www.cselectric.co.in

We touch
your electricity
everyday!

C&S electric

Switch Disconnectors

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 Bus-Ducts
- LV Busways
- Protection and Measurement Devices

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.

MANUFACTURING FACILITIES

C&S Controlgear Plant at Noida

C&S Switchgear Plant at Noida

World-Class Manufacturing Plants at SIDCUL, Haridwar

We touch your electricity everyday!

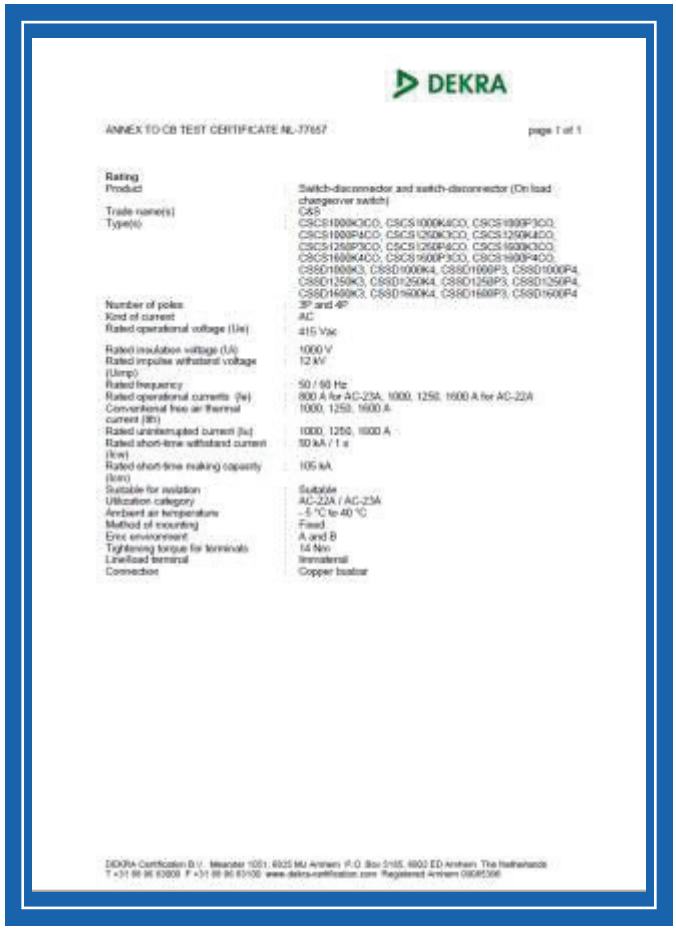
CONTENTS

Global Certifications

IECEE SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

CB TEST CERTIFICATE

DEKRA



DEKRA

ANNEX TO CB TEST CERTIFICATE NL-77657

page 1 of 1

Rating	
Product	Switch-disconnector and switch-disconnector (On load changeover switch)
Trade name(s)	C&S
Type(s)	CSCS1000K3CO, CSCS1000K4CO, CSCS1000P3CO, CSCS1000P4CO, CSCS1250K3CO, CSCS1250K4CO, CSCS1250P3CO, CSCS1250P4CO, CSCS1600K3CO, CSCS1600K4CO, CSCS1600P3CO, CSCS1600P4CO, CSSD1000K3, CSSD1000K4, CSSD1000P3, CSSD1000P4, CSSD1250K3, CSSD1250K4, CSSD1250P3, CSSD1250P4, CSSD1600K3, CSSD1600K4, CSSD1600P3, CSSD1600P4
Number of poles	3P and 4P
Kind of current	AC
Rated operational voltage (Ue)	≤15 Vac
Rated insulation voltage (Ui)	1000 V
Rated impulse withstand voltage (Uimp)	12 kV
Rated frequency	50 / 60 Hz
Rated operational currents (Ie)	800 A for AC-23A, 1000, 1250, 1600 A for AC-22A
Conventional free air thermal current (Ith)	1000, 1250, 1600 A
Rated uninterrupted current (Iu)	1000, 1250, 1600 A
Rated short-time withstand current (Icw)	50 kA / 1 s
Rated short-time making capacity (Icm)	105 kA
Suitable for isolation	Suitable
Utilization category	AC-22A / AC-23A
Ambient air temperature	-5 °C to 40 °C
Method of mounting	Fixed
Enc environment	A and B
Tightening torque for terminals	14 Nm
Line/load terminal	Immaterial
Connection	Copper busbar

DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-certification.com Registered Arnhem 09085396

IEC

DEKRA

Quality Assurance

14001:2015 9001:2015 45001:2018

Switch Disconnectors

Non Modular Range

D Type

K Type#

NM Type

Rotary Construction
Switches available with compact rotary type design

Isolation Capable
Offers absolute Disconnection / Isolation

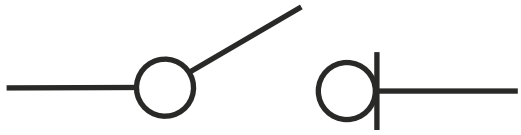
Reliable
Ui upto 1000V AC*

Applications
Suitable for Motor & Capacitor Applications*

* For NM Type Switch Disconnector

Non Modular Range

at a Glance



Modular Range

DM Type

K Type

P Type

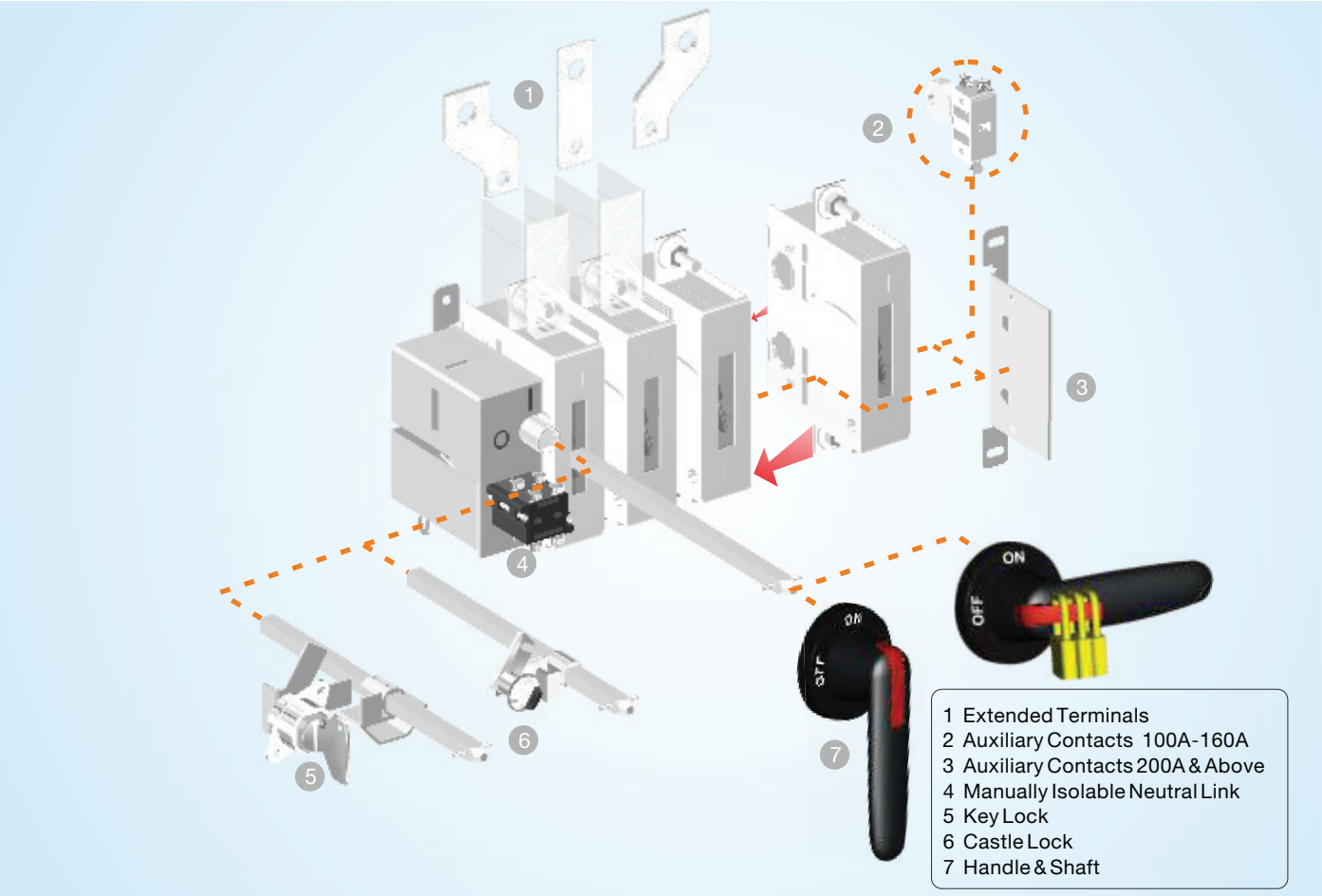
Modular Construction
Onsite convertible from 3P to 4P or vice versa

Contact Visibility Window
Offers true visibility of contact position

Safe
Isolation Capability
Padlocking

Telescopic Shaft
- Adjustable Handle Depth

IEC CE RoHS Compliant



Rugged construction, Integrating end user convenience with installation flexibility

C&S Electric offers a wide range of Switch Disconnectors (On Load Break Switches) - 25A to 3150A, suitable for operation upto 750/1000V. Available in 3 Pole as well as 4 Pole, interiors as well as in enclosure, they are suitable for AC-23A utilization category and confirm to IS/IEC 60947-3.

Available in ratings of 63A and above. These switches are of single pole construction, enabling combination up to 8 poles. Thus, modular yet rugged construction, with all poles including the neutral having 100% rating & reliability.

Modular arrangement also eliminates need for matching standard 3 pole switch to specific installation requirement by adding neutral pole in 3 phase 4 wire AC system or looping poles for DC system. Hence these switches are most suited and economical for any applications.

- Main Incomer Switch
- AC or DC Power Distribution System
- Switching & Isolating Motors
- Switching & Isolating Capacitors
- Switching & Isolating Industrial Control Equipment
- AC or DC Safety Switch

Their mounting flexibility offers numerous & matchless benefits for use in power distribution boards or for standalone mountings. They are compact enough occupying least panel space yet allowing ease of installation and rendering it safe for maintenance. For machine tool or distribution systems which are scattered in buildings, switches upto 125A are also available in plastic enclosure, which are corrosion proof and add to the aesthetics of the installation.

Multiple accessories suiting application requirements enhance the flexibility of operation and safety level of installation. These switches also facilitate and match diverse application requirements. Manufactured in ISO 9001 certified facilities, rugged design combining ease of operation and maintenance, they have stood the test of adverse environments in all types of climate in various countries, including India for more than in 15 years .

These switches are ideal for breaking stalled motor current, switching highly inductive loads, capacitor banks, DC loads etc. They have been used successfully in almost every industry, becoming the exclusive choice of every discerning user, be it Power Plants, Building segments, Telecommunication field or industries like Steel, Chemical, Cement, Automobile, Machine Tools etc.

Internationally Endorsed
Tested & Accepted World over

C&S Switch Disconnectors have been tested for their Conformity to international & Indian Standard at various independent laboratories like ASTA / DEKRA for conformity to international standard IEC 60947-3 and CPRI/ERDA for conformity to Indian Standards IS/IEC 60947-3. These also conform to the safety regulations adopted in the European Union and carry the CE marking.

OEMs and panel assemblers can be re-assured that the design is being used and exported to many countries world over.

An ISO 9001 certified manufacturing facilities gives the assurance of quality & consistency of these switches

Flexible Design
Modular yet reliable construction

C&S Switch Disconnector have a modular assembly for operating mechanism and pole. Contact system, placed in separate housing for individual phase poles, are joined together to form a switch with multi -pole formation upto 8 poles.

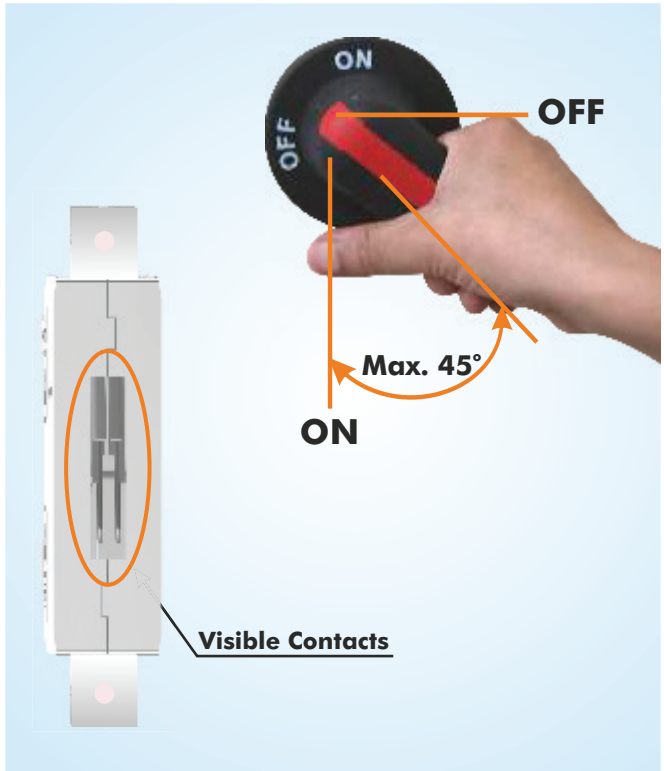
This arrangement offers flexibility of placing mechanism in between the poles. Every pole has 100% rating and operates with same reliability. As each pole is independent of the other, its maintenance or replacement is easy & economical in the event of damage. Switches can hence be ordered as per installation requirement 2 pole for DC; 3 pole for 3 phase, 3 wire system; 4 pole for 3 phase, 4 wire system or 6 pole for Star Delta motors.

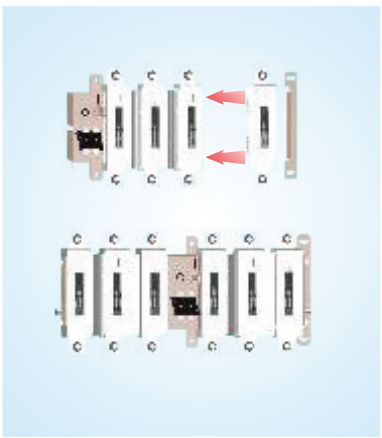
Unique Contact Mechanism
Efficient Switching & Long life

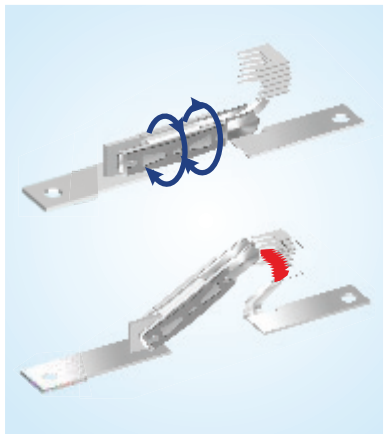
Switch Disconnectors of rating 200A and above employ unique Knife Contact Mechanism, which uses magnetic attraction principle in iron circuit on the moving contacts. As current increases, automatically the contact force too increases, ensuring - good contacts at all times, high making and breaking capacity upto 690V and low temperature rise leading to long electrical life.

The special form of fixed contacts results in separate arcing and current carrying surfaces. It again ensures that current carrying surface remains unaffected by arcing, maintaining identical contact pressure and enhancing electrical life. Special shape of fixed contacts also help blow out the Arc into Arc chute where it is swiftly extinguished under controlled conditions, safely.

During each switching, the knife contacts cleans itself. This makes them perfectly suited for Indian conditions in general and for high pollution and corrosive conditions as in Chemical Plants, Cement Plants, Steel Plants, etc., including applications like Motors and capacitor switching.







Easy Installation — Convenient, Swift & Economical

The handle in the C&S switch disconnectors has a telescopic shaft. The handle & shaft assembly adjusts to wide depth of the panel so there is no need to place a space below the switch while aligning it with enclosure door. It permits installation of the switch in installations of varying depths, without any modification of the enclosure.

Four hole handle fixing on the door permits last minute rotation of the switch inside the panel by 90 degrees on either side as per convenience, again without any modification to the door.

These time saving features increase the ease and flexibility of installation and also reduce installation cost.

Accessories — Flexibility to suit Application

Multiple accessories increase suitability for diverse application, enhance operational flexibility and improve installation safety.

Handle mounting kit allows complete Switch to be mounted inside enclosure door so that it can be operated only after opening the door. Door mounting kit lets fixing complete switch on to the door, doing away with need for fixing switch on base plate & aligning with door.

Auxiliary contacts permit electrical interlocking, remote indication and Alarm. Key Lock and Castle Lock help interlocking with different category of products.

Extended terminals allow for liberal termination or termination of large number of cables with higher clearances. Shrouds encase the terminals so that no falling hardware may get embedded between the terminals resulting in flashovers.

Switch Construction — Safety Built-in

C&S pioneered the concept of positive isolation in case of welding of contacts. In the event of extremely high current leading to welding of contacts, the handle will not turn beyond 45° from the ON position, clearly indicates that the supply is ON and contacts get welded.

Convenience of clear contacts visibility, permits contact position inspection, without removing the switch from installation, thus enhancing reliability and saving valuable down time.

Self extinguishing fibre glass re-inforced insulating body of poles has very high tracking index. Large gap between fixed and moving contacts in OFF position, make them suitable for isolation function.

Door interlocking prevents opening in the ON position, guarding the operator against an accidental mishap. As a standard upto 3 padlocks are provided in the OFF position to prevent closing the circuit during maintenance work. Using a suitable gasket alongwith handle enhances ingress protection level to IP 54.

Technical Data - NM Type

Parameters				NMType					
				125A	160A	200A	250A	315A	400A
Number of Poles				3/4	3/4	3/4	3/4	3/4	3/4
Rated insulation voltage and rated operational voltage AC20 / DC20 (Ui)			V	1000	1000	1000	1000	1000	1000
Dielectric strength		50HZ, 1 min.	kV	5	5	5	5	5	5
Rated impulse withstand voltage (Uimp)			kV	8	8	8	8	12	12
Rated thermal current in ambient 40^{0}C		Open Execution	A	125A	160	200	250	315	400
		In Enclosure	A	125A	160	200	250	315	400
With minimum conductor cross section		Cu	mm^2	50	70	95	120	185	240
Rated operational current, AC-21A		up to 415V	A	125	160	200	250	315	400
Rated operational current, AC- 22A		up to 415V	A	125	160	200	250	315	400
Rated operational current, AC -23A		up to 415V	A	125	160	200	250	315	400
Rated operational current/ poles in series, DC - 21A		up to 48V	A	125/2	160/2	200/2	250/2	315/1	400/1
		110V	A	125/2	160/2	200/2	250/2	315/1	400/1
		220V	A	125/3	160/3	200/3	250/3	315/1	400/1
Rated operational current/ poles in series, DC- 22A		up to 48V	A	125/2	160/2	200/2	250/2	315/1	400/1
		110V	A	125/3	160/3	200/2	250/2	315/1	400/1
		220V	A	125/3	160/3	200/2	250/2	315/2	400/2
Rated operational power, AC - 23A	The kW- ratings are accurate for 3 phase 1500 R.P.M. standard asynchronous motors.	220-240V	Kw	30	45	55	75	90	132
		400-415V	Kw	55	75	90	132	160	200
Rated breaking capacity, AC -23A		up to 415V	A	1000	1280	1600	2000	2520	3200
Rated conditional (fused) short-circuit current r.m.s. And corresponding cut-off current of the fuse in single-phase test according IEC 269	Cut-off / Back up fuse Rating	50kA,415V	kA	13/125	18/160	25/200	27/250	32/315	36/400
		80kA,500V	kA	15/125	20/160	28/200	30/250	32/315	42/400
Rated short-time withstand current	R.M.S. Value Icw	690V, 1s	kA	7	7	7	7	8	8
Rated short circuit making capacity	Peak value Icm	690V / 500V	kA	12	12	12	12	14	14
Rated capacitor power	The capacitor ratings are limited by the fuse link	400V~415V	Kvar	50	60	90	110	140	180
Power loss / pole	At rated operational current		watt	1.7	3	4.6	7.2	10	15
Mechanical Endurance	Divide by two for operation cycles		operations	20000	20000	20000	20000	20000	20000
Electrical Endurance	At 0.65 pf	415V	operations	2000	2000	2000	2000	2000	2000
Weight without accessories	with handle and shaft	3- Pole	Kg	1.4	1.4	1.5	1.9	2.2	2.3
		4- Pole	Kg	1.6	1.6	1.7	2.2	2.4	2.5
Terminal suitable for cable lug size	Cu- wire suitable for terminal clamp		Sq mm	M8X25	M8X25	M8X25	M10X30	M10x30	M10X30
Terminal tightening torque	Counter torque required		Nm	10...17	10...17	15...27	15...27	15...27	15...27
Operating torque	3- pole switch - disconnector		Nm	5	5	5	6	12	12

Common Characteristics

Conformity to Standards	-	IS/IEC 60947-3
Rated Operational Voltage (Ue)	V	415
Rated Operational Frequency	Hz	50 / 60
Suitability for Isolation	-	YES
Pollution Degree as per IEC / IS	-	3
Ambient / Cubicle Service Temp.	°C	40
IP Level after mounting	-	IP 54
Number of Poles	-	3/4P*

(4th Pole always 100% rated in 4 Pole switches)
*Other Pole configuration available on request

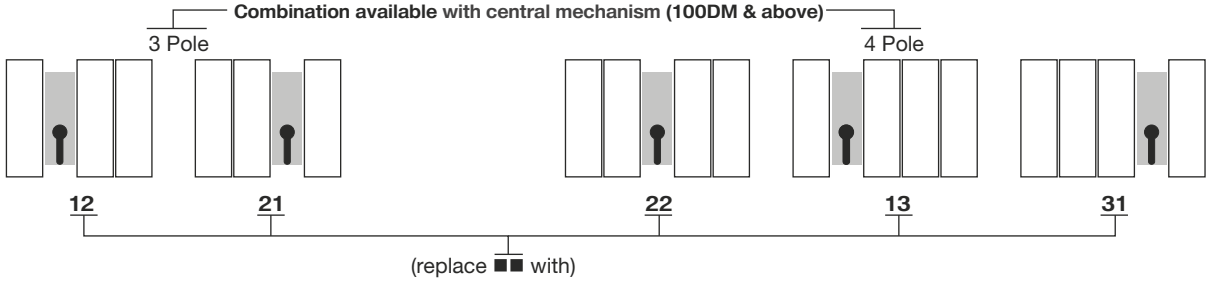
Replace '●' with 3 in case of 3 pole or with 4 in case of 4 pole

Parameters

Rated insulation voltage and Rated operational voltage AC-20 and DC-20	pollution degree 3	50 Hz 1 min	V
Dielectric strength			kV
Rated impulse withstand voltage			kV
Rated thermal current in ambient 40°C	in open air		A
	In Enclosure		A
Min. cable cross section		Cu	mm^2
Rated operational current AC -21 A		upto 415V	A
		440-690V	A
Rated operational current AC -22 A		upto 415V	A
		440-500V	A
		690V	A
Rated operational current AC -23 A		upto 415V	A
		440V	A
		500V	A
		690V	A
Rated operational current/poles in serires DC - 21 A		48V	A
		110V	A
		220V	A
Rated operational current/poles in serires DC - 22 A		48V	A
		110V	A
		220V	A
Rated operational current/poles in serires DC - 23 A		48V	A
		110V	A
		220V	A
Rated operational power AC- 23		220-240V	kW
The KW - ratings are accurate for three - phase 1500 R.P.M standard asynchronous motors.		400-415V	kW
		440V	kW
		500 V	kW
		690 V	kW

2) IEC-947-3, utilization category B, infrequent operation



D Type		K Type	D Type	DM Type	
25	**40**	**63**	**125**	**125**	**160**
750	750	750	750	1000	1000
6	6	6	6	6	6
4	4	4	4	8	8
25	40	63	125	125	160
25	40	63	125	125	160
4	10	16	50	50	70
25	40	63	125	125	160
25	40	40	125	125	160
25	40	63	125	125	160
25	40	63	125	125	160
-	-	-	-	125	160
25	40	40	63	125	160
20	25	40	63	70	100
20	25	32	56	70	100
11	20	20	35	50	80
25/3	40/3	63/3	125/3	125/2	160/2
25/3	40/3	63/3	125/3	125/3	160/3
25/3	40/3	63/3	125/3	125/3	160/3
25/3	40/3	63/3	75/3	125/2	160/2
25/3	40/3	63/3	75/3	125/3	160/3
25/3	40/3	50/3	50/3	125/3	160/3
25/3	40/3	63/3	75/3	125/2	160/2
-	-	35/3	50/3	125/3	160/3
-	-	25/3	50/3	125/3	160/3
4	7.5	11	22	30	45
7.5	11	18.5	37	55	75
7.5	11	18.5	37	45	75
7.5	15	18.5	37	45	75
9	15	15	30	45	75

Parameters

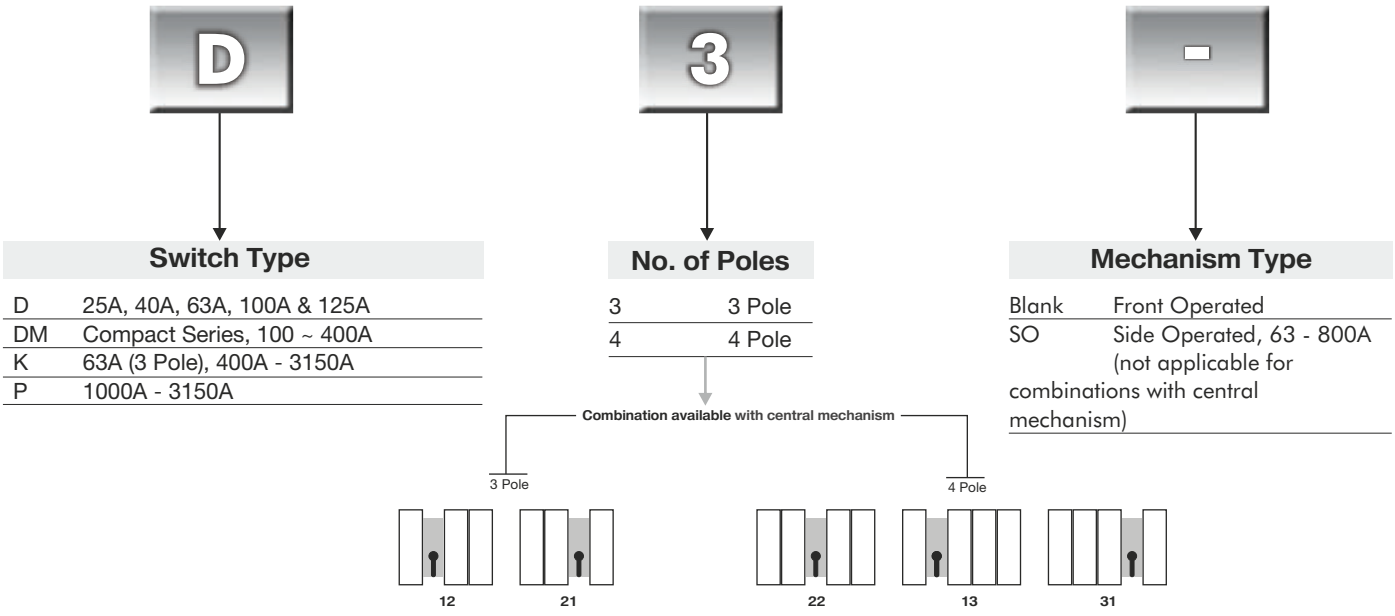
Rated breaking capacity in category AC-23		upto 415V	A
		440V	A
		500V	A
		690V	A
Rated breaking capacity/poles in series in category DC-23		upto 48 V	A
		110V	A
		220V	A
Rated conditional Short Circuit current r.m.s		690V/500V	kA
Rated conditional short circuit current r.m.s	Cut Off/Back up fuse Rating	50KA, 415V	kA
and corresponding cut off current of the fuse		50KA,500V	kA
in single phase test according to IEC 60269		50KA, 690V	kA
		80KA, 500V	kA
Rated short time withstand current	r.m.s. value Icw	690V 1 sec	kA
Rated short circuit making capacity	Peak value Icm	690/500 V	kA
Rated capacitor rating	the capacitor rating are limited by the fuse link	400~415 V	kVAr
Power loss/ pole	at rated operational current		W
Mechanical endurance	Divided by two for operational cycle		Oprs.
Electrical Endurance	At 0.65pf		Oprs.
Weight without accessories	with handle and shaft	3 pole	kg
		4 pole	kg
Terminal bolt size	Metric thread diameter x length		mm
Terminal tightening torque	counter torque required		Nm
Operating Torque	3-pole switch disconnector		Nm

Catalogue Reference

Mounting	
EABW	Plastic Enclosure, Gray base & Gray cover (25A-63A)
EACL	Plastic Enclosure, Gray base & Yellow cover (25A-63A)
ELCL / ELBL	Aluminum Enclosure, Gray base & Gray cover (16A-125A)
E	In Sheet Steel Enclosure
Blank	Without Enclosure

Rating	
40	40A
800	800A
2500	2500A

D Type		K Type	D Type	DM Type	
25	**40**	**63**	**125**	**125**	**160**
200	320	320	504	1000	1280
160	200	304	504	560	800
160	200	256	448	560	800
88	160	160	280	400	640
100/3	160/3	252/3	300/3	500/2	640/2
		140/3	200/3	500/3	640/3
		100/3	200/3	500/3	640/3
-	-	-	-	-	-
6/25	6/40	8/63	13/125	13/125	18/160
6/25	6/40	8/63	13/125	13/125	18/160
4/25	4/40	6/63	10/125	10/125	10/160
6.5/25	6.5/40	10/63	15/125	15/125	20/160
0.5	0.5	1	1.5	5	5
0.7	0.7	1.4	2.7	8	8
			50	50	60
0.6	1.6	2.8	6.3	6.3	9
20000	20000	20000	20000	20000	20000
5000	5000	5000	5000	5000	5000
0.2	0.2	0.3	0.4	1.6	1.8
0.25	0.25	0.4	0.5	2	2.25
				M8x25	M8x25
0.8	0.8	2	6	10-17	10-17
1	1	1.2	2	2.5	2.5



Common Characteristics

Conformity to Standards	-	IS / IEC 60947-3
Rated Operational Voltage (Ue)	V	415
Rated Operational Frequency	Hz	50 / 60
Suitability for Isolation	-	YES
Pollution Degree as per IEC / IS	-	3
Ambient / Cubicle Service Temp.	°C	40
IP Level after mounting	-	IP 54
Number of Poles (4th Pole always 100% rated in 4 Pole switches) *Other Pole configuration available on request	-	3P / 4P*

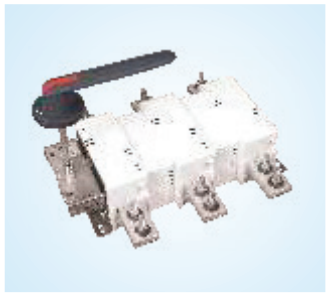
Replace '●' with 3 in case of 3 pole or with 4 in case of 4 pole

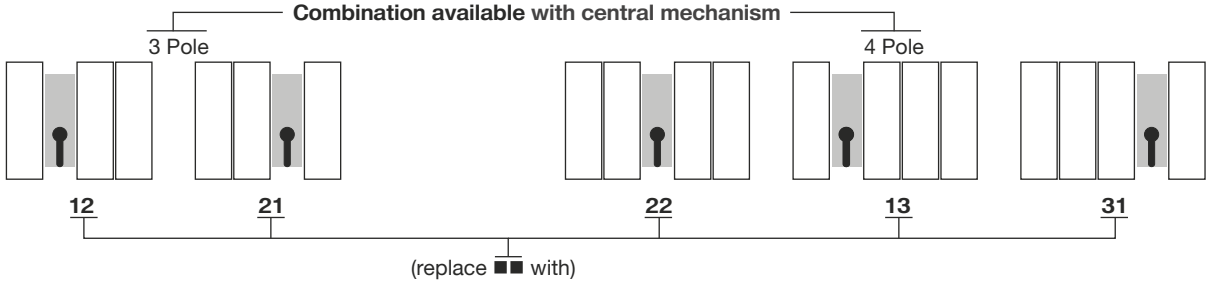
Parameters

Rated insulation voltage and Rated operational voltage AC-20 and DC-20	pollution degree 3	50 Hz 1 min	V
Dielectric strength			kV
Rated impulse withstand voltage			kV
Rated thermal current in ambient 40°C	in open air		A
	In Enclosure		A
Min. cable cross section		Cu	mm^2
Rated operational current AC -21 A		upto 415V	A
		440-690V	A
Rated operational current AC -22 A		upto 415V	A
		440-500V	A
		690V	A
Rated operational current AC -23 A		upto 415V	A
		440V	A
		500V	A
		690V	A
Rated operational current/poles in series DC - 21 A		48V	A
		110V	A
		220V	A
		440V	A
Rated operational current/poles in series DC - 22 A		48V	A
		110V	A
		220V	A
		440V	A

1) IEC-947-3, utilization category B, infrequent operation





DM Type				K Type				P/K Type				
200	250	315	400	400	630	800	1000	1250	1600	2000	2500	3150
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
10	10	10	10	10	10	10	8	8	8	8	8	8
12	12	12	12	12	12	12	12	12	12	12	12	12
200	250	315	400	400	630	800	1000	1250	1600	2000	2500	3150
200	250	315	400	400	630	720	1000	1250	1600	2000	2300	2600
95	120	185	240	240	2x185	2x240	2x(60x5)	2x(80x5)	2x(100x5)	3x(100x5)	4x(100x5)	3x(100x10)
200	250	315	400	400	630	800	1000	1250	1600	2000[1)]	2500[1)]	3150[1)]
200	250	315	400	400	630	800	1000	1250	1600	2000[1)]	2500[1)]	3150[1)]
200	250	315	400	400	630	800	1000	1250	1600	1600[1)]	1600[1)]	1600[1)]
200	250	315	400	400	630	800	1000	1250	1600	1600[1)]	1600[1)]	1600[1)]
200	250	315	400	400	630	800	-	-	-	-	-	-
200	250	315	400	400	630	720	1000	1000	1000	1000[1)]	1000[1)]	1000[1)]
200	250	315	400	400	590	670	-	-	-	-	-	-
200	250	315	400	400	580	600	-	-	-	-	-	-
200	250	315	350	350	350	350	-	-	-	-	-	-
200/2	250/2	315/2	400/2	400/1	630/1	800/1	1000/1	1250/1	1600/1	-	-	-
200/2	250/2	315/2	400/2	400/2	630/2	800/2	1000/2	1250/2	1600/2	-	-	-
200/2	250/2	315/2	-	-	-	-	-	-	-	-	-	-
200/3	250/3	315/3	-	-	-	-	-	-	-	-	-	-
200/2	250/2	315/2	400/2	400/1	630/1	800/1	-	-	-	-	-	-
200/2	250/2	315/2	400/2	400/2	400/2	500/2	-	-	-	-	-	-
200/2	250/2	315/2	-	-	-	-	-	-				-
200/3	250/3	315/3	-	-	-	-	-	-	-	-	-	-

Parameters

Rated operational current/poles in series DC-23 A		48V	A
		110V	A
		220V	A
		440V	A
Rated operational power AC-23 The KW-ratings are accurate for three-phase 1500 R.P.M standard asynchronous motors.		220-240V	kW
		400-415	kW
		440V	kW
		500 V	kW
		690 V	kW
Rated breaking capacity in category AC -23		upto 415V	A
		440V	A
		500V	A
		690V	A
Rated breaking capacity/poles in series in category DC -23		upto 48 V	A
		110V	A
		220V	A
		440V	A
Rated conditional Short Circuit current r.m.s		690V/500V	kA
Rated conditional short circuit current r.m.s and corresponding cut off current of the fuse in single phase test according to IEC 269	Cut Off/Back up fuse Rating	50KA, 415V	kA
		50KA,500V	kA
		50KA, 690V	kA
		80KA, 500V	kA
Rated short time withstand current	r.m.s. Value Icw	0.2 sec	kA
		690V 1 sec	kA
Rated short circuit making capacity	Peak value Icm	690/500 V	kA
Rated capacitor power	the capacitor rating are limited by the fuse link	400~415 V	kVAr
Power loss/ pole	at rated operational current		W
Mechanical endurance	Divided by two for operational cycle		Oprs.
Electrical Endurance	At 0.65pf		Oprs.
Weight without accessories	with handle and shaft	3 pole	kg
		4 pole	kg
Terminal bolt size	Metric thread diameter x length		mm
Terminal tightening torque	counter torque required		Nm
Operating Torque	3-pole switch disconnector		Nm

Ratings	25 - 40 Type D	63 Type K/D	100-125 Type D
Handle - Black [7]	CSSDZX111BL	CSSDZX111BL	CSSDZX111BL
Handle Shaft	CSP5X70	CSP5X70	CSP5X70
Handle Mounting Kit	-	-	-
Door Mounting Kit, 3P / 4P	DMK1/1A	DMK1/3	DMK2/3
Changover Mechanism	CSSDZW 6	CSSDZW 6/1	CSSDZW 6/1
Auxiliary Contact - 1NO + 1NC	CSSDZX 49/87	CSSDZX 79/55	CSSDZX 52/55
Auxiliary Contact - 2NO + 2NC	CSSDZX 50/88	CSSDZX 80/56	CSSDZX 53/56
Terminal Shrouds	-	-	SF701
Extended Terminals, 3P/4P	-	-	ET325/ET326
Key Interlock	CSSDZW-16	CSSDZW-16	CSSDZW-16
Castle Lock	CSSDZW-15	CSSDZW-15	CSSDZW-15
Neutral Link	-	-	-

2) PF 0.65 3) Max. Distance between busbar support and switch terminal shall be 70 mm 3) Metallic Handle for 2500 ~3150A 4) Red / Yellow available on request.

DM Type				K Type			P/K Type					
200	250	315	400	400	630	800	1000	1250	1600	2000	2500	3150
200/2	250/2	315/2	400/2	400/1	630/1	800/1	-	-	-	-	-	-
200/2	250/2	315/2	400/2	400/2	630/2	800/2-	-	-	-	-	-	
200/2	250/2	315/2	-	-	-	-	-	-	-	-	-	-
200/3	250/3	315/3	-	-	-	-	-	-	-	-	-	-
55	75	90	132	132	180	200	250	250	250	250	250	250
90	132	160	200	200	315	355	400	400	400	400	400	400
110	132	160	200	315	355	355	400	400	400	400	400	400
132	160	200	315	315	355	355	450	450	450	450	450	450
170	200	250	315	315	355	355	-	-	-	-	-	-
1600	2000	2520	3200	3200	5040	5760	8000	8000	8000	8000	8000	8000
1600	2000	2520	3200	3200	4720	5360	-	-	-	-	-	-
1600	2000	2520	3200	3200	4640	4800	-	-	-	-	-	-
1600	2000	2520	2800	2800	2800	2800	-	-	-	-	-	-
800/2	1000/2	1260/2	-	-	-	-	-	-	-	-	-	-
800/2	1000/2	1260/2	-	-	-	-	-	-	-	-	-	-
800/2	1000/2	1260/2	-	-	-	-	-	-	-	-	-	-
800/3	1000/3	1260/3	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
25 200	27 250	30 315	36 400	36 400	54 630	62 800	-	-	-	-	-	-
25 200	27 250	30 315	36 400	36 400	54 630	62 800	-	-	-	-	-	-
25 200	27 250	30 315	36 400	36 400	54 630	62 800	-	-	-	-	-	-
28 200	30 250	32 315	42 400	42 400	60 630	70 800	-	-	-	-	-	-
17.5	17.5	17.5	17.5	38	38	38	100	100	100	110	110	110
8	8	8	8	17	17	17	50[2)]	50[2)]	50[2)]	50[2)]	50[2)]	50[2)]
14	14	14	14	34	34	34	105	105	105	105	105	105
90	110	140	180	250	300	330	-	-	-	140	-	-
3.5	5.5	8.5	13	13	22	40	27	40	67	80	90	140
16000	16000	16000	10000	10000	10000	10000	6000	6000	6000	1200	1200	1200
1000	1000	1000	1000	1000	1000	500	500	500	500	100	100	100
3	3	3	3.3	5.2	6.2	6.2	16.3	16.3	17.5	35	37	40
3.7	3.7	3.7	4	6.4	7.6	7.6	20.5	20.5	22.5	45	47	51
M8x25	M10x30	M10x30	M10x40	M10x40	M12x40	M12x40	M12x60	M12x60	M12x60	M12x60	M12x60	M12x60
10..17	15..27	15..27	15..27	15..27	20..35	20..35	20..35	20..35	20..35	20..35	20..35	20..35
8.2	8.2	8.2	8.2	17	21	21	21	21	21	50	50	50

100 - 160 Type DM	200 - 400 Type DM	400 - 800 Type K	1000 - 1600 Type P	2500 - 3150 Type P
CSWH 80 S6	CSWH 80 S8	CSWH 145 S12	CSWH 220 S12	CSWH 220 S12/CSDA 86)
CSP6X165	CSP8X240	CSP12X255	CSP12X255	CSP12X325
-	HMK2	HMK-1-1	HMK-3-1	-
-	-	-	-	-
CSSDZW 6/1	CSSDZW 6/1	CSSDZW 11	CSSDZW 12	CSSDZW 12
CSSDZX 1	CSSDZX 37	CSSDZX 33	CSSDZX 35	CSSDZX 35
CSSDZX 16	CSSDZX 38	CSSDZX 34	CSSDZX 36	CSSDZX 36
SF702	SF703	SF703(400)/SF704(630-800)	-	-
ET327/ET328	ET329/ET330	ET329/ET330(upto 400A)	-	-
CSSDZW-16	CSSDZW-5	CSSDZW-5	CSSDZW-5	CSSDZW-5
CSSDZW-15	CSSDZW-4A	CSSDZW-4	CSSDZW-4	CSSDZW-4
-	-	CSSDFZX85	CSSDZX159	CSSDZX159(2Nos.)

Mounting Instruction for Accessories

Auxiliary Contact

For CSSD25-125A

- Open the two screws & remove the bush from the switch.
- Fit the Auxiliary bracket on the switch & place the bush on it.
- Fit the cam with bush & screw it with grub screw.
- For one NO & NC fit the auxiliary contact at one side on the bracket with acrylic cover.
- For two NO & NC fit the auxiliary contact at other side on the bracket with acrylic cover.

For CSSD100- 160A Compact (ZX1, Zx16)

- Place the auxiliary and name plate at rear end (opposite to mechanism) by ensuring name plate between auxiliary and switch and screw them properly.
- Fit the cam on the main shaft and screw it on the flat surface of the shaft.

For CSSD200-400A Compact (ZX 37, Zx38)

- Fit the auxiliary contact on the top of mechanism and screw it diagonally at the provided holes properly.
- Fit the two NO/NC auxiliary at the top of the auxiliary and screw it diagonally, if required.

For CSSD 400-800A (ZX33, Zx34)

- Fit the auxiliary contact on the top of mechanism and screw it diagonally on the provided thread.
- Fit the two NO/NC auxiliary at the top of the auxiliary and screw it diagonally, if required.

For CSSD1000-3150A (ZX 35, Zx36)

- Fit the cam on the tubular shaft with the square bush .
- Fit the auxiliary contact along with the bracket (Z type) by screwing diagonally, if provided separately.
- Place and screw the auxiliary contact onto the mechanism by matching of bracket hole and tubular shaft.

Auxiliary Contacts ratings

- Thermal Rating 10A
- AC 15 @ 415V - 4A
- DC 13 @ 220V - 1A

Castle Lock

- Make a hole in panel door for fitment of castle lock as per given drawing.
- Fit the castle lock onto the panel door from front.
- Fit the lever onto the lock shaft in unlock position from back and tighten the lever by providing U clamp and screw.
- Fit the Square pipe assembly with the switch main shaft and adjust the position so that the lever can lock it from behind of this assembly and tighten the screw.

Key Interlock

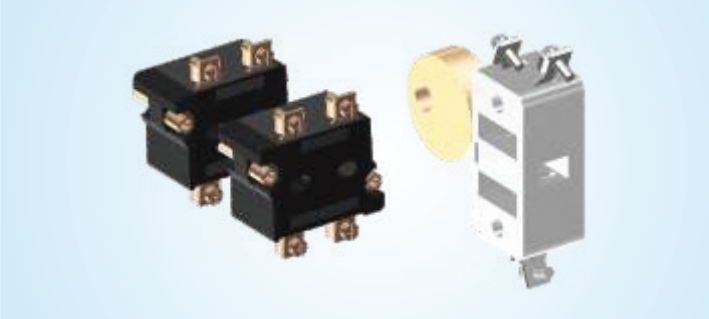
- Make a hole in the panel door for castle lock fitment as per given drawing.
- Fit the key lock onto the panel door from front.
- Fit the lever onto the lock shaft and circlip it in unlock position.
- Fit the square pipe assembly with the switch main shaft and adjust the position so that the lever can lock it in grove provided and tighten the screw.

Door Mounting Kit (25-125A)

- Fit the switch at the rear using din rail mounting channel.
- Mount the channel using hole provided for screwing on the door.

Handle mounting Kit (200A-1800A)

- Unscrew the bolt (provided for earthing on mechanism) and Philips head screw (given below the earth bolt) as shown in model.
- Fit the handle mounting bracket and tighten the bolt and screw.
- Fit the handle assembly on given profile of the mounting kit.



Auxiliary Contacts

It is used to remotely indicate the position of the main Circuit breaker/Switch contacts, whether open or closed.

Handle

Part of the actuating system to which an external actuating force is applied.

Handle Mounting Kit

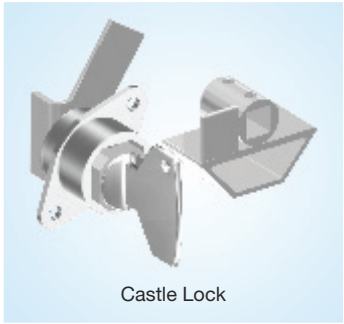
Manually Isolable Neutral

solable neutral link is provided to carry out insulation test in TPN Distribution Boards.

Key Lock

Key lock

A key lock is providing an additional layer of safety against unauthorized operation.



Castle Lock

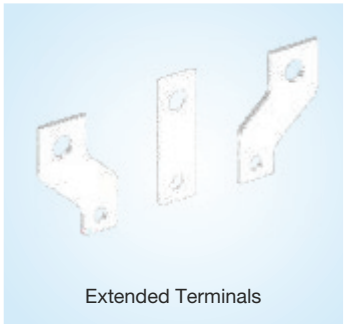
Castle Lock

A castell lock is providing an additional layer of safety against unauthorized operation.

Shaft

Shaft

Shaft is a connecting link between the Handle & mechanism which make the Switch "ON" & "OFF".

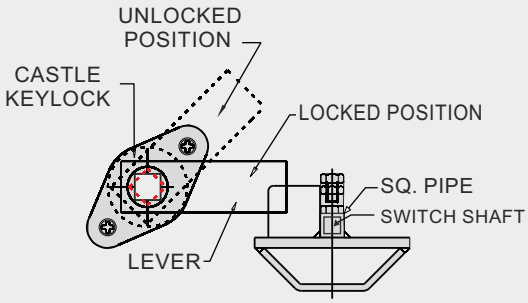


Extended Terminals

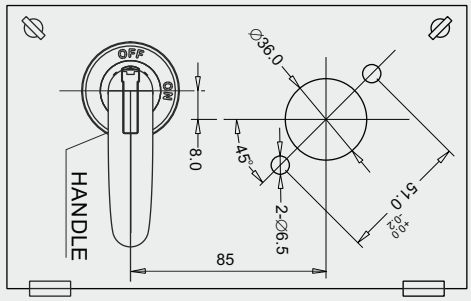
Extended terminals

These are used for the ease & for better clearance of the phases.

Castle Lock

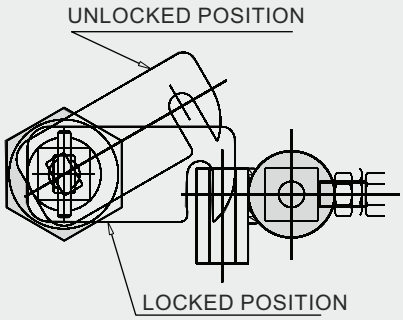


Panel Drilling Plan

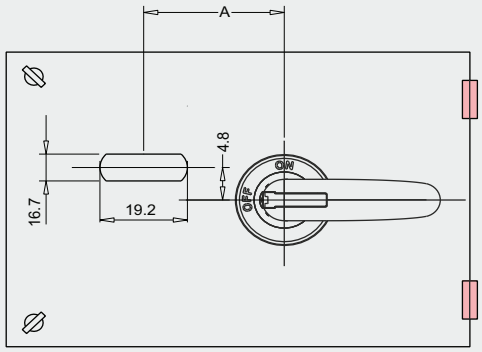


Catalogue No.	Type of Switch
CSSDZW-15	CSSD 25~160A
CSSDZW-4	CSSD 400~3150A
CSSDZW-4A	CSSD 200~400A DM

Key Interlock



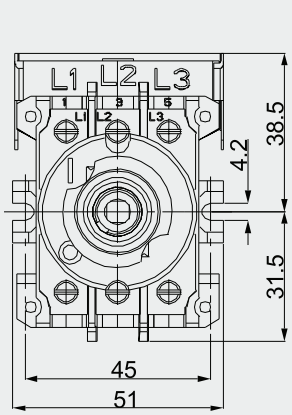
Panel Punching Plan

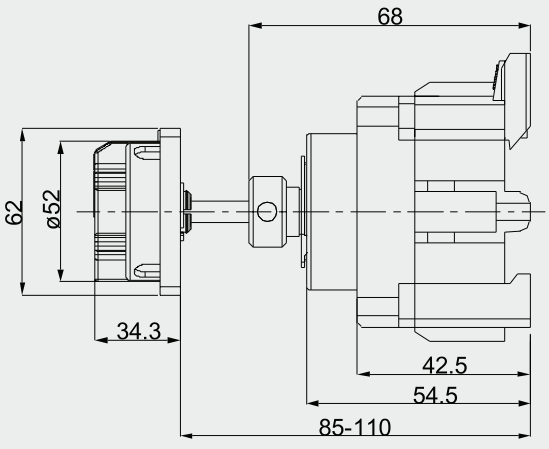


Catalogue No.	Type of Switch	'A'
CSSDZW-16	CSSD 25~160A	60.7 ±0.3
CSSDZW-5	CSSD 400~3150A	66.0 ±0.3
CSSDZW-5A	CSSD 200~400A DM	66.0 ±0.3

25A & 40A

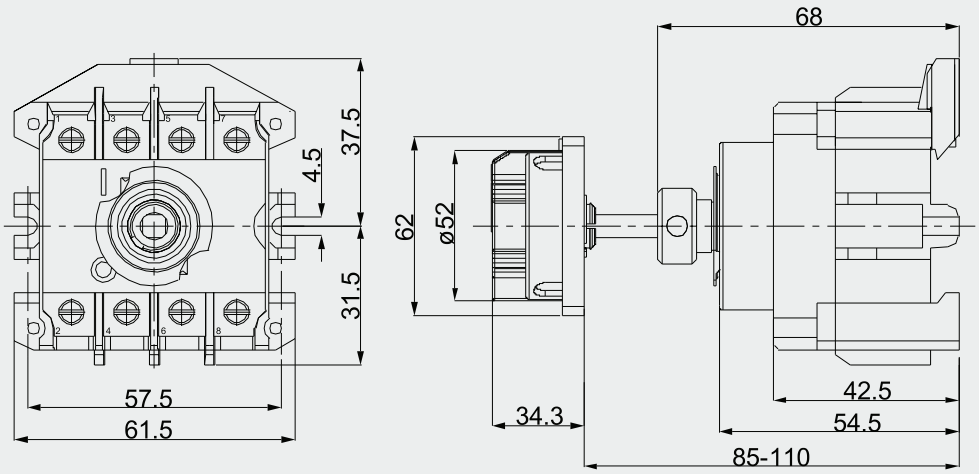
3P



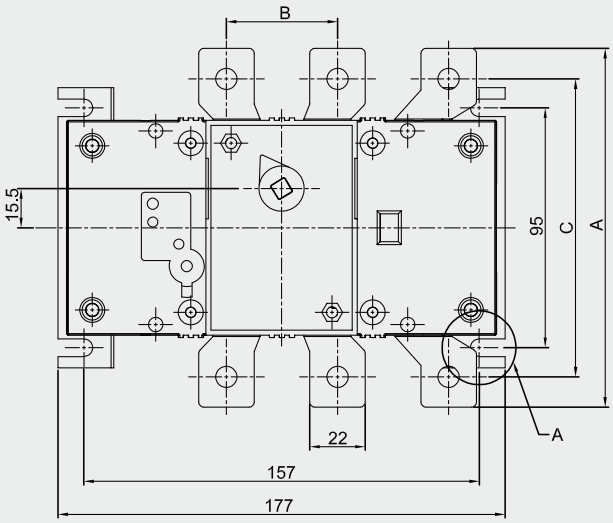


25A & 40A

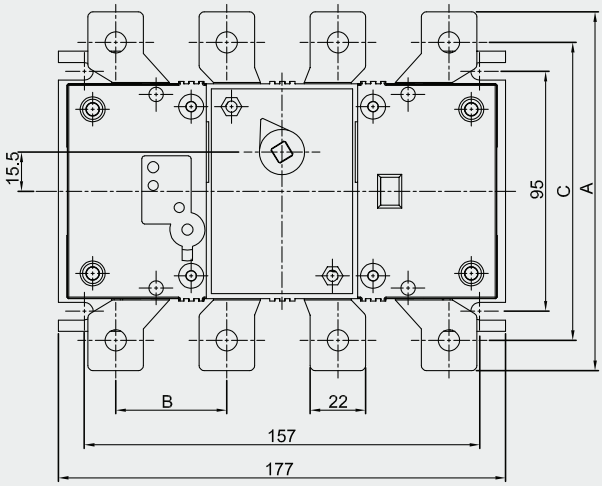
4P



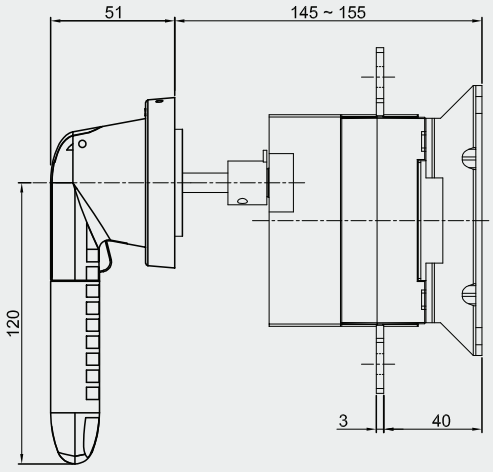
CSSD125~250NM3 & NM4

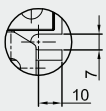


3 POLE

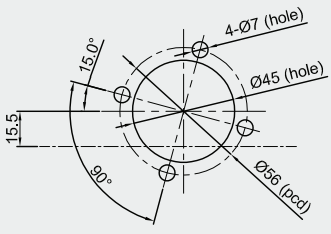


4 POLE





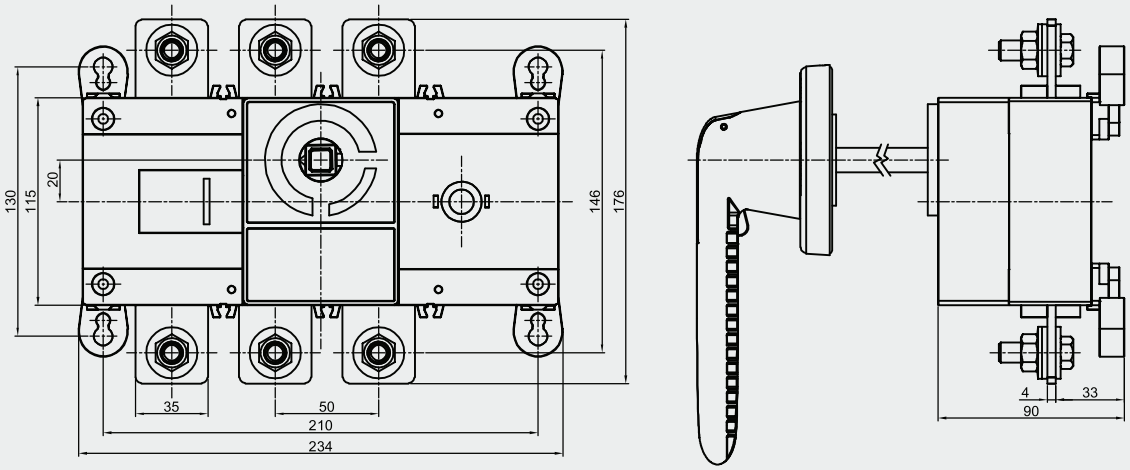
DETAIL - A



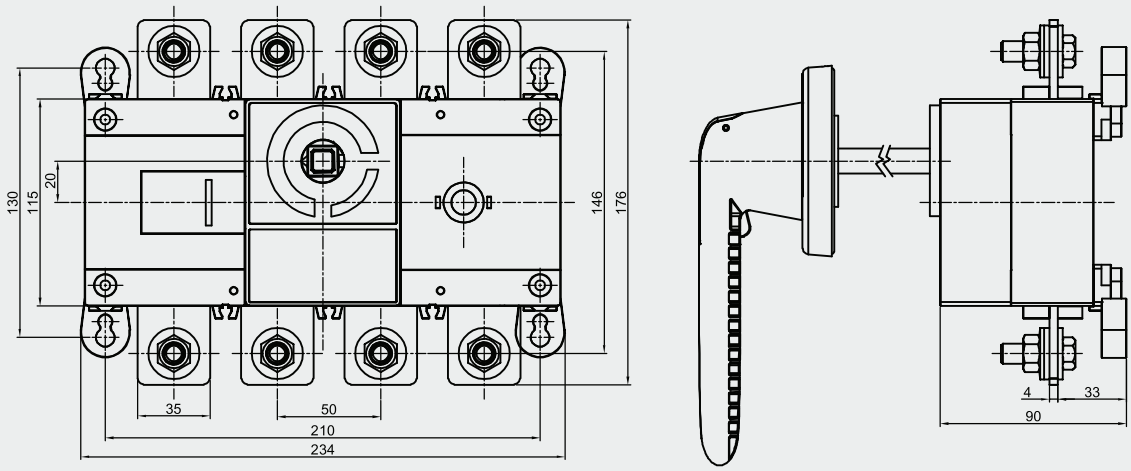
HANDLE MOUNTING DETAIL

RATING	A	B	C
125~200A	142	44	118
250A	160	49	135

CSSD315-400NM3



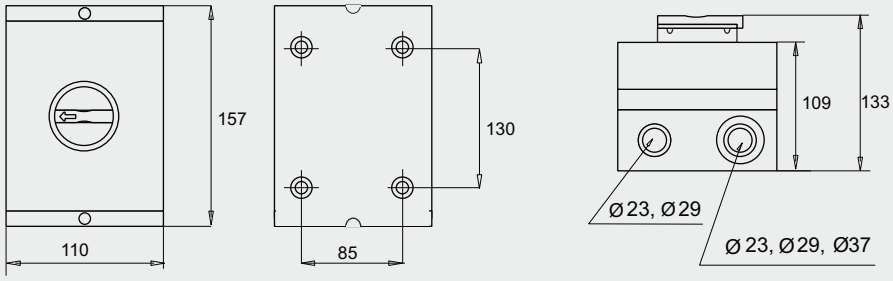
CSSD315-400NM4



Enclosures CSSD25A - 125A

For 25A-40A 3P/4P & 63A 3P

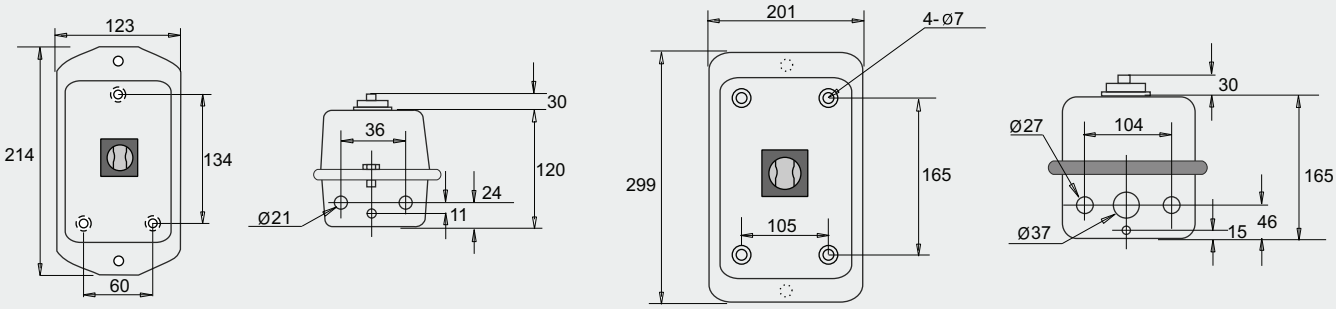
Plastic Enclosures



For 25A-40A 3P/4P & 63A 3P

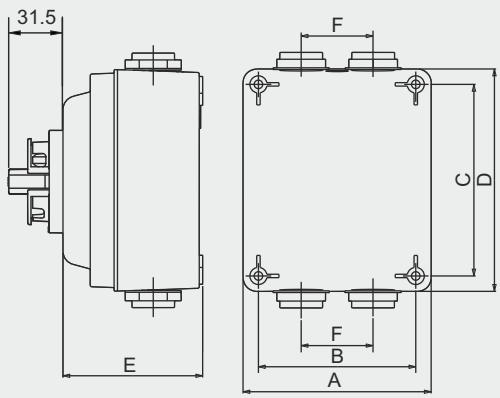
For 125A 3P/4P & 63A 4P

Metallic Enclosures



For 16A - 125A 3P/4P

Aluminum Enclosures



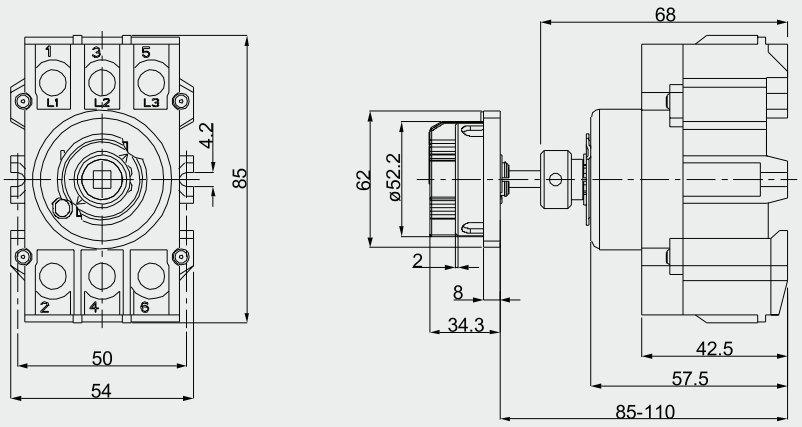
	CSSD16D3/D4 CSSD40D3/D4	CSSD63K3/K4 125D3
A	110	147
B	92	123
C	112	179
D	130	203
E	82	94
F	42	42

Dimensions are in mm.

63A, 100A & 125A (Type D/K)

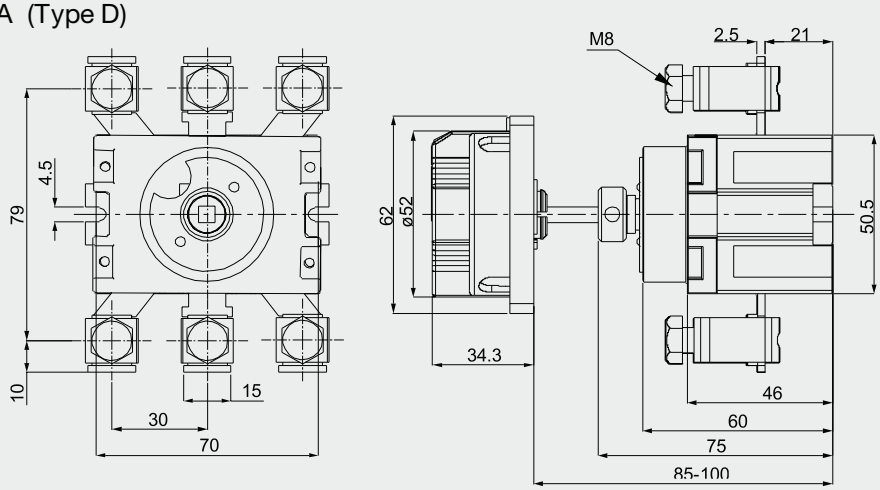
63A (Type K)

3P



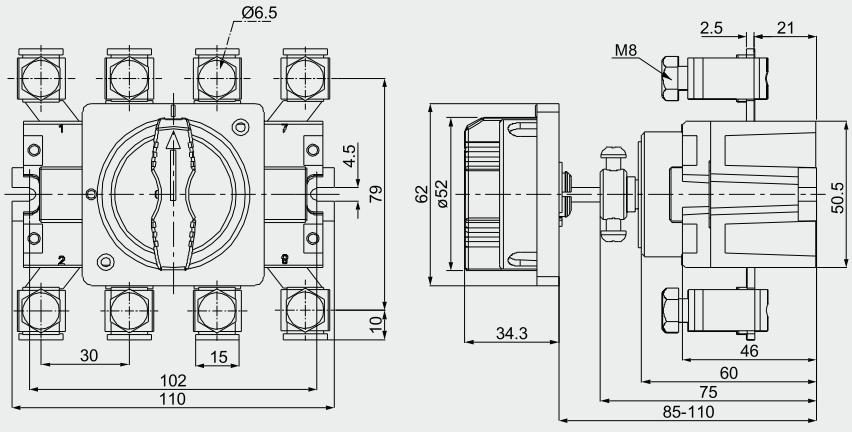
3P

63A, 100A & 125A (Type D)



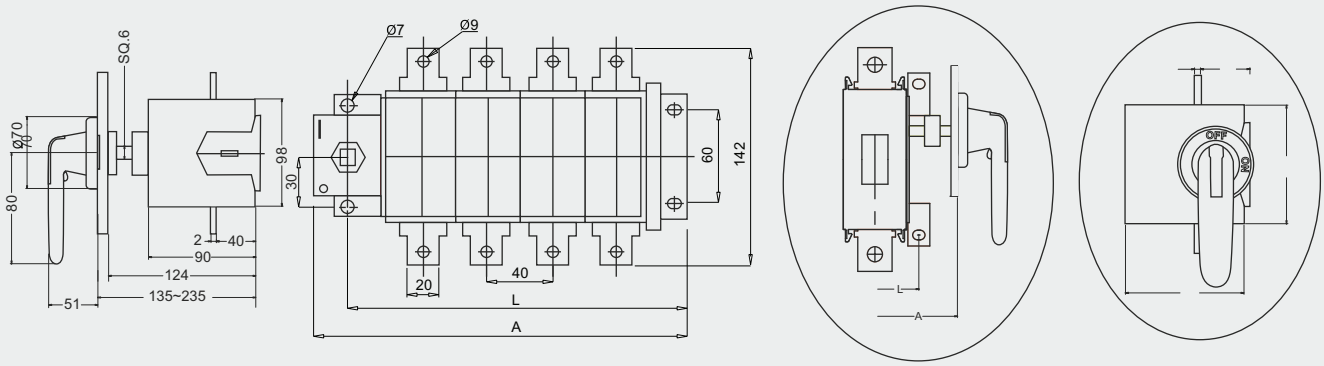
4P

63A, 100A & 125A (Type D)



ILLUSTRATIONS NOT TO SCALE

100A - 160A (DM)



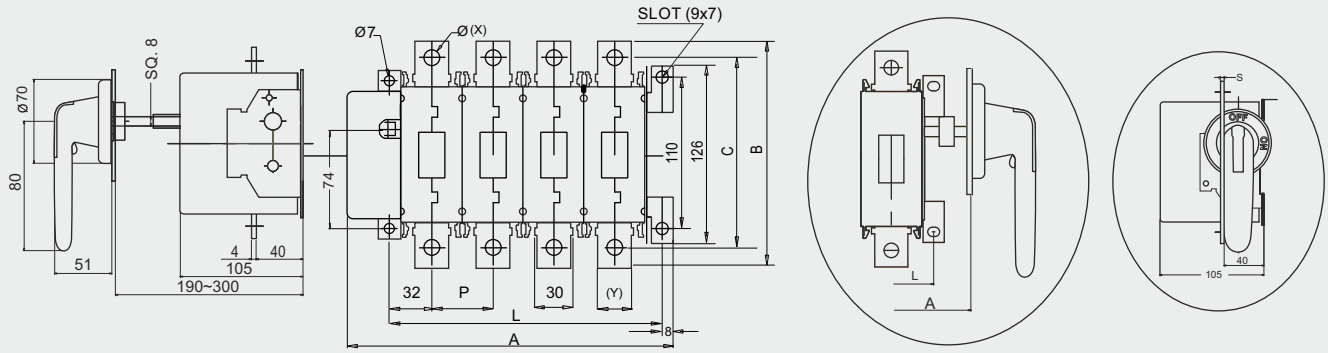
Dimensions Front Operated

Rating	A		L	
	3P	4P	3P	4P
100A, 125A, 160A	190	230	160	200

Dimensions Side Operated

Rating	A		L	
	3P	4P	3P	4P
100A, 125A, 160A	205	245	158	198

200A - 400A (DM)



Dimensions Front Operated

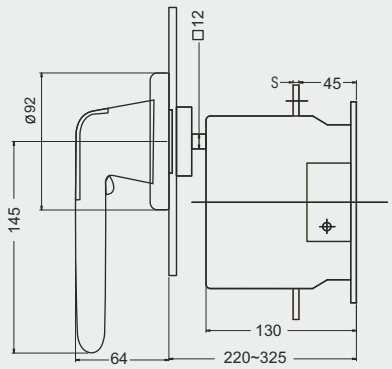
Rating	A		L		X	Y	P	B	C
	3P	4P	3P	4P					
200A	198	244	157	203	8.5	20	46	163	138
250~315A	198	244	157	203	11	25	46	163	138
400A	230	292	190.5	252.5	11	30	62	175	150

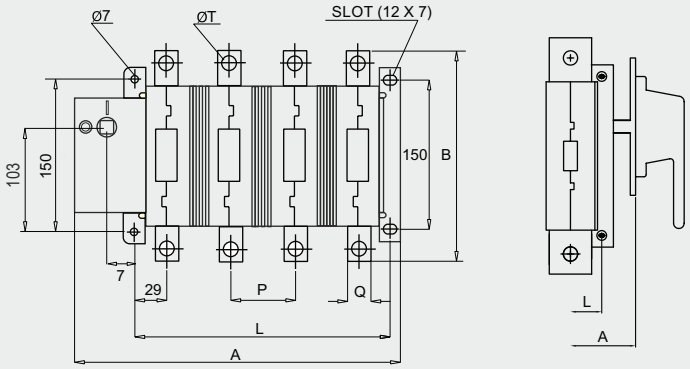
Dimensions Side Operated

Rating	A		L	
	3P	4P	3P	4P
200-315A	217	262	155.5	200.5

ILLUSTRATIONS NOT TO SCALE

400A - 800A

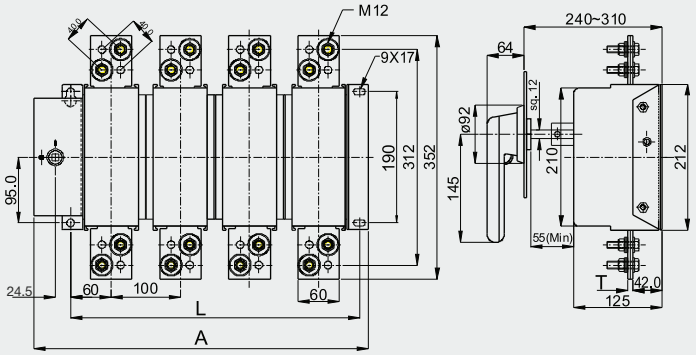




Rating	A		B	L		P	Q	S	T
	3P	4P		3P	4P				
400A	211	257	205	151	197	46	25	4	11
630A	244	306	223	183	245	62	40	4	13.5
800A	260	330	223	199	269	70	40	5	13.5

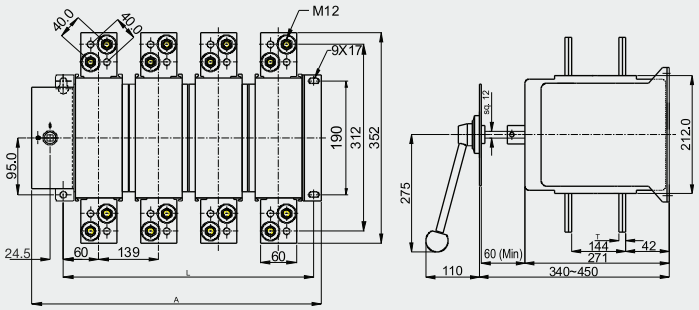
Rating	A		L	
	3P	4P	3P	4P
400A	265	311	151	197
630A	298	360	183	245
800A	314	384	199	269

1000A - 1600A P type



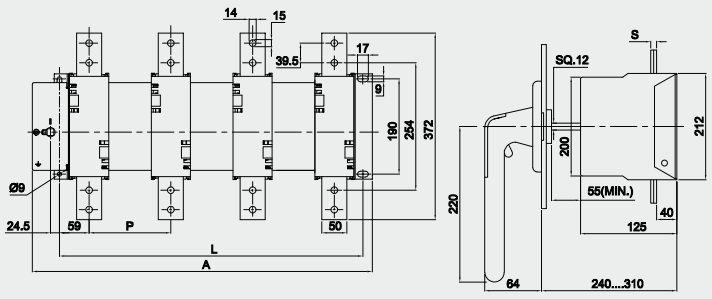
Rating	A		L		T
	3P	4P	3P	4P	
1000A	383	483	318	418	8
1250A	383	483	318	418	8
1600A	383	483	318	418	12

2000A - 3150A P type



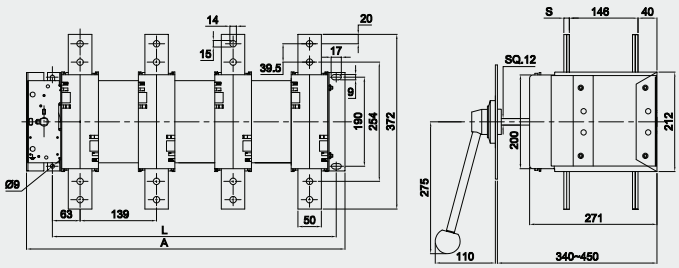
Rating	A		L		T
	3P	4P	3P	4P	
2000A	468	607	403	542	8
2500A	468	607	403	542	8
3150A	468	607	403	542	10

1000A - 1800A, 3P & 4P - K type



RATING	A		L		P	S
	4P	3P	4P	3P		
1000A	423	343	358	278	80	12
1250A	423	343	358	278	80	12
1600A	600	461	535	396	139	16
1800A	600	461	535	396	139	16

2000A - 3150A, 3P & 4P - K type



RATING	A		L		S
	4P	3P	4P	3P	
2000A	607	468	542	403	12
2500A	607	468	542	403	12
3150A	607	468	542	403	16

LINKS ARE NOT IN STANDARD SCOPE OF SUPPLY.

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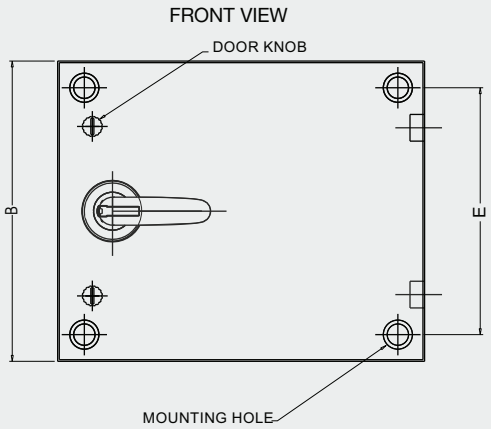
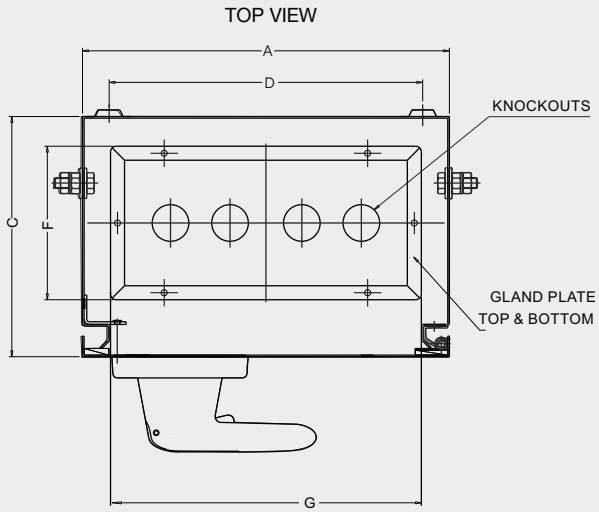
SS Enclosure 100A - 400A (DM) & 400A - 3150A

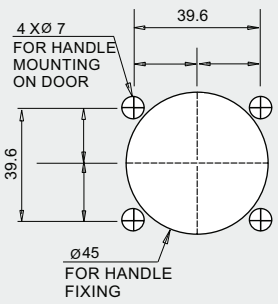


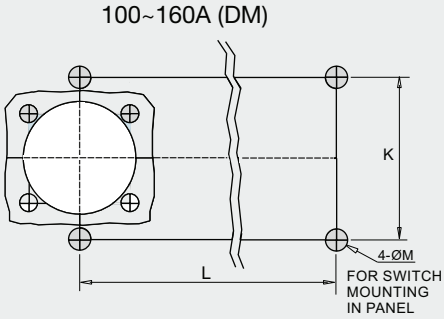


Rating	A	B	C	D	E	F	G
100 ~ 160A (DM-3P/4P)	275	275	180	235	235	115	233
200~ 400A (DM-3P/4P)	325	400	220	285	360	155	283
400A (K-3P/4P)							
630 - 800A (3P)	400	400	220	360	360	155	358
630 - 800A (4P)							
1000 - 1800A (3P/4P)	600	500	275	560	460	210	558
1000 - 1250A (4P) & 2500 - 3150A (3P)	600	600	350	560	560	285	483
1600 - 3150A (4P)	700	600	350	660	560	285	658

SS Enclosure Details	
Gasket Type	EPDM Sponge Rubber
Cover Sheet Thickness	18 SWG
Gland Sheet Thickness	16 SWG
Enclosure Paint Shade	Basalt Gray RAL 7012
Door Paint Shade	Light Gray RAL 7035
IP Level	IP54
Door Hinge Degree	120°
Earthing Studs	2

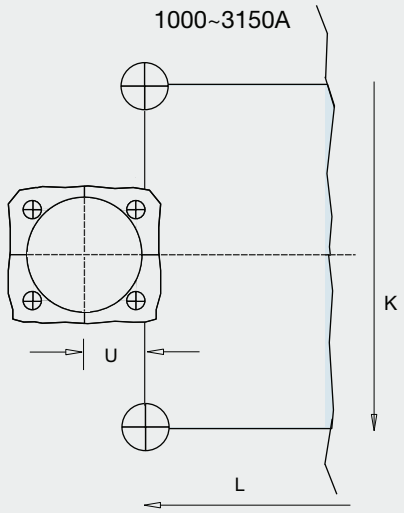
Mounting Details, 100A - 400A (DM) & 400A - 3150A

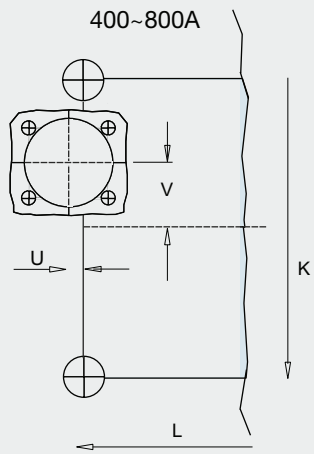


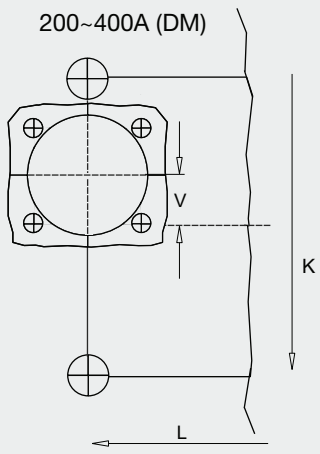


For Mounting Details

Rating	K	L		M	U	V
		TP	4P			
100A - 160A	60	160	200	7	-	-
400A	150	151	197	7	7	28
630A	150	183	245	7	7	28
800A	150	199	269	7	7	28
1000A - 1250A	190	278	358	9	24.5	-
1600A - 1800A	190	396	535	9	24.5	-
2500A - 3150A	190	403	542	9	24.5	-







ILLUSTRATIONS NOT TO SCALE

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Switch Disconnector 10/2022