



MIDDLE EAST

Switchgear

IND. LTD.

ASTA Certified
to IEC 61439-2



MCCB PANEL BOARDS 250A/400A/630A 25kA-3s & 36kA-1s

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

MCCB PANEL BOARDS 250A/400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers



Design Verification Tests conducted at renowned International Lab IPH Germany as per IEC61439-2 Tests witnessed by independent ASTA body.



About Us

Middle East Switchgear, with its expert reputation in the Electrical Switchgear field, caters to providing the right solution for MCCB boards to the residential, utility and industrial markets.

We work very closely with our customers. With their support, our engineering knowledge and state of the art facility, we can supply the most comprehensive and effective package perfectly tailored to suit their specific requirements.

We have over 20 years experience in supplying systems that add value and assist in our overall efforts to provide cost effective solutions to our clients.

Our certified technical competence ensures maximum efficiency and enables us to deliver to our customers state-of-the-art solutions from a single source.

We are constantly working with our partners, because at MES, we are absolutely committed to providing solutions that add value to our clients.

SIEMENS as our Partner

Siemens offers a proven, innovative and commercial technology to improve the distribution system by offering quality Molded Case Circuit Breakers.

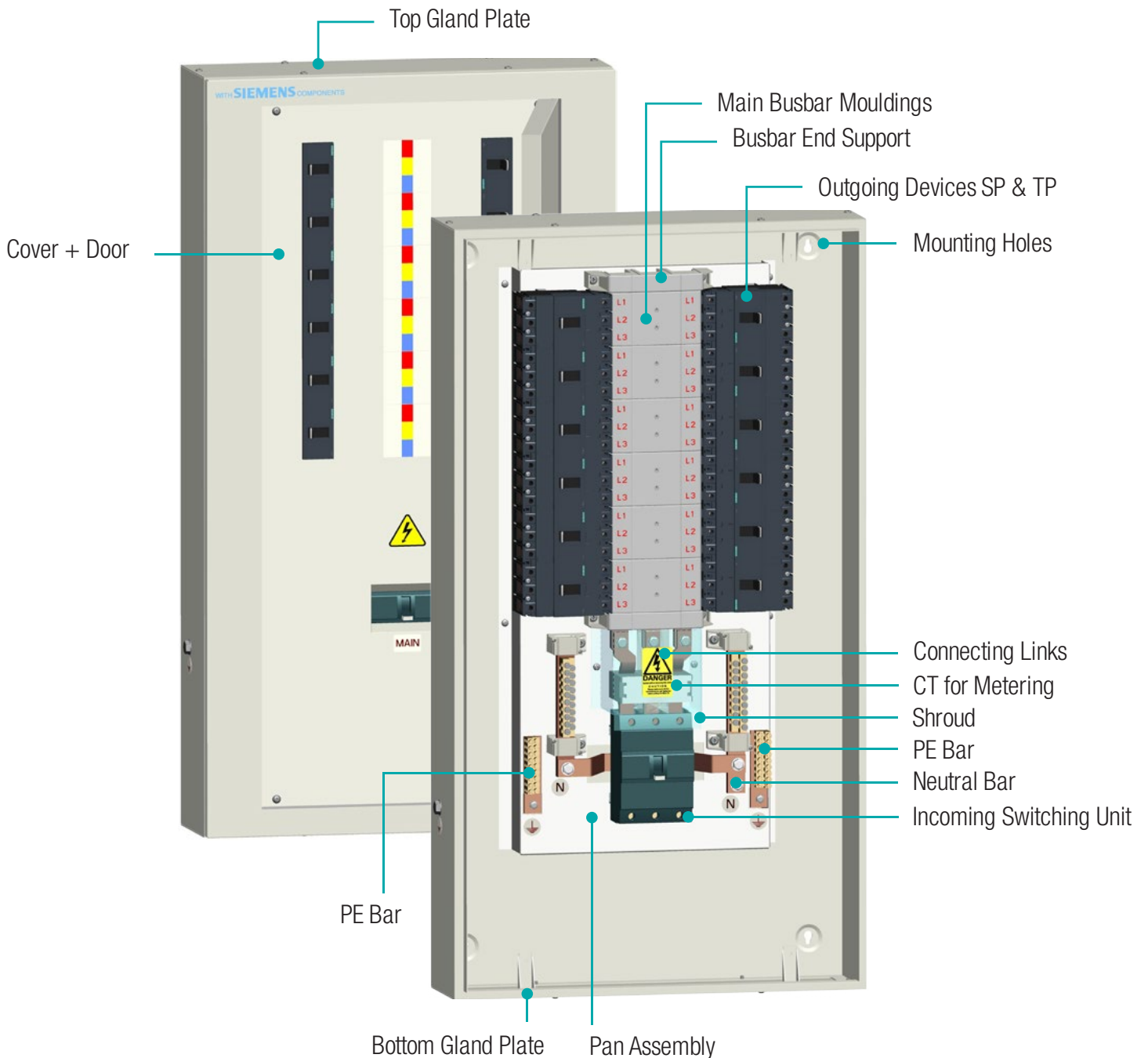
For better utilization of this technology, Middle East Switchgear has designed Sub Main Distribution Boards with different configurations, to facilitate the end user.

These Sub Main Distribution Boards fitted with Siemens MCCBs are tested at IPH laboratory in Germany and witnessed and certified by ASTA.

Along with each type of SMDBs, a detailed list of Siemens MCCBs is provided suitable to be used for that type of SMDB. Hence the selection of MCCBs can be made easily from the readily available list of Siemens MCCBs along with each type of SMDBs. We are confident that Consultants/ Contractors/ Electrical Engineers, etc. will find it very easy to select the right breakers along with the right solution and this will further facilitate the contractors to get the delivery to the site much faster.

MCCB PANEL BOARDS 250A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers



MCCB PANEL BOARDS 250A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

Technical Data:

Designed and Manufactured to Standard:	IEC 61439-2
Rated Current I_n :	250A
Rated Voltage U_n :	415V, 50/60Hz
Rated Insulation Voltage U_i :	690V
Rated Impulse Withstand Voltage U_{imp} :	8kV
Rated Short-time Withstand Current I_{cw} :	25kA - 3sec, 36kA - 1sec
Rated Conditional Short Circuit Current I_{cc} :	25kA/415V & 36kA/415V
Busbar Material:	Electro-tin-plated copper
System / Arrangement:	Encapsulated busbar system
Form:	Form-3b type-2 segregation
Enclosure Material:	EG sheet steel 1.2 - 1.5mm
Color as Standard:	RAL 7035 Textured
Degree of Protection:	IP 41
Ambient Air Temperature:	up to 50 Degrees Cent.

Basic Design:

- Front access
- Wall mounting design
- Top & bottom cable entry
- Enclosure of EG sheet steel 1.2 - 1.5 mm
- All internal steel parts made of galvanized steel
- Choice of incomers for Board rating 250A
- Surface coating, powder coat paint finish of light grey to RAL7035 texture
- Fully rated neutral bar & PE bar
- Integral incoming metering option
- Space for combined current transformer for metering
- Range: 2, 4, 6, 8, 12 and 16 TP&N ways
- Design based on Siemens components only
- Incomer breakers are connected to the main busbar via solid copper links
- Outgoing Metering Extension Box for top entry of the panel
- Bottom Cable Extension Box to increase the flexibility of cable termination

Reliability & Safety:

- ASTA certified up to 36kA-1sec & 25kA-3sec
- Integrated & segregated busbar system
- Internal shield behind the front door to protect from live parts
- Safe to operate & maintain

MCCB PANEL BOARDS 250A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

SMDB 250A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA12	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VT1	Width	Height	Depth
SEIT1-02250	2-Way	600	700	180
SEIT1-04250	4-Way	600	750	180
SEIT1-06250	6-Way	600	850	180
SEIT1-08250	8-Way	600	900	180
SEIT1-12250	12-Way	600	1050	180
SEIT1-16250	16-Way	600	1200	180

NOTE: The above boards are with SPACE for incoming and outgoing MCCBs.
Select the article numbers of "SIEMENS" MCCBs while placing the order for the above boards, if required with breakers.

Selection of **SIEMENS** Molded Case Circuit Breakers

Incoming Switching Unit:

MCCB 3-Pole Type 3VA12

Rated Short-circuit Breaking Capacity Icu: 36kA/415V, 50/60Hz

Option-1		
Rating (A)	Incoming MCCB	SIEMENS Article No.
160	(Automatic, TM, ATAM) Icu=36kA	3VA1216-4EF32-0AA0
200	(Automatic, TM, ATAM) Icu=36kA	3VA1220-4EF32-0AA0
250	(Automatic, TM, ATAM) Icu=36kA	3VA1225-4EF32-0AA0

Option-2		
Rating (A)	Incoming MCCB	SIEMENS Article No.
250	Non-Automatic	3VA1225-1AA32-0AA0



Outgoing Switching Unit:

MCCB 1-Pole and 3-Pole Type 3VT1

Rated Short-circuit Breaking Capacity Icu: 25kA/415V, 50/60Hz

Rating (A)	Outgoing MCCB	
	3VT1 - 3P ATAM Icu=25kA	3VT1 - 3P FTFM Icu=25kA
	SIEMENS Article No.	SIEMENS Article No.
16	3VT1701-2DC36-0AA0	
20	3VT1702-2DC36-0AA0	
25	3VT1792-2DC36-0AA0	
32	3VT1703-2DC36-0AA0	
40		3VT1704-2DA36-0AA0
50		3VT1705-2DA36-0AA0
63		3VT1706-2DA36-0AA0
80		3VT1708-2DA36-0AA0
100		3VT1710-2DA36-0AA0
125		3VT1712-2DA36-0AA0
160		3VT1716-2DA36-0AA0



MCCB PANEL BOARDS 250A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

SMDB 250A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA12	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VA1	Width	Height	Depth
SEIA1-02250	2-Way	600	700	180
SEIA1-04250	4-Way	600	750	180
SEIA1-06250	6-Way	600	850	180
SEIA1-08250	8-Way	600	900	180
SEIA1-12250	12-Way	600	1050	180
SEIA1-16250	16-Way	600	1200	180

NOTE: The above boards are with SPACE for incoming and outgoing MCCBs.
Select the article numbers of "SIEMENS" MCCBs while placing the order for the above boards, if required with breakers.

Selection of **SIEMENS** Molded Case Circuit Breakers

Incoming Switching Unit:

MCCB 3-Pole Type 3VA12

Rated Short-circuit Breaking Capacity Icu: 36kA/415V, 50/60Hz

Option-1		
Rating (A)	Incoming MCCB	SIEMENS Article No.
160	(Automatic, TM, ATAM) Icu=36kA	3VA1216-4EF32-0AA0
200	(Automatic, TM, ATAM) Icu=36kA	3VA1220-4EF32-0AA0
250	(Automatic, TM, ATAM) Icu=36kA	3VA1225-4EF32-0AA0

Option-2		
Rating (A)	Incoming MCCB	SIEMENS Article No.
250	Non-Automatic	3VA1225-1AA32-0AA0



Outgoing Switching Unit:

MCCB 1-Pole and 3-Pole Type 3VA1

Rated Short-circuit Breaking Capacity Icu: 25kA/415V, 50/60Hz

Rating (A)	Outgoing MCCB	
	3VA1 - 1P FTFM Icu=25kA	3VA1 - 3P FTFM Icu=25kA
	SIEMENS Article No.	SIEMENS Article No.
16	3VA1196-3ED16-0AA0	3VA1096-3ED36-0AA0
20	3VA1120-3ED16-0AA0	3VA1020-3ED36-0AA0
25	3VA1125-3ED16-0AA0	3VA1025-3ED36-0AA0
32	3VA1132-3ED16-0AA0	3VA1032-3ED36-0AA0
40	3VA1140-3ED16-0AA0	3VA1040-3ED36-0AA0
50	3VA1150-3ED16-0AA0	3VA1050-3ED36-0AA0
63	3VA1163-3ED16-0AA0	3VA1063-3ED36-0AA0
80	3VA1180-3ED16-0AA0	3VA1080-3ED36-0AA0
100	3VA1110-3ED16-0AA0	3VA1010-3ED36-0AA0
125	3VA1112-3ED16-0AA0	3VA1112-3ED36-0AA0
160	3VA1116-3ED16-0AA0	3VA1116-3ED36-0AA0



MCCB PANEL BOARDS 250A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

SMDB 250A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA12	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VA1	Width	Height	Depth
SEIA1-02250	2-Way	600	700	180
SEIA1-04250	4-Way	600	750	180
SEIA1-06250	6-Way	600	850	180
SEIA1-08250	8-Way	600	900	180
SEIA1-12250	12-Way	600	1050	180
SEIA1-16250	16-Way	600	1200	180

NOTE: The above boards are with SPACE for incoming and outgoing MCCBs.
Select the article numbers of "SIEMENS" MCCBs while placing the order for the above boards, if required with breakers.

Selection of **SIEMENS** Molded Case Circuit Breakers

Incoming Switching Unit:

MCCB 3-Pole Type 3VA12

Rated Short-circuit Breaking Capacity Icu: 36kA/415V, 50/60Hz

Option-1		
Rating (A)	Incoming MCCB	SIEMENS Article No.
160	(Automatic, TM, ATAM) Icu=36kA	3VA1216-4EF32-0AA0
200	(Automatic, TM, ATAM) Icu=36kA	3VA1220-4EF32-0AA0
250	(Automatic, TM, ATAM) Icu=36kA	3VA1225-4EF32-0AA0

Option-2		
Rating (A)	Incoming MCCB	SIEMENS Article No.
250	Non-Automatic	3VA1225-1AA32-0AA0



Outgoing Switching Unit:

MCCB 1-Pole and 3-Pole Type 3VA1

Rated Short-circuit Breaking Capacity Icu: 36kA/415V, 50/60Hz

Rating (A)	Outgoing MCCB			
	3VA1 - 1P FTFM Icu=36kA	3VA1 - 3P FTFM Icu=36kA	3VA1 - 3P ATFM Icu=36kA	3VA1 - 3P ATAM Icu=36kA
	SIEMENS Article No.	SIEMENS Article No.	SIEMENS Article No.	SIEMENS Article No.
16	3VA1196-4ED16-0AA0	3VA1096-4ED36-0AA0	3VA1196-4EE36-0AA0	3VA1196-4EF36-0AA0
20	3VA1120-4ED16-0AA0	3VA1020-4ED36-0AA0	3VA1120-4EE36-0AA0	3VA1120-4EF36-0AA0
25	3VA1125-4ED16-0AA0	3VA1025-4ED36-0AA0	3VA1125-4EE36-0AA0	3VA1125-4EF36-0AA0
32	3VA1132-4ED16-0AA0	3VA1032-4ED36-0AA0	3VA1132-4EE36-0AA0	3VA1132-4EF36-0AA0
40	3VA1140-4ED16-0AA0	3VA1040-4ED36-0AA0	3VA1140-4EE36-0AA0	3VA1140-4EF36-0AA0
50	3VA1150-4ED16-0AA0	3VA1050-4ED36-0AA0	3VA1150-4EE36-0AA0	3VA1150-4EF36-0AA0
63	3VA1163-4ED16-0AA0	3VA1063-4ED36-0AA0	3VA1163-4EE36-0AA0	3VA1163-4EF36-0AA0
80	3VA1180-4ED16-0AA0	3VA1080-4ED36-0AA0	3VA1180-4EE36-0AA0	3VA1180-4EF36-0AA0
100	3VA1110-4ED16-0AA0	3VA1010-4ED36-0AA0	3VA1110-4EE36-0AA0	3VA1110-4EF36-0AA0
125	3VA1112-4ED16-0AA0	3VA1112-4ED36-0AA0	3VA1112-4EE36-0AA0	3VA1112-4EF36-0AA0
160	3VA1116-4ED16-0AA0	3VA1116-4ED36-0AA0	3VA1116-4EE36-0AA0	3VA1116-4EF36-0AA0



MCCB PANEL BOARDS 250A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

SMDB 250A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VM12	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VM1	Width	Height	Depth
SEIM1-02250	2-Way	600	700	180
SEIM1-04250	4-Way	600	750	180
SEIM1-06250	6-Way	600	850	180
SEIM1-08250	8-Way	600	900	180
SEIM1-12250	12-Way	600	1050	180
SEIM1-16250	16-Way	600	1200	180

NOTE: The above boards are with SPACE for incoming and outgoing MCCBs.
Select the article numbers of "SIEMENS" MCCBs while placing the order for the above boards, if required with breakers.

Selection of **SIEMENS** Molded Case Circuit Breakers

Incoming Switching Unit:

MCCB 3-Pole Type 3VM12

Rated Short-circuit Breaking Capacity Icu: 36kA/415V, 50/60Hz

Option-1		
Rating (A)	Incoming MCCB	SIEMENS Article No.
200	(Automatic, TM, ATFM) Icu=36kA	3VM1220-4EE32-0AA0
250	(Automatic, TM, ATFM) Icu=36kA	3VM1225-4EE32-0AA0



Option-2		
Rating (A)	Incoming MCCB	SIEMENS Article No.
250	Non-Automatic	3VM1225-1AA32-0AA0



Outgoing Switching Unit:

MCCB 1-Pole and 3-Pole Type 3VM1

Rated Short-circuit Breaking Capacity Icu: 25kA/415V, 50/60Hz

Rating (A)	Outgoing MCCB	
	3VM1 - 1P FTFM Icu=25kA SIEMENS Article No.	3VM1 - 3P FTFM Icu=25kA SIEMENS Article No.
16	3VM1196-3ED12-0AA0	3VM1096-3ED32-0AA0
20	3VM1120-3ED12-0AA0	3VM1020-3ED32-0AA0
25	3VM1125-3ED12-0AA0	3VM1025-3ED32-0AA0
32	3VM1132-3ED12-0AA0	3VM1032-3ED32-0AA0
40	3VM1140-3ED12-0AA0	3VM1040-3ED32-0AA0
50	3VM1150-3ED12-0AA0	3VM1050-3ED32-0AA0
63	3VM1163-3ED12-0AA0	3VM1063-3ED32-0AA0
80	3VM1180-3ED12-0AA0	3VM1080-3ED32-0AA0
100	3VM1110-3ED12-0AA0	3VM1010-3ED32-0AA0
125	3VM1112-3ED12-0AA0	3VM1112-3ED32-0AA0
160	3VM1116-3ED12-0AA0	3VM1116-3ED32-0AA0



MCCB PANEL BOARDS 250A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

SMDB 250A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VM12	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VM1	Width	Height	Depth
SEIM1-02250	2-Way	600	700	180
SEIM1-04250	4-Way	600	750	180
SEIM1-06250	6-Way	600	850	180
SEIM1-08250	8-Way	600	900	180
SEIM1-12250	12-Way	600	1050	180
SEIM1-16250	16-Way	600	1200	180

NOTE: The above boards are with SPACE for incoming and outgoing MCCBs.
Select the article numbers of "SIEMENS" MCCBs while placing the order for the above boards, if required with breakers.

Selection of **SIEMENS** Molded Case Circuit Breakers

Incoming Switching Unit:

MCCB 3-Pole Type 3VM12

Rated Short-circuit Breaking Capacity Icu: 36kA/415V, 50/60Hz

Option-1		
Rating (A)	Incoming MCCB	SIEMENS Article No.
200	(Automatic, TM, ATFM) Icu=36kA	3VM1220-4EE32-0AA0
250	(Automatic, TM, ATFM) Icu=36kA	3VM1225-4EE32-0AA0

Option-2		
Rating (A)	Incoming MCCB	SIEMENS Article No.
250	Non-Automatic	3VM1225-1AA32-0AA0



Outgoing Switching Unit:

MCCB 1-Pole and 3-Pole Type 3VM1

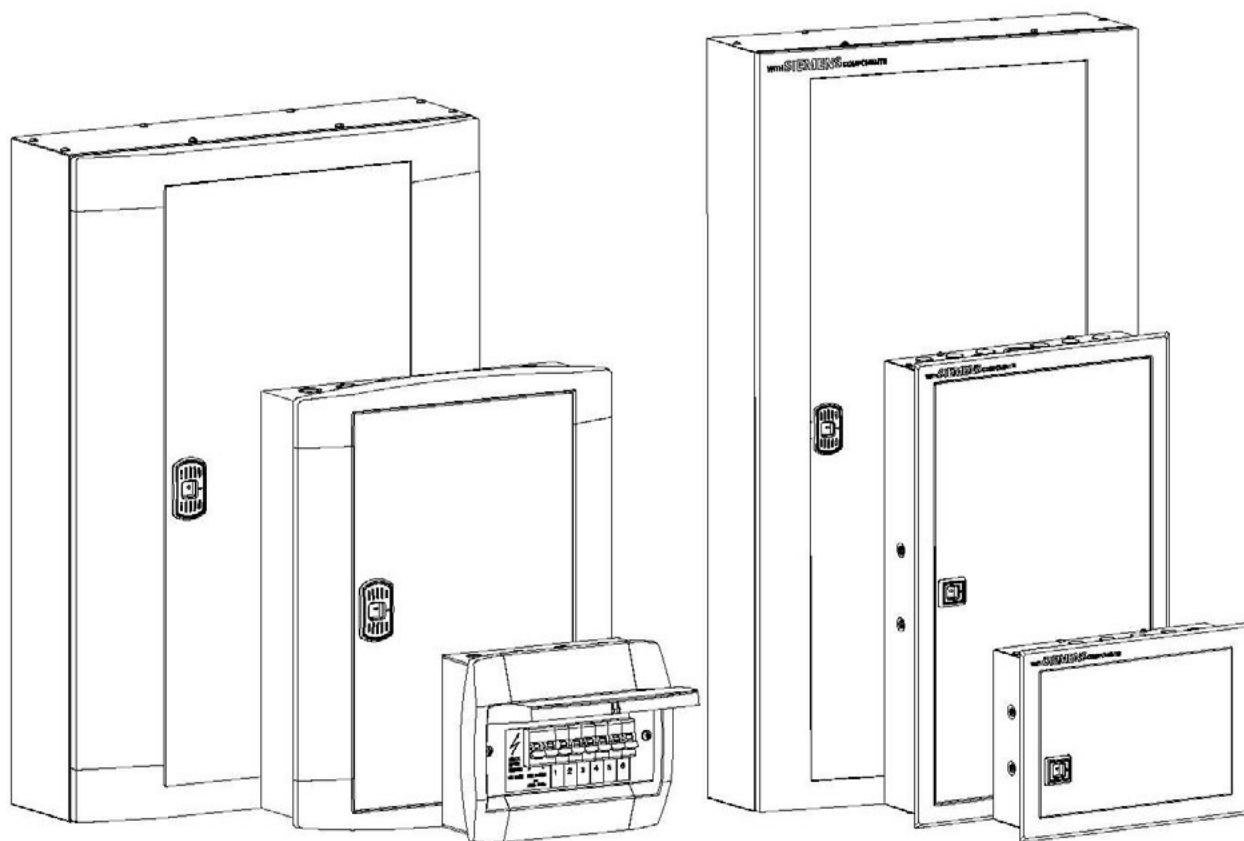
Rated Short-circuit Breaking Capacity Icu: 36kA/415V, 50/60Hz

Rating (A)	Outgoing MCCB	
	3VM1 - 1P FTFM Icu=36kA SIEMENS Article No.	3VM1 - 3P FTFM Icu=36kA SIEMENS Article No.
16	3VM1196-4ED12-0AA0	3VM1096-4ED32-0AA0
20	3VM1120-4ED12-0AA0	3VM1020-4ED32-0AA0
25	3VM1125-4ED12-0AA0	3VM1025-4ED32-0AA0
32	3VM1132-4ED12-0AA0	3VM1032-4ED32-0AA0
40	3VM1140-4ED12-0AA0	3VM1040-4ED32-0AA0
50	3VM1150-4ED12-0AA0	3VM1050-4ED32-0AA0
63	3VM1163-4ED12-0AA0	3VM1063-4ED32-0AA0
80	3VM1180-4ED12-0AA0	3VM1080-4ED32-0AA0
100	3VM1110-4ED12-0AA0	3VM1010-4ED32-0AA0
125	3VM1112-4ED12-0AA0	3VM1112-4ED32-0AA0
160	3VM1116-4ED12-0AA0	3VM1116-4ED32-0AA0



MCCB PANEL BOARDS 250A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers



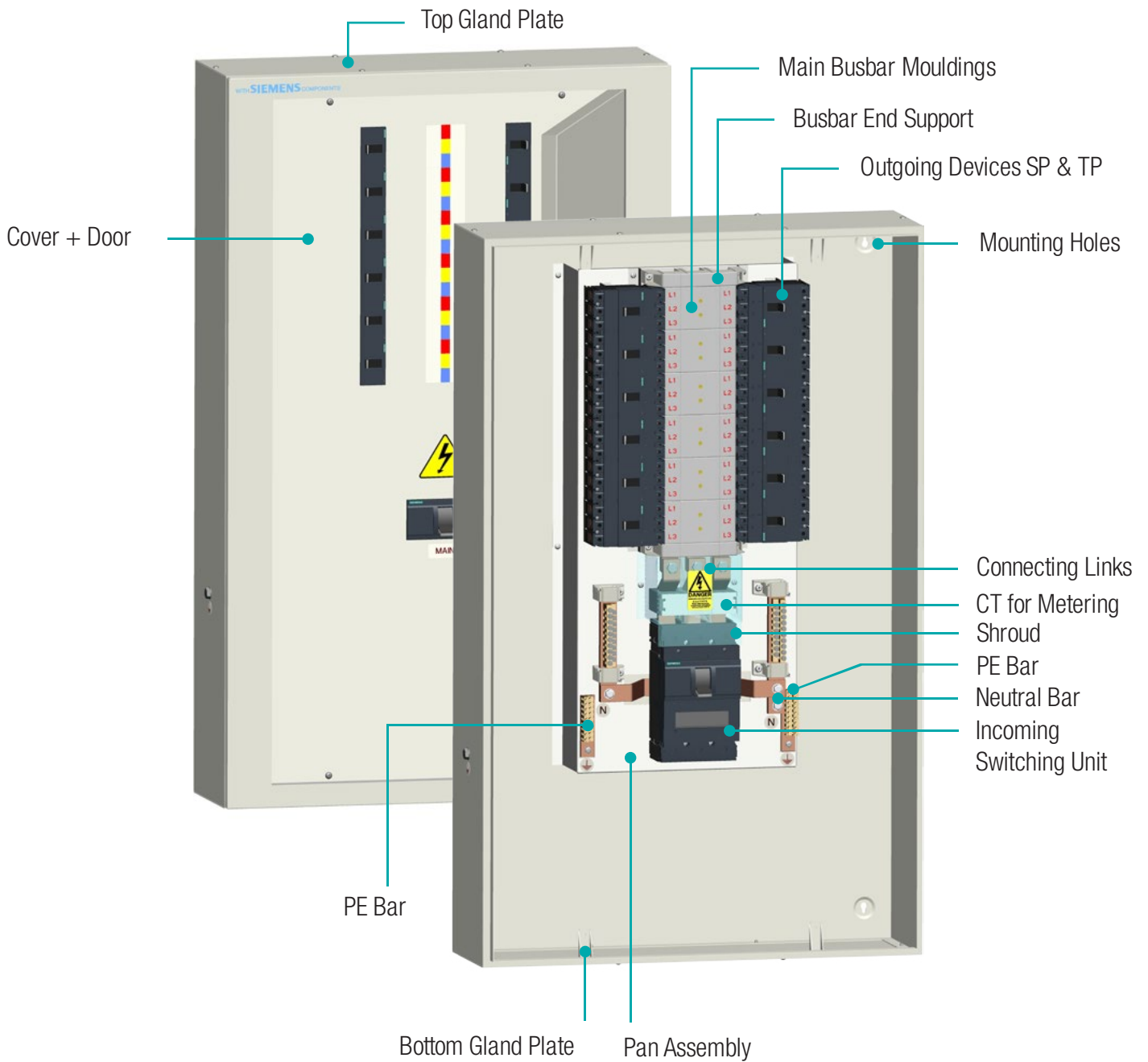
Product Development

A successful switchgear delivery project is always based on well-designed products. Our product development takes into consideration the various needs of our customers and the possibility to be able to modify the products for project requirements. The products are tested according to IEC-standards in independent laboratories.

In the project execution phase our knowledgeable designers can make alternative proposals to our customers bringing out different technical and economical solutions. The components used are all from well-reputed western manufacturers.

MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers



MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

Technical Data:

Designed and Manufactured to Standard:	IEC 61439-2
Rated Current I_n :	400A/630A
Rated Voltage U_n :	415V, 50/60Hz
Rated Insulation Voltage U_i :	690V
Rated Impulse Withstand Voltage U_{imp} :	8kV
Rated Short-time Withstand Current I_{cw} :	25kA - 3sec, 36kA - 1sec
Rated Conditional Short Circuit Current I_{cc} :	25kA/415V & 36kA/415V
Busbar Material:	Electro-tin-plated copper
System / Arrangement:	Encapsulated busbar system
Form:	Form-3b type-2 segregation
Enclosure Material:	EG sheet steel 1.2 - 1.5mm
Color as Standard:	RAL 7035 Textured
Degree of Protection:	IP 41
Ambient Air Temperature:	up to 50 Degrees Cent.

Basic Design:

- Front access
- Wall mounting design
- Top & bottom cable entry
- Enclosure of EG sheet steel 1.2 - 1.5 mm
- All internal steel parts made of galvanized steel
- Choice of incomers for Board rating 400A & 630A
- Surface coating, powder coat paint finish of light grey to RAL7035 texture
- Fully rated neutral bar & PE bar
- Integral incoming metering option
- Space for combined current transformer for metering
- Range: 2, 4, 6, 8, 12 and 16 TP&N ways
- Design based on Siemens components only
- Incomer breakers are connected to the main busbar via solid copper links
- Outgoing Metering Extension Box for top entry of the panel
- Bottom Cable Extension Box to increase the flexibility of cable termination

Reliability & Safety:

- ASTA certified up to 36kA-1sec & 25kA-3sec
- Integrated & segregated busbar system
- Internal shield behind the front door to protect from live parts
- Safe to operate & maintain

MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

SMDB 400A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VT1	Width	Height	Depth
SEIT1-04400	4-Way	800	950	250
SEIT1-06400	6-Way	800	1000	250
SEIT1-08400	8-Way	800	1100	250
SEIT1-12400	12-Way	800	1250	250
SEIT1-16400	16-Way	800	1400	250

SMDB 630A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VT1	Width	Height	Depth
SEIT1-04630	4-Way	800	950	250
SEIT1-06630	6-Way	800	1000	250
SEIT1-08630	8-Way	800	1100	250
SEIT1-12630	12-Way	800	1250	250
SEIT1-16630	16-Way	800	1400	250

NOTE: The above boards are with SPACE for incoming and outgoing MCCBs.

Select the article numbers of "SIEMENS" MCCBs while placing the order for the above boards, if required with breakers.

Selection of **SIEMENS** Molded Case Circuit Breakers

Incoming Switching Unit:

MCCB 3-Pole Type 3VA2

Rated Short-circuit Breaking Capacity Icu: 55kA/415V, 50/60Hz

Rating (A)	Incoming MCCB	SIEMENS Article No.
400	(Automatic, ETU, LI)	3VA2340-5HL32-0AA0
630	(Automatic, ETU, LI)	3VA2463-5HL32-0AA0



Outgoing Switching Unit:

MCCB 3-Pole Type 3VT1

Rated Short-circuit Breaking Capacity Icu: 25kA/415V, 50/60Hz

Rating (A)	Outgoing MCCB	
	3VT1 - 3P ATAM Icu=25kA	3VT1 - 3P FTFM Icu=25kA
	SIEMENS Article No.	SIEMENS Article No.
16	3VT1701-2DC36-0AA0	
20	3VT1702-2DC36-0AA0	
25	3VT1792-2DC36-0AA0	
32	3VT1703-2DC36-0AA0	
40		3VT1704-2DA36-0AA0
50		3VT1705-2DA36-0AA0
63		3VT1706-2DA36-0AA0
80		3VT1708-2DA36-0AA0
100		3VT1710-2DA36-0AA0
125		3VT1712-2DA36-0AA0
160		3VT1716-2DA36-0AA0



MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

SMDB 400A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VA1	Width	Height	Depth
SEIA1-04400	4-Way	800	950	250
SEIA1-06400	6-Way	800	1000	250
SEIA1-08400	8-Way	800	1100	250
SEIA1-12400	12-Way	800	1250	250
SEIA1-16400	16-Way	800	1400	250

SMDB 630A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VA1	Width	Height	Depth
SEIA1-04630	4-Way	800	950	250
SEIA1-06630	6-Way	800	1000	250
SEIA1-08630	8-Way	800	1100	250
SEIA1-12630	12-Way	800	1250	250
SEIA1-16630	16-Way	800	1400	250

NOTE: The above boards are with SPACE for incoming and outgoing MCCBs.
Select the article numbers of "SIEMENS" MCCBs while placing the order for the above boards, if required with breakers.

Selection of **SIEMENS** Molded Case Circuit Breakers

Incoming Switching Unit:

MCCB 3-Pole Type 3VA2

Rated Short-circuit Breaking Capacity Icu: 55kA/415V, 50/60Hz

Rating (A)	Incoming MCCB	SIEMENS Article No.
400	(Automatic, ETU, LI)	3VA2340-5HL32-0AA0
630	(Automatic, ETU, LI)	3VA2463-5HL32-0AA0



Outgoing Switching Unit:

MCCB 1-Pole and 3-Pole Type 3VA1

Rated Short-circuit Breaking Capacity Icu: 25kA/415V, 50/60Hz

Rating (A)	Outgoing MCCB	
	3VA1 - 1P FTFM Icu=25kA	3VA1 - 3P FTFM Icu=25kA
	SIEMENS Article No.	SIEMENS Article No.
16	3VA1196-3ED16-0AA0	3VA1096-3ED36-0AA0
20	3VA1120-3ED16-0AA0	3VA1020-3ED36-0AA0
25	3VA1125-3ED16-0AA0	3VA1025-3ED36-0AA0
32	3VA1132-3ED16-0AA0	3VA1032-3ED36-0AA0
40	3VA1140-3ED16-0AA0	3VA1040-3ED36-0AA0
50	3VA1150-3ED16-0AA0	3VA1050-3ED36-0AA0
63	3VA1163-3ED16-0AA0	3VA1063-3ED36-0AA0
80	3VA1180-3ED16-0AA0	3VA1080-3ED36-0AA0
100	3VA1110-3ED16-0AA0	3VA1010-3ED36-0AA0
125	3VA1112-3ED16-0AA0	3VA1112-3ED36-0AA0
160	3VA1116-3ED16-0AA0	3VA1116-3ED36-0AA0



MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

SMDB 400A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VA1	Width	Height	Depth
SEIA1-04400	4-Way	800	950	250
SEIA1-06400	6-Way	800	1000	250
SEIA1-08400	8-Way	800	1100	250
SEIA1-12400	12-Way	800	1250	250
SEIA1-16400	16-Way	800	1400	250

SMDB 630A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VA1	Width	Height	Depth
SEIA1-04630	4-Way	800	950	250
SEIA1-06630	6-Way	800	1000	250
SEIA1-08630	8-Way	800	1100	250
SEIA1-12630	12-Way	800	1250	250
SEIA1-16630	16-Way	800	1400	250

NOTE: The above boards are with SPACE for incoming and outgoing MCCBs.
Select the article numbers of "SIEMENS" MCCBs while placing the order for the above boards, if required with breakers.

Selection of **SIEMENS** Molded Case Circuit Breakers

Incoming Switching Unit:

MCCB 3-Pole Type 3VA2

Rated Short-circuit Breaking Capacity Icu: 55kA/415V, 50/60Hz

Rating (A)	Incoming MCCB	SIEMENS Article No.
400	(Automatic, ETU, LI)	3VA2340-5HL32-0AA0
630	(Automatic, ETU, LI)	3VA2463-5HL32-0AA0



Outgoing Switching Unit:

MCCB 1-Pole and 3-Pole Type 3VA1

Rated Short-circuit Breaking Capacity Icu: 36kA/415V, 50/60Hz

Rating (A)	Outgoing MCCB			
	3VA1 - 1P FTFM Icu=36kA	3VA1 - 3P FTFM Icu=36kA	3VA1 - 3P ATFM Icu=36kA	3VA1 - 3P ATAM Icu=36kA
	SIEMENS Article No.	SIEMENS Article No.	SIEMENS Article No.	SIEMENS Article No.
16	3VA1196-4ED16-0AA0	3VA1096-4ED36-0AA0	3VA1196-4EE36-0AA0	3VA1196-4EF36-0AA0
20	3VA1120-4ED16-0AA0	3VA1020-4ED36-0AA0	3VA1120-4EE36-0AA0	3VA1120-4EF36-0AA0
25	3VA1125-4ED16-0AA0	3VA1025-4ED36-0AA0	3VA1125-4EE36-0AA0	3VA1125-4EF36-0AA0
32	3VA1132-4ED16-0AA0	3VA1032-4ED36-0AA0	3VA1132-4EE36-0AA0	3VA1132-4EF36-0AA0
40	3VA1140-4ED16-0AA0	3VA1040-4ED36-0AA0	3VA1140-4EE36-0AA0	3VA1140-4EF36-0AA0
50	3VA1150-4ED16-0AA0	3VA1050-4ED36-0AA0	3VA1150-4EE36-0AA0	3VA1150-4EF36-0AA0
63	3VA1163-4ED16-0AA0	3VA1063-4ED36-0AA0	3VA1163-4EE36-0AA0	3VA1163-4EF36-0AA0
80	3VA1180-4ED16-0AA0	3VA1080-4ED36-0AA0	3VA1180-4EE36-0AA0	3VA1180-4EF36-0AA0
100	3VA1110-4ED16-0AA0	3VA1010-4ED36-0AA0	3VA1110-4EE36-0AA0	3VA1110-4EF36-0AA0
125	3VA1112-4ED16-0AA0	3VA1112-4ED36-0AA0	3VA1112-4EE36-0AA0	3VA1112-4EF36-0AA0
160	3VA1116-4ED16-0AA0	3VA1116-4ED36-0AA0	3VA1116-4EE36-0AA0	3VA1116-4EF36-0AA0



MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

SMDB 400A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current I_{cw}: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VM1	Width	Height	Depth
SEIM1-04400	4-Way	800	950	250
SEIM1-06400	6-Way	800	1000	250
SEIM1-08400	8-Way	800	1100	250
SEIM1-12400	12-Way	800	1250	250
SEIM1-16400	16-Way	800	1400	250

SMDB 630A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current I_{cw}: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VM1	Width	Height	Depth
SEIM1-04630	4-Way	800	950	250
SEIM1-06630	6-Way	800	1000	250
SEIM1-08630	8-Way	800	1100	250
SEIM1-12630	12-Way	800	1250	250
SEIM1-16630	16-Way	800	1400	250

NOTE: The above boards are with SPACE for incoming and outgoing MCCBs.
Select the article numbers of "SIEMENS" MCCBs while placing the order for the above boards, if required with breakers.

Selection of **SIEMENS** Molded Case Circuit Breakers

Incoming Switching Unit:

MCCB 3-Pole Type 3VA2

Rated Short-circuit Breaking Capacity I_{cu}: 55kA/415V, 50/60Hz

Rating (A)	Incoming MCCB	SIEMENS Article No.
400	(Automatic, ETU, LI)	3VA2340-5HL32-0AA0
630	(Automatic, ETU, LI)	3VA2463-5HL32-0AA0



Outgoing Switching Unit:

MCCB 1-Pole and 3-Pole Type 3VM1

Rated Short-circuit Breaking Capacity I_{cu}: 25kA/415V, 50/60Hz

Rating (A)	Outgoing MCCB	
	3VM1 - 1P FTFM I _{cu} =25kA	3VM1 - 3P FTFM I _{cu} =25kA
	SIEMENS Article No.	SIEMENS Article No.
16	3VM1196-3ED12-0AA0	3VM1096-3ED32-0AA0
20	3VM1120-3ED12-0AA0	3VM1020-3ED32-0AA0
25	3VM1125-3ED12-0AA0	3VM1025-3ED32-0AA0
32	3VM1132-3ED12-0AA0	3VM1032-3ED32-0AA0
40	3VM1140-3ED12-0AA0	3VM1040-3ED32-0AA0
50	3VM1150-3ED12-0AA0	3VM1050-3ED32-0AA0
63	3VM1163-3ED12-0AA0	3VM1063-3ED32-0AA0
80	3VM1180-3ED12-0AA0	3VM1080-3ED32-0AA0
100	3VM1110-3ED12-0AA0	3VM1010-3ED32-0AA0
125	3VM1112-3ED12-0AA0	3VM1112-3ED32-0AA0
160	3VM1116-3ED12-0AA0	3VM1116-3ED32-0AA0



MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

SMDB 400A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VM1	Width	Height	Depth
SEIM1-04400	4-Way	800	950	250
SEIM1-06400	6-Way	800	1000	250
SEIM1-08400	8-Way	800	1100	250
SEIM1-12400	12-Way	800	1250	250
SEIM1-16400	16-Way	800	1400	250

SMDB 630A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VM1	Width	Height	Depth
SEIM1-04630	4-Way	800	950	250
SEIM1-06630	6-Way	800	1000	250
SEIM1-08630	8-Way	800	1100	250
SEIM1-12630	12-Way	800	1250	250
SEIM1-16630	16-Way	800	1400	250

NOTE: The above boards are with SPACE for incoming and outgoing MCCBs.
Select the article numbers of "SIEMENS" MCCBs while placing the order for the above boards, if required with breakers.

Selection of **SIEMENS** Molded Case Circuit Breakers

Incoming Switching Unit:

MCCB 3-Pole Type 3VA2

Rated Short-circuit Breaking Capacity Icu: 55kA/415V, 50/60Hz

Rating (A)	Incoming MCCB	SIEMENS Article No.
400	(Automatic, ETU, LI)	3VA2340-5HL32-0AA0
630	(Automatic, ETU, LI)	3VA2463-5HL32-0AA0



Outgoing Switching Unit:

MCCB 1-Pole and 3-Pole Type 3VM1

Rated Short-circuit Breaking Capacity Icu: 36kA/415V, 50/60Hz

Rating (A)	Outgoing MCCB	
	3VM1 - 1P FTFM Icu=36kA	3VM1 - 3P FTFM Icu=36kA
	SIEMENS Article No.	SIEMENS Article No.
16	3VM1196-4ED12-0AA0	3VM1096-4ED32-0AA0
20	3VM1120-4ED12-0AA0	3VM1020-4ED32-0AA0
25	3VM1125-4ED12-0AA0	3VM1025-4ED32-0AA0
32	3VM1132-4ED12-0AA0	3VM1032-4ED32-0AA0
40	3VM1140-4ED12-0AA0	3VM1040-4ED32-0AA0
50	3VM1150-4ED12-0AA0	3VM1050-4ED32-0AA0
63	3VM1163-4ED12-0AA0	3VM1063-4ED32-0AA0
80	3VM1180-4ED12-0AA0	3VM1080-4ED32-0AA0
100	3VM1110-4ED12-0AA0	3VM1010-4ED32-0AA0
125	3VM1112-4ED12-0AA0	3VM1112-4ED32-0AA0
160	3VM1116-4ED12-0AA0	3VM1116-4ED32-0AA0



MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

IP55 Series



SMDB Outdoor Installation

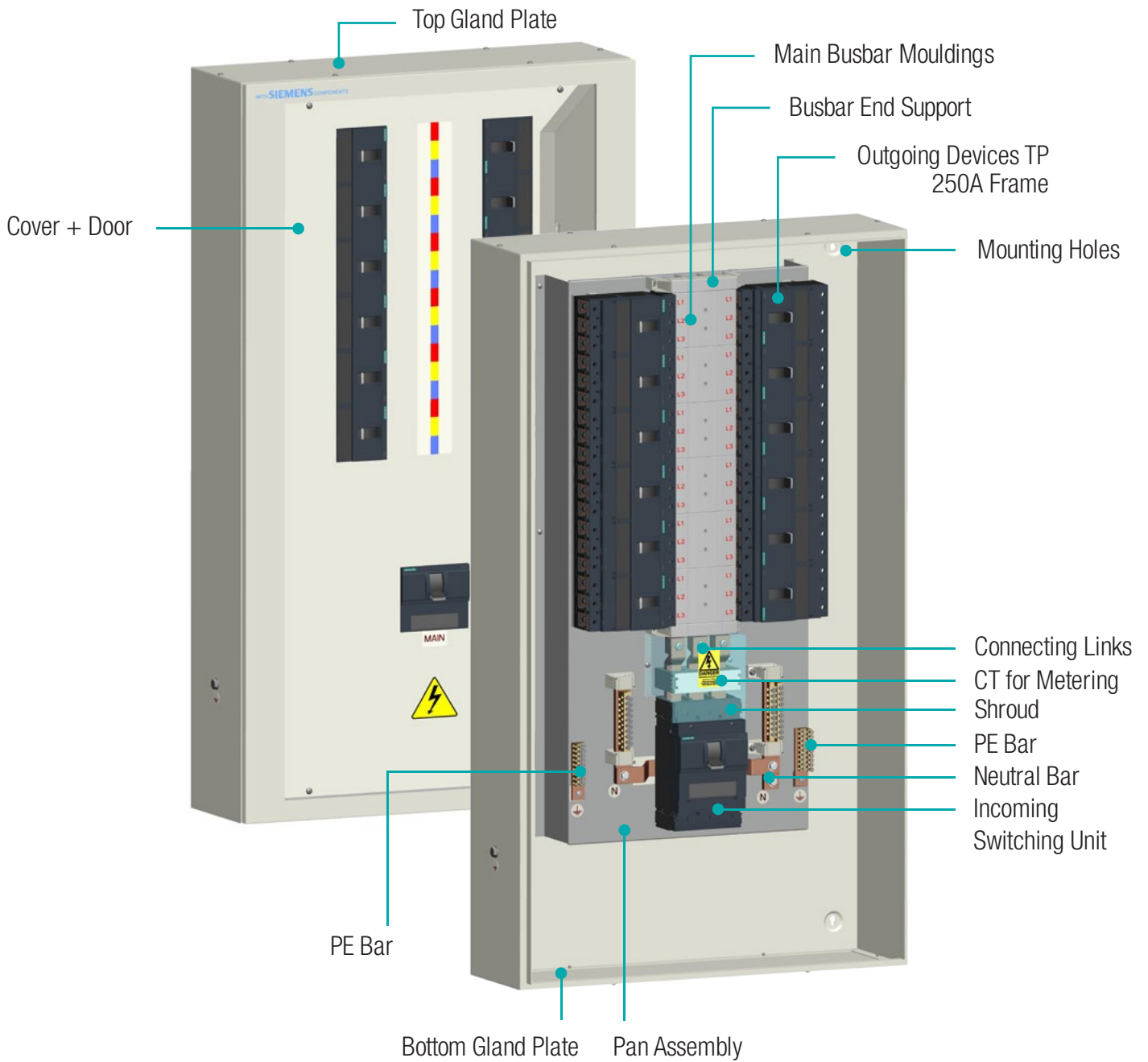
MCCB Panel Boards 250A/400A/630A for outdoor application, manufactured with Siemens MCCBs, in sheet steel/GRP/Aluminium enclosures.

SMDBs for a higher degree of Protection (IP54/ IP65) are manufactured in Sheet-Metal/GRP/Aluminium enclosure with a suitable canopy properly gasketed for outdoor application.

After rigorous pre-treatment of metal surfaces, these are powder coated and cured in a temperature controlled oven. Our standard painting shades are RAL 7032/7035, but we can also provide other shades as per customer choice in case the batch quantity is sufficient. Outdoor SMDBs are suitable for wall mounting, floor standing and plinth mounting.

MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers



MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

Technical Data:

Designed and Manufactured to Standard:	IEC 61439-2
Rated Current I_n :	400A/630A
Rated Voltage U_n :	415V, 50/60Hz
Rated Insulation Voltage U_i :	690V
Rated Impulse Withstand Voltage U_{imp} :	8kV
Rated Short-time Withstand Current I_{cw} :	25kA - 3sec, 36kA - 1sec
Rated Conditional Short Circuit Current I_{cc} :	25kA/415V & 36kA/415V
Busbar Material:	Electro-tin-plated copper
System / Arrangement:	Encapsulated busbar system
Form:	Form-3b type-2 segregation
Enclosure Material:	EG sheet steel 1.2 - 1.5mm
Color as Standard:	RAL 7035 Textured
Degree of Protection:	IP 41
Ambient Air Temperature:	up to 50 Degrees Cent.

Basic Design:

- Front access
- Wall mounting design
- Top & bottom cable entry
- Enclosure of EG sheet steel 1.2 - 1.5 mm
- All internal steel parts made of galvanized steel
- Choice of incomers for Board rating 400A & 630A
- Surface coating, powder coat paint finish of light grey to RAL7035 texture
- Fully rated neutral bar & PE bar
- Integral incoming metering option
- Space for combined current transformer for metering
- Range: 2, 4, 6, 8, 12 and 16 TP&N ways
- Design based on Siemens components only
- Incomer breakers are connected to the main busbar via solid copper links
- Outgoing Metering Extension Box for top entry of the panel
- Bottom Cable Extension Box to increase the flexibility of cable termination

Reliability & Safety:

- ASTA certified up to 36kA-1sec & 25kA-3sec
- Integrated & segregated busbar system
- Internal shield behind the front door to protect from live parts
- Safe to operate & maintain

MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

SMDB 400A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VA2	Width	Height	Depth
SEIA2-04400	4-Way	800	1000	250
SEIA2-06400	6-Way	800	1100	250
SEIA2-08400	8-Way	800	1200	250
SEIA2-12400	12-Way	800	1450	250
SEIA2-16400	16-Way	800	1650	250

SMDB 630A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VA2	Width	Height	Depth
SEIA2-04630	4-Way	800	1000	250
SEIA2-06630	6-Way	800	1100	250
SEIA2-08630	8-Way	800	1200	250
SEIA2-12630	12-Way	800	1450	250
SEIA2-16630	16-Way	800	1650	250

NOTE: The above boards are with SPACE for incoming and outgoing MCCBs.
Select the article numbers of "SIEMENS" MCCBs while placing the order for the above boards, if required with breakers.

Selection of **SIEMENS** Molded Case Circuit Breakers

Incoming Switching Unit:

MCCB 3-Pole Type 3VA2

Rated Short-circuit Breaking Capacity Icu: 55kA/415V, 50/60Hz

Rating (A)	Incoming MCCB	SIEMENS Article No.
400	(Automatic, ETU, LI)	3VA2340-5HL32-0AA0
630	(Automatic, ETU, LI)	3VA2463-5HL32-0AA0



Outgoing Switching Unit:

MCCB 3-Pole Type 3VA2
Rated Short-circuit Breaking Capacity Icu: 55kA/415V, 50/60Hz

MCCB 3-Pole Type 3VA12
Rated Short-circuit Breaking Capacity Icu: 36kA/415V, 50/60Hz

MCCB 3-Pole Type 3VM12
Rated Short-circuit Breaking Capacity Icu: 36kA/415V, 50/60Hz

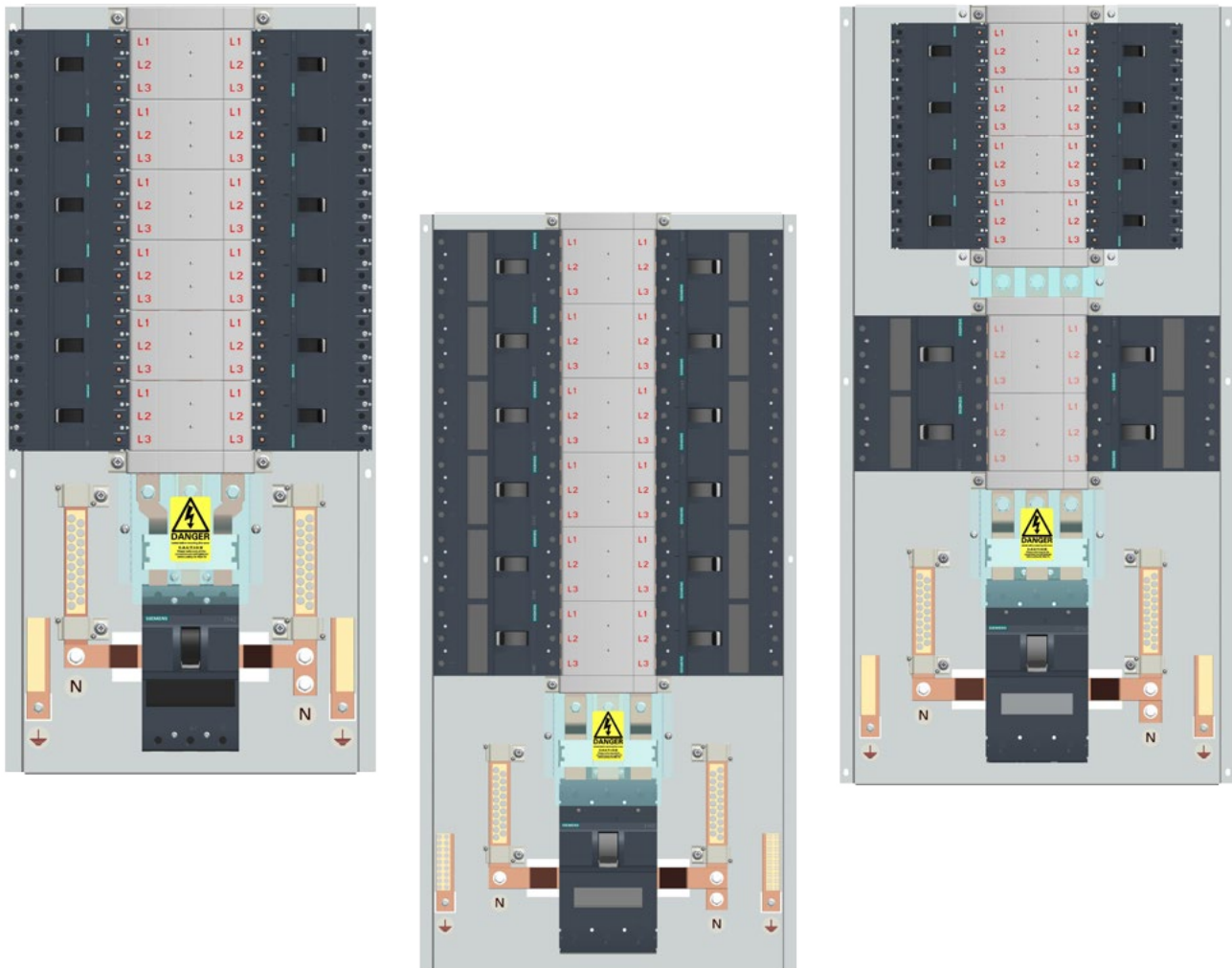
Outgoing MCCB			
Rating (A)	3VA2 - 3P ETU Icu=55kA	3VA12 - 3P ATAM Icu 36kA	3VM12 - 3P ATFM Icu 36kA
	SIEMENS Article No.	SIEMENS Article No.	SIEMENS Article No.
16	3VA2025-5HL36-0AA0		
20	3VA2025-5HL36-0AA0		
25	3VA2025-5HL36-0AA0		
32	3VA2040-5HL36-0AA0		
40	3VA2040-5HL36-0AA0		
50	3VA2063-5HL36-0AA0		
63	3VA2063-5HL36-0AA0		
80	3VA2010-5HL36-0AA0		
100	3VA2010-5HL36-0AA0		
125	3VA2116-5HL36-0AA0		
160	3VA2116-5HL36-0AA0	3VA1216-4EF32-0AA0	
200		3VA1220-4EF32-0AA0	3VM1220-4EE32-0AA0
250	3VA2225-5HL32-0AA0	3VA1225-4EF32-0AA0	3VM1225-4EE32-0AA0



MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

Pan Assemblies with or without breakers



Pan Assemblies

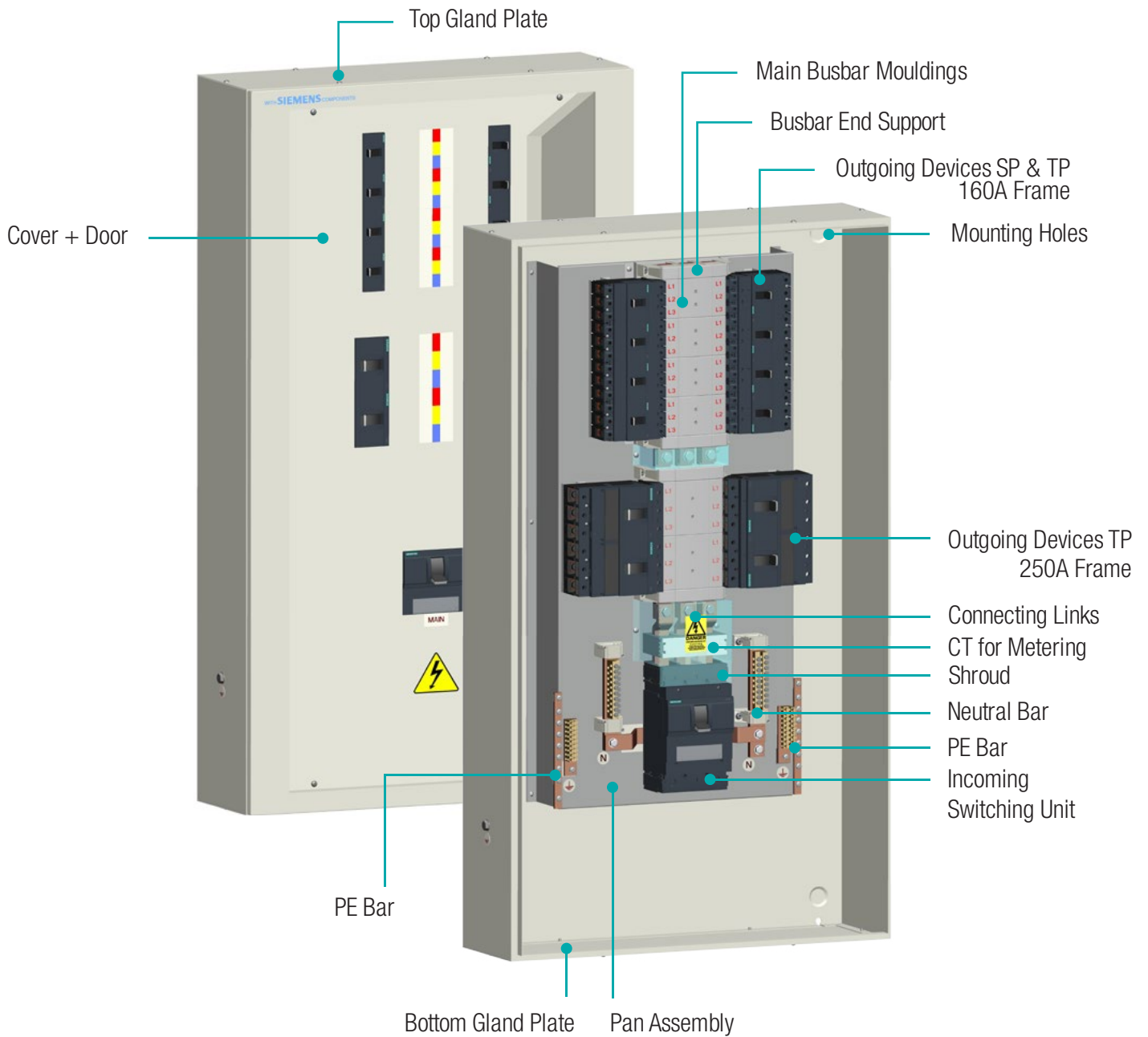
To facilitate switchboard manufactures with better engineered solutions, MES manufactures fully insulated and type-tested pan assemblies with busbar system. These pan assemblies are ideal for applications requiring high level of safety, compactness, reliability, reduced assembly time and ready to use while offering an economical solution.

Characteristics:

- Totally covered fully insulated 250A, 400A & 630A, 415V AC busbar system
- 250A/630A system short circuit withstand is ASTA certified 25kA/3sec & 36kA/1sec
- Suitable for IEC61439-2 for form 1-4 switchboard construction
- 25, 30, 35mm outgoing terminal centres for most major manufacturer's MCCBs
- Tin plated copper busbars
- No. of outgoing MCCBs – from 2 to 24 in steps of 2
- Maintenance free
- Incoming terminals are designed to accept up to 630A incoming interconnectors

MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers



MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

Technical Data:

Designed and Manufactured to Standard:	IEC 61439-2
Rated Current I_n :	400A/630A
Rated Voltage U_n :	415V, 50/60Hz
Rated Insulation Voltage U_i :	690V
Rated Impulse Withstand Voltage U_{imp} :	8kV
Rated Short-time Withstand Current I_{cw} :	25kA - 3sec, 36kA - 1sec
Rated Conditional Short Circuit Current I_{cc} :	25kA/415V & 36kA/415V
Busbar Material:	Electro-tin-plated copper
System / Arrangement:	Encapsulated busbar system
Form:	Form-3b type-2 segregation
Enclosure Material:	EG sheet steel 1.2 - 1.5mm
Color as Standard:	RAL 7035 Textured
Degree of Protection:	IP 41
Ambient Air Temperature:	up to 50 Degrees Cent.

Basic Design:

- Front access
- Wall mounting design
- Top & bottom cable entry
- Enclosure of EG sheet steel 1.2 - 1.5 mm
- All internal steel parts made of galvanized steel
- Choice of incomers for Board rating 400A & 630A
- Surface coating, powder coat paint finish of light grey to RAL7035 texture
- Fully rated neutral bar & PE bar
- Integral incoming metering option
- Space for combined current transformer for metering
- Range: 2, 4, 6, 8, 12 and 16 TP&N ways
- Design based on Siemens components only
- Incomer breakers are connected to the main busbar via solid copper links
- Outgoing Metering Extension Box for top entry of the panel
- Bottom Cable Extension Box to increase the flexibility of cable termination

Reliability & Safety:

- ASTA certified up to 36kA-1sec & 25kA-3sec
- Integrated & segregated busbar system
- Internal shield behind the front door to protect from live parts
- Safe to operate & maintain

MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

SMDB 400A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VA12+3VA1	Width	Height	Depth
SEIA12A1-204400	2+4-Way	800	1150	250
SEIA12A1-206400	2+6-Way	800	1250	250
SEIA12A1-208400	2+8-Way	800	1300	250
SEIA12A1-406400	4+6-Way	800	1350	250
SEIA12A1-408400	4+8-Way	800	1400	250
SEIA12A1-410400	4+10-Way	800	1500	250

SMDB 630A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current Icw: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VA12+3VA1	Width	Height	Depth
SEIA12A1-204630	2+4-Way	800	1150	250
SEIA12A1-206630	2+6-Way	800	1250	250
SEIA12A1-208630	2+8-Way	800	1300	250
SEIA12A1-406630	4+6-Way	800	1350	250
SEIA12A1-408630	4+8-Way	800	1400	250
SEIA12A1-410630	4+10-Way	800	1500	250

NOTE: The above boards are with SPACE for incoming and outgoing MCCBs. Select the article numbers of "SIEMENS" MCCBs while placing the order for the above boards, if required with breakers.

Selection of **SIEMENS** Molded Case Circuit Breakers

Incoming Switching Unit:

MCCB 3-Pole Type 3VA2

Rated Short-circuit Breaking Capacity Icu: 55kA/415V, 50/60Hz

Rating (A)	Incoming MCCB	SIEMENS Article No.
400	(Automatic, ETU, LI)	3VA2340-5HL32-0AA0
630	(Automatic, ETU, LI)	3VA2463-5HL32-0AA0



Outgoing Switching Unit:

MCCB 1-Pole and 3-Pole Type 3VA1

Rated Short-circuit Breaking Capacity Icu: 25kA/415V and 36kA/415V, 50/60Hz

Rating (A)	Outgoing MCCB			
	3VA1 - 1P FTFM Icu=36kA	3VA1 - 3P FTFM Icu=36kA	3VA1 - 3P ATFM Icu=36kA	3VA1 - 3P ATAM Icu=36kA
	SIEMENS Article No.	SIEMENS Article No.	SIEMENS Article No.	SIEMENS Article No.
16	3VA1196-4ED16-0AA0	3VA1096-4ED36-0AA0	3VA1196-4EE36-0AA0	3VA1196-4EF36-0AA0
20	3VA1120-4ED16-0AA0	3VA1020-4ED36-0AA0	3VA1120-4EE36-0AA0	3VA1120-4EF36-0AA0
25	3VA1125-4ED16-0AA0	3VA1025-4ED36-0AA0	3VA1125-4EE36-0AA0	3VA1125-4EF36-0AA0
32	3VA1132-4ED16-0AA0	3VA1032-4ED36-0AA0	3VA1132-4EE36-0AA0	3VA1132-4EF36-0AA0
40	3VA1140-4ED16-0AA0	3VA1040-4ED36-0AA0	3VA1140-4EE36-0AA0	3VA1140-4EF36-0AA0
50	3VA1150-4ED16-0AA0	3VA1050-4ED36-0AA0	3VA1150-4EE36-0AA0	3VA1150-4EF36-0AA0
63	3VA1163-4ED16-0AA0	3VA1063-4ED36-0AA0	3VA1163-4EE36-0AA0	3VA1163-4EF36-0AA0
80	3VA1180-4ED16-0AA0	3VA1080-4ED36-0AA0	3VA1180-4EE36-0AA0	3VA1180-4EF36-0AA0
100	3VA1110-4ED16-0AA0	3VA1010-4ED36-0AA0	3VA1110-4EE36-0AA0	3VA1110-4EF36-0AA0
125	3VA1112-4ED16-0AA0	3VA1112-4ED36-0AA0	3VA1112-4EE36-0AA0	3VA1112-4EF36-0AA0
160	3VA1116-4ED16-0AA0	3VA1116-4ED36-0AA0	3VA1116-4EE36-0AA0	3VA1116-4EF36-0AA0
200				3VA1220-4EF32-0AA0
250				3VA1225-4EF32-0AA0



MCCB PANEL BOARDS 400A/630A 25kA-3sec & 36kA-1sec

Designed & Tested with **SIEMENS** Molded Case Circuit Breakers

SMDB 400A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current I_{cw}: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VM12+3VM1	Width	Height	Depth
SEIM12M1-204400	2+4-Way	800	1150	250
SEIM12M1-206400	2+6-Way	800	1250	250
SEIM12M1-208400	2+8-Way	800	1300	250
SEIM12M1-406400	4+6-Way	800	1350	250
SEIM12M1-408400	4+8-Way	800	1400	250
SEIM12M1-410400	4+10-Way	800	1500	250

SMDB 630A with Incoming and Outgoing **SIEMENS** Breakers:

Rated Short-time Withstand Current I_{cw}: 25kA-3sec, 36kA-1sec

Catalogue No.	Incoming: MCCB Type 3VA2	Enclosure Size (mm)		
	Outgoing: MCCB Type 3VM12+3VM1	Width	Height	Depth
SEIM12M1-204630	2+4-Way	800	1150	250
SEIM12M1-206630	2+6-Way	800	1250	250
SEIM12M1-208630	2+8-Way	800	1300	250
SEIM12M1-406630	4+6-Way	800	1350	250
SEIM12M1-408630	4+8-Way	800	1400	250
SEIM12M1-410630	4+10-Way	800	1500	250

NOTE: The above boards are with SPACE for incoming and outgoing MCCBs. Select the article numbers of "SIEMENS" MCCBs while placing the order for the above boards, if required with breakers.

Selection of **SIEMENS** Molded Case Circuit Breakers

Incoming Switching Unit:

MCCB 3-Pole Type 3VA2

Rated Short-circuit Breaking Capacity I_{cu}: 55kA/415V, 50/60Hz

Rating (A)	Incoming MCCB	SIEMENS Article No.
400	(Automatic, ETU, LI)	3VA2340-5HL32-0AA0
630	(Automatic, ETU, LI)	3VA2463-5HL32-0AA0



Outgoing Switching Unit:

MCCB 1-Pole and 3-Pole Type 3VM1

Rated Short-circuit Breaking Capacity I_{cu}: 25kA/415V and 36kA/415V, 50/60Hz

Rating (A)	Outgoing MCCB		
	3VM1 - 1P FTFM I _{cu} =25kA	3VM1 - 3P FTFM I _{cu} =25kA	3VM1 - 3P FTFM I _{cu} =36kA
	SIEMENS Article No.	SIEMENS Article No.	SIEMENS Article No.
16	3VM1196-3ED12-0AA0	3VM1096-3ED32-0AA0	3VM1096-4ED32-0AA0
20	3VM1120-3ED12-0AA0	3VM1020-3ED32-0AA0	3VM1020-4ED32-0AA0
25	3VM1125-3ED12-0AA0	3VM1025-3ED32-0AA0	3VM1025-4ED32-0AA0
32	3VM1132-3ED12-0AA0	3VM1032-3ED32-0AA0	3VM1032-4ED32-0AA0
40	3VM1140-3ED12-0AA0	3VM1040-3ED32-0AA0	3VM1040-4ED32-0AA0
50	3VM1150-3ED12-0AA0	3VM1050-3ED32-0AA0	3VM1050-4ED32-0AA0
63	3VM1163-3ED12-0AA0	3VM1063-3ED32-0AA0	3VM1063-4ED32-0AA0
80	3VM1180-3ED12-0AA0	3VM1080-3ED32-0AA0	3VM1080-4ED32-0AA0
100	3VM1110-3ED12-0AA0	3VM1010-3ED32-0AA0	3VM1010-4ED32-0AA0
125	3VM1112-3ED12-0AA0	3VM1112-3ED32-0AA0	3VM1112-4ED32-0AA0
160	3VM1116-3ED12-0AA0	3VM1116-3ED32-0AA0	3VM1116-4ED32-0AA0
200			3VM1220-4ED32-0AA0
250			3VM1225-4ED32-0AA0



MCCB PANEL BOARD 250A/400A/630A 25kA-3s & 36kA-1s

Attachments to **SIEMENS** Molded Case Circuit breakers

Door Operator for Incomer MCCB

The door mounted rotary operator enables operation of the MCCB from the panel door and also features a door interlocking system.

Illuminated Door Operator for Incomer MCCB

The manual operator also available in illuminated variants in which the handle is illuminated red, yellow, or green via LEDs depending on the position of the breaker. This means that the switching position of the MCCB can be immediately identified, even when light conditions are poor.

Door Operator for Incomer MCCB type 3VA 250A	
Catalogue No.	3VA9257-0FK21

Illuminated Door Operator for Incomer MCCB type 3VA 250A	
Catalogue No.	3VA9257-0FK23

Door Operator for Incomer MCCB type 3VM 250A	
Catalogue No.	3VM9217-0FK21

Door Operator for Incomer MCCB type 3VA 630A	
Catalogue No.	3VA9467-0FK21

Illuminated Door Operator for Incomer MCCB type 3VA 630A	
Catalogue No.	3VA9467-0FK23



Short Circuit Alarm Switch for Incomer MCCB

This can be wired to give indication/alarm in the event of tripping on short circuit.

Short Circuit Alarm Switch for Incomer MCCB	
Catalogue No.	3VA9988-0AB34



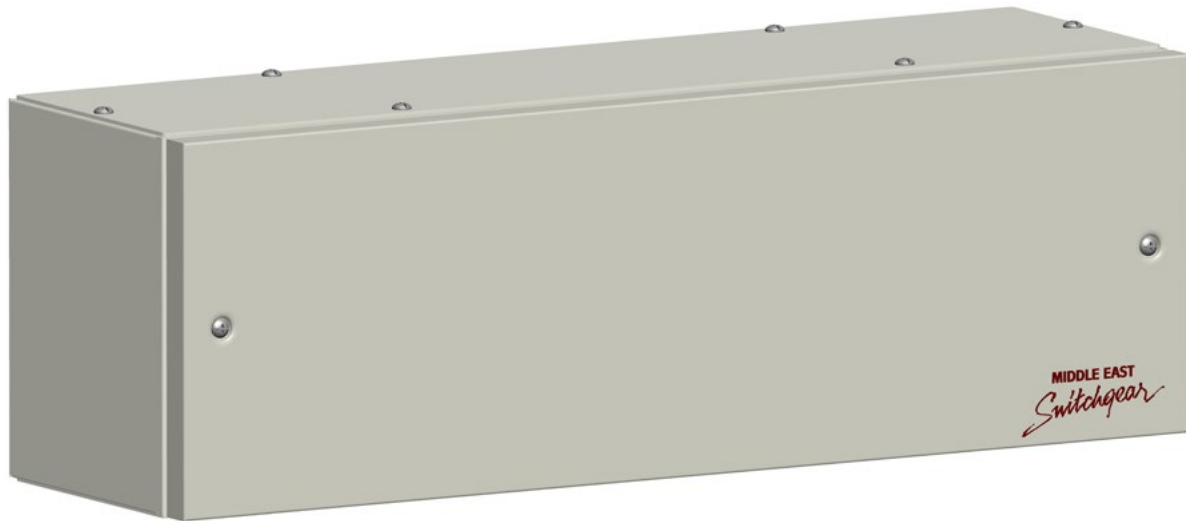
MCCB Panel Boards 250A / 400A / 630A 25kA-3s & 36kA-1s

Cable Extension Box & Surge Arrester

Description:

Fabricated sheet steel cable extension boxes for fitting to MES MCCB panel boards to provide additional space for spreading multi-core PVC insulated cables.

Cable extension box can be fitted either on the top or bottom of the panel.



Dimensions:

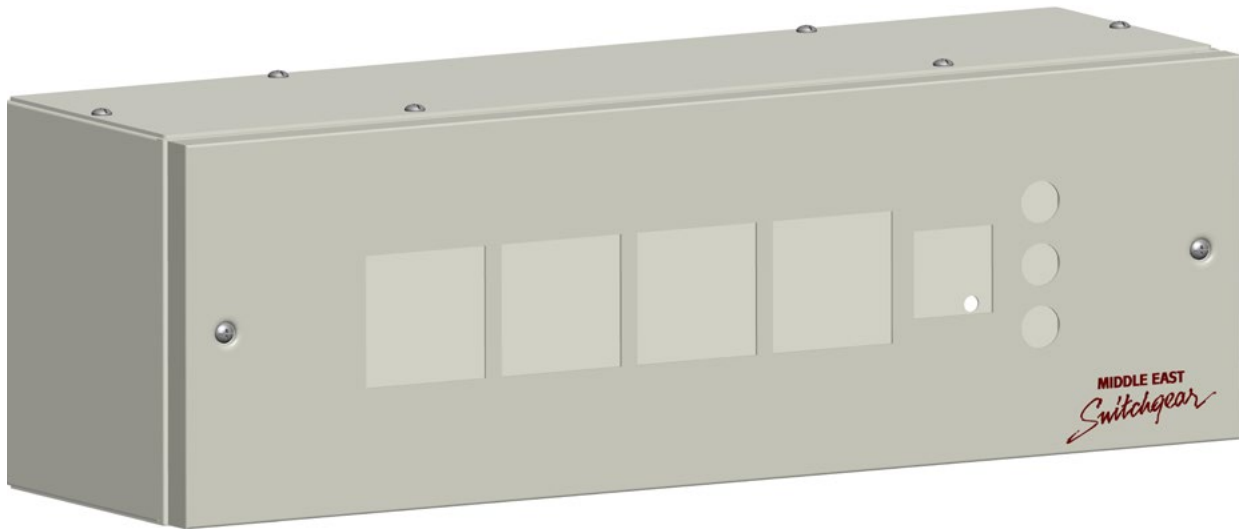
Catalogue No.	Description	Size (mm)		
		Width	Height	Depth
SEIEBX-250	250A Panel	600	200	180
SEIEBX-630	630A Panel	800	200	250

SURGE ARRESTER TYPE 2 REQUIREMENT CATEGORY C, UC 350V PLUG-IN PROTECTION BLOCKS 4POLE, 3+N /PE CIRCUIT FOR TN-S AND TT SYSTEMS.



MCCB Panel Boards 250A / 400A / 630A 25kA-3s & 36kA-1s

Metering Cabinet



Metering Cabinet

To provide metering on main incomer of the SMDBs, MES has designed an additional metering cabinet which can be fixed on the top of the panel. This cabinet can have the following combination of metering

Type-1: 3 x Ammeters, Voltmeter + Selector Switch, RYB Indicating Lamps and 3 x Fuses/MCBs.

Type-2: Ammeter + Selector Switch, Voltmeter + Selector Switch, RYB Indicating Lamps and 3 x Fuses/MCBs.

Type-3: Multifunction Electronic Metering showing: Amps, Volts on three phases and 3 x Fuses/MCBs.

Type-4: Three-phase Multifunction measuring meter, compact designed device for monitoring and displaying electric parameters include voltage, current, active power, reactive power, apparent power, power factor, frequency, active energy and reactive energy. Additional, can be provided one RS485 serial port.

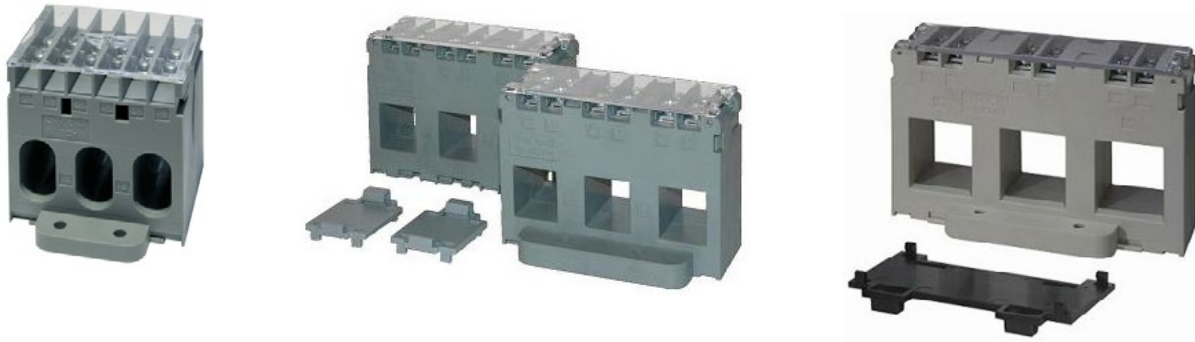
We use Block-type current transformers directly mounted to the main breaker.

Catalogue No.	Description	Size (mm)		
		Width	Height	Depth
SEIM-250-Type 1	250A Panel	600	200	180
SEIM-250-Type 2	250A Panel	600	200	180
SEIM-250-Type 3	250A Panel	600	200	180
SEIM-250-Type 4	250A Panel	600	200	180
SEIM-630-Type 1	630A Panel	800	200	250
SEIM-630-Type 2	630A Panel	800	200	250
SEIM-630-Type 3	630A Panel	800	200	250
SEIM-630-Type 4	630A Panel	800	200	250

Note: Due to the continuous improvements in the products, the actual supply may differ from illustrations described in this catalogue

MCCB Panel Boards 250A / 400A / 630A 25kA-3s & 36kA-1s

Combined Current Transformers 60A upto 630A



Technical Specification:

- Conform to IEC185, BS7626, BSEN 60044-1 and IEC 60044-1
- Rated system voltage 0.72/3kV.
- Ambient temperature range - 30° to 80°C
- Frequency Range 50-60Hz
- Insulation level 3kV for 1 minute
- Continuous current, 1.2 x rated current

Description:

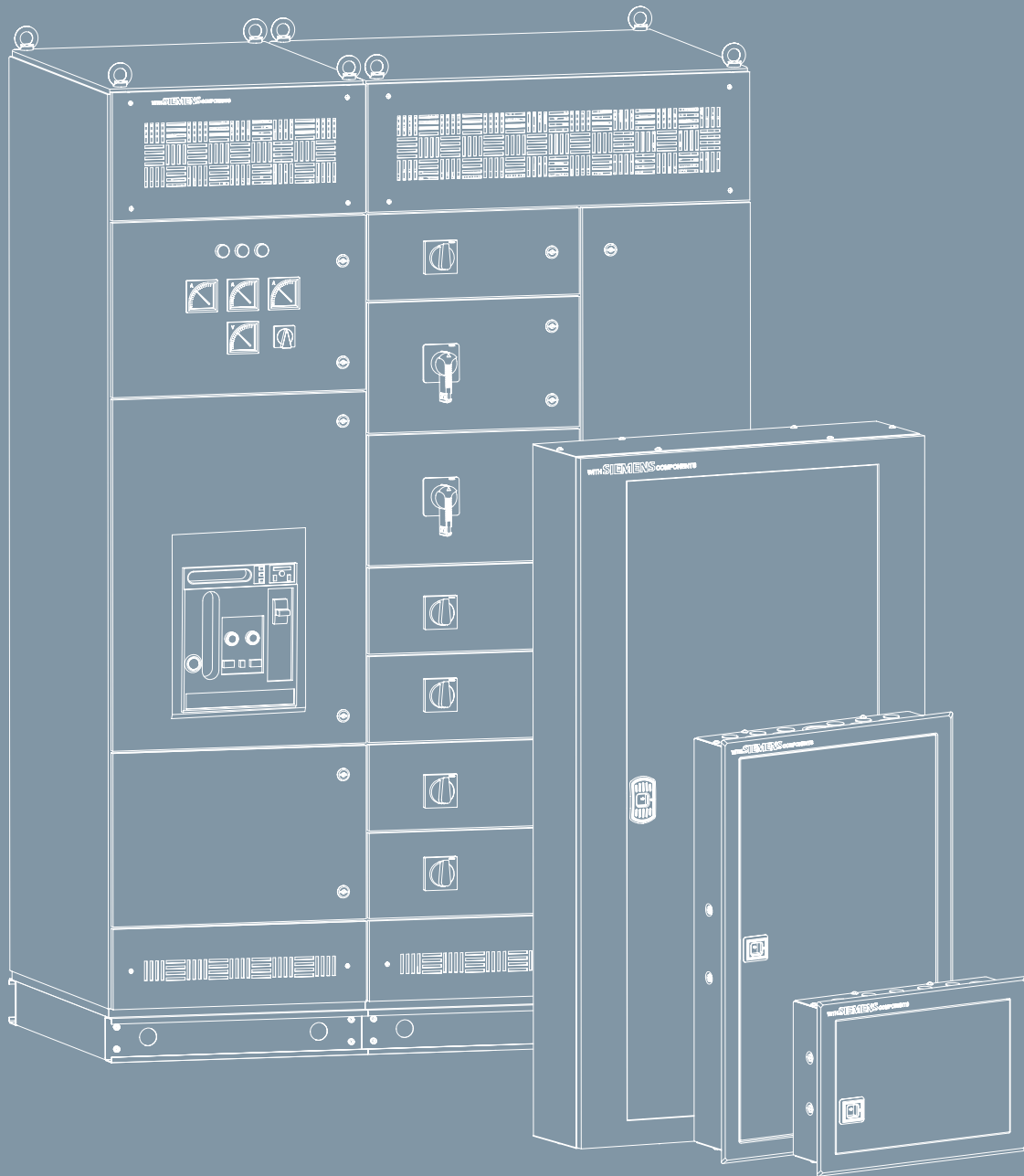
Miniature three phase current transformers suitable for primary ranges from 60-160A with 5A secondary. Supplied with terminal cover and integral foot mount.

Miniature three phase current transformers suitable for primary ranges from 100A-250A with 5A secondary. Supplied with terminal cover and choice of fixings.

Miniature three phase current transformers suitable for primary ranges from 250-630A with 5A secondary. Supplied with terminal cover and choice of fixings.

Range

PRIMARY CURRENT	Part No:	PRIMARY CURRENT	Part No:	PRIMARY CURRENT	Part No:
60A	CT75F-60/5-1/1	100A	CT105F-100/5-2.5/1	250/5ACT	CT140F-250/5/1-31
80A	CT75F-80/5-1.5/1	125A	CT105F-125/5-2.5/1	300/5A	CT140F-300/5-2.5/1-31
100A	CT75F-100/5-1.5/1	150A	CT105F-150/5-2.5/1	400/5A	CT140F-400/5-2.5/1-31
125A	CT75F-125/5-2.5/1	160A	CT105F-160/5-2.5/1	500/5A	CT140F-500/5-2.5/1-31
150A	CT75F-150/5-2.5/1	200A	CT105F-200/5-2.5/1	600/5A	CT140F-600/5-2.5/1-31
160A	CT75F-160/5-2.5/1	250A	CT105F-250/5-2.5/1	630/5A	CT140F-630/5-2.5/1-31



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