SIEMENS
ALPHA BS III 160

Operating Instructions
250A/400A/630A Panelboard System
Wall or Floor Mounted Panelboard
BS EN 61439-2

DANGER: LIVE PARTS ENCLOSED. Ensure the unit is installed by a qualified competent person in accordance with all relevant legislation and regulations including building regulations and wiring regulations BS7671. If in doubt, contact a qualified competent person.

IMPORTANT INFORMATION

Follow the instructions below before working on or inside the equipment.

- Turn off all power supplies
- Always use a calibrated volt-sensing device to confirm the power is off.
- Replace all devices, doors and covers before turning on the power to this equipment.
- To avoid ingress of swarf and similar material, always remove gland plates to allow cutting/slotting for cable entries.
- Do not use power screwdrivers on electrical connections.

Failure to follow these instructions could result in serious injury or death.

For information on the recommended maximum cable sizes to terminate onto the incoming and outgoing devices please refer to table 1.

Note: - It is good engineering practice to apply generous derating factors or make provision for free air between devices. In these situations, and in common with other manufacturers, we recommend a 55 % diversity factor is applied to the MCCB nominal rated current where it is intended to load the MCCB continuously (in excess of 1 hour).

Incoming Device

The incoming device & interconnection kits are supplied separately from the panelboard. Details of which combinations are possible can be seen in the table 2. In addition to devices and interconnections, we recommend considering the fitting of the phase barriers in Table 4

Fully tighten the electrical connections to the recommended torque detailed in Table 1.

Internal accessories can be mounted in the incoming 3VA devices. Please refer to the installation instructions supplied with the accessories for guidance.

Outgoing Devices

3VA1 type MCCBs only, to be fitted as outgoing devices.
Ensure the supply is switched off.
These instructions are to be read in conjunction with the installation instructions supplied with the MCCBs.
Care must be taken when positioning the MCCB. The terminals 2, 4, & 6 are used for the busbar connections, i.e., with the 'OFF' position towards the busbar.
Fully tighten the electrical connections to the recommended torque detailed in table 1.

If using the screws supplied with the MCCB please note that these screws are for lateral location purposes only, as shown in Fig 1, and should not be overly tightened. The recommended torque for the mounting screws can be found in the manufacturer's leaflets provided with the device. Mechanical strength of the assembly is achieved even if the screws are not fully tightened.

Earth Connection

Ensure that the M10 nut / bolt assembly which connects the earth cable lug to the **Copper Earthing Point** in the Panel Board is torqued to 27 Nm.

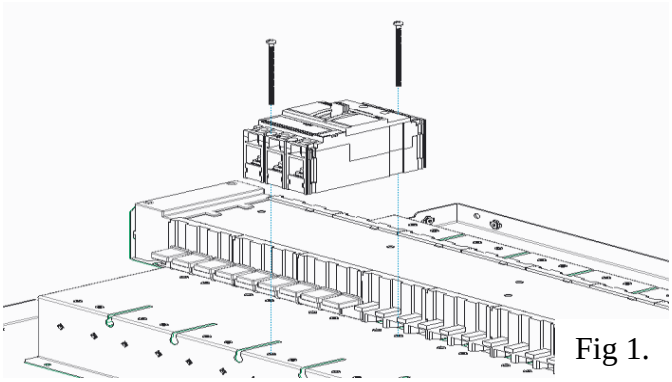

Fig 1.

DO NOT USE POWER TOOL SCREWDRIVERS ON ELECTRICAL CONNECTIONS

Outgoing Way Numbering

The outgoing ways must be identified. If the busbar is not pre-numbered, then the installer must number the outgoing ways. Odd numbered ways on the left of the board, way 1 being either at the top or bottom of the busbar assembly. Even numbered ways on the right of the board ascending in the same direction as the odd numbers. Way 1 must be opposite way 2, both either at the top, or the bottom, of the busbar.

Fitting Cableways

See potential panelboard combinations in table 2 for cableway catalogue numbers. Remove the side plates from the main unit and/or extension unit.
Couple the cableways to the main unit/extension unit(s) using the fasteners provided with the cableway(s).

Testing & Commissioning

Before the panelboard and the installation, of which it forms a part, are commissioned they must be tested, in accordance with the requirements of the latest edition of the Requirements for Electrical Installations (BS 7671) published jointly by the British Standards Institution (BSI) and the Institution of Engineering and Technology.

Note: Before fitting the front cover, check the tightness of all connections, including the factory-made connections. Also ensure that all shrouds are correctly located and secured in place.

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Unused ways must be fitted with busbar blanks and door blanks.

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Technical Data	250 A	400 A	630 A
Standards Compliance	IEC 61439-2; Ed 2 2011-08		
Short Circuit Withstand Strength	25 kA for 1 s	35 kA for 1 s	50 kA for 1 s
Rated Voltage	230/400 V 3ph 50 Hz		
Mounting	Wall /Floor		
Entry	Bottom		
Access	All Sides		
Form of Separation	F3bT2		
Degree of Protection	IP3X (door closed)		
Paint Finish	Light Grey RAL7035		
Outgoing Devices	3VA11 type MCCB's ONLY		
For more Information contact Technical support Tel: 0845 850 7600 Email: service.gbi.industry@siemens.com			

Table 1 - Cable capacity / Torque settings

	Incoming				Outgoing			Recommended torque settings	
maximum stranded Cu cable	**Switch Disc or MCCB**	**Direct Connect**	**Neutral**	**Earth**	**160A MCCB**	**Neutral**	**Earth**	**Incoming Earth**	**Neutral/Earth Outgoing Terminal bars**
250 A Panelboard	25..185 mm²	M8	M10	M10	70 mm²	35 mm²	35 mm²	40 Nm	6 Nm
400 A Panelboard	50..300 mm²	M10	M10	M10	70 mm²	35 mm²	35 mm²	40 Nm	6 Nm
630 A Panelboard	50..300 mm²	M10	M10	M10	70 mm²	35 mm²	35 mm²	40 Nm	6 Nm

Note: - Refer to individual kit leaflets for all other recommended torque settings.

Available terminals	**Neutral Bars**			**Earth Bars**		
	6 Way	**12 Way**	**18 Way**	**6 Way**	**12 Way**	**18 Way**
250 A Panelboard	22	42	62	22	42	62
400 A Panelboard	22	42	62	22	42	62
630 A Panelboard	22	42	62	22	42	62

Table 2 - Potential panelboard combinations

Panelboard system	**6 Way**	**12 Way**	**18 Way**
250 A	8GP1306-4DA54	8GP1312-4DA54	8GP1318-4DA54
400 A	8GP1306-5DA54	8GP1312-5DA54	8GP1318-5DA54
630 A	8GP1306-7DA54	8GP1312-7DA54	8GP1318-7DA54

Meter cableways	**Meter knockouts**	**250 A**	**400 A**	**630 A**	**List No.**
Corner / 300 x 249 x 184 mm	0	All Sizes	All Sizes	All Sizes	8GP1921-0DA15
Size 1 / 902 x 249 x 198 mm	4	6w	-	-	8GP1921-0DA16
Size 2 / 1132 x 249 x 198 mm	6	12w	6w	6w	8GP1921-0DA17
Size 3 / 1361 x 249 x 198 mm	7	18w	12w	12w	8GP1921-0DA18
Size 4 / 1591 x 249 x 198 mm	9	-	18w	18w	8GP1921-0DA20

Earth leakage cableways	**Meter knockouts**	**250 A**	**400 A**	**630 A**	**List No.**
Size 1 / 902 x 249 x 198 mm	3	6w	-	-	8GP1921-0DA41
Size 2 / 1132 x 249 x 198 mm	4	12w	6w	6w	8GP1921-0DA42
Size 3 / 1361 x 249 x 198 mm	5	18w	12w	12w	8GP1921-0DA43
Size 4 / 1591 x 249 x 198 mm	6	-	18w	18w	8GP1921-0DA44

Extension kits		
Control module - 24 mod	/ 230 x 700 x 198 mm	8GP1921-0DA21
SPN Distribution board 19 mod	/ 230 x 700 x 198 mm	8GP1921-0DA22
TPN Distribution board 19 mod	/ 230 x 700 x 198 mm	8GP1921-0DA23
Cable spreader box	/ 230 x 700 x 184 mm	8GP1921-0DA24

Connection kits	**TP**	**4P**
250 A	8GP1921-0DA88	8GP1921-0DA70
400 A	8GP1921-0DA72	8GP1921-0DA73
630 A	8GP1801-0DA07	8GP1801-0DA08

Incoming MCCB device	**TP**	**4P**
250 A	-	-
400 A	3VA2340-5HN32-0AA0	3VA2340-5HN42-0AA0
630 A	3VA2463-5HN32-0AA0	3VA2463-5HN42-0AA0

Incoming switch disconnector device		
250 A	3VA1225-1AA32-0AA0	3VA1225-1AA42-0AA0
400 A	3VA1340-1AA32-0AA0	3VA1340-1AA42-0AA0
630 A	3VA1463-1AA32-0AA0	* 3VA1450-1AA42-0AA0
		* DE-RATED TO 500 A

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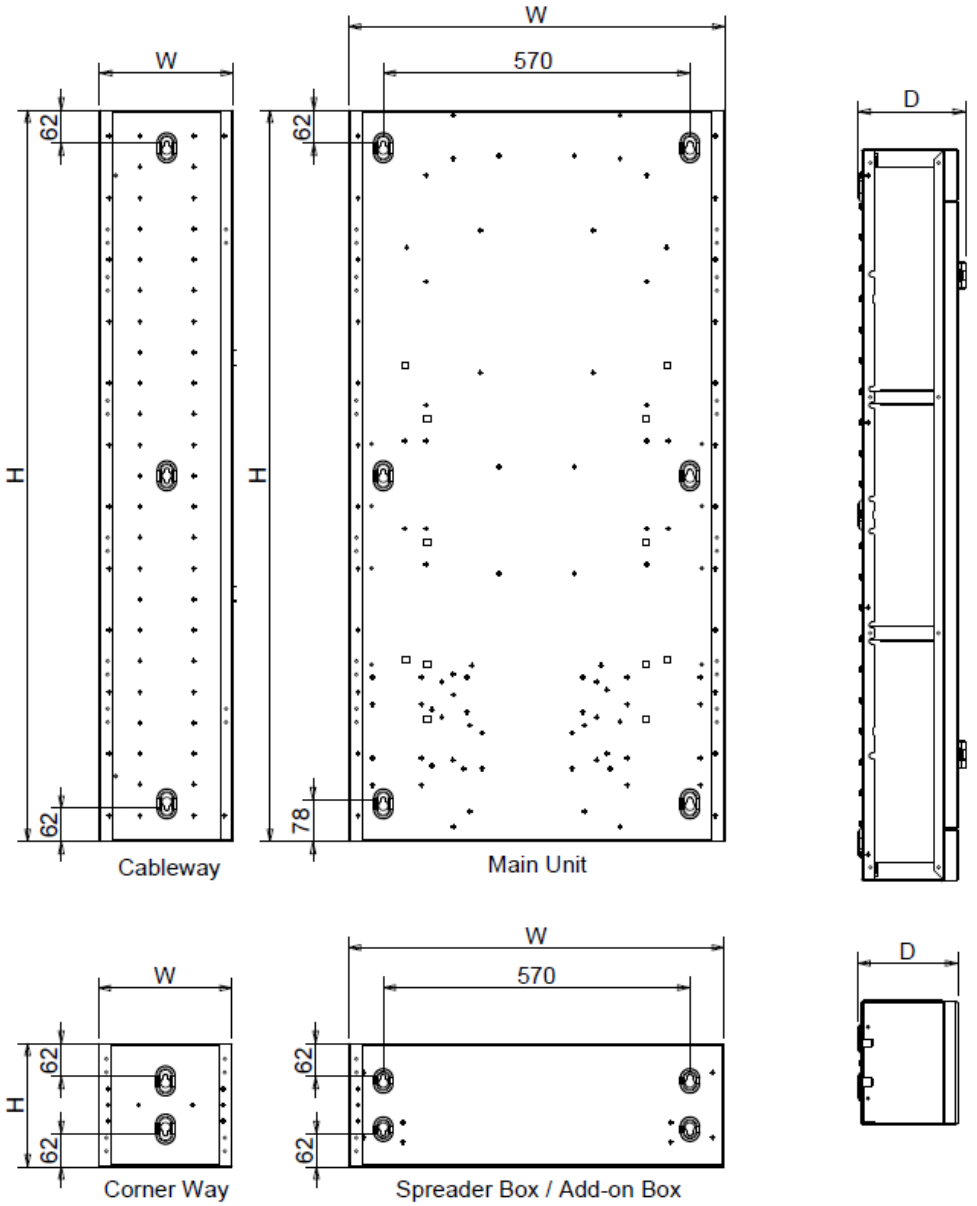
Table 3 - Dimensions for the main unit and cableways					
Main Units	**Description**	**Dimensions (mm)**			**Distance from gland plate to incoming terminals (mm)**
		H	**W**	**D**	
8GP1306-4DA54	250 A: 6 Way	902	700	198	257
8GP1312-4DA54	12 Way	1132	700	198	257
8GP1318-4DA54	18 Way	1361	700	198	257
8GP1306-5DA54	400 A: 6 Way	1132	700	198	345
8GP1312-5DA54	12 Way	1361	700	198	342
8GP1318-5DA54	18 Way	1591	700	198	342
8GP1306-7DA54	630 A: 6 Way	1132	700	198	342
8GP1312-7DA54	12 Way	1361	700	198	342
8GP1318-7DA54	18 Way	1591	700	198	342

Table 4 - Shroud options	250 A Panel Board	400 A Panel Board	630 A Panel Board
Extended front terminal inc. phase barriers 3P Kit	3VA9253-0QB00	3VA9483-0QB00	3VA9483-0QB00
Extended front terminal inc. phase barriers 4P Kit	3VA9254-0QB00	3VA9484-0QB00	3VA9484-0QB00
Extended spreaded front terminal inc. phase barriers 3P Kit	3VA9253-0QC00	3VA9483-0QC00	3VA9483-0QC00
Extended spreaded front terminal inc. phase barriers 4P Kit	3VA9254-0QC00	3VA9484-0QC00	3VA9484-0QC00
Extended terminal shield 3P (1pc)	3VA9211-0WF30	3VA9481-0WF30	3VA9481-0WF30
Extended terminal shield 4P (1pc)	3VA9211-0WF40	3VA9481-0WF40	3VA9481-0WF40
Extended spreaded terminal shield 3P (1pc)	3VA9211-0WG30	3VA9401-0WG30	3VA9401-0WG30
Extended spreaded terminal shield 4P (1pc)	3VA9211-0WG40	3VA9401-0WG40	3VA9401-0WG40



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