB1D0.5
	1		CSMB1C1	CSMB1D1
	2		CSMB1C2	CSMB1D2
	3		CSMB1C3	CSMB1D3
	4		CSMB1C4	CSMB1D4
	5		CSMB1C5	CSMB1D5
	6	CSMB1B6	CSMB1C6	CSMB1D6
	10	CSMB1B10	CSMB1C10	CSMB1D10
	16	CSMB1B16	CSMB1C16	CSMB1D16
	20	CSMB1B20	CSMB1C20	CSMB1D20
	25	CSMB1B25	CSMB1C25	CSMB1D25
	32	CSMB1B32	CSMB1C32	CSMB1D32
	40	CSMB1B40	CSMB1C40	CSMB1D40
	50	CSMB1B50	CSMB1C50	CSMB1D50
	63	CSMB1B63	CSMB1C63	CSMB1D63



Description	In(A)	Reference		
		'B' Curve	'C' Curve	'D' Curve
<p>Single Pole + Neutral</p>	0.5		CSMB1C0.5N	CSMB1D0.5N
	1		CSMB1C1N	CSMB1D1N
	2		CSMB1C2N	CSMB1D2N
	3		CSMB1C3N	CSMB1D3N
	4		CSMB1C4N	CSMB1D4N
	5		CSMB1C5N	CSMB1D5N
	6	CSMB1B6N	CSMB1C6N	CSMB1D6N
	10	CSMB1B10N	CSMB1C10N	CSMB1D10N
	16	CSMB1B16N	CSMB1C16N	CSMB1D16N
	20	CSMB1B20N	CSMB1C20N	CSMB1D20N
	25	CSMB1B25N	CSMB1C25N	CSMB1D25N
	32	CSMB1B32N	CSMB1C32N	CSMB1D32N
	40	CSMB1B40N	CSMB1C40N	CSMB1D40N
	50	CSMB1B50N	CSMB1C50N	CSMB1D50N
	63	CSMB1B63N	CSMB1C63N	CSMB1D63N



Description	In(A)	Reference		
		'B' Curve	'C' Curve	'D' Curve
<p>Double Pole</p>	0.5		CSMB2C0.5	CSMB2D0.5
	1		CSMB2C1	CSMB2D1
	2		CSMB2C2	CSMB2D2
	3		CSMB2C3	CSMB2D3
	4		CSMB2C4	CSMB2D4
	5		CSMB2C5	CSMB2D5
	6	CSMB2B6	CSMB2C6	CSMB2D6
	10	CSMB2B10	CSMB2C10	CSMB2D10
	16	CSMB2B16	CSMB2C16	CSMB2D16
	20	CSMB2B20	CSMB2C20	CSMB2D20
	25	CSMB2B25	CSMB2C25	CSMB2D25
	32	CSMB2B32	CSMB2C32	CSMB2D32
	40	CSMB2B40	CSMB2C40	CSMB2D40
	50	CSMB2B50	CSMB2C50	CSMB2D50
	63	CSMB2B63	CSMB2C63	CSMB2D63



Description	In(A)	Reference		
		'B' Curve	'C' Curve	'D' Curve
<p>Three Pole</p>	0.5		CSMB3C0.5	CSMB3D0.5
	1		CSMB3C1	CSMB3D1
	2		CSMB3C2	CSMB3D2
	3		CSMB3C3	CSMB3D3
	4		CSMB3C4	CSMB3D4
	5		CSMB3C5	CSMB3D5
	6	CSMB3B6	CSMB3C6	CSMB3D6
	10	CSMB3B10	CSMB3C10	CSMB3D10
	16	CSMB3B16	CSMB3C16	CSMB3D16
	20	CSMB3B20	CSMB3C20	CSMB3D20
	25	CSMB3B25	CSMB3C25	CSMB3D25
	32	CSMB3B32	CSMB3C32	CSMB3D32
	40	CSMB3B40	CSMB3C40	CSMB3D40
	50	CSMB3B50	CSMB3C50	CSMB3D50
	63	CSMB3B63	CSMB3C63	CSMB3D63





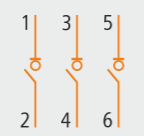
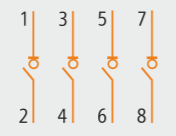
Description	In(A)	Reference		
		'B' Curve	'C' Curve	'D' Curve
<p>Three Pole + Neutral</p>	0.5		CSMB3C0.5N	CSMB3D0.5N
	1		CSMB3C1N	CSMB3D1N
	2		CSMB3C2N	CSMB3D2N
	3		CSMB3C3N	CSMB3D3N
	4		CSMB3C4N	CSMB3D4N
	5		CSMB3C5N	CSMB3D5N
	6	CSMB3B6N	CSMB3C6N	CSMB3D6N
	10	CSMB3B10N	CSMB3C10N	CSMB3D10N
	16	CSMB3B16N	CSMB3C16N	CSMB3D16N
	20	CSMB3B20N	CSMB3C20N	CSMB3D20N
	25	CSMB3B25N	CSMB3C25N	CSMB3D25N
	32	CSMB3B32N	CSMB3C32N	CSMB3D32N
	40	CSMB3B40N	CSMB3C40N	CSMB3D40N
	50	CSMB3B50N	CSMB3C50N	CSMB3D50N
	63	CSMB3B63N	CSMB3C63N	CSMB3D63N



Description	In(A)	Reference		
		'B' Curve	'C' Curve	'D' Curve
<p>Four Pole</p>	0.5		CSMB4C0.5	CSMB4D0.5
	1		CSMB4C1	CSMB4D1
	2		CSMB4C2	CSMB4D2
	3		CSMB4C3	CSMB4D3
	4		CSMB4C4	CSMB4D4
	5		CSMB4C5	CSMB4D5
	6	CSMB4B6	CSMB4C6	CSMB4D6
	10	CSMB4B10	CSMB4C10	CSMB4D10
	16	CSMB4B16	CSMB4C16	CSMB4D16
	20	CSMB4B20	CSMB4C20	CSMB4D20
	25	CSMB4B25	CSMB4C25	CSMB4D25
	32	CSMB4B32	CSMB4C32	CSMB4D32
	40	CSMB4B40	CSMB4C40	CSMB4D40
	50	CSMB4B50	CSMB4C50	CSMB4D50
	63	CSMB4B63	CSMB4C63	CSMB4D63

Wintrip



Description	In(A)	Reference
Single Pole 	25	CSMB1ISO25
	40	CSMB1ISO40
	63	CSMB1ISO63
	80	CSMB1ISO80
	100	CSMB1ISO100
125	CSMB1ISO125	
Double Pole 	25	CSMB2ISO25
	40	CSMB2ISO40
	63	CSMB2ISO63
	80	CSMB2ISO80
	100	CSMB2ISO100
125	CSMB2ISO125	
Three Pole 	25	CSMB3ISO25
	40	CSMB3ISO40
	63	CSMB3ISO63
	80	CSMB3ISO80
	100	CSMB3ISO100
125	CSMB3ISO125	
Four Pole 	25	CSMB4ISO25
	40	CSMB4ISO40
	63	CSMB4ISO63
	80	CSMB4ISO80
	100	CSMB4ISO100
125	CSMB4ISO125	

Accessories

Auxiliary Contact

Attachment fitted with MCB (left side) used for interlocking, signaling and indication. The auxiliary switch is switched on or off along with the MCB through internal linkage.

Specifications

Standard Conformity	IEC 60974-5-1
Current Rating	5A
Voltage Rating	240V AC
Contact Configuration	1NO+1NC
	2NO+2NC
	1NO+NC (Potential)
Protection	IP 20
Electrical Endurance (nos)	10000
Fitment	Factory/Site Fitted Right Side of MCB

Shunt Trip

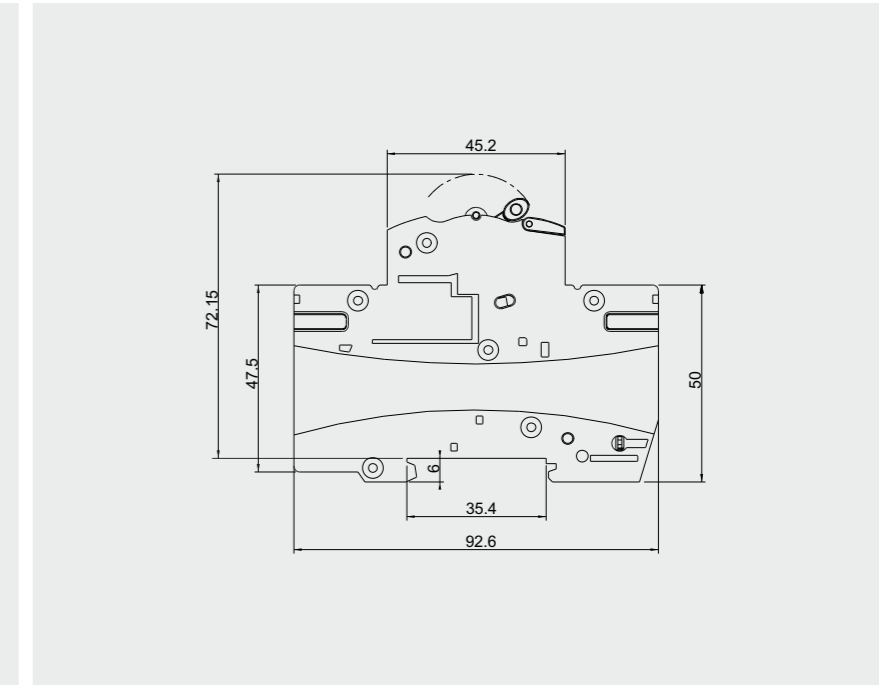
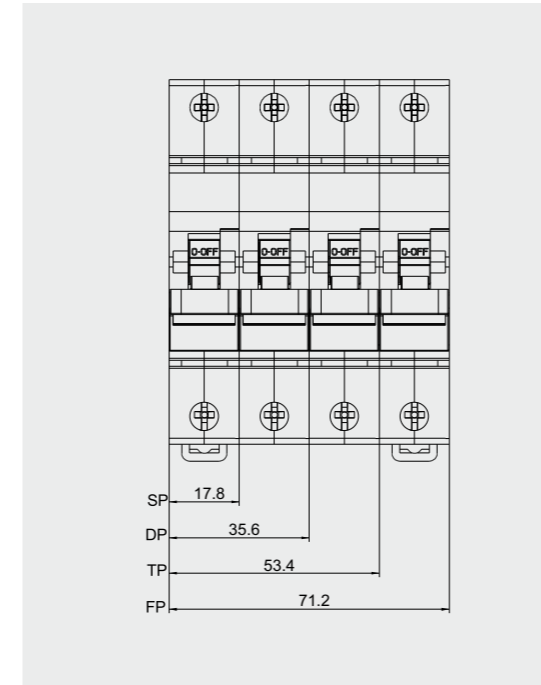
Controls the remote tripping of the MCB to which it is attached (Right Side).

Specifications

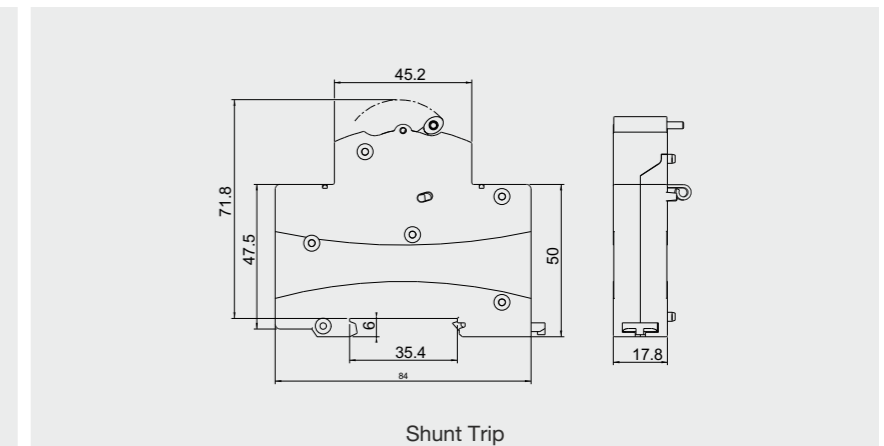
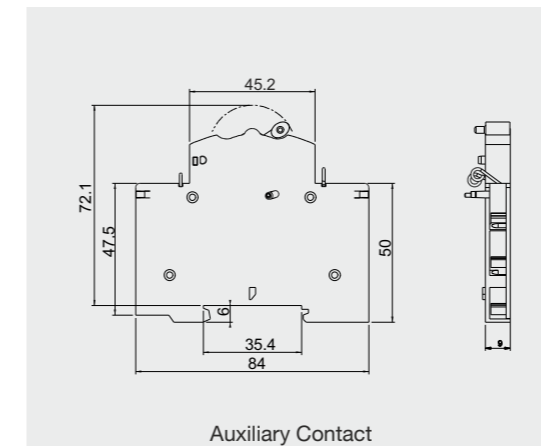
Standard Conformity	IEC 60947-5-1
Rated Voltage AC	110V, 220V
DC	12V, 24V, 48V
Operating Voltage	70-110% of Rated Voltage
Protection	IP 20
Electrical Endurance (nos.)	10000
Fitment Left Side of MCB	Factory/Site Fitted

Dimensions

Installation Dimensions - MCB (0.5 to 63A) / Isolator (25 to 125A)



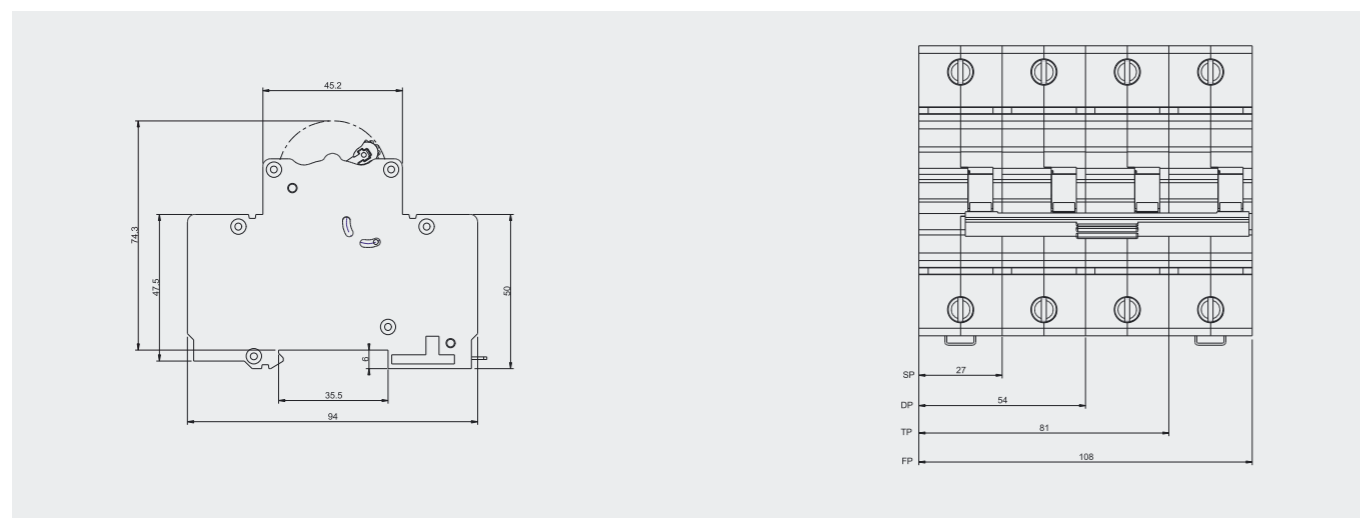
Accessories Drawings



WINtrip

MCB-AC	Higher Rating MCB
Type	'C'
Standard Conformity	IEC/EN 60947-2
Tripping Characteristics	8In
Rated Current (In)	80,100, & 125A
Rated Voltage AC (Ue)	240/415V
Utilization Category	A
Rated Frequency Hz	50/60Hz
No. of Poles (Execution)	1P, 1P+N, 2P, 3P, 3P+N & 4P
Rated Short Circuit Breaking Capacity ICU/ICS (kA)	10
Rated Insulation Voltage (Ui)	660V
Types of Release	Thermal Magnetic
Rated Impulse Voltage (Uimp)	4kV
Electrical/Mechanical Life	4000/15000
Ambient Operating Temperature	-5°C to +55°C
Energy Limiting Class	N/A
Mounting	Dinrail Size 35.5mm
Line Terminal Capacity	50mm ²
Degree of Protection	IP 20
Resistance to Shock	40mm free fall
Ambient reference temperature	40°C
Installation Position	Vertical/Horizontal
Storage Temperature	-5°C to +55°C

Installation Dimension of MCB (80-125A)

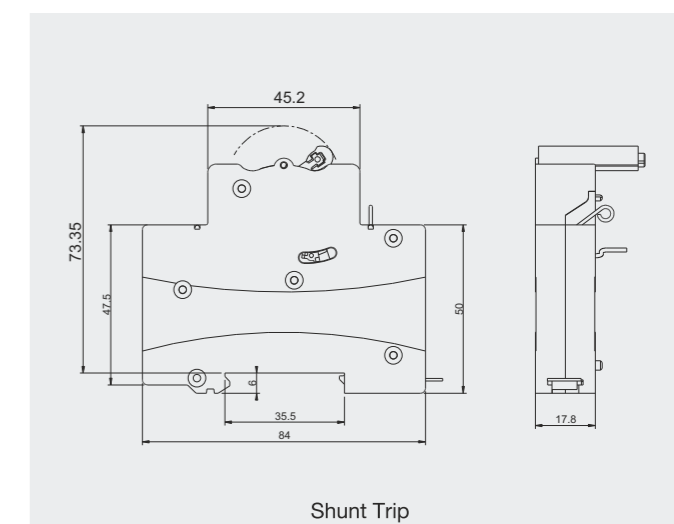
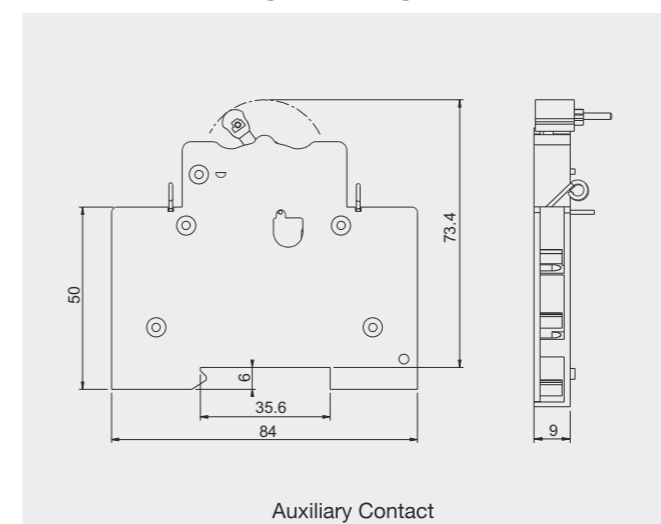


Miniature Circuit Breaker - Higher Ratings

Description	In(A)	Reference
Single Pole	80	CSMBH1C80
	100	CSMBH1C100
	125	CSMBH1C125
Double Pole	80	CSBHIC80N
	100	CSBHIC100N
	125	CSBHIC125N
1 Pole + Neutral	80	CSMBH2C80
	100	CSMBH2C100
	125	CSMBH2C125
Three Pole	80	CSMBH3C80
	100	CSMBH3C100
	125	CSMBH3C125
3 Pole + Neutral	80	CSMBH3C80N
	100	CSMBH3C100N
	125	CSMBH3C125N
4 Pole	80	CSMBH4C80
	100	CSMBH4C100
	125	CSMBH4C125

WINtrip

Accessories for Higher Rating MCB



MCB-AC	WiNtrip 1 MCB	
Standard Conformity	IS/IEC 60898-1-2015	
Type	B	C
Rated Current (In)	6-40A	0.5-40A
Rated Voltage AC (Ue)	240/415V	
Rated Frequency Hz	50/60 Hz	
No. of Poles (Execution)	1P, 1P+N, 2P, 3P, 3P+N & 4P	
Rated Short Circuit Breaking Capacity	6kA	
Rated Insulation Voltage (Ui)	660V	
Magnetic Release Setting	(3-5)In	(5-10)In
Rated Impulse Voltage (Uimp)	4kV	
Electrical/Mechanical Life	10,000/20,000	
Ambient Operating Temperature	-25°C to +70°C	
Energy Limiting Class	ELC 3	
Mounting	Dinrail Size 35.5mm	
Line Load Terminal Capacity	25mm ²	
Degree of Protection	IP 20	
Resistance to Shock	40mm free fall	
Ambient reference temperature	30°C	
Installation Position	Vertical/Horizontal	
Storage Temperature	-25°C to +70°C	
Short time withstand Current (Icw)	N/A	
Short Circuit maxing capacity (Icm)	N/A	



Product Reference

Description	In(A)	Reference	
		'B' Curve	'C' Curve
 Single Pole	0.5	-	CSMBL1C0.5
	1	-	CSMBL1C1
	2	-	CSMBL1C2
	3	-	CSMBL1C3
	4	-	CSMBL1C4
	5	-	CSMBL1C5
	6	CSMBL1B6	CSMBL1C6
	10	CSMBL1B10	CSMBL1C10
	16	CSMBL1B16	CSMBL1C16
	20	CSMBL1B20	CSMBL1C20
 Single Pole + Neutral	25	CSMBL1B25	CSMBL1C25
	32	CSMBL1B32	CSMBL1C32
	40	CSMBL1B40	CSMBL1C40
	0.5	-	CSMBL1C0.5N
	1	-	CSMBL1C1N
	2	-	CSMBL1C2N
	3	-	CSMBL1C3N
	4	-	CSMBL1C4N
	5	-	CSMBL1C5N
	6	CSMBL1B6N	CSMBL1C6N
 Double Pole	10	CSMBL1B10N	CSMBL1C10N
	16	CSMBL1B16N	CSMBL1C16N
	20	CSMBL1B20N	CSMBL1C20N
	25	CSMBL1B25N	CSMBL1C25N
	32	CSMBL1B32N	CSMBL1C32N
	40	CSMBL1B40N	CSMBL1C40N
	0.5	-	CSMBL2C0.5
	1	-	CSMBL2C1
	2	-	CSMBL2C2
	3	-	CSMBL2C3
4	-	CSMBL2C4	
5	-	CSMBL2C5	
6	CSMBL2B6	CSMBL2C6	
10	CSMBL2B10	CSMBL2C10	
16	CSMBL2B16	CSMBL2C16	
20	CSMBL2B20	CSMBL2C20	
25	CSMBL2B25	CSMBL2C25	
32	CSMBL2B32	CSMBL2C32	
40	CSMBL2B40	CSMBL2C40	

WINtrip 1

WINtrip 1



Three Pole



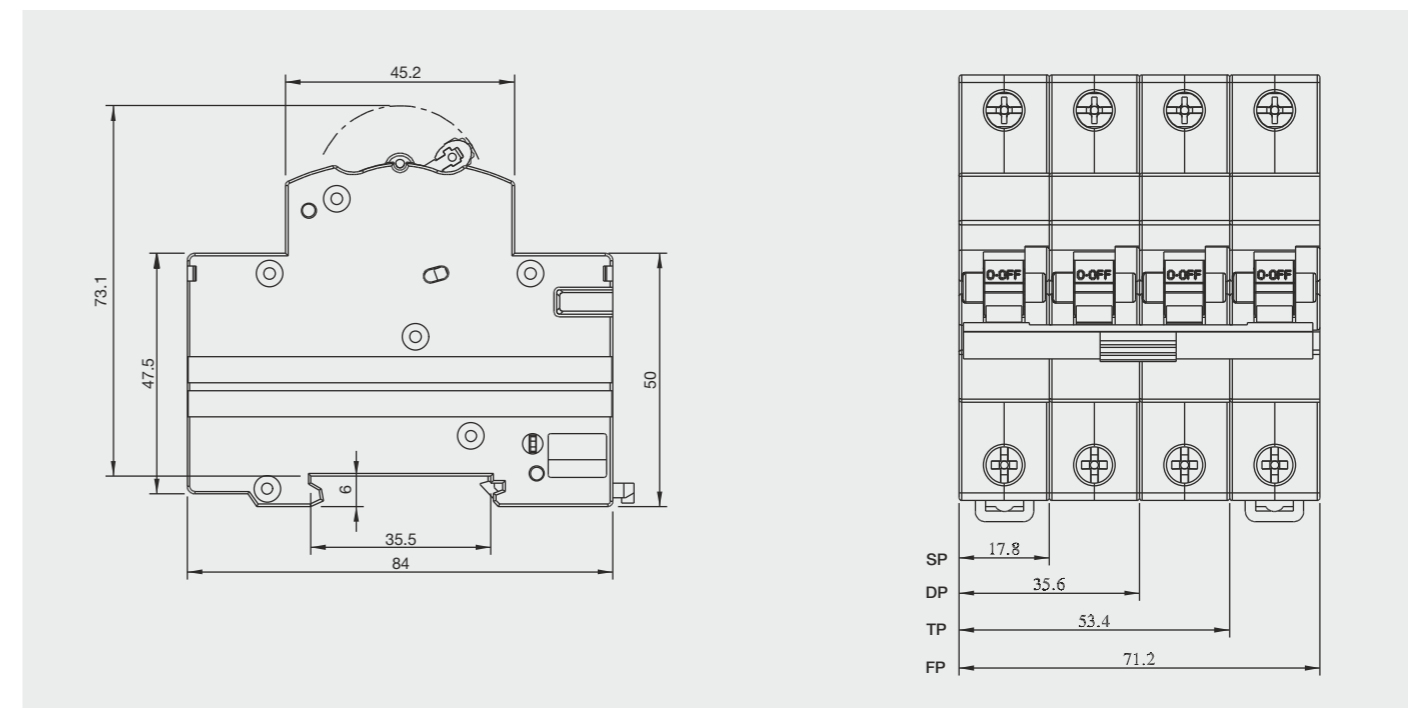
Three Pole
+
Neutral



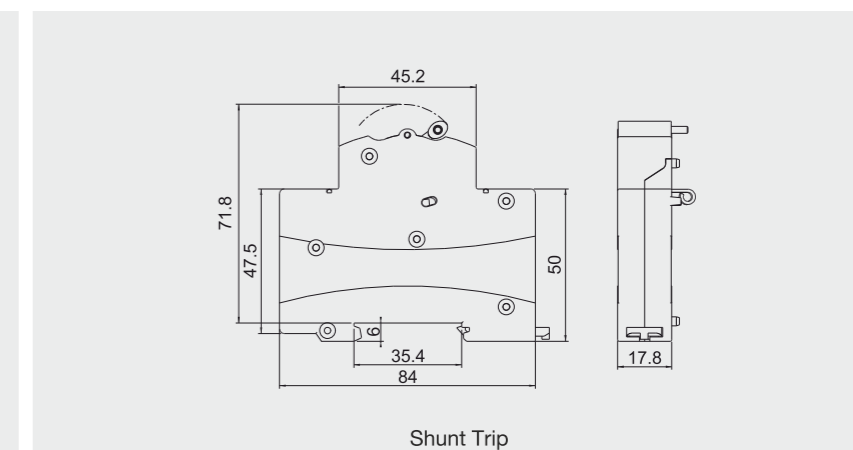
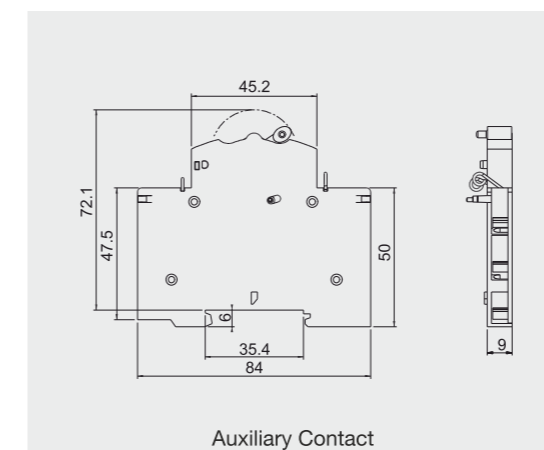
Four Pole

Description	In(A)	Reference	
		'B' Curve	'C' Curve
Three Pole	0.5		CSMBL3C0.5
	1		CSMBL3C1
	2		CSMBL3C2
	3		CSMBL3C3
	4		CSMBL3C4
	5		CSMBL3C5
	6	CSMBL3B6	CSMBL3C6
	10	CSMBL3B10	CSMBL3C10
	16	CSMBL3B16	CSMBL3C16
	20	CSMBL3B20	CSMBL3C20
	25	CSMBL3B25	CSMBL3C25
	32	CSMBL3B32	CSMBL3C32
40	CSMBL3B40	CSMBL3C40	
Three Pole + Neutral	0.5		CSMBL3C0.5N
	1		CSMBL3C1N
	2		CSMBL3C2N
	3		CSMBL3C3N
	4		CSMBL3C4N
	5		CSMBL3C5N
	6	CSMBL3B6N	CSMBL3C6N
	10	CSMBL3B10N	CSMBL3C10N
	16	CSMBL3B16N	CSMBL3C16N
	20	CSMBL3B20N	CSMBL3C20N
	25	CSMBL3B25N	CSMBL3C25N
	32	CSMBL3B32N	CSMBL3C32N
40	CSMBL3B40N	CSMBL3C40N	
Four Pole	0.5		CSMBL4C0.5
	1		CSMBL4C1
	2		CSMBL4C2
	3		CSMBL4C3
	4		CSMBL4C4
	5		CSMBL4C5
	6	CSMBL4B6	CSMBL4C6
	10	CSMBL4B10	CSMBL4C10
	16	CSMBL4B16	CSMBL4C16
	20	CSMBL4B20	CSMBL4C20
	25	CSMBL4B25	CSMBL4C25
	32	CSMBL4B32	CSMBL4C32
40	CSMBL4B40	CSMBL4C40	

Installation Dimensions - MCB (0.5 to 40A)



Accessories Drawings



MCB-AC

Specifications	WiNtrip2 MCB				WiNtrip2 Isolator
	'B'	'C'	'K' Series, 'D' Curve	'K' Series, 'C' Curve	
Type					
Standard Conformity	IEC/EN60898-1		IEC60947-2		IEC60947-3
Rated Current (In)	6A-63A	0.5A-63A	0.5-63A		16A-63A
Rated Voltage AC (Ue)	240/415V				240/415V
Utilization Category	-		A		AC22A
Rated Frequency Hz	50/60Hz				50/60Hz
No. of Poles (Execution)	1P, 1P+N, 2P, 3P, 3P+N & 4P				1P, 2P, 3P & 4P
Rated Short Circuit Breaking Capacity	10kA				-
Rated Insulation Voltage (Ui)	660V		500V		660V
Magnetic Release Setting	(3-5)In	(5-10)In	12.5In	8In	-
Type of Release	Thermo Magnetic				-
Rated Impulse Voltage (Uimp)	4kV	6kV		6kV	
Electrical/Mechanical Life	10,000/20,000				5000/10,000
Energy Limiting Class	ELC3	N/A		N/A	
Mounting	Dinrail Size 35.5mm				Dinrail Size 35.5mm
Line Terminal Capacity	35 mm ²				35 mm ²
Load Terminal Capacity	35 mm ²				35 mm ²
Degree of Protection	IP 20				IP 20
Circuit Breaker for use in IT Systems	Yes				-
Resistance to Shock	40mm free fall				40mm free fall
Ambient working temperature	-25°C to +70°C				-25°C to +70°C
Ambient reference temperature	30°C	50°C		30°C	
Installation Position	Vertical/Horizontal				Vertical/Horizontal
Bi-connect terminal	Both side				Both side
Short Time with Stand Current (Icw)	N/A				192A for 16A, 756A for 63A withstand duration : 1 second
Short Circuit Making Capacity (Icm)	N/A				300A for 16A & 1200A For 63A
Rated service Breaking Capacity Ics	75% of Icn	75% of Icu			



Product Reference

Rating (A)	'B' Curve	'C' Curve	'K' Series, 'D' Curve	'K' Series, 'C' Curve
	Reference	Reference	Reference	Reference
1 Pole				
0.5	-	CSMBS1C0.5	CSMBS1D0.5	CSMBS1K0.5
1	-	CSMBS1C1	CSMBS1D1	CSMBS1K1
2	-	CSMBS1C2	CSMBS1D2	CSMBS1K2
3	-	CSMBS1C3	CSMBS1D3	CSMBS1K3
4	-	CSMBS1C4	CSMBS1D4	CSMBS1K4
5	-	CSMBS1C5	CSMBS1D5	CSMBS1K5
6	CSMBS1B6	CSMBS1C6	CSMBS1D6	CSMBS1K6
10	CSMBS1B10	CSMBS1C10	CSMBS1D10	CSMBS1K10
16	CSMBS1B16	CSMBS1C16	CSMBS1D16	CSMBS1K16
20	CSMBS1B20	CSMBS1C20	CSMBS1D20	CSMBS1K20
25	CSMBS1B25	CSMBS1C25	CSMBS1D25	CSMBS1K25
32	CSMBS1B32	CSMBS1C32	CSMBS1D32	CSMBS1K32
40	CSMBS1B40	CSMBS1C40	CSMBS1D40	CSMBS1K40
50	CSMBS1B50	CSMBS1C50	CSMBS1D50	CSMBS1K50
63	CSMBS1B63	CSMBS1C63	CSMBS1D63	CSMBS1K63
1Pole + Neutral				
0.5	-	CSMBS1C0.5N	CSMBS1D0.5N	CSMBS1K0.5N
1	-	CSMBS1C1N	CSMBS1D1N	CSMBS1K1N
2	-	CSMBS1C2N	CSMBS1D2N	CSMBS1K2N
3	-	CSMBS1C3N	CSMBS1D3N	CSMBS1K3N
4	-	CSMBS1C4N	CSMBS1D4N	CSMBS1K4N
5	-	CSMBS1C5N	CSMBS1D5N	CSMBS1K5N
6	CSMBS1B6N	CSMBS1C6N	CSMBS1D6N	CSMBS1K6N
10	CSMBS1B10N	CSMBS1C10N	CSMBS1D10N	CSMBS1K10N
16	CSMBS1B16N	CSMBS1C16N	CSMBS1D16N	CSMBS1K16N
20	CSMBS1B20N	CSMBS1C20N	CSMBS1D20N	CSMBS1K20N
25	CSMBS1B25N	CSMBS1C25N	CSMBS1D25N	CSMBS1K25N
32	CSMBS1B32N	CSMBS1C32N	CSMBS1D32N	CSMBS1K32N
40	CSMBS1B40N	CSMBS1C40N	CSMBS1D40N	CSMBS1K40N
50	CSMBS1B50N	CSMBS1C50N	CSMBS1D50N	CSMBS1K50N
63	CSMBS1B63N	CSMBS1C63N	CSMBS1D63N	CSMBS1K63N
2 Pole				
0.5	-	CSMBS2C0.5	CSMBS2D0.5	CSMBS2K0.5
1	-	CSMBS2C1	CSMBS2D1	CSMBS2K1
2	-	CSMBS2C2	CSMBS2D2	CSMBS2K2
3	-	CSMBS2C3	CSMBS2D3	CSMBS2K3
4	-	CSMBS2C4	CSMBS2D4	CSMBS2K4
5	-	CSMBS2C5	CSMBS2D5	CSMBS2K5
6	CSMBS2B6	CSMBS2C6	CSMBS2D6	CSMBS2K6
10	CSMBS2B10	CSMBS2C10	CSMBS2D10	CSMBS2K10
16	CSMBS2B16	CSMBS2C16	CSMBS2D16	CSMBS2K16
20	CSMBS2B20	CSMBS2C20	CSMBS2D20	CSMBS2K20
25	CSMBS2B25	CSMBS2C25	CSMBS2D25	CSMBS2K25
32	CSMBS2B32	CSMBS2C32	CSMBS2D32	CSMBS2K32
40	CSMBS2B40	CSMBS2C40	CSMBS2D40	CSMBS2K40
50	CSMBS2B50	CSMBS2C50	CSMBS2D50	CSMBS2K50
63	CSMBS2B63	CSMBS2C63	CSMBS2D63	CSMBS2K63

WiNtrip 2

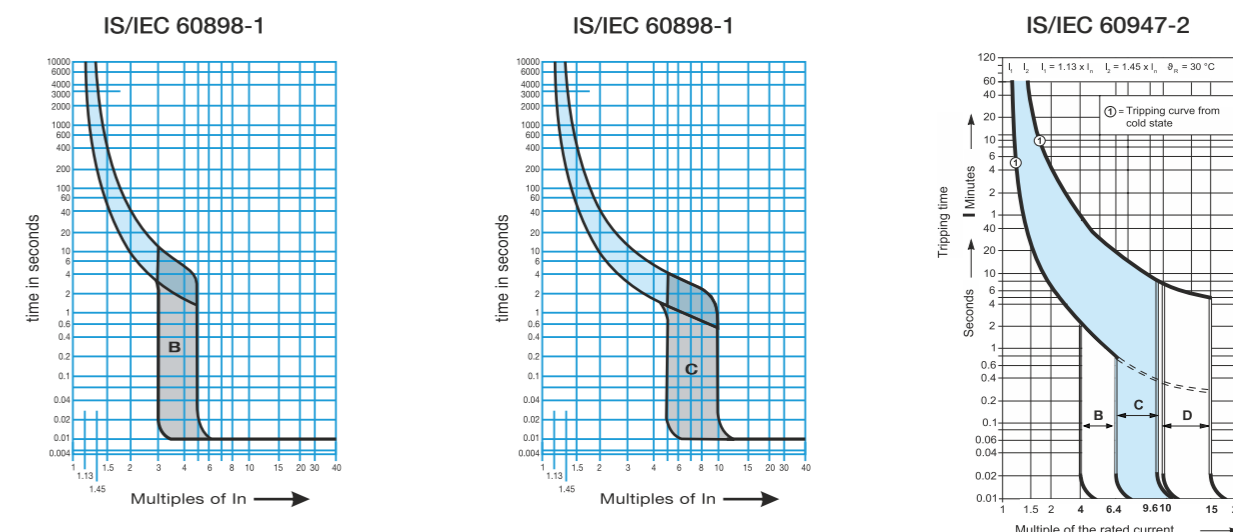


Miniature Circuit Breaker

Rating (A)	'B' Curve	'C' Curve	'K' Series, 'D' Curve	'K' Series, 'C' Curve
	Reference	Reference	Reference	Reference
0.5	-	CSMBS3C0.5	CSMBS3D0.5	CSMBS3K0.5
1	-	CSMBS3C1	CSMBS3D1	CSMBS3K1
2	-	CSMBS3C2	CSMBS3D2	CSMBS3K2
3	-	CSMBS3C3	CSMBS3D3	CSMBS3K3
4	-	CSMBS3C4	CSMBS3D4	CSMBS3K4
5	-	CSMBS3C5	CSMBS3D5	CSMBS3K5
6	CSMBS3B6	CSMBS3C6	CSMBS3D6	CSMBS3K6
10	CSMBS3B10	CSMBS3C10	CSMBS3D10	CSMBS3K10
16	CSMBS3B16	CSMBS3C16	CSMBS3D16	CSMBS3K16
20	CSMBS3B20	CSMBS3C20	CSMBS3D20	CSMBS3K20
25	CSMBS3B25	CSMBS3C25	CSMBS3D25	CSMBS3K25
32	CSMBS3B32	CSMBS3C32	CSMBS3D32	CSMBS3K32
40	CSMBS3B40	CSMBS3C40	CSMBS3D40	CSMBS3K40
50	CSMBS3B50	CSMBS3C50	CSMBS3D50	CSMBS3K50
63	CSMBS3B63	CSMBS3C63	CSMBS3D63	CSMBS3K63
3 Pole + Neutral				
0.5	-	CSMBS3C0.5N	CSMBS3D0.5N	CSMBS3K0.5N
1	-	CSMBS3C1N	CSMBS3D1N	CSMBS3K1N
2	-	CSMBS3C2N	CSMBS3D2N	CSMBS3K2N
3	-	CSMBS3C3N	CSMBS3D3N	CSMBS3K3N
4	-	CSMBS3C4N	CSMBS3D4N	CSMBS3K4N
5	-	CSMBS3C5N	CSMBS3D5N	CSMBS3K5N
6	CSMBS3B6N	CSMBS3C6N	CSMBS3D6N	CSMBS3K6N
10	CSMBS3B10N	CSMBS3C10N	CSMBS3D10N	CSMBS3K10N
16	CSMBS3B16N	CSMBS3C16N	CSMBS3D16N	CSMBS3K16N
20	CSMBS3B20N	CSMBS3C20N	CSMBS3D20N	CSMBS3K20N
25	CSMBS3B25N	CSMBS3C25N	CSMBS3D25N	CSMBS3K25N
32	CSMBS3B32N	CSMBS3C32N	CSMBS3D32N	CSMBS3K32N
40	CSMBS3B40N	CSMBS3C40N	CSMBS3D40N	CSMBS3K40N
50	CSMBS3B50N	CSMBS3C50N	CSMBS3D50N	CSMBS3K50N
63	CSMBS3B63N	CSMBS3C63N	CSMBS3D63N	CSMBS3K63N
4 Pole				
0.5	-	CSMBS4C0.5	CSMBS4D0.5	CSMBS4K0.5
1	-	CSMBS4C1	CSMBS4D1	CSMBS4K1
2	-	CSMBS4C2	CSMBS4D2	CSMBS4K2
3	-	CSMBS4C3	CSMBS4D3	CSMBS4K3
4	-	CSMBS4C4	CSMBS4D4	CSMBS4K4
5	-	CSMBS4C5	CSMBS4D5	CSMBS4K5
6	CSMBS4B6	CSMBS4C6	CSMBS4D6	CSMBS4K6
10	CSMBS4B10	CSMBS4C10	CSMBS4D10	CSMBS4K10
16	CSMBS4B16	CSMBS4C16	CSMBS4D16	CSMBS4K16
20	CSMBS4B20	CSMBS4C20	CSMBS4D20	CSMBS4K20
25	CSMBS4B25	CSMBS4C25	CSMBS4D25	CSMBS4K25
32	CSMBS4B32	CSMBS4C32	CSMBS4D32	CSMBS4K32
40	CSMBS4B40	CSMBS4C40	CSMBS4D40	CSMBS4K40
50	CSMBS4B50	CSMBS4C50	CSMBS4D50	CSMBS4K50
63	CSMBS4B63	CSMBS4C63	CSMBS4D63	CSMBS4K63

WiNtrip 2 MCB

Tripping Characteristics



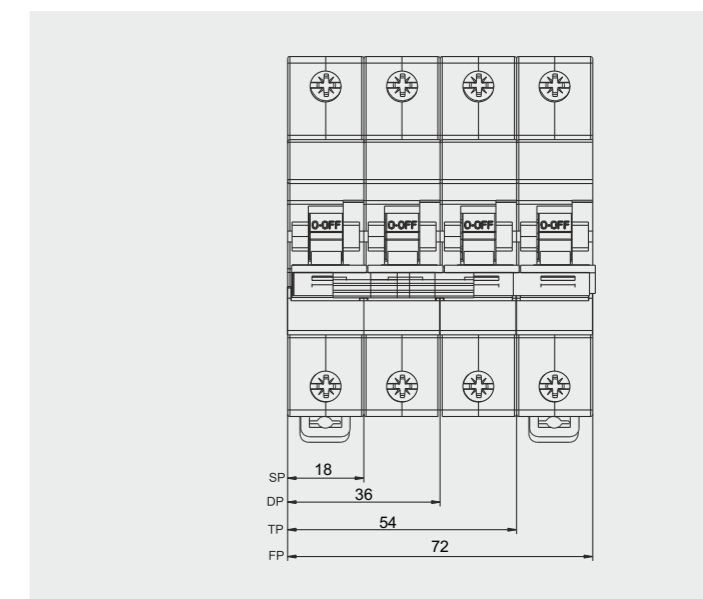
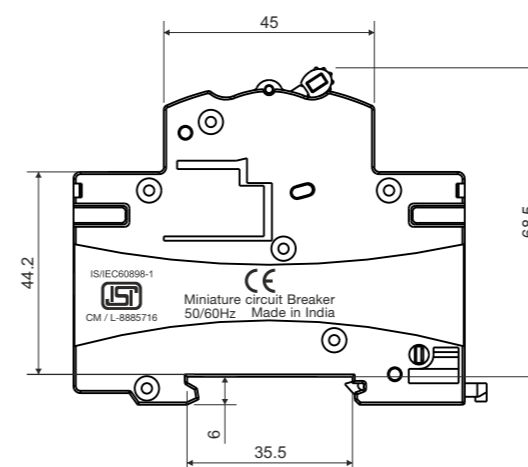
Tripping Characteristics - IS/IEC 60898-1

Type	Application	Thermal Test Current		Tripping Time In 63A	Electro Magnetic Test Current	Tripping Time (t)
		Low	High			
'B'	Lighting & Distribution with no surge Current	1.13xIn	1.45xIn	>1hour	3xIn	>0.1s
			1.45xIn	<1hour	5xIn	<0.1s
'C'	Inductive Load with surge Current	1.13xIn	1.45xIn	>1hour	5xIn	>0.1s
			1.45xIn	<1hour	10xIn	<0.1s

Tripping Characteristics - IS/IEC 60947-2

'K' Series, High Inductive Load & 'C' Curve	High Inrush Current	1.05xIn	1.30xIn	≥1hour	IEC 60947-2	C&S offers instantaneous tripping ranges- 'C': 8In
'K' Series, High Inductive Load & 'D' Curve	High Inrush Current	1.05xIn	1.30xIn	≥1hour	IEC 60947-2	C&S offers instantaneous tripping ranges- 'D': 12.5In

Installation Dimensions MCB



WiNtrip 2



Isolator

Rating (A)	1 Pole	2 Pole	3 Pole	4 Pole
	Reference	Reference	Reference	Reference
16	CSMBS1ISO16	CSMBS2ISO16	CSMBS3ISO16	CSMBS4ISO16
25	CSMBS1ISO25	CSMBS2ISO25	CSMBS3ISO25	CSMBS4ISO25
32	CSMBS1ISO32	CSMBS2ISO32	CSMBS3ISO32	CSMBS4ISO32
40	CSMBS1ISO40	CSMBS2ISO40	CSMBS3ISO40	CSMBS4ISO40
63	CSMBS1ISO63	CSMBS2ISO63	CSMBS3ISO63	CSMBS4ISO63

Technical Data

Specifications	WiNtrip2 Isolator
Type	
Standard Conformity	IEC60947-3
Rated Current (In)	25A-125A
Rated Voltage AC (Ue)	240/415V
Utilization Category	AC22A
Rated Frequency Hz	50/60Hz
Poles (Execution)	1P, 2P, 3P & 4P
Rated Short Circuit Breaking Capacity	-
Rated Insulation Voltage (Ui)	660V
Magnetic Release Setting	-
Release	-
Rated Impulse Voltage (Uimp)	6kV
Electrical/Mechanical Life <32A	20000
>32A	10000
Energy Limiting Class	-
Mounting	Clip on Din rail (35x7.5 mm)
Line Terminal Capacity	50 mm ²
Load Terminal Capacity	50 mm ²
Degree of Protection	IP 20
Circuit Breaker for use in IT Systems	-
Resistance to Shock	40mm free fall
Ambient working temperature	-
Ambient reference temperature	-
Installation Position	Vertical / Horizontal

WiNtrip2 Isolator

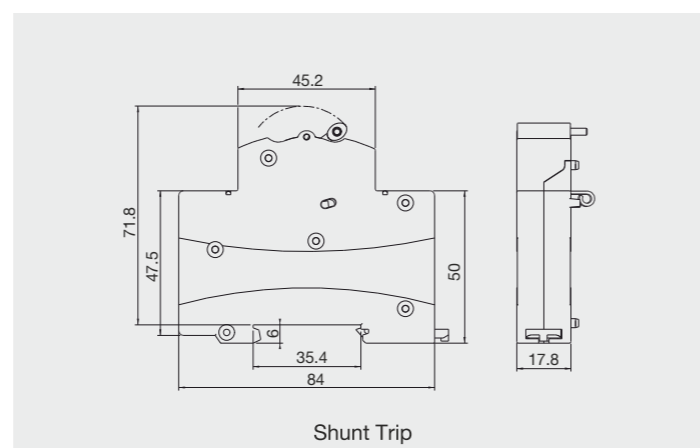
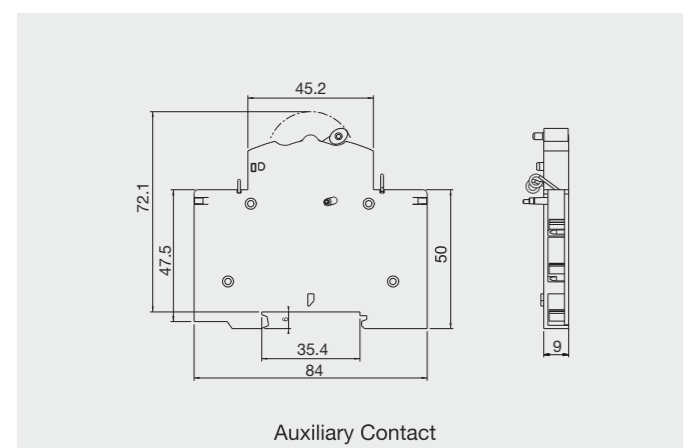
Current rating (Amps.)	Reference	Std. Pkg. (Nos.)
1 Pole		
25	CSMBS1SD25	12
32	CSMBS1SD32	
40	CSMBS1SD40	
63	CSMBS1SD63	
80	CSMBS1SD80	
100	CSMBS1SD100	
125	CSMBS1SD125	

Current rating (Amps.)	Reference	Std. Pkg. (Nos.)
2 Pole		
25	CSMBS2SD25	6
32	CSMBS2SD32	
40	CSMBS2SD40	
63	CSMBS2SD63	
80	CSMBS2SD80	
100	CSMBS2SD100	
125	CSMBS2SD125	

Current rating (Amps.)	Reference	Std. Pkg. (Nos.)
3 Pole		
25	CSMBS3SD25	4
32	CSMBS3SD32	
40	CSMBS3SD40	
63	CSMBS3SD63	
80	CSMBS3SD80	
100	CSMBS3SD100	
125	CSMBS3SD125	

Current rating (Amps.)	Reference	Std. Pkg. (Nos.)
4 Pole		
25	CSMBS4SD25	3
32	CSMBS4SD32	
40	CSMBS4SD40	
63	CSMBS4SD63	
80	CSMBS4SD80	
100	CSMBS4SD100	
125	CSMBS4SD125	

Accessories Drawings



WiNtrip2 DC MCB

- 250V SP (6kA) & 500V DP (3kA) breaking capacity
- Range: 6A~40A
- Standard Conformity: IEC60947-2;2016

Technical Data



DC-MCB

Current rating (Amps.)	Reference	Std. Pkg. (Nos.)	Current rating (Amps.)	Reference	Std. Pkg. (Nos.)
1 Pole			2 Pole		
6	CSMBS1DC6-250	12	6	CSMBS2DC6-500	6
10	CSMBS1DC10-250		10	CSMBS2DC10-500	
16	CSMBS1DC16-250		16	CSMBS2DC16-500	
20	CSMBS1DC20-250		20	CSMBS2DC20-500	
25	CSMBS1DC25-250		25	CSMBS2DC25-500	
32	CSMBS1DC32-250		32	CSMBS2DC32-500	
40	CSMBS1DC40-250		40	CSMBS2DC40-500	
			Shorting link	SHMT8101	

MCB-DC

Specifications	DC MCB-WiNtrip2
Type	Air Break, Dinrail Mounting
Standard Conformity	IEC/EN 60947-2
Rated Current (In)	6A-40A
Rated Voltage DC (Ue)	1P-250V DC & 2P-500V DC
Network Type	DC
Utilization Category	A
Rated Frequency Hz	DC
No. of Poles (Execution)	1P & 2P
Magnetic Release Setting	8In
Rated Ultimate Short Breaking Capacity (Icu)	6kA DC for 1P
	3kA DC for 2P
Suitable for Isolation	Yes
Rated Insulation Voltage (Ui)	660V
Control Type	Toggle
Local Signaling	ON/OFF Indication
Rated Impulse Voltage (Uimp)	4kV
Electrical/Mechanical Life	5000/10,000
Mounting Support	35mm Symmetrical Dinrail
Tropicalisation acc.to EN/IEC 60068-2	95%RH at 55°C
Storage temperature	-25°C to +70°C
Ambient reference temperature	-25°C to +70°C
Reference Ambient Temperature	40°C
Load/Line	Marked

DC-MCB



Current rating (Amps.)	Reference	Std. Pkg. (Nos.)	Current rating (Amps.)	Reference	Std. Pkg. (Nos.)
1 Pole			2 Pole		
0.5	CSMBS1DC0.5	12	0.5	CSMB2SDC0.5	6
1	CSMBS1DC1		1	CSMB2SDC1	
2	CSMBS1DC		2	CSMB2SDC2	
3	CSMBS1DC3		3	CSMB2SDC3	
4	CSMBS1DC4		4	CSMB2SDC4	
5	CSMBS1DC5		5	CSMB2SDC5	
6	CSMBS1DC6		6	CSMB2SDC6	
10	CSMBS1DC10		10	CSMB2SDC10	
16	CSMBS1DC16		16	CSMB2SDC16	
20	CSMBS1DC20		20	CSMB2SDC20	
25	CSMBS1DC25		25	CSMB2SDC25	
32	CSMBS1DC32		32	CSMB2SDC32	
40	CSMBS1DC40	40	CSMB2SDC40		
50	CSMBS1DC50	50	CSMB2SDC50		
63	CSMBS1DC63	63	CSMB2SDC63		

Technical Data

Specifications	DC MCB-WiNtrip2	
Type	Air Break, Dinrail Mounting	
Standard Conformity	IEC/EN 60947-2	IEC / EN60898-2
Rated Current (In)	0.5A-63A	
Rated Voltage DC (Ue)	1P-220V & 2P-440V	
Network Type	DC	
Utilization Category	A	
Rated Frequency Hz	DC	
No. of Poles (Execution)	1P & 2P	
Magnetic Release Setting	8In	C
Rated Ultimate Short Breaking Capacity (Icu)	10kA	
Suitable for Isolation	Yes	
Rated Insulation Voltage (Ui)	630V	
Control Type	Toggle	
Local Signaling	ON/OFF Indication	
Rated Impulse Voltage (Uimp)	4kV	
Electrical/Mechanical Life	5000/10,000	
Mounting Support	35mm Symmetrical Dinrail	
Tropicalisation acc.to EN/IEC 60068-2	95%RH at 55°C	
Storage temperature	-25°C to +70°C	
Ambient reference temperature	-25°C to +70°C	
Reference Ambient Temperature	50°C	30°C
Load/Line	Marked	

MCB Changeover

Two way centre OFF Changeover Switch

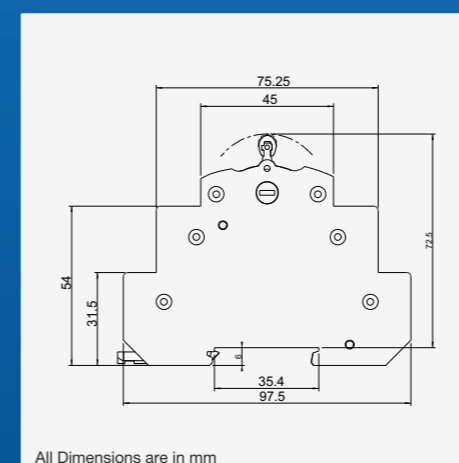
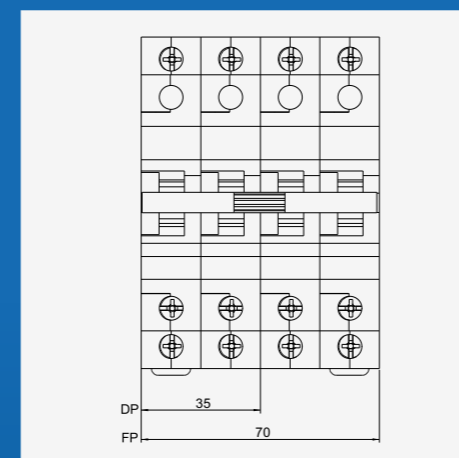


Feature

- Compact Design
- Double Break Contacts
- Can be Mounted with other products like MCB, RCCB, Isolator in Distribution Board
- Front Operation with three positions
I-O-II Mid position OFF

Technical Data

- Standard: IS/IEC60947-3:1999
- No. of Pole: 2P & 4P
- Rated operational voltage: 240 / 415V
- Rated current: 25A, 40A & 63A
- Rated frequency: 50Hz
- Rated insulation voltage: 660V
- Dielectric Strength: 2.5KV
- Rated impulse Voltage: 4KV
- Utilization Categories: AC 22A
- Working Temperature: 25°C to +70°C
- Mechanical Life: 10000
- Electrical Life: 5000
- Mounting: Clip on din rail
- Mounting Position: Vertical / Horizontal
- Terminal capacity: 16mm²



All Dimensions are in mm

Proven & trusted
product from C&S WiNtrip

WiNtrip

Residual Current Circuit Breaker



From Bungalows to High Risers, from Trade Centres to Hotels, from Clinics to Hospitals, from escalators to elevators electricity is the foremost requirement. Electricity has become an integral part of our life so common to our daily requirements that we forget its intricacies and hazardous behaviour.

Day after day we come across many un to do events hampering human lives due to negligent usage of electricity. Even large number of Industrial and Domestic fire are attributed to and caused by electricity.

Faulty insulated equipments or wrong usage of electrical devices cause current to flow through insulation to the earth. This is leakage current. This current poses two severe risk factors which are

- Fire Risk
- Electrocutation Risk

Residual Current Circuit Breaker provides the function of isolation switching and earth leakage protection of electrical circuits. It also provides the indirect protection of the human body against the dangerous effects of electric current. It is also a protective device against fire caused by the electrical circuit fault.

Physiological Effect of Electric Current on Human Body

- 500 mA Immediate cardiac arrest resulting in death
- 70-100 mA Cardiac fibrillation; the heart begins to vibrate and and no longer beats at a steady rate. This situation is dangerous since it is irreversible
- 20-30 mA Muscle contraction can cause respiratory paralysis
- 10 mA Muscle contraction: the person remains "stuck" to the conductor
- 1-10 mA Prickling sensations

As per Indian Electricity Rules 1956 at all installations with load above 5 KW use of RCCB is compulsory



Technical Data - Characteristics

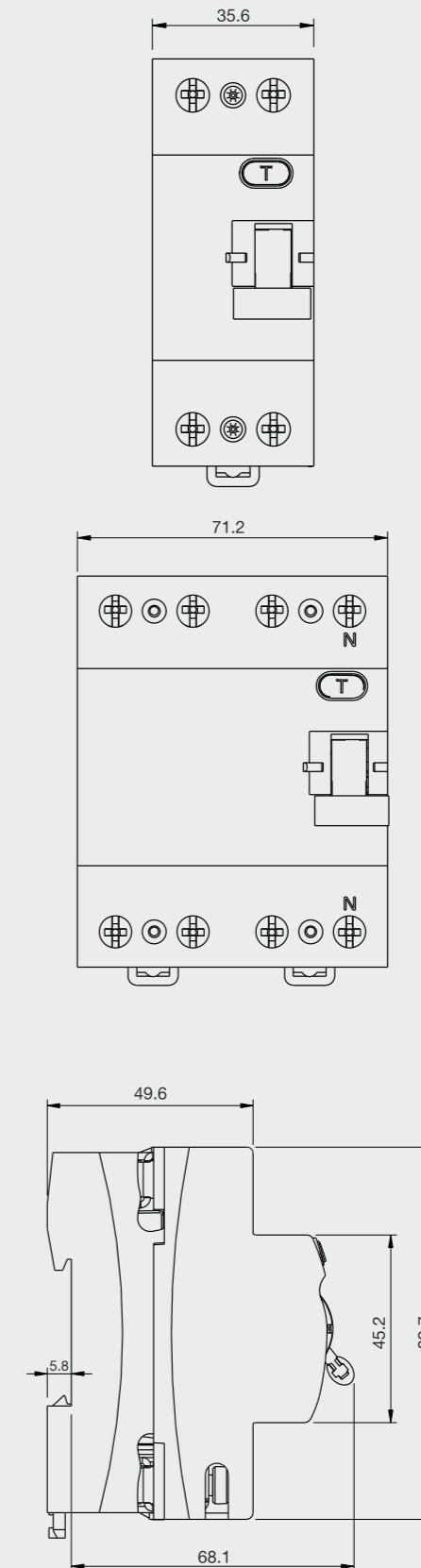
Standards	WiNtrip		IS 12640-1:2008
Residual tripping characteristics			AC
Tripping time at I _{Δn}	Instantaneous	ms	<40
	Selective	ms	>150
Rated current	A	6kA	16, 25, 32, 40 & 63
Rated residual current			10, 16, 20, 25, 32, 40, 63, 80 & 100
	I _{Δn}	mA	30, 100, 300
Number of poles versus modules			1
Rated voltage U _n	2P AC	V	240
	4P AC	V	415
Frequency	Hz		50 Hz
Maximum service voltage U _{bmax}	V		2P=265 / 4P=455
Minimum service voltage U _{bmin}	V		2P=100 / 4P=190
Power supply			Top / Bottom
Rated making and breaking capacity (I _m)	A		upto 40A-500A (63A and above 10In)
Residual making and breaking capacity (I _{Δm})	A		upto 40A-500A (63A and above 10In)
Conditional short-circuit capacity (I _{nc})	kA		6/10
Conditional residual short-circuit capacity (I _{Δc})	kA		6/10
Grid distance (safety distance between two devices)	mm		35
Isolator application			yes
Insulation degree	Insulation voltage	V (DC)	660
	Insulation resistance	mΩ	1000
	Dielectric strength	V	1500
Endurance	electrical at U _n , I _n		10,000
	mechanical at U _n , I _n		15,000
Protection degree (outside/inside electrical enclosure) with door			IP20
Tropicalisation (acc. to EN/IEC 60068-2, DIN 40046)	°C/RH		+55 / 95%
Pollution degree (acc. EN/IEC 60947-1)			2
Operating temperature			AC (-25°C-60°C)
Storage temperature	°C		-25°C+60°C
Terminals capacity	Rigid cable min/max (top)	mm ²	1.5/35mm ²
	Flexible cable min*/max (top)	mm ²	1.5/35mm ²
	Rigid cable min/max (bottom)	mm ²	1.5/35mm ²
	Flexible cable min*/max (bottom)	mm ²	1.5/35mm ²
	(*Flexible cable 0.75/1/1.5 mm ² with cable lug)		
Busbars systems	Pin		yes
	Fork		yes

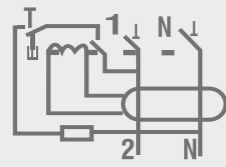




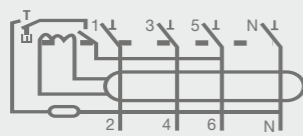
Codes for 6kA RCCB			
Wiring Diagram	Rated Current	Reference	Sensitivity
<p>Double Pole</p>	16	CSRB2P16A30 CSRB2P16A100 CSRB2P16A300	30 100 300
	25	CSRB2P25A30 CSRB2P25A100 CSRB2P25A300	30 100 300
	32	CSRB2P32A30 CSRB2P32A100 CSRB2P32A300	30 100 300
	40	CSRB2P40A30 CSRB2P40A100 CSRB2P40A300	30 100 300
	63	CSRB2P63A30 CSRB2P63A100 CSRB2P63A300	30 100 300
<p>Four Pole</p>	16	CSRB4P16A30 CSRB4P16A100 CSRB4P16A300	30 100 300
	25	CSRB4P25A30 CSRB4P25A100 CSRB4P25A300	30 100 300
	32	CSRB4P32A30 CSRB4P32A100 CSRB4P32A300	30 100 300
	40	CSRB4P40A30 CSRB4P40A100 CSRB4P40A300	30 100 300
	63	CSRB4P63A30 CSRB4P63A100 CSRB4P63A300	30 100 300

Dimensions





Double Pole

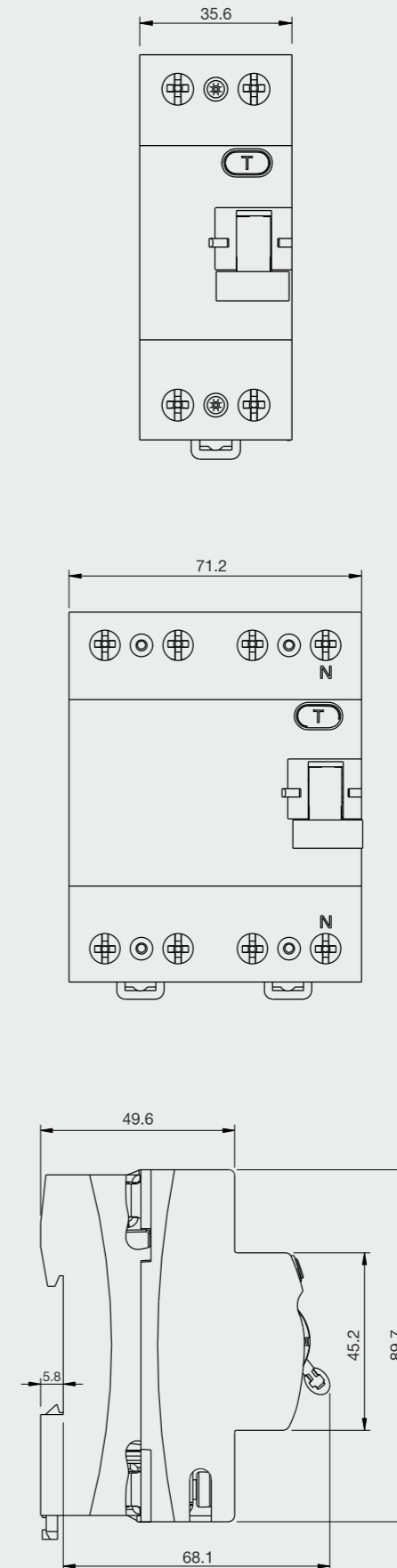


Four Pole

Codes for 10kA RCCB

Wiring Diagram	Rated Current	Reference	Sensitivity
Double Pole	10	CSRB2P10A30-10kA	30
		CSRB2P10A100-10kA	100
		CSRB2P10A300-10kA	300
	16	CSRB2P16A30-10kA	30
		CSRB2P16A100-10kA	100
		CSRB2P16A300-10kA	300
	20	CSRB2P20A30-10kA	30
		CSRB2P20A100-10kA	100
		CSRB2P20A300-10kA	300
	25	CSRB2P25A30-10kA	30
		CSRB2P25A100-10kA	100
		CSRB2P25A300-10kA	300
32	CSRB2P32A30-10kA	30	
	CSRB2P32A100-10kA	100	
	CSRB2P32A300-10kA	300	
40	CSRB2P40A30-10kA	30	
	CSRB2P40A100-10kA	100	
	CSRB2P40A300-10kA	300	
63	CSRB2P63A30-10kA	30	
	CSRB2P63A100-10kA	100	
	CSRB2P63A300-10kA	300	
80	CSRB2P80A30-10kA	30	
	CSRB2P80A100-10kA	100	
	CSRB2P80A300-10kA	300	
100	CSRB2P100A30-10kA	30	
	CSRB2P100A100-10kA	100	
	CSRB2P100A300-10kA	300	
Four Pole	10	CSRB4P10A30-10kA	30
		CSRB4P10A100-10kA	100
		CSRB4P10A300-10kA	300
	16	CSRB4P16A30-10kA	30
		CSRB4P16A100-10kA	100
		CSRB4P16A300-10kA	300
	20	CSRB4P20A30-10kA	30
		CSRB4P20A100-10kA	100
		CSRB4P20A300-10kA	300
	25	CSRB4P25A30-10kA	30
		CSRB4P25A100-10kA	100
		CSRB4P25A300-10kA	300
32	CSRB4P32A30-10kA	30	
	CSRB4P32A100-10kA	100	
	CSRB4P32A300-10kA	300	
40	CSRB4P40A30-10kA	30	
	CSRB4P40A100-10kA	100	
	CSRB4P40A300-10kA	300	
63	CSRB4P63A30-10kA	30	
	CSRB4P63A100-10kA	100	
	CSRB4P63A300-10kA	300	
80	CSRB4P80A30-10kA	30	
	CSRB4P80A100-10kA	100	
	CSRB4P80A300-10kA	300	
100	CSRB4P100A30-10kA	30	
	CSRB4P100A100-10kA	100	
	CSRB4P100A300-10kA	300	

Dimensions

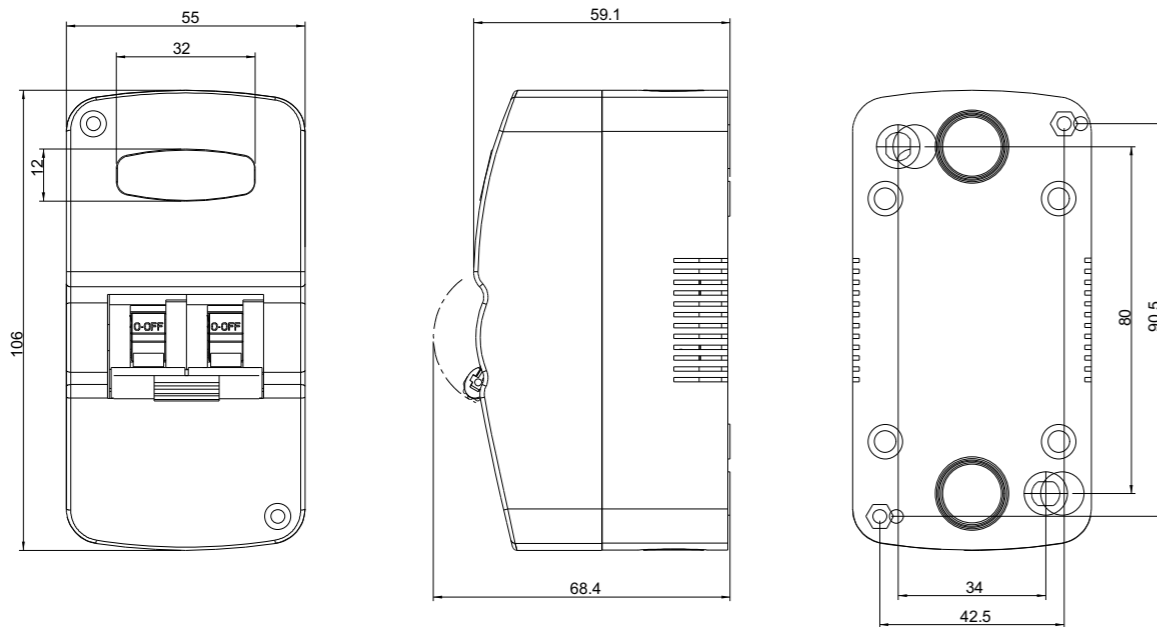


Smart Protection Solution against OVERLOAD & SHORT CIRCUIT.



Rating (A)	Product Code	Pole	Description
6-32A	CSMBSS2C6-32	DP	6-32A Mini MCB with Enclosure
6-32A	CSMBSS1C6-32N	SPN	

Dimensions



Specifications:

- Reference : IS/IEC: 60898: Part 1: 2002
- Rated Current In : 6A, 10A, 16A, 20A, 25A & 32A
- Rated Voltage Un : 240V AC
- Rated Insulation Voltage : 660V AC
- Rated Frequency : 50/60 Hz
- No. of Poles : SP/SPN
- Rated Short Circuit Capacity : 4.5kA
- Degree of protection : IP 20
- Line / Load terminals : 10 mm²
- Curve : B&C Type

Features:

- Compact & Space saving design
- Overload & Short Circuit Protection
- Rapid closing mechanism
- Easy to Operate & replace
- Brass terminal in both side
- Supply Indication

All dimensions are in mm

WiNtrip 'S' Modular MCB

The perfect solution for AC's, Refrigerators & Electrical Appliances



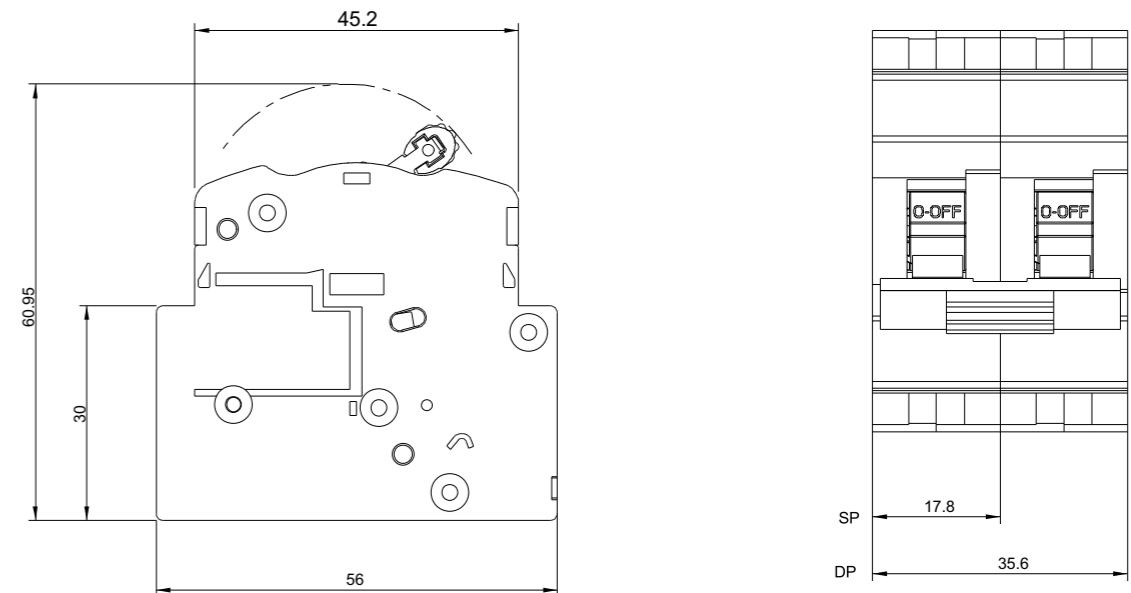
Single Pole Tripping Curve "C"

Rating (A)	Product Code
06A	CG20431R
10A	CG20432R
16A	CG20433R
20A	CG20437R
25A	CG20435R
32A	CG20436R

Double Pole Tripping Curve "C"

Rating (A)	Product Code
06A	CG20438R
10A	CG20439R
16A	CG20440R
20A	CG20441R
25A	CG20442R
32A	CG20443R

Dimensions



Specifications:

- Reference : IS/IEC: 60898: Part 1: 2002
- Rated Current In : 6A, 10A, 16A, 20A, 25A & 32A
- Rated Voltage Un : 415V AC
- Rated Insulation Voltage : 660V AC
- Rated Frequency : 50/60 Hz
- No. of Poles : DP
- Rated Short Circuit Capacity : 4.5kA
- Degree of protection : IP 20
- Line / Load terminals : 10 mm²
- Curve : B&C Type

Features:

- Wide Range
- Compact Design
- Energy Saving
- Easy to Operate
- Safe and Convenient
- Overload & Short Circuit Protection
- Rapid Closing Mechanism

All dimensions are in mm

ACCL



ACCL Automatic Changeover with Current Limiter

- Complying to IEC 60947-6 & IEC 60947-3
- Utilization Category AC 32A
- Rating : Mains - 30A, DG - 0.5A-30A
- Individual LED for Mains & DG
- Quick Transfer Time
- Fault Annunciation
- Higher Electrical Life
- Low Blackout Time
- Din Rail Mounting
- Auto Reset Facility
- Can be used for New Installations as Well as for Retrofits

Product Code	Mains Rating (Amps.)	Genset Rating (Amps.)
TCALSS005	30	0.5
TCALSS010	30	1
TCALSS015	30	1.5
TCALSS025	30	2.5
TCALSS030	30	3
TCALSS040	30	4
TCALSS050	30	5
TCALSS060	30	6
TCALSS080	30	8
TCALSS090	30	9
TCALSS100	30	10
TCALSS150	30	15
TCALSS200	30	20
TCALSS250	30	25
TCALSS300	30	30

Technical Data - ACCL



RoHS

Ordering Information:

Ordering Code	Mains Rating	Genset Rating
TCALSS005	30 A	0.5 A
TCALSS010	30 A	1 A
TCALSS015	30 A	1.5 A
TCALSS025	30 A	2.5 A
TCALSS030	30 A	3 A
TCALSS040	30 A	4 A
TCALSS050	30 A	5 A
TCALSS060	30 A	6 A
TCALSS080	30 A	8 A
TCALSS090	30 A	9 A
TCALSS100	30 A	10 A
TCALSS150	30 A	15 A
TCALSS200	30 A	20 A
TCALSS250	30 A	25 A
TCALSS300	30 A	30 A

Instruction Leaflet

4AC26761CS069900

Functional Description:

Automatic Changeover:

When mains supply fails and generator supply starts, Automatic Changeover Current Limiter (ACCL) transfers the load from mains to generator automatically. It also acts as a current limiter when load on generator exceeds the preset limit, thus avoiding any overload on the generator.

Technical Specifications:

Supply Characteristics:

- Supply Voltage 240 VAC
- Supply frequency 50 Hz
- Power Consumption < 0.2 VA (Mains)
15 VA @ 240 VAC (Genset)

Functional Characteristics:

- Current Monitoring On Genset only
- Mains Current Rating 30 A Max.
- Genset Current Rating 0.5 A to 30 A
- Tripping accuracy ± 10 % of trip current
- Timing accuracy ± 5 %
- Duty Continuous

Changeover delays:

- Mains to Genset 5 sec typical
- Overload warning 10 sec ON, 10 sec OFF
10 sec ON, 20 sec OFF
10 sec ON, 30 sec OFF
10 sec ON, 2 min OFF

The last cycle will be continue until the overload is reduced to the rated load.

LED Indications:

Condition	Mains (Blue)	Gen (Red)	OL (Amber)
Mains ON	ON	OFF	OFF
Genset ON	OFF	ON	OFF
Overload	OFF	ON	BLINK

Contact Characteristics:

- Electrical Life 25,000 Operations
- Contact Rating 30A @ 240 VAC (Res)
- Utilization Category AC-22A (IEC 60947-3) / AC-32A (IEC 60947-6)

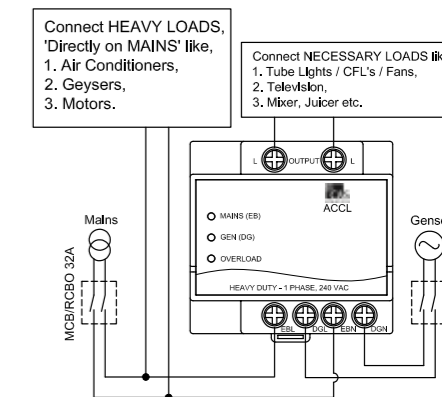
Environmental Characteristics:

- Operating Temperature -5 to 55°C
- Storage Temperature -10 to 60°C
- Operating Humidity 5 to 85 % RH
- Pollution Degree 3
- IP Protection IP 20: Terminal Enclosure
- Mounting DIN (35 X 7.5 mm)
- Weight (Un-Packed) 320 gm
- Mounting Position Horizontal

Recommended MCB Ratings:

ACCL Ratings		MCB Ratings	
Mains	Genset	On Mains side	* On Genset Side
30 A	0.5 A	32 A	1 A
	1 A		1 A
	1.5 A		2 A
	2.5 A		3 A
	3 A		3 A
	4 A		4 A
	5 A		6 A
	6 A		6 A
	8 A		10 A
	9 A		10 A
	10 A		10 A
	15 A		16 A
	20 A		20 A
25 A	25 A		
30 A	32 A		

Recommended Load Connections:

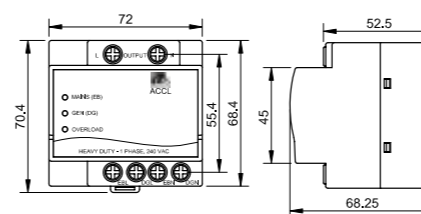


Cautions:

1. It is advisable to connect MCB / RCBO at incoming Mains as well as Genset supply.
2. Mains supply Neutral & Genset Neutral should be separately grounded & not to be interconnected.

THIS LITREATURE GIVES INFORMATION TO USER ABOUT PRODUCT INSTALLATION, OPERATION, MAINTENANCE AND DISPOSAL. THIS INFORMATION IS NOT EXHAUSTIVE AND SHOULD CUSTOMER REQUIRE FURTHER INFORMATION, IN SPECIFIC CASES, CUSTOMER MAY CONTACT C & S ELECTRIC LTD.

Overall Mechanical Dimensions:



Terminal Details:

	Terminal Screw - M4 Torque - 1.50 Nm
	1 X 10 mm ²

Miniature Circuit Breaker (DC)

WINtrip 2

Product Code	CSMBS2DC#R
Type	'DC'
Standard Conformity	IS/IEC 60947-2 EN 45545 HL2 Compliant Class R22
Rated Current (In)	0.5 ~ 63A
Rated Voltage DC (Ue) \equiv	220/440V
Rated Frequency	DC
No. of Poles (Execution)	2P
Rated Short Circuit Breaking Capacity	10kA
Rated Insulation Voltage (Ui)	660V
Magnetic Release Setting	10In
Rated Impulse Voltage (Uimp)	6kV
Electrical Life	5,000
Mechanical Life	20,000
Mounting Din Rail	(35 mm x 7.5 mm)
Line Terminal Capacity	35 mm ²
Load Terminal Capacity	35 mm ²
Degree of Protection	IP20
Resistance to Shock	40 mm free fall
Ambient Working Temperature	-25°C to 70°C
Ambient reference temperature	50°C
Installation Position	Vertical / Horizontal
Bi-Connect Terminal	Both side
Pollution Degree	3

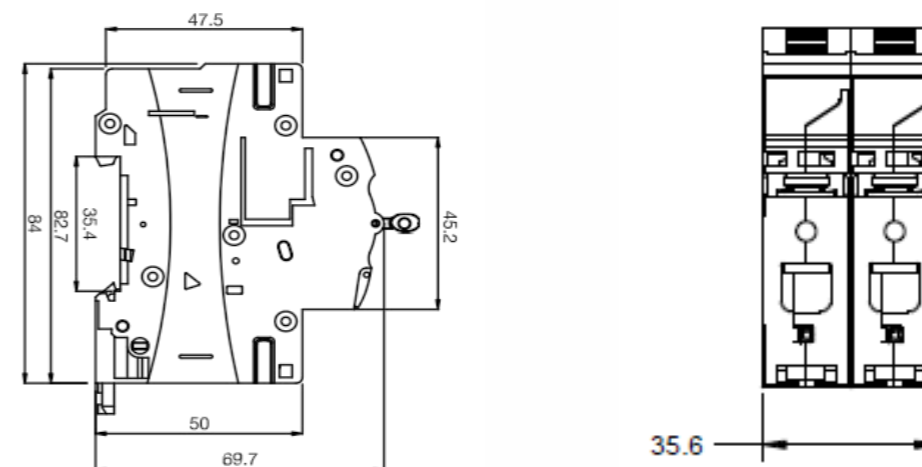
Shock and Vibration Test Compliance

IEC 61373, Category 1, Class B, Body Mounted
 Vibrations MCB Non Energized:
 0.964 (m/s²)²/Hz V* axis b/w 5 Hz and 20 Hz,
 0.912 (m/s²)²/Hz in T* axis b/w 5 Hz and 20 Hz,
 0.461 (m/s²)²/Hz in L* axis b/w 5 Hz and 20Hz
 Random type, 5 hours test
 Vibrations MCB Energized:
 0.0301 (m/s²)²/Hz in V* axis b/w 5 Hz and 20 Hz,
 0.0060 (m/s²)²/Hz in T* axis b/w 5 Hz and 20 Hz,
 0.0144 (m/s²)²/Hz in L* axis b/w 5 Hz and 20 Hz
 Random type, ten minute test
 Shocks MCB Non Energized:
 30m/s² in V* & T* axis,
 50 m/s² in L* axis Half sine type, 30 ms pulse



*Note - "#" - Rated Current 0.5 ~ 63A

Dimensions in mm



Miniature Circuit Breaker (AC)

WiNtrip 2

Product Code	CSMBS@K#R
Type	'C'
Standard Conformity	IS/IEC 60947-2 EN 45545 HL2 Compliant Class R22
Rated Current (In)	0.5 ~ 63A
Rated Voltage AC (Ue)	240/415V-SP, 240V-SPN, 415V-DP, TP, TPN,FP
Rated Frequency	50/60Hz
No. of Poles (Execution)	SP,DP,TP,FP,SPN,TPN
Rated Short Circuit Breaking Capacity	10kA
Rated Insulation Voltage (Ui)	500V
Magnetic Release Setting	8 In +/- 20%
Rated Impulse Voltage (Uimp)	6KV
Electrical Life	10,000
Mechanical Life	20,000
Mounting Din Rail	(35 mm x 7.5 mm)
Line Terminal Capacity	35 mm ²
Load Terminal Capacity	35 mm ²
Degree of Protection	IP20
Resistance to Shock	40 mm free fall
Ambient Working Temperature	-25°C to 70°C
Ambient reference temperature	50°C
Installation Position	Vertical / Horizontal
Bi-Connect Terminal	Both side
Pollution Degree	3

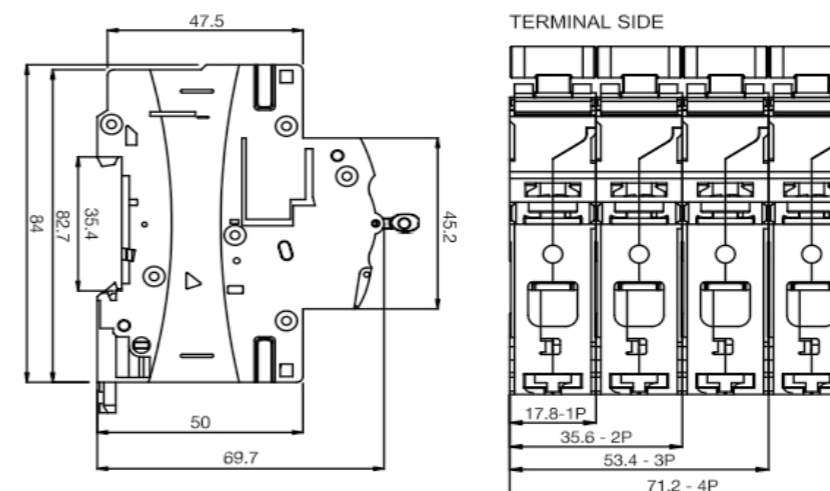
Shock and Vibration Test Compliance

IEC 61373, Category 1, Class B, Body Mounted
 Vibrations MCB Non Energized:
 0.964 (m/s²)²/Hz V* axis b/w 5 Hz and 20 Hz,
 0.912 (m/s²)²/Hz in T* axis b/w 5 Hz and 20 Hz,
 0.461 (m/s²)²/Hz in L* axis b/w 5 Hz and 20Hz
 Random type, 5 hours test
 Vibrations MCB Energized:
 0.0301 (m/s²)²/Hz in V* axis b/w 5 Hz and 20 Hz,
 0.0060 (m/s²)²/Hz in T* axis b/w 5 Hz and 20 Hz,
 0.0144 (m/s²)²/Hz in L* axis b/w 5 Hz and 20 Hz
 Random type, ten minute test
 Shocks MCB Non Energized:
 30m/s² in V* & T* axis,
 50 m/s² in L* axis Half sine type, 30 ms pulse



*Note - "#"- Rated Current 0.5 ~ 63A
 "@"- SP,DP,TP,FP,SPN,TPN

Dimensions in mm



Miniature Circuit Breaker (AC)

WINtrip2

Product Code	CSMBS@D#R
Type	'D'
Standard Conformity	IS/IEC 60947-2 EN 45545 HL2 Compliant Class R22
Rated Current (In)	0.5 ~ 63A
Rated Voltage AC (Ue)	240/415V-SP, 240V-SPN, 415V-DP, TP, TPN,FP
Rated Frequency	50/60Hz
No. of Poles (Execution)	SP,DP,TP,FP,SPN,TPN
Rated Short Circuit Breaking Capacity	10kA
Rated Insulation Voltage (Ui)	500V
Magnetic Release Setting	12.5 In +/- 20%
Rated Impulse Voltage (Uimp)	6kV
Electrical Life	10,000
Mechanical Life	20,000
Mounting Din Rail	(35 mm x 7.5 mm)
Line Terminal Capacity	35 mm ²
Load Terminal Capacity	35 mm ²
Degree of Protection	IP20
Resistance to Shock	40 mm free fall
Ambient Working Temperature	-25°C to 70°C
Ambient reference temperature	50°C
Installation Position	Vertical / Horizontal
Bi-Connect Terminal	Both side
Pollution Degree	3

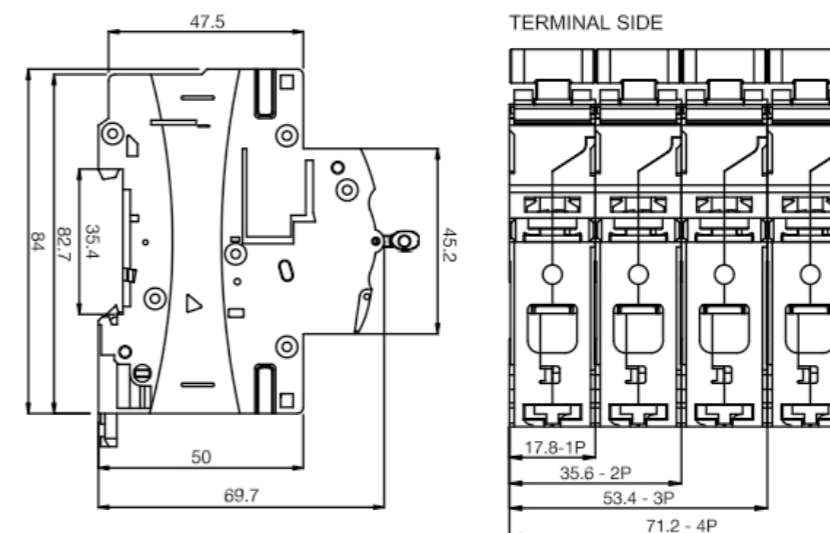
Shock and Vibration Test Compliance

IEC 61373, Category 1, Class B, Body Mounted
 Vibrations MCB Non Energized:
 0.964 (m/s²)²/Hz in V* axis b/w 5 Hz and 20 Hz,
 0.912 (m/s²)²/Hz in T* axis b/w 5 Hz and 20 Hz,
 0.461 (m/s²)²/Hz in L* axis b/w 5 Hz and 20Hz
 Random type, 5 hours test
 Vibrations MCB Energized:
 0.0301 (m/s²)²/Hz in V* axis b/w 5 Hz and 20 Hz,
 0.0060 (m/s²)²/Hz in T* axis b/w 5 Hz and 20 Hz,
 0.0144 (m/s²)²/Hz in L* axis b/w 5 Hz and 20 Hz
 Random type, ten minute test
 Shocks MCB Non Energized:
 30m/s² in V* & T* axis,
 50 m/s² in L* axis Half sine type, 30 ms pulse



*Note - "#"- Rated Current 0.5 ~ 63A
 "@"- SP,DP,TP,FP,SPN,TPN

Dimensions in mm



Miniature Circuit Breaker (DC)	WINtrip 2
Product Code	CSMBS2DC#R
Type	'DC'
Standard Conformity	IS/IEC 60947-2 EN 45545 HL2 Compliant Class R22
Rated Current (In)	0.5 ~ 63A
Rated Voltage DC (Ue) ---	110/220V
Rated Frequency	DC
No. of Poles (Execution)	1P
Rated Short Circuit Breaking Capacity	10kA
Rated Insulation Voltage (Ui)	660V
Magnetic Release Setting	10In
Rated Impulse Voltage (Uimp)	6kV
Electrical Life	5,000
Mechanical Life	20,000
Mounting Din Rail	(35 mm x 7.5 mm)
Line Terminal Capacity	35 mm ²
Load Terminal Capacity	35 mm ²
Degree of Protection	IP20
Resistance to Shock	40 mm free fall
Ambient Working Temperature	-25°C to 70°C
Ambient reference temperature	50°C
Installation Position	Vertical / Horizontal
Bi-Connect Terminal	Both side
Pollution Degree	3



Shock and Vibration Test Compliance

IEC 61373, Category 1, Class B, Body Mounted
 Vibrations MCB Non Energized:
 0.964 (m/s²)²/Hz V* axis b/w 5 Hz and 20 Hz,
 0.912 (m/s²)²/Hz in T* axis b/w 5 Hz and 20 Hz,
 0.461 (m/s²)²/Hz in L* axis b/w 5 Hz and 20Hz
 Random type, 5 hours test
 Vibrations MCB Energized:
 0.0301 (m/s²)²/Hz in V* axis b/w 5 Hz and 20 Hz,
 0.0060 (m/s²)²/Hz in T* axis b/w 5 Hz and 20 Hz,
 0.0144 (m/s²)²/Hz in L* axis b/w 5 Hz and 20 Hz
 Random type, ten minute test
 Shocks MCB Non Energized:
 30m/s² in V* & T* axis,
 50 m/s² in L* axis Half sine type, 30 ms pulse

*Note - "#" - Rated Current 0.5 ~ 63A

Dimensions in mm

