

1. 250A 4P 3VA MCCB
2. 250A 4P Switch Disconnecter

INSTALLATION INSTRUCTIONS

CATALOGUE No:

1. 8GP1601-4DA50
2. 8GP1600-4DA50

BS EN 61439-3
IEC 61439-3
BS EN 60947-2

Technical Support

Tel: 0845 850 7600
Email: service.gbi.industry@siemens.com

GENERAL WARNINGS



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.



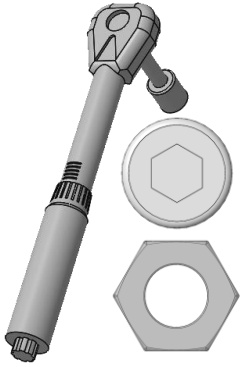
- Turn off all power supplies
- Always use a calibrated volt-sensing device to confirm the power is off.
- Replace all devices, doors and covers before turning on the power to this equipment.
- To avoid ingress of swarf and similar material, always remove gland plates to allow cutting/slotting for cable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



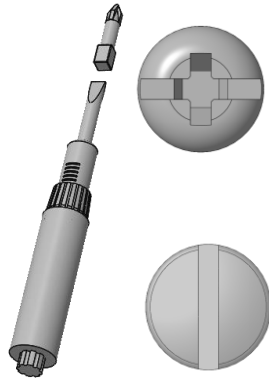
Failure to follow these instructions could result in serious injury or death.



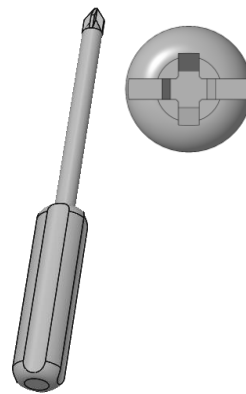
Required Tools



Torque Wrench, M8



Torque Screwdriver

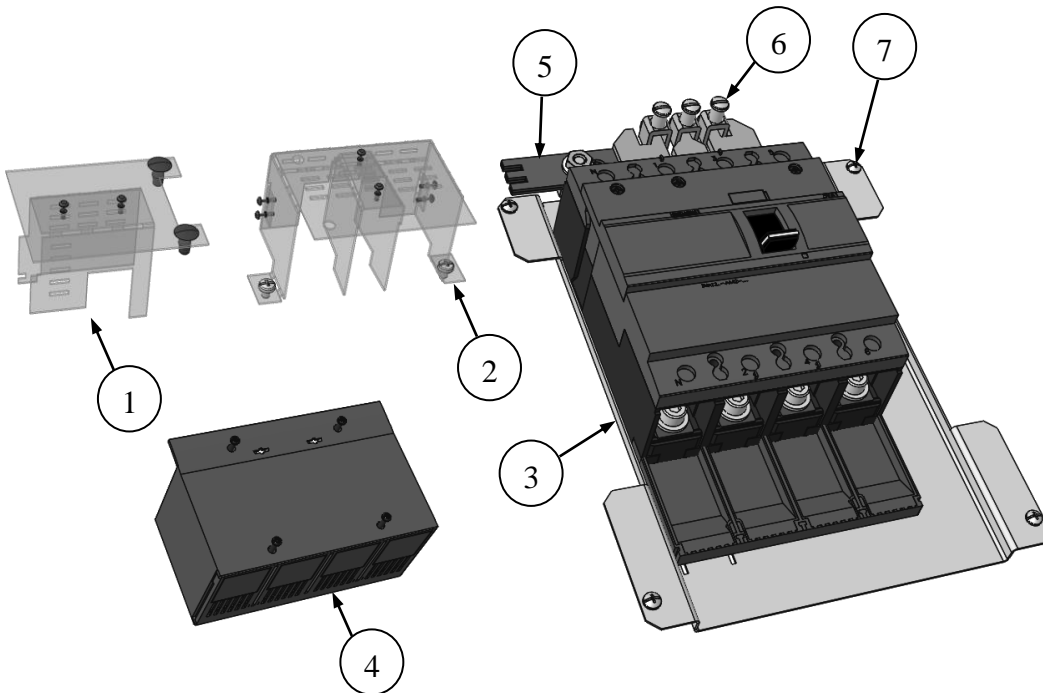
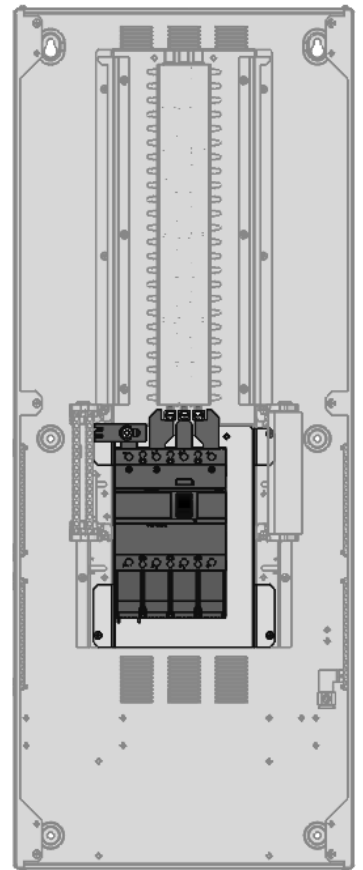


Pozi Screwdriver

Content

| No. | Description | QTY |
|-----|-------------------------------------|-----|
| 1 | Neutral Shroud | 1 |
| 2 | Phase Shroud | 1 |
| 3 | MCCB / Switch-disconnector assembly | 1 |
| 4 | MCCB / Switch-disconnector Shroud | 1 |
| 5 | Neutral "T" Connector | 1 |
| 6 | Phase Terminal Block | 3 |
| 7 | M5 10 mm Screw | 6 |

TABLE 1



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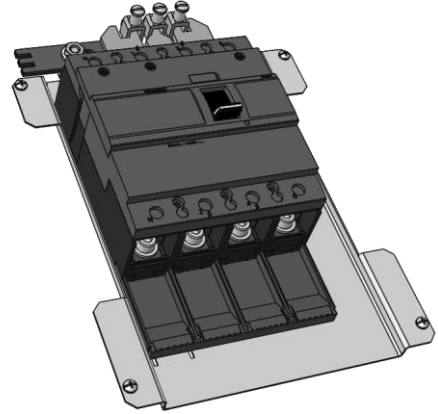


Waste electrical products should not be disposed of with household waste.
Please recycle where waste disposal facilities exist.
Check with your retailer, wholesaler or local authority for recycling advice.

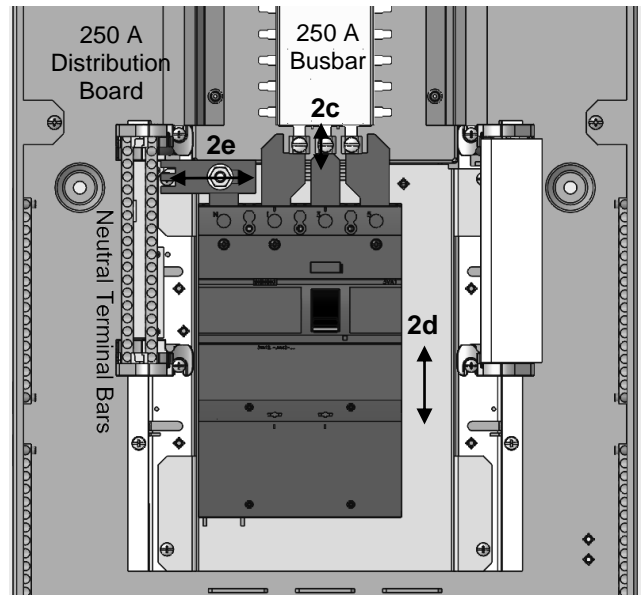


Assembly

- 1
 - a) Remove the Neutral Shroud (1)
 - b) Unscrew the Phase Shroud and remove it (2)
 - c) Unscrew the MCCB / Switch-disconnector Shroud and remove it (4)
 - d) Loosen the Phase Terminal Blocks (6)
 - e) Loosen the the Neutral "T" Connector and slide it to the RHS (5)



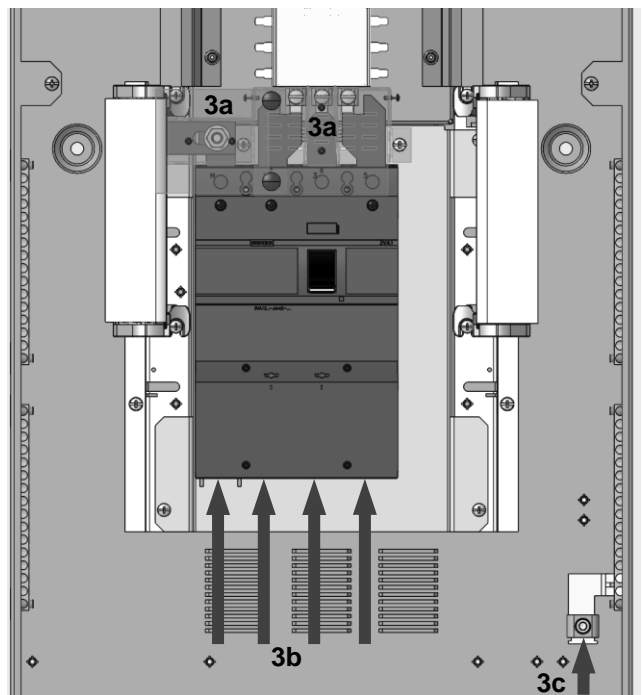
- 2
 - a) Remove the doors and the covers from the 250 A Distribution Board
 - b) Insert the MCCB / Switch-disconnector assembly (3) in to the 250 A Distribution Board
 - c) Slide the Phase Terminal Blocks (6) on to the 250 A busbar
 - d) Slide the MCCB / Switch-disconnector assembly (3) in to the correct position and use the 4 x M5 10 mm Screws to fasten it in place
 - e) Slide the Neutral 'T' connector (5) in to the Neutral Terminal Bar
 - f) Use the correct torque setting to tighten the phase and neutral connectors (See table 2)



- 3
 - a) Reassemble the Phase Shroud (2) and the Neutral Shroud (1)
 - b) Connect the main Neutral and Phase incoming connections to the incoming device
 - c) Connect the main Protective connector to the 250 A Distribution Board
 - d) Before assembling, check and re-tighten all factory connections (See table 2)
 - e) Reassemble the cover and the doors on the 250 A Distribution Board

| TERMINAL | Max Cable Capacity | TORQUE Nm |
|---|--------------------------|-----------|
| Phase Terminal Blocks | 90 mm ² | 6 Nm |
| Neutral Terminal Bar screws | 25 mm ² | 6 Nm |
| Neutral 'T' connector - M8 nut | N/A | 20 Nm |
| Main incoming device terminals | 25 – 150 mm ² | *20 Nm |
| Main Incoming Protective terminal | 120 mm ² | 12 Nm |
| *use manufacturer's data sheet provided with the incoming kit | | |

TABLE 2



250A Distribution Board 4P Incoming Kit Technical Information

Main characteristics in accordance with BS EN 61439-3

| | 250A DB 4P MCCB Incomer Kit 8GP1601-4DA50 | 250A DB 4P SWD Incomer Kit 8GP1600-4DA50 |
|--|---|---|
| Operating voltage | 230/400 V | 230/400 V |
| Operating frequency | 50/60 Hz | 50/60 Hz |
| Rated operational current | 250 A | 250 A |
| Rated short circuit withstand current MAIN BUSBAR | 12 kA / 1 s - 24 kA peak 17 kA / 0.25 s - 34 kA peak | 12 kA / 1 s - 24 kA peak 17 kA / 0.25 s - 34 kA peak |
| Rated Conditional short-circuit current INCOMING DEVICE | 25 kA @ 400 V | 25 kA @ 400 V |
| Rated Conditional short-circuit current OUTGOING DEVICES | 16 kA @ 400 V | 16 kA @ 400 V |
| Pollution degree | | |
| Environmental conditions for which the panel is intended | 2 Minimum | |
| Operating temperature | | |
| This is an average of 24 h maximum | -5 to +40 °C | |
| Storage temperature | | |
| This is an average of 24 h maximum | -5 to +40 °C | |
| Humidity | | |
| At maximum temperature (+40 °C) | 50 % | |

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Main characteristics in accordance with BS EN 60947-2

| Device Catalogue No | 3VA1225-4GF42-0AA0 | 3VA1225-1AA42-0AA0 |
|--|--|---------------------|
| Product designation | Molded case circuit breaker | Switch disconnecter |
| Rated insulation voltage U_i | 800 V | 800 V |
| Max. rated operational voltage U_e with DC | 600 V | 600 V |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 19 W | N/A |
| Power loss [W] / maximum | 57 W | 57 W |
| Mechanical service life (switching cycles) / typical | 20 000 | 15 000 |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 8 000 | N/A |
| Max. rated operational current | 250 A | 250 A |
| Switching capacity class of the circuit breaker | S | N/A |
| Breaking capacity maximum short-circuit current (I_{cu}) | @ 240 V 55 kA @ 415 V 36 kA @ 440 V 25 kA @ 500 V 10 kA @ 690 V 7 kA | N/A |
| Breaking capacity operating short-circuit current (I_{cs}) | @ 240 V 55 kA @ 415 V 36 kA @ 440 V 25 kA @ 500 V 10 kA @ 690 V 5 kA | N/A |
| Short-circuit current making capacity (I_{cm}) | @ 240 V 121 kA @ 415 V 75.6 kA @ 440 V 52.5 kA @ 500 V 17 kA @ 690 V 11.9 kA | N/A |
| Adjustable response value current / li min. | 1250 A | N/A |
| Adjustable response value current / li max | 2500 A | N/A |
| Design of the N-conductor protection | 100 % | N/A |
| Ground fault protection / tripping switchable / I^2t = ON/OFF | NO | N/A |
| Product extension / optional / motor drive | YES | YES |
| Protection class IP / on the front | IP40 | IP40 |
| For more information about the MCCB device visit: https://mall.industry.siemens.com/mall/en/de/Catalog/Product/3VA1225-4GF42-0AA0 | | |
| For more information about the SWD device visit: https://mall.industry.siemens.com/mall/en/de/Catalog/Product/3VA1225-1AA42-0AA0 | | |

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250A Distribution Board Incoming Kits – Options

For more information and full product range visit:

<https://new.siemens.com/uk/en/products/energy/low-voltage/systems.html>



| Description | Catalogue Number |
|---------------------------|------------------|
| 4 Way Distribution Board | 8GP1204-4DA54 |
| 6 Way Distribution Board | 8GP1206-4DA54 |
| 8 Way Distribution Board | 8GP1208-4DA54 |
| 12 Way Distribution Board | 8GP1212-4DA54 |
| 16 Way Distribution Board | 8GP1216-4DA54 |
| 20 Way Distribution Board | 8GP1220-4DA54 |
| 24 Way Distribution Board | 8GP1224-4DA54 |

**250A DB 4P MCCB
Incomer Kit**

- 8GP1601-4DA50

**250A DB 4P SWD
Incomer Kit**

- 8GP1600-4DA50

**250A DB 3P+N MCCB
Incomer Kit**

- 8GP1601-4DA40

**250A DB 3P+N SWD
Incomer Kit**

- 8GP1600-4DA40

250A Direct Connection Kit

- 8GP1867-0DA10

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