











SUNESONS Modular Enclosure Range includes :
mötrcon - Drawout MCC Enclosures | mödulo - Fixed Modular Enclosures | extensö - Extensible Enclosures | Control Desks & Consoles | Boxes

For further information:

SUNESONS Engineering & Fabrications (P) Ltd. (An ISO 9001:2008 Certified Company)

R-599, T.T.C. Industrial Area, M.I.D.C., Rabale, Navi Mumbai - 400 701. India.

T.: +91 22 2760 1666 | 2769 5012.

F.: +91 22 2760 1667.

E.: sales@sunesons.in | sales.sunesons@gmail.com

...Step up to World Standards.

CHAIRMAN'S MESSAGE



Welcome to the latest edition of the SUNESONS catalogue.

Over the years SUNESONS has continued to postion itself as the number one manufacturer of Drawout MCC Enclosures & Drawout Electrical Accessories in the markets of India. Middle East Asia & South East Asia. The SUNESONS range is market driven, where constant advancements in technology compel us to develop new & improved products. This range has since grown to include many more cabinets, consoles & accessories to suit.

SUNESONS relish the daily challenges that present themselves in design, manufacturing & sales. We pace our marketing in order to attract select new customers, while ensuring support to existing customers is only maintained, but continually improved. The keys to our success are price competitive products & solutions, prompt delivery & friendly, professional service. Our commitment to design, coupled with advances in manufacturing technology, provides customers a greater range of options in the choice of goods available. We supply into a competitive market, where the demand for standard products is balance by the need for custom designed solutions.

Please take time to review our catalogue. The new developments in our Drawout range include the introduction of Aluminum vertical bus bars rated upto 600A, these have been type tested at C.P.R.I. for 50kA Short Circuit withstand and Temperature Rise tests. Growing demand for Drawout PCC enclosures has prompted further development of the vertical bus bars, and the latest range includes vertical bus bars rated at 1000A. Additions to our range include a new series of extensible enclosures & control desks, which provide greater flexibility in configuring panels for automation & control room applications.

SUNESONS is firmly dedicated to continued manufacture of sheet steel enclosures & accessories. We remain focused on deploying effective solutions & services for your modular enclosure requirements. To all our customer, we thank you for choosing to use SUNESONS.

Amalendu Sil

Managing Director

DRAWOUT PANELS		Page
mötrcon : 2200 NXG - P	Drawout MCC Plugin Type	02
mötrcon : 2200 NXG - S	Drawout MCC NXG Screw-Jack Type	04
mötrcon : 2480 - L	Drawout MCC Lever Type	06
mötrcon : 2485 NX – L	Drawout MCC NX Lever Type	08
mötrcon : 2480 - S	Drawout MCC Screw-Jack Type	10
mötrcon : 2485 NX - S	Drawout MCC NX Screw-Jack Type	12
COMPONENTS		Page
PIC - SS - 63A - 2P		14
PIC - SS - 63A - 3P		14
PIC - SI - 125A - 2P		15
PIC - SI - 125A - 3P		15
PIC - SI - 250A - 2P		16
PIC - SI - 250A - 3P		16
PIC - SI - 400A - 2P		17
PIC - SI - 400A - 3P		17
PIC - H0 - 200A - 1P		18
PIC - HO - 200A - 3P		18
PIC - H0 - 400A - 1P		19
PIC - HO - 400A - 3P		19
OGC - SS - 63A - 2P		20
OGC - SS - 63A - 3P		20
OGC - SI - 125A - 1P		21
OGC - SI - 125A - 2P		21
OGC - SI - 125A - 3P		22
0GC - SI - 250A - 1P		22
OGC - SI - 250A - 2P		23
0GC - SI - 250A - 3P		23
0GC - SI - 400A - 1P		24
0GC - SI - 400A - 2P		24
OGC - SI - 400A - 3P		25
OGC - SI - 630A - 1P		25
OGC - SI - 630A - 2P		26
OGC - SI - 630A - 3P		26
CON - SS - 12A - 6W		27
CON - SS - 12A - 10W		27





- > Type tested to conform to leading Global Product Standards (IEC-61439-1 & 2) & (IEC-61641).
- > Fully Compartmentalized (Form IV) Design.
- > Drawout modules are simply pushed in for withdrawal, ensuring smooth & tool-less operation.
- Drawout modules plug-in directly on to Vertical Bus Bar, minimizing maintenance issues.
- > Vertical Bus is Joint-free along the feeder area, therefore is highly reliable.
- > Safety shroud/shutter providing IP 20 levels of segregation upon withdrawal.
- > Shock-free operation with Double Stab-in earthing in all Drawout modules.
- > Fully Bolted Modular Structural design.
- > Drawout Modules have interlocks for Test, Service & Isolated positions.
- Drawout Modules available in 3 Pole for Starter feeders & 4 Pole for Power feeders.



- > Drawout Modules available in sizes of 150mm & 200mm to 900mm in multiples of 100mm in height.
- Feeder width increased to 600mm & depth increased to 350mm to ensure compactness.
- > Upto 11 feeders in one vertical stack.
- Max. possible feeder rating upto 150kw DOL possible in 900mm.
- Drawout Power & Control Contacts tested as part of Drawout Module during Full Type Test for Temperature Rise, Milli-volt Drop & other related tests in accordance with IEC-61439-1 & 2.
- Drawout Power Contact ratings:
 - ✓ 63A | 250A | 400A
 - ✓ Available in 1 Pole, 2 Pole, 3 Pole & 4 Pole.

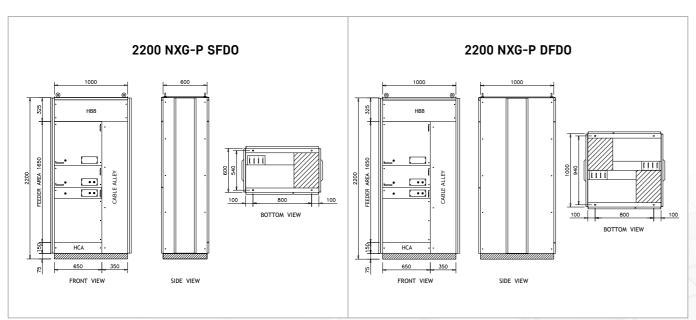




- > Feeder width of 600mm with 24/42 pin control terminals.
- > Minimum feeder size of 150mm can accommodate 42 control terminals.
- > Keeping the modules very compact and making the panel space efficient.
- Drawout Control Contact ratings:
 - ✓ 12A.
 - ✓ Available in 24-Way & 42-Way Blocks.



	STA	ANDARDS	IS 8623, IEC 61439 - 1&2
Insulation Characteristics		Clearance	> 20 mm
		Creepage distances	> 20 mm
		Overvoltage category	II / III / IV
		Pollution degree	3
		Field condition	Inhomogeneous (Non-uniform)
Electrical Characteristics	Voltage ratings	Rated operational voltage (U) e	415-690 VAC, 24-220 VDC
		Rated insulation voltage (U) i	690 V
		Rated impulse withstand voltage (U) imp	6 / 8 kV
		Rated frquency (f) n	50 / 60 Hz
	Current Ratings	Main Horizontal busbars:	
		Rated current (I) nA	up to 4000 A
		Rated peak withstand current (I) pk	up to 105 kA
		Rated short-time withstand current (I) cw	up to 50 kA, 1s
		Vertical Distribution busbars :	
		Rated current (I) nA	960A
		Rated peak withstand current (I) pk	up to 105 kA
		Rated short-time withstand current (I) cw	up to 50 kA, 1s
Mechanical Characteristic	s Degree of protection	In accordance with IEC 60529:	
		External	IP 4X/54
		Internal	IP 2X
	Forms of separation	as per IEC 61439 - 2	Form III/IV
	Dimensions	Height (mm)	2200, 2400
		Width (mm)	600, 700, 800, 900, 1000, 1100 (ACB section)
			1000, 1300, 2200 (Outgoing section)
		Depth (mm)	800, 1000, 1200 (ACB section)
			800, 1000, 1200 (Outgoing section)
	Surface Treatment	Structure	GI-280 / powder coated / painted
		Internal Components	GI-280 / powder coated / painted
		External Components	Powder coated / painted
	Resistance to Connection	Damp heat cycling test	IEC 60068-2-30
		Salt mist test	IEC 60068-2-11
	Plastic Components	Flame retardant, self-extinguishing, Halogen-free	IEC 60695-2-10, IEC 60695-2-11









- > Type tested to conform to leading Global Product Standards(IEC-61439-1 & 2) & (IEC-61641).
- > Fully Compartmentalized (Form IV) Design.
- Drawout modules have Screw-Jack mechanism for withdrawal, ensuring smooth operation.
- Drawout modules plug-in directly on to Vertical Bus Bar, minimizing maintenance issues.
- > Vertical Bus is Joint-free along the feeder area, therefore is highly reliable.
- > Safety shroud/shutter providing IP 20 levels of segregation upon withdrawal.
- > Shock-free operation with Double Stab-in earthing in all Drawout modules.
- > Fully Bolted Modular Structural design.
- Drawout Modules have position indication for Test. Service & Isolated.
- Drawout Modules available in 3 Pole for Starter feeders & 4 Pole for Power feeders.



- > Drawout Modules available in sizes of 150mm & 200mm to 900mm in multiples of 100mm in height.
- Feeder width increased to 600mm & depth increased to 350mm to ensure compactness.
- > Upto 11 feeders in one vertical stack.
- Max. possible feeder rating upto 150kw DOL possible in 900mm.
- Drawout Power & Control Contacts tested as part of Drawout Module during Full Type Test for Temperature Rise, Milli-volt Drop & other related tests in accordance with IEC-61439-1 & 2.
- Drawout Power Contact ratings:
 - ✓ 63A | 250A | 400A
 - ✓ Available in 1 Pole, 2 Pole, 3 Pole & 4 Pole.

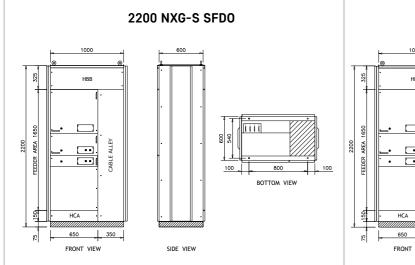


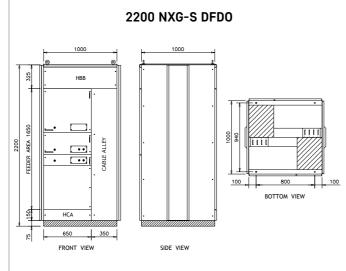




- > Feeder width of 600mm with 24/42 pin control terminals.
- > Minimum feeder size of 150mm can accommodate 42 control terminals.
- > Keeping the modules very compact and making the panel space efficient.
- Drawout Control Contact ratings:
 - ✓ 12A
 - ✓ Available in 24-Way & 42-Way Blocks.







	STA	NDARDS	IS 8623, IEC 61439 - 1&2
Insulation Characteristics		Clearance	> 20 mm
		Creepage distances	> 20 mm
		Overvoltage category	II / III / IV
		Pollution degree	3
		Field condition	Inhomogeneous (Non-uniform)
	Voltage ratings	Rated operational voltage (U) e	415-690 VAC, 24-220 VDC
		Rated insulation voltage (U) i	690 V
		Rated impulse withstand voltage (U) imp	6 / 8 kV
		Rated frquency (f) n	50 / 60 Hz
	Current Ratings	Main Horizontal busbars:	
		Rated current (I) nA	up to 4000 A
		Rated peak withstand current (I) pk	up to 105 kA
		Rated short-time withstand current (I) cw	up to 50 kA, 1s
		Vertical Distribution busbars :	
		Rated current (I) nA	960A
		Rated peak withstand current (I) pk	up to 105 kA
		Rated short-time withstand current (I) cw	up to 50 kA, 1s
Mechanical Characteristics	Degree of protection	In accordance with IEC 60529:	
		External	IP 4X/54
		Internal	IP 2X
	Forms of separation	as per IEC 61439 - 2	Form III/IV
	Dimensions	Height (mm)	2200, 2400
		Width (mm)	600, 700, 800, 900, 1000, 1100 (ACB section)
			1000, 1300, 2200 (Outgoing section)
		Depth (mm)	800, 1000, 1200 (ACB section)
			800, 1000, 1200 (Outgoing section)
	Surface Treatment	Structure	GI-280 / powder coated / painted
		Internal Components	GI-280 / powder coated / painted
		External Components	Powder coated / painted
	Resistance to Connection	Damp heat cycling test	IEC 60068-2-30
		Salt mist test	IEC 60068-2-11
	Plastic Components	Flame retardant, self-extinguishing, Halogen-free	IEC 60695-2-10, IEC 60695-2-11







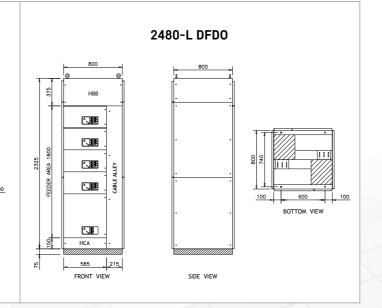
2480-L SFD0

SIDE VIEW

585 215

HCA

- > Type tested to conform to leading Global Product Standards (IEC-61439-1 & 2) & (IEC-61641).
- > Fully Compartmentalized (Form IV) Design.
- > Drawout modules have swiveling lever mechanism for tool-less withdrawal.
- > Drawout modules plug-in directly on to Vertical Bus Bar, minimizing maintenance issues.
- > Vertical Bus is Joint-free along the feeder area, therefore is highly reliable.
- > Spring Loaded positive safety shutter providing IP 20 levels of segregation upon withdrawal.
- > Shock-free operation with Double Stab-in earthing in all Drawout modules.
- > Fully Bolted Modular Structural design.
- > Drawout Modules have position indication for Test, Service & Isolated.
- > Drawout Modules available in 3 Pole for Starter feeders & 4 Pole for Power feeders.





- Drawout Modules available in sizes from 200mm to 900mm in multiples of 100mm in height.
- Feeder width of 585mm & depth of 250mm.
- Higher ratings provided using combination of two feeders with common door interlock.
- > Upto 9 feeders in one vertical stack.
- > Feeder ratings upto 110kw DOL possible in 900mm.
- Max. possible feeder rating upto 150kw DOL in 1500mm.
- > Drawout Power & Control Contacts tested as part of Drawout Module during Full Type Test for Temperature Rise, Milli-volt Drop & other related tests in accordance with IEC-61439-1 & 2.
- Drawout Power Contact ratings:

 - ✓ Available in 1 Pole, 2 Pole, 3 Pole & 4 Pole.



- > Feeder width of 585mm with twin fully offset control terminals.
- > Minimum feeder size of 200mm can accommodate 24 control terminals.
- > Keeping the modules compact and making the panel space efficient.
- Drawout Control Contact ratings:
- ✓ 12A | 16A
- ✓ Available in 6-Way & 10-Way Blocks.

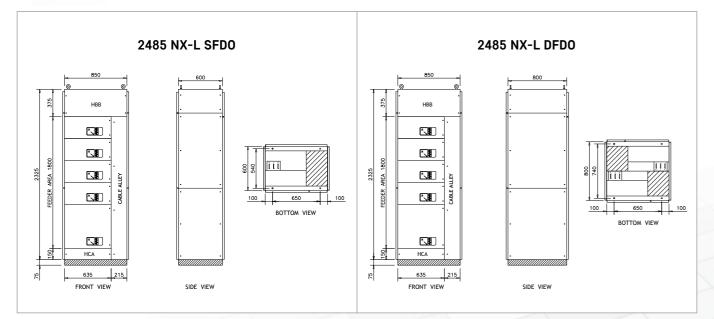
Specifications

	STA	NDARDS	IS 8623, IEC 61439 - 1&2
Insulation Characteristics		Clearance	> 20 mm
		Creepage distances	> 20 mm
		Overvoltage category	II / III / IV
		Pollution degree	3
		Field condition	Inhomogeneous (Non-uniform)
Electrical Characteristics	Voltage ratings	Rated operational voltage (U) e	415-690 VAC, 24-220 VDC
		Rated insulation voltage (U) i	690 V
		Rated impulse withstand voltage (U) imp	6/8 kV
		Rated frquency (f) n	50 / 60 Hz
	Current Ratings	Main Horizontal busbars:	
		Rated current (I) nA	up to 4000 A
		Rated peak withstand current (I) pk	up to 105 kA
		Rated short-time withstand current (I) cw	up to 50 kA, 1s
		Vertical Distribution busbars :	
		Rated current (I) nA	960A
		Rated peak withstand current (I) pk	up to 105 kA
		Rated short-time withstand current (I) cw	up to 50 kA, 1s
Mechanical Characteristics	Degree of protection	In accordance with IEC 60529:	
		External	IP 4X/54
		Internal	IP 2X
	Forms of separation	as per IEC 61439 - 2	Form III/IV
	Dimensions	Height (mm)	2200, 2400
		Width (mm)	600, 700, 800, 900, 1000, 1100 (ACB section)
			1000, 1300, 2200 (Outgoing section)
		Depth (mm)	800, 1000, 1200 (ACB section)
			800, 1000, 1200 (Outgoing section)
	Surface Treatment	Structure	GI-280 / powder coated / painted
		Internal Components	GI-280 / powder coated / painted
		External Components	Powder coated / painted
	Resistance to Connection	Damp heat cycling test	IEC 60068-2-30
		Salt mist test	IEC 60068-2-11
	Plastic Components	Flame retardant, self-extinguishing, Halogen-free	IEC 60695-2-10, IEC 60695-2-11





- > Type tested to conform to leading Global Product Standards (IEC-61439-1 & 2) & (IEC-61641).
- > Fully Compartmentalized (Form IV) Design.
- Drawout modules have swivelling lever mechanism for tool-less withdrawal.
- Drawout modules plug-in directly on to Vertical Bus Bar, minimizing maintenance issues.
- Vertical Bus is Joint-free along the feeder area, therefore is highly reliable.
- Spring Loaded positive safety shutter providing IP 20 levels of segregation upon withdrawal.
- > Shock-free operation with Double Stab-in earthing in all Drawout modules.
- > Fully Bolted Modular Structural design.
- Drawout Modules have position indication for Test, Service & Isolated.
- Drawout Modules available in 3 Pole for Starter feeders & 4 Pole for Power feeders.
- Drawout Module width has been increased to accommodate more material within same module height.
- > Useful for reducing overall panel dimensions by making the modules stack compactly.





- Drawout Modules available in sizes from 200mm to 900mm in multiples of 100mm in height.
- Feeder width of 585mm & depth of 250mm.
- Higher ratings provided using combination of two feeders with common door interlock.
- > Upto 9 feeders in one vertical stack.
- > Feeder ratings upto 110kw DOL possible in 900mm.
- Max. possible feeder rating upto 150kw DOL in 1500mm.
- Drawout Power & Control Contacts tested as part of Drawout Module during Full Type Test for Temperature Rise, Milli-volt Drop & other related tests in accordance with IEC-61439-1 & 2.
- Drawout Power Contact ratings:
 - ✓ 63A | 125A | 250A | 400A
 - ${\color{red} ullet}$ Available in 1 Pole, 2 Pole, 3 Pole & 4 Pole.





- > Feeder width of 585mm with twin fully offset control terminals.
- > Minimum feeder size of 200mm can accommodate 24 control terminals.
- > Keeping the modules compact and making the panel space efficient.
- Drawout Control Contact ratings:
- ✓ 12A | 16A
- ✓ Available in 6-Way & 10-Way Blocks.

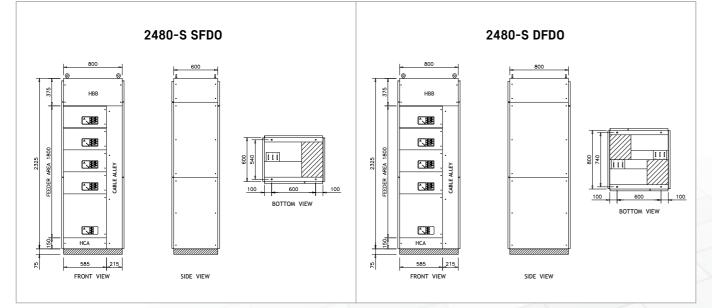
Specifications

	STA	NDARDS	IS 8623, IEC 61439 - 1&2
Insulation Characteristics		Clearance	> 20 mm
		Creepage distances	> 20 mm
		Overvoltage category	II / III / IV
		Pollution degree	3
		Field condition	Inhomogeneous (Non-uniform)
Electrical Characteristics	Voltage ratings	Rated operational voltage (U) e	415-690 VAC, 24-220 VDC
		Rated insulation voltage (U) i	690 V
		Rated impulse withstand voltage (U) imp	6 / 8 kV
		Rated frquency (f) n	50 / 60 Hz
	Current Ratings	Main Horizontal busbars:	
		Rated current (I) nA	up to 4000 A
		Rated peak withstand current (I) pk	up to 176 kA
		Rated short-time withstand current (I) cw	up to 80 kA, 1s
		Vertical Distribution busbars :	
		Rated current (I) nA	960A
		Rated peak withstand current (I) pk	up to 105 kA
		Rated short-time withstand current (I) cw	up to 65 kA, 1s
Mechanical Characteristics	Degree of protection	In accordance with IEC 60529:	
		External	IP 4X/54
		Internal	IP 2X
	Forms of separation	as per IEC 61439 - 2	Form III/IV
	Dimensions	Height (mm)	2100, 2200, 2400
		Width (mm)	600, 700, 800, 900, 1000, 1100 (ACB section)
			850 (Outgoing section)
		Depth (mm)	600, 800, 1000, 1200 (ACB section)
			600, 800, 1000, 1200 (Outgoing section)
	Surface Treatment	Structure	GI-280 / powder coated / painted
		Internal Components	GI-280 / powder coated / painted
		External Components	Powder coated / painted
	Resistance to Connection	Damp heat cycling test	IEC 60068-2-30
		Salt mist test	IEC 60068-2-11
	Plastic Components	Flame retardant, self-extinguishing, Halogen-free	IEC 60695-2-10, IEC 60695-2-11





- > Type tested to conform to leading Global Product Standards (IEC-61439-1 & 2) & (IEC-61641).
- > Fully Compartmentalized (Form IV) Design.
- > Drawout modules have Screw-Jack mechanism for withdrawal, ensuring smooth operation.
- > Drawout modules plug-in directly on to Vertical Bus Bar, minimizing maintenance issues.
- > Vertical Bus is Joint-free along the feeder area, therefore is highly reliable.
- > Spring Loaded positive safety shutter providing IP 20 levels of segregation upon withdrawal.
- > Shock-free operation with Double Stab-in earthing in all Drawout modules.
- > Fully Bolted Modular Structural design.
- > Drawout Modules have position indication for Test, Service & Isolated.
- > Drawout Modules available in 3 Pole for Starter feeders & 4 Pole for Power feeders.





- > Drawout Modules available in sizes from 200mm to 900mm in multiples of 100mm in height.
- > Higher ratings provided using combination of two feeders with common door interlock.
- > Feeder width of 585mm & depth of 250mm.
- > Upto 9 feeders in one vertical stack.
- > Feeder ratings upto 110kw DOL possible in 900mm.
- Max. possible feeder rating upto 150kw DOL in 1800mm.
- Drawout Power & Control Contacts tested as part of Drawout Module during Full Type Test for Temperature Rise, Milli-volt Drop & other related tests in accordance with IEC-61439-1 & 2.
- Drawout Power Contact ratings:
- ✓ 63A | 125A | 250A | 400A
- ✓ Available in 1 Pole, 2 Pole, 3 Pole & 4 Pole.





- > Feeder width of 585mm with twin fully offset control terminals.
- > Minimum feeder size of 200mm can accommodate 24 control terminals.
- > Keeping the modules compact and making the panel space efficient.
- Drawout Control Contact ratings:
 - ✓ 12A | 16A
 - ✓ Available in 6-Way & 10-Way Blocks.

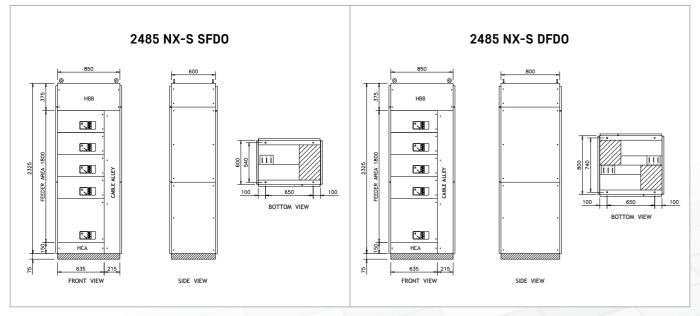
Specifications

STANDARDS			IS 8623, IEC 61439 - 1&2
nsulation Characteristics		Clearance	> 20 mm
		Creepage distances	> 20 mm
		Overvoltage category	II / III / IV
		Pollution degree	3
		Field condition	Inhomogeneous (Non-uniform)
Electrical Characteristics	Voltage ratings	Rated operational voltage (U) e	415-690 VAC, 24-220 VDC
		Rated insulation voltage (U) i	690 V
		Rated impulse withstand voltage (U) imp	6 / 8 kV
		Rated frquency (f) n	50 / 60 Hz
	Current Ratings	Main Horizontal busbars:	
		Rated current (I) nA	up to 4000 A
		Rated peak withstand current (I) pk	up to 105 kA
		Rated short-time withstand current (I) cw	up to 50 kA, 1s
		Vertical Distribution busbars :	
		Rated current (I) nA	960A
		Rated peak withstand current (I) pk	up to 105 kA
		Rated short-time withstand current (I) cw	up to 50 kA, 1s
	Degree of protection	In accordance with IEC 60529:	
		External	IP 4X/54
		Internal	IP 2X
	Forms of separation	as per IEC 61439 - 2	Form III/IV
	Dimensions	Height (mm)	2200, 2400
		Width (mm)	600, 700, 800, 900, 1000, 1100 (ACB section)
			1000, 1300, 2200 (Outgoing section)
		Depth (mm)	800, 1000, 1200 (ACB section)
Surface Treatment		800, 1000, 1200 (Outgoing section)	
	Structure	GI-280 / powder coated / painted	
		Internal Components	GI-280 / powder coated / painted
		External Components	Powder coated / painted
	Resistance to Connection	Damp heat cycling test	IEC 60068-2-30
		Salt mist test	IEC 60068-2-11
	Plastic Components	Flame retardant, self-extinguishing, Halogen-free	IEC 60695-2-10, IEC 60695-2-11





- > Type tested to conform to leading Global Product Standards (IEC-61439-1 & 2) & (IEC-61641).
- > Fully Compartmentalized (Form IV) Design.
- > Drawout modules have Screw-Jack mechanism for withdrawal, ensuring smooth operation.
- Drawout modules plug-in directly on to Vertical Bus Bar, minimizing maintenance issues.
- Vertical Bus is Joint-free along the feeder area, therefore is highly reliable.
- > Spring Loaded positive safety shutter providing IP 20 levels of segregation upon withdrawal.
- > Shock-free operation with Double Stab-in earthing in all Drawout modules.
- > Fully Bolted Modular Structural design.
- Drawout Modules have position indication for Test, Service & Isolated.
- Drawout Modules available in 3 Pole for Starter feeders & 4 Pole for Power feeders
- Drawout Module width has been increased to accommodate more material within same module height.
- Useful for reducing overall panel dimensions by making the modules stack compactly.





- Drawout Modules available in sizes from 200mm to 900mm in multiples of 100mm in height.
- Higher ratings provided using combination of two feeders with common door interlock.
- > Feeder width of 585mm & depth of 250mm.
- Upto 9 feeders in one vertical stack.
- > Feeder ratings upto 110kw DOL possible in 900mm.
- Max. possible feeder rating upto 150kw DOL in 1800mm.
- Drawout Power & Control Contacts tested as part of Drawout Module during Full Type Test for Temperature Rise, Milli-volt Drop & other related tests in accordance with IEC-61439-1 & 2.
- Drawout Power Contact ratings:
- ✓ 63A | 125A | 250A | 400A
- ☑ Available in 1 Pole, 2 Pole, 3 Pole & 4 Pole.



- > Feeder width of 585mm with twin fully offset control terminals.
- > Minimum feeder size of 200mm can accommodate 24 control terminals.
- > Keeping the modules compact and making the panel space efficient.
- Drawout Control Contact ratings:
- ✓ 12A | 16A
- ✓ Available in 6-Way & 10-Way Blocks.

Specifications

	STA	NDARDS	IS 8623, IEC 61439 - 1&2
Insulation Characteristics		Clearance	> 20 mm
		Creepage distances	> 20 mm
		Overvoltage category	II / III / IV
		Pollution degree	3
		Field condition	Inhomogeneous (Non-uniform)
Electrical Characteristics	Voltage ratings	Rated operational voltage (U) e	415-690 VAC, 24-220 VDC
		Rated insulation voltage (U) i	690 V
		Rated impulse withstand voltage (U) imp	6 / 8 kV
		Rated frquency (f) n	50 / 60 Hz
	Current Ratings	Main Horizontal busbars:	
		Rated current (I) nA	up to 4000 A
		Rated peak withstand current (I) pk	up to 176 kA
		Rated short-time withstand current (I) cw	up to 80 kA, 1s
		Vertical Distribution busbars :	
		Rated current (I) nA	960A
		Rated peak withstand current (I) pk	up to 105 kA
		Rated short-time withstand current (I) cw	up to 65 kA, 1s
Mechanical Characteristics	Degree of protection	In accordance with IEC 60529:	
		External	IP 4X/54
		Internal	IP 2X
	Forms of separation	as per IEC 61439 - 2	Form III/IV
	Dimensions	Height (mm)	2100, 2200, 2400
		Width (mm)	600, 700, 800, 900, 1000, 1100 (ACB section)
			850 (Outgoing section)
		Depth (mm)	600, 800, 1000, 1200 (ACB section)
			600, 800, 1000, 1200 (Outgoing section)
	Surface Treatment	Structure	GI-280 / powder coated / painted
		Internal Components	GI-280 / powder coated / painted
		External Components	Powder coated / painted
	Resistance to Connection	Damp heat cycling test	IEC 60068-2-30
		Salt mist test	IEC 60068-2-11
	Plastic Components	Flame retardant, self-extinguishing, Halogen-free	IEC 60695-2-10, IEC 60695-2-11









- > Contact Elements designed to achieve low operating temperature.
- > Tin plated Phosphor Bronze Contacts for engagement with Bare/Tinned Copper Outgoing Contacts.
- > Chemical compatibility ensures minimal galvanic corrosion.
- > This spring-less contact is designed to ensure minimum milli-volt drop across the point of engagement of contact.
- > Used on outgoing side only, and designed to handle the current flow in case of conditional short circuit.
- > Internally shrouded to prevent phase to phase faults.
- > Electrically, mechanically & thermally adequate housing moulded out of Glass Reinforced Fire Retardant Plastic (UL 94-V0 grade).

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamide 6.6
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	63 A

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon







FEATURES AT A GLANCE

- > Contact Elements designed to achieve low operating temperature.
- > Tin plated Phosphor Bronze Contacts for engagement with Bare/Tinned Copper Outgoing Contacts.
- > Chemical compatibility ensures minimal galvanic corrosion.
- This spring-less contact is designed to ensure minimum milli-volt drop across the point of engagement
- > Used on outgoing side only, and designed to handle the current flow in case of conditional short circuit.
- > Internally shrouded to prevent phase to phase faults.
- > Electrically, mechanically & thermally adequate housing moulded out of Glass Reinforced Fire Retardant Plastic (UL 94-V0 grade).

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamide 6.6
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	63 A

^{*}This temperature limit is based on the expectation of a 105°C









FEATURES AT A GLANCE

- > Contact Elements designed to achieve low operating temperature.
- > Tin plated EC Grade Copper Contacts for engagement with Bare/Tinned Aluminum or Copper Vertical Bus Bars.
- > Chemical compatibility ensures minimal galvanic corrosion.
- > The contact spring is designed to ensure minimum milli-volt drop across the point of engagement of contact.
- > Used on both incoming & outgoing sides, and designed to withstand the current flow in case of short circuit.
- > Internally shrouded to prevent phase to phase faults.
- > Electrically, mechanically & thermally adequate housing moulded out of Glass Fibre Reinforced Polymer.

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	125 A

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon







- > Contact Elements designed to achieve low operating temperature.
- > Tin plated EC Grade Copper Contacts for engagement with Bare/Tinned Aluminum or Copper Vertical Bus Bars.
- > Chemical compatibility ensures minimal galvanic corrosion.
- > The contact spring is designed to ensure minimum milli-volt drop across the point of engagement of contact.
- > Used on both incoming & outgoing sides, and designed to withstand the current flow in case of short circuit.
- > Internally shrouded to prevent phase to phase faults.
- > Electrically, mechanically & thermally adequate housing moulded out of Glass Fibre Reinforced Polymer.

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	125 A

^{*}This temperature limit is based on the expectation of a 105°C

PIC - SI - 250A - 2P









- > Contact Elements designed to achieve low operating temperature.
- > Tin plated EC Grade Copper Contacts for engagement with Bare/Tinned Aluminum or Copper Vertical Bus Bars.
- > Chemical compatibility ensures minimal galvanic corrosion.
- > The contact spring is designed to ensure minimum milli-volt drop across the point of engagement of contact.
- > Used on both incoming & outgoing sides, and designed to withstand the current flow in case of short circuit.
- > Internally shrouded to prevent phase to phase faults.
- > Electrically, mechanically & thermally adequate housing moulded out of Glass Fibre Reinforced Polymer.

Specifications

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	250 A

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon PIC – SI – 250A – 3







FEATURES AT A GLANCE

- > Contact Elements designed to achieve low operating temperature.
- > Tin plated EC Grade Copper Contacts for engagement with Bare/Tinned Aluminum or Copper Vertical Bus Bars.
- > Chemical compatibility ensures minimal galvanic corrosion.
- > The contact spring is designed to ensure minimum milli-volt drop across the point of engagement of contact.
- > Used on both incoming & outgoing sides, and designed to withstand the current flow in case of short circuit.
- > Internally shrouded to prevent phase to phase faults.
- > Electrically, mechanically & thermally adequate housing moulded out of Glass Fibre Reinforced Polymer.

Specifications

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	250 A

^{*}This temperature limit is based on the expectation of a 105°C









FEATURES AT A GLANCE

- > Contact Elements designed to achieve low operating temperature.
- > Tin plated EC Grade Copper Contacts for engagement with Bare/Tinned Aluminum or Copper Vertical Bus Bars.
- > Chemical compatibility ensures minimal galvanic corrosion.
- > The contact spring is designed to ensure minimum milli-volt drop across the point of engagement of contact.
- > Used on both incoming & outgoing sides, and designed to withstand the current flow in case of short circuit.
- > Internally shrouded to prevent phase to phase faults.
- > Electrically, mechanically & thermally adequate housing moulded out of Glass Fibre Reinforced Polymer.

pecifications

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	400 A

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon PIC – SI – 40







FEATURES AT A GLANCE

- > Contact Elements designed to achieve low operating temperature.
- > Tin plated EC Grade Copper Contacts for engagement with Bare/Tinned Aluminum or Copper Vertical Bus Bars.
- > Chemical compatibility ensures minimal galvanic corrosion.
- > The contact spring is designed to ensure minimum milli-volt drop across the point of engagement of contact.
- > Used on both incoming & outgoing sides, and designed to withstand the current flow in case of short circuit.
- > Internally shrouded to prevent phase to phase faults.
- > Electrically, mechanically & thermally adequate housing moulded out of Glass Fibre Reinforced Polymer.

Specifications

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	400 A

^{*}This temperature limit is based on the expectation of a 105°C









- > Contact Elements designed to achieve low operating temperature.
- > Tin plated EC Grade Copper Contacts for engagement with Bare/Tinned Aluminum or Copper Vertical Bus Bars.
- > Chemical compatibility ensures minimal galvanic corrosion.
- > The contact spring is designed to ensure minimum milli-volt drop across the point of engagement of contact.
- > Used on both incoming & outgoing sides, and designed to withstand the current flow in case of short circuit.
- > Modular shrouding design prevents phase to phase faults.
- > Electrically, mechanically & thermally adequate housing moulded out of Glass Reinforced Fire Retardant Plastic (UL 94-V0 grade).

Specifications

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamide 6.6
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	200 A

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon PIC – HO – 20







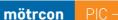
FEATURES AT A GLANCE

- > Contact Elements designed to achieve low operating temperature.
- > Tin plated EC Grade Copper Contacts for engagement with Bare/Tinned Aluminum or Copper Vertical Bus Bars.
- > Chemical compatibility ensures minimal galvanic corrosion.
- The contact spring is designed to ensure minimum milli-volt drop across the point of engagement of contact.
- > Used on both incoming & outgoing sides, and designed to withstand the current flow in case of short circuit.
- Modular shrouding design prevents phase to phase faults.
- Electrically, mechanically & thermally adequate housing moulded out of Glass Reinforced Fire Retardant Plastic (UL 94-V0 grade).

Specifications

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamide 6.6
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	200 A

^{*}This temperature limit is based on the expectation of a 105°C











FEATURES AT A GLANCE

- > Contact Elements designed to achieve low operating temperature.
- > Tin plated EC Grade Copper Contacts for engagement with Bare/Tinned Aluminum or Copper Vertical Bus Bars.
- > Chemical compatibility ensures minimal galvanic corrosion.
- > The contact spring is designed to ensure minimum milli-volt drop across the point of engagement of contact.
- > Used on both incoming & outgoing sides, and designed to withstand the current flow in case of short circuit.
- > Modular shrouding design prevents phase to phase faults.
- > Electrically, mechanically & thermally adequate housing moulded out of Glass Reinforced Fire Retardant Plastic (UL 94-V0 grade).

Specifications

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamide 6.6
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	400 A

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon

PIC - HO - 400A - 3P







FFATURES AT A GLANCE

- > Contact Elements designed to achieve low operating temperature.
- > Tin plated EC Grade Copper Contacts for engagement with Bare/Tinned Aluminum or Copper Vertical Bus Bars.
- > Chemical compatibility ensures minimal galvanic corrosion.
- > The contact spring is designed to ensure minimum milli-volt drop across the point of engagement of contact.
- > Used on both incoming & outgoing sides, and designed to withstand the current flow in case of short circuit.
- > Modular shrouding design prevents phase to phase faults.
- > Electrically, mechanically & thermally adequate housing moulded out of Glass Reinforced Fire Retardant Plastic (UL 94-V0 grade).

Specifications

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamide 6.6
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	400 A

^{*}This temperature limit is based on the expectation of a 105°C









- > Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous
- > Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- > Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- > The housing/base is designed with ribbing to provide strength and improve the tracking index for better performance.
- > The housing/base is moulded out of Glass Reinforced Fire Retardant Plastic (UL 94-VO Grade).

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamide 6.6
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	63 A

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon







- Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous
- Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- > The housing/base is designed with ribbing to provide strength and improve the tracking index for better
- > The housing/base is moulded out of Glass Reinforced Fire Retardant Plastic (UL 94-V0 Grade).

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamide 6.6
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	63 A

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon







FEATURES AT A GLANCE

- > Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous
- > Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- > Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- > The housing/base is designed with ribbing to provide strength and improve the tracking index for better
- > The housing/base is moulded out of Glass Reinforced Polymer which is non-hygroscopic, fire-retardant & self-extinguishing.

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	125 A

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon







- > Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous
- > Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- > Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- > The housing/base is designed with ribbing to provide strength and improve the tracking index for better
- > The housing/base is moulded out of Glass Reinforced Polymer which is non-hygroscopic, fire-retardant & self-extinguishing.

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	125 A

^{*}This temperature limit is based on the expectation of a 105°C









- Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous rated current.
- Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- > Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- The housing/base is designed with ribbing to provide strength and improve the tracking index for better performance.
- > The housing/base is moulded out of Glass Reinforced Polymer which is non-hygroscopic, fire-retardant & self-extinguishing.

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	125 A

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon

OGC - SI - 250A - 1F







FEATURES AT A GLANCE

- Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous rated current
- Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- The housing/base is designed with ribbing to provide strength and improve the tracking index for better performance.
- > The housing/base is moulded out of Glass Reinforced Polymer which is non-hygroscopic, fire-retardant & self-extinguishing.

Specifications

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	250 A

^{*}This temperature limit is based on the expectation of a 105°C



)GC - SI - 250A - 2P







FEATURES AT A GLANCE

- Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous rated current.
- Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- > The housing/base is designed with ribbing to provide strength and improve the tracking index for better performance.
- > The housing/base is moulded out of Glass Reinforced Polymer which is non-hygroscopic, fire-retardant & self-extinguishing.

Specifications

STANDARDS		IEC 61439 - 1&2	
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)	
		Contact Material: Silver Plated Copper Contacts	
		Conductor Temp: 105°C*	
		Flammability: UL94-V0	
		Glow Wire: 960°C	
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V	
		Insulation Voltage Ui: 690V	
		Impulse Voltage Uimp: 8kV	
	Current Rating	250 A	

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon

OGC - SI - 250A - 3P







FEATURES AT A GLANCE

- > Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous rated current.
- > Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- > The housing/base is designed with ribbing to provide strength and improve the tracking index for better performance.
- > The housing/base is moulded out of Glass Reinforced Polymer which is non-hygroscopic, fire-retardant & self-extinguishing.

Specifications

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
	-	Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	250 A

^{*}This temperature limit is based on the expectation of a 105°C











- > Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous
- > Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- > Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- > The housing/base is designed with ribbing to provide strength and improve the tracking index for better performance.
- > The housing/base is moulded out of Glass Reinforced Polymer which is non-hygroscopic, fire-retardant & self-extinguishing.

STANDARDS		IEC 61439 - 1&2	
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)	
		Contact Material: Silver Plated Copper Contacts	
		Conductor Temp: 105°C*	
		Flammability: UL94-V0	
		Glow Wire: 960°C	
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V	
		Insulation Voltage Ui: 690V	
		Impulse Voltage Uimp: 8kV	
	Current Rating	400 A	

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon







- Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous
- > Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- > The housing/base is designed with ribbing to provide strength and improve the tracking index for better
- > The housing/base is moulded out of Glass Reinforced Polymer which is non-hygroscopic, fire-retardant & self-extinguishing.

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	400 A

^{*}This temperature limit is based on the expectation of a 105°C









FEATURES AT A GLANCE

- > Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous
- Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- > The housing/base is designed with ribbing to provide strength and improve the tracking index for better performance.
- > The housing/base is moulded out of Glass Reinforced Polymer which is non-hygroscopic, fire-retardant & self-extinguishing.

STANDARDS		IEC 61439 - 1&2	
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)	
		Contact Material: Silver Plated Copper Contacts	
		Conductor Temp: 105°C*	
		Flammability: UL94-V0	
		Glow Wire: 960°C	
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V	
		Insulation Voltage Ui: 690V	
		Impulse Voltage Uimp: 8kV	
	Current Rating	400 A	

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon







FEATURES AT A GLANCE

- > Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous
- > Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- > Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- > The housing/base is designed with ribbing to provide strength and improve the tracking index for better
- > The housing/base is moulded out of Glass Reinforced Polymer which is non-hygroscopic, fire-retardant & self-extinguishing.

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
	-	Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	630 A











- Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous rated current.
- Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- > Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- The housing/base is designed with ribbing to provide strength and improve the tracking index for better performance.
- > The housing/base is moulded out of Glass Reinforced Polymer which is non-hygroscopic, fire-retardant & self-extinguishing.

STANDARDS		IEC 61439 - 1&2	
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)	
		Contact Material: Silver Plated Copper Contacts	
		Conductor Temp: 105°C*	
		Flammability: UL94-VO	
		Glow Wire: 960°C	
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V	
		Insulation Voltage Ui: 690V	
		Impulse Voltage Uimp: 8kV	
	Current Rating	400 A	

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon

OGC - SI - 630A - 3F







FEATURES AT A GLANCE

- Connections are of Tin/Silver plated EC Grade Copper & design verified to carry the specified continuous rated current
- Plating the copper maintains low operating temperatures as well as ensures that incase of oxidation, the contact resistance does not increase.
- Connecters are designed to mate with the plug-in contact elements on one end and direct connection of field cables on the other end.
- > The housing/base is designed with ribbing to provide strength and improve the tracking index for better
- > The housing/base is moulded out of Glass Reinforced Polymer which is non-hygroscopic, fire-retardant & self-extinguishing.

Specifications

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamer (GRP)
		Contact Material: Silver Plated Copper Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	400 A

^{*}This temperature limit is based on the expectation of a 105°C



CON - SS - 12A - 6W









FEATURES AT A GLANCE

- > The 6-Way control contact has both test & service position.
- > The male & female assemblies are self-aligning & self-disconnecting during trolley operation.
- > The contacts are internally shrouded to ensure phase to phase separation.
- > The male contacts are tin/silver plated copper to provide better connectivity and long years of fault free use.
- > The female contacts are tin/silver plated phosphor bronze to provide spring-less yet positive contact.
- > The housing is designed such that the live contacts are finger-touch proof.
- The external housing is moulded out of Fire-Retardant Glass Reinforced Plastic (UL 94-V0 Grade).

Specifications

STANDARDS		IEC 61439 - 1&2	
Physical Characteristics		Body Material: Glass Reinforced Polyamide 6.6	
		Contact Material: Silver Plated Copper /Phospor Bronze Contacts	
		Conductor Temp: 105°C*	
		Flammability: UL94-V0	
		Glow Wire: 960°C	
Electrical Characteristics	Voltage Ratings	Equipment Voltage Ue: 690V	
		Insulation Voltage Ui: 690V	
		Impulse Voltage Uimp: 8kV	
	Current Rating	12 A	

^{*}This temperature limit is based on the expectation of a 105°C

mötrcon

CON - SS - 12A - 10W

13263





FEATURES AT A GLANCE

- > The 10-Way control contact has both test & service position.
- > The male & female assemblies are self-aligning & self-disconnecting during trolley operation.
- > The contacts are internally shrouded to ensure phase to phase separation.
- The male contacts are tin/silver plated phosphor bronze to provide spring-less operation better connectivity and long years of fault free use.
- > The female contacts are tin/silver plated phosphor bronze to provide spring-less yet positive contact.
- > The housing is designed such that the live contacts are finger-touch proof.
- > The external housing is moulded out of Fire-Retardant Glass Reinforced Plastic (UL 94-V0 Grade).

Specifications

STANDARDS		IEC 61439 - 1&2
Physical Characteristics		Body Material: Glass Reinforced Polyamide 6.6
		Contact Material: Silver Plated Copper /Phospor Bronze Contacts
		Conductor Temp: 105°C*
		Flammability: UL94-V0
		Glow Wire: 960°C
	Voltage Ratings	Equipment Voltage Ue: 690V
		Insulation Voltage Ui: 690V
		Impulse Voltage Uimp: 8kV
	Current Rating	12 A

^{*}This temperature limit is based on the expectation of a 105°C

mödulo - Modular Enclosure System

Flexible Enclosure Solution

The modulo range of Modular Enclosure System caters to the ever growing demand for highly flexible, aestheically pleasing & cost-effective, off-the-shelf enclosure solutions. The range is the distillation of years of field research & customer interaction, thereby offering you a product that caters to your every requirement.



FEATURES AT A GLANC

- > The modulo range being highly flexible caters to a variety of applications like lighting distribution boards, power distribution boards, metering boards, motor control centres, power control centres, drive & PLC enclosures, control desks, control consoles etc.
- > The enclosures are highly customisable & can be setup for a variety of applications. The modularity of the range extends you the flexibility of mixing & matching vario -us styles of enclosures with a single panel board.
- > The modulo range of enclosures follow a common design thread, with many parts that have multiple applications, thereby reducing the inventory carrying cost. The enclosures are available in single front & space saving double front configurations. The sustem being modular future expansion is possible.
- > The systems lets you configure your panel based on the site conditions (top-bus or bottom-bus design can be configured using the same parts). The modulo range is designed to enable guick assembly using stand -ard tools. Thus giving you the chance to plan your job on the go.
- > The entire range of modular enclosures is fabricated from the finest of materials with the use of the latest sheet metal fabrication design & manufacturing tools. Thus making them the perfect blend of eye-catching aes -thetics & cost-effective design.
- > The range is designed to satisfy all the strin -gent technical requirements & its thereby suited to meet diverse requirements under extreme ambient site conditions. It is specially designed to incorporate the entire range of swithgear available from Siemens, L&T, Schneider, ABB, GE etc.



Multi-tier Enclosure

These versatile enclosures can be configured for use in applications such as Lighting Distribution, Lighting Distribution, Motor Control Centres etc.



Multi-tier Enclosure

The prime application of these enclosures is for Power Control Centres in single tier, two & three tier configuratoin.



Extensible Enclosure

n of these Evergreen enclosures used in a variety wer Control of applications ranging from PLC r, two & Panels, Drive Panels, Transformer panels, Rectifier Panels etc.



Control Desks/Consoles

Applications include Desks & Consoles for process control applications, machinery control consoles etc..



Wall/Floor Mount Boxes

Welded boxes meant for use in a variety of applications such as Distribution Boxes, Junction Boxes, Capacitor Panels etc.



Control Relay Enclosure

These custom-built enclosures are used for the integration of Control Relay Panels, Annuciation Panels etc.



The range of Multi-tier Enclosure solutions feature a rich variety of type-tested enclosures, that can be configured to sut the demands of various industries viz. power plants, sugar mills, steel plants, cement plants etc. where multi-tier modular enclosures are required in various applications.



FEATURES AT A GLANCE

- > Bolted design ensures superior surface finish, facilitates easy handling & low transportation costs.
- > Designed for quick assembly using standard tools & highly levels of on-site flexibility.
- > Single Front, Double Front & other customised configurations
- > Modular design aids easy extensibility on either side.
- > Suitable for both top or bottom cable entry.
- > High levels of operator safety with multiple levels of internal seperation upto Form IV-B (Type 7).
- > Dust-proofing levels upto IP52 & IP54 can be supplied in standard design (special designs available for higher levels of ingress
- > Doors hinging system is flexible & doors can hinge on either side depending on site requirements.
- > Standard sizes available off-the-shelf, thus cutting down lead time & inventory carrying costs.
- Design conforms to international standards, duly type tested at C.P.R.I. laboratories for Short Circuit protection upto 50kA, 1 sec.









Technical Data

AN OVERVIEW		
RATED VOLTAGE	500 Volts, 3 Phase, 50 hz	> 20 mm
RATED CURRENT	Upto 4000 Amps	
SHOT CIRCUIT STREANGTH	Standard:	36 KA (rms) / 1 Sec., 76 KA (peak).
	Optional:	50 KA (rms) / 1 Sec., 105 KA (peak).
DEGREE OF PROTECTION	Standard:	IP - 52
(as per IEC 60529)	Optional :	IP - 54
DEGREE OF SEPARATION	From - 2B / Form 3B / Form 4B	
TYPE OF BUS - BAR	Horizontal :	Aluminium / Copper
	Vertical:	Aluminium / Copper
RATING OF BUS - BAR	Horizontal :	4000 Amps. (Max.)
SURFACE TREATMENT	Vertical:	1000 Amps. (Max.) (MCC)
		2000 Amps. (Max.) (MCC)
BUS - BAR SUPPORTS	F. R. P.	
CONFORMANCE	IS 8623 (Ph) - 1977 / IEC60439 - 1	

MCC ENCLOSURE - STANDARD DIMENSIONS (IN MM)					
Sr. No.	Panel Height	Bus Camber Height	Feeder Area Height	Feeder Size	Depth of Panel
1.	2000+75	300	1500	200-1500	400/500/600/800
2.	2100+75	400	1500	200-1500	400/500/600/800
3.	2300+75	300	1800	200-1800	400/500/600/800
4.	2400+75	400	1800	200-1800	400/500/600/800

PCC I	PCC ENCLOSURE - STANDARD DIMENSIONS (IN MM)				
Sr. No.	Panel Height	Bus Camber Height	Feeder Area Height	Feeder Size	Depth of Panel
1.	2000+75	300	1500	200-1500	400/1000/1200/1800
2.	2100+75	400	1500	200-1500	400/1000/1200/1800
3.	2300+75	300	1800	200-1800	400/1000/1200/1800
4.	2400+75	400	1800	200-1800	400/1000/1200/1800

Applications:

Lighting Distribution Boards.

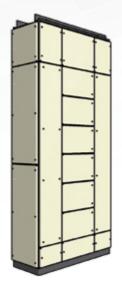
Power Control Centres.

Power Distribution Boards.

Capacitor Panels.

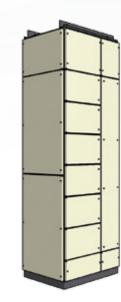
Motor Control Centres.

Metering Panels.



Front Cable & Front Bus

Most suitable for standard panels, both single & double front configuration can be achieved. Also useful incase of restricted rear access due to presence of wall to back of the panel.



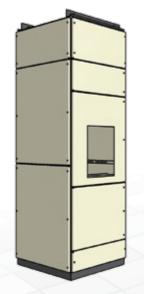
Front Cable & Rear Bus

This configuration is suitable where there is ample space to attend the panel from both front & rear. Saves the length of panel thereby being more economical.



Rear Cable & Rear Bus

This is the most ecomonical & spoce saving panel config -uration used today. All it needs if ample space at the front & rear for easy access to the components.



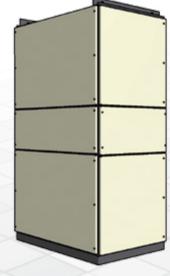
Single Tier ACB

Regular configuration for ACB enclosures, works well in case of smaller panels, where ACB acts as incomer to the panel viz. PDB, MCC etc.



Two Tier ACB

Usually used in case of PCC Panels where there are multiples of higher rated feeders requiring the use of ACBs. The design is Space saving & economical in use.



Centre Bus PMCC

This design houses the main bus bars in the centre of the panel enclosure, thereby making the electrical distribution easier. Usually used incase of PCCs & Capacitor Panels.

mödulo - Extensible Enclosures : @atdogrEnclosure Solutions

The range of Extensible Enclosures is based on a bolt-on type modular construction. These enclosures are made using sheet steel profiles that are provided with multiple holes to ensure complete flexibility to the user in configuring the enclosure to suit their particular application.









PLC ENCLOSURE (IP-66)

FEATURES AT A GLANCE

- > Bolted design ensures superior surface finish, facilitates easy handling & low
- > Designed for quick assembly using standard tools & highly evels of on-site flexibility.
- > Single Front & Double Front design available.
- > Modular design aids easy extensibility on either side.
- > Suitable for both top or bottom cable entry.
- > Safety & superior dust proofing with the use of 4-point locks.
- > Full or partial mounting plates.
- > Full or partial Glass Door.
- > 19" Rack Mounting Arranrement.
- > Top Ventilation with canopy for fan & washable filter.
- > Dust-proofing levels upto IP66 can be supplied in standard design (special designs available for higher levels of ingress protection).
- > Doors hinging system is flexible & doors can hinge on either side depending on site

Technical Data

EXTENSIBLE PANEL ENCLOSURE				
Sr. No.	A Height mm	B Width mm	C Depth mm	
1.	1800	600	500	
2.	1800	600	600	
3.	1800	600	800	
4.	1800	800	500	
5	1800	800	600	
6	1800	800	800	
7	2000	800	800	
8	2000	1000	600	
9	2000	1000	800	
10	2000	1200	800	
11	2100	800	600	
12	2100	800	800	
13	2100	1000	800	
14	2100	1200	800	
15	2200	800	600	
16	2200	800	800	
17	2200	1000	800	
18	2200	1200	800	



Applications:

PLC Panels.

APFC Panels.

Drive Panels.

Transformer Panels.

Motor Starter Panels.







PLC Enclosure (IP55)



19" Rack Enclosure





32 SUNESONS Engineering & Fabrications (P) Ltd.

mödulo - Control Desks & Consoles tolorices Control Solutions

The range of Controls Desk & Control Console Enclosures is based on a bolt-on type modular construction. Each enclosure is configured using a variety of parts of various shapes, designed based on the specific application that the enclosure is serving in the control room. Thereby chieving a customised solution using standard components These enclosures can be bayed to make a cluster of control room consoles.

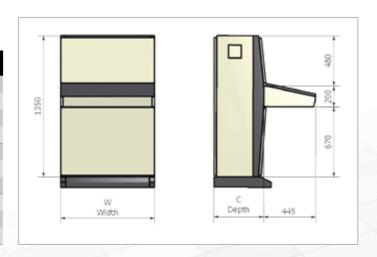




- Superior aesthetics in design with choice of combination colour for high levels of
- > Ergonomically designed to ensure minimum operator fatigue.
- Bolted design ensures superior surface finish, facilitates easy handling & low transportation costs.
- > Designed for quick assembly using standard tools & high levels of on-site flexibility.
- > Rear Bay can be in multiple parts or in a single part.
- > Modular design aids easy extensibility on either side.
- > 4-point locks for the rear doors & Double Bit cam locks for front.
- > Full or partial mounting plates on rear side.
- > Ventilation provided with canopy for fan & washable filter.
- Dust-proofing levels upto IP54 can be supplied in standard design (special designs available for higher levels of ingress protection).
- > Rachet Door Stay provided for the Desk, ensures operator safety through positive locking of the Desk door in open condition.
- Keyboard tray arrangement can be provided below or within the desk if the application so demands.
- > Plinth of 100mm or 200mm available.

Technical Data

EXTENSIBLE PANEL ENCLOSURE				
Sr. No.	Type Reference	A Height mm	B Width mm	C Depth mm
1.	Pedestrial	1800	600	500
2.		1800	600	600
3.		1800	600	800
4.	Desk	1800	800	500
5		1800	800	600
6		1800	800	800
7	Console	2000	800	800
8		2000	1000	600
9		2000	1000	800



Applications:

Control Desks for Machines.

Control Desks for Process Control.

Control Desks with Mimic Boards.

Control Desks for HMI applications.

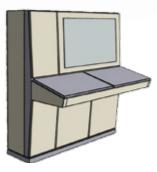
Control Consoles for IT related applications.



Control Desk for HMI



Computer Console



Control Desk for Mimic



Control Desk for Annunciation





Computer Station (Seated)



Welded boxes are the most basic of enclosures, usually consisting of a welded chamber enclosing the mounting plate meant for equipment mounting. These are provided with either top or bottom gland plates depending on the application. Variations to the basic design include boxes with canopies for water protection incase of outdoor installation.

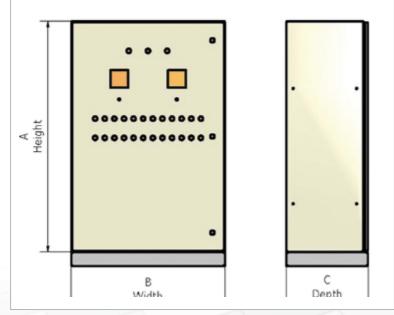
IEC-60529 IEC-60529

CE

- > Designed to ensure protection of equipment uto IP 65 levels.
- > Rivetted Gland plate can be provided on top or bottom.
- > Doors can be hinged on either side depending on site conditions.
- > Additional canopy can be provided incase of outdoor applications.
- Manufactured out of Mild Steel, Galvanised Steel & Stainless Steel.
- > Concealed & easily removable hinges with 120 degree opening.
- > Full or partial equipment mounting plates.
- > Wall brackets for direct wall mounting.
- > Plinth of 100mm or 200mm available incase of floor mounting.
- > Partial or full glass doors.



FLOOR STANDING ENCLOSURE				
Sr. No.	A Height mm	B Width mm	C Depth mm	
1.	1000	600	350	
2.	1000	700	400	
3.	1000	800	400	
4.	1200	600	350	
5	1200	800	400	
6	1200	1000	400	
7	1200	1000	500	
8	1400	8000	400	
9	1400	1000	400	
10	1400	1000	500	
11	1500	800	400	
12	1500	1000	400	
13	1500	1000	500	



Applications:

Junction Boxes.

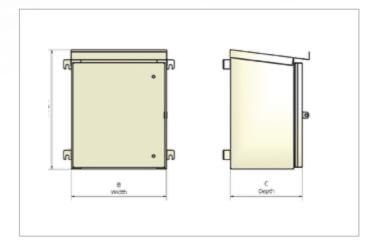
Distribution Boxes.

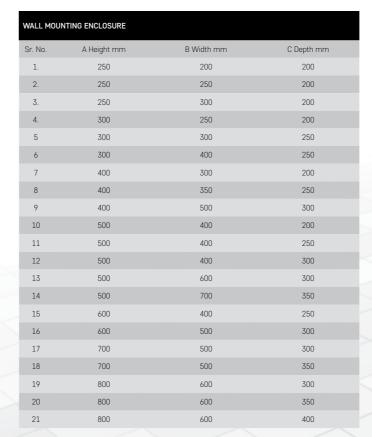
Meter Boxes.

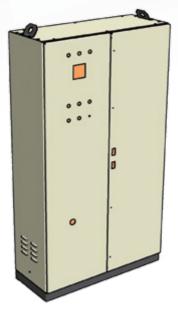
Starter Boxes.



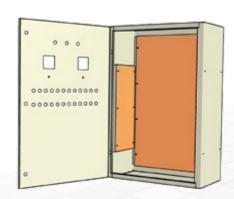








Floor Mounting Panel



Wall Mounting Cabinet



Junction Box