Galaxy VX Battery Breaker Trip Board (GVXBBTB) and Battery Breaker Capacitor Board (GVXBBCB)

The battery breaker trip board is the interface from the battery bank to the UPS battery auxiliary inputs/outputs and EPO. Furthermore it is used for tripping the battery circuit breaker when the battery voltage is below defined limits for protection (240 VDC). In systems with a battery circuit breaker with a rating of ≥ 1000 A, a battery breaker capacitor board must be installed. The battery breaker trip board can be used for battery systems of up to 600 V (from DC+ to DC-) with no midpoint.

What's in This Document

Schneider Electric

35 rue Joseph Monier
92500 Rueil Malmaison – France
Phone: + 33 (0) 1 41 29 70 00
www.schneider-electric.com

Important Safety Instructions — SAVE THESE INSTRUCTIONS

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Electrical equipment must be installed, operated, serviced, and maintained only by qualified personnel.
- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices.
- Turn off all power supplying the UPS system before working on or inside the equipment.
- Before working on the UPS system, check for hazardous voltage between all terminals including the protective earth.
- The UPS contains an internal energy source. Hazardous voltage can be present even when disconnected from the mains supply. Before installing or servicing the UPS system, ensure that the units are OFF and that mains and batteries are disconnected. Wait five minutes before opening the UPS to allow the capacitors to discharge.
- The UPS must be properly earthed/grounded and due to a high leakage current, the earthing/grounding conductor must be connected first.

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

Electrical Safety

The installer must add a warning on the cover with the following text:

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

The capacitors store hazardous voltage. Wait one minute before opening the cover after all sources have been disconnected to allow for the capacitors to discharge.

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

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

The boards must be installed in a fire safe and enclosed distribution board.

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

Overview of Supplied Parts

Parts supplied with Battery Breaker Trip Board 0P6601

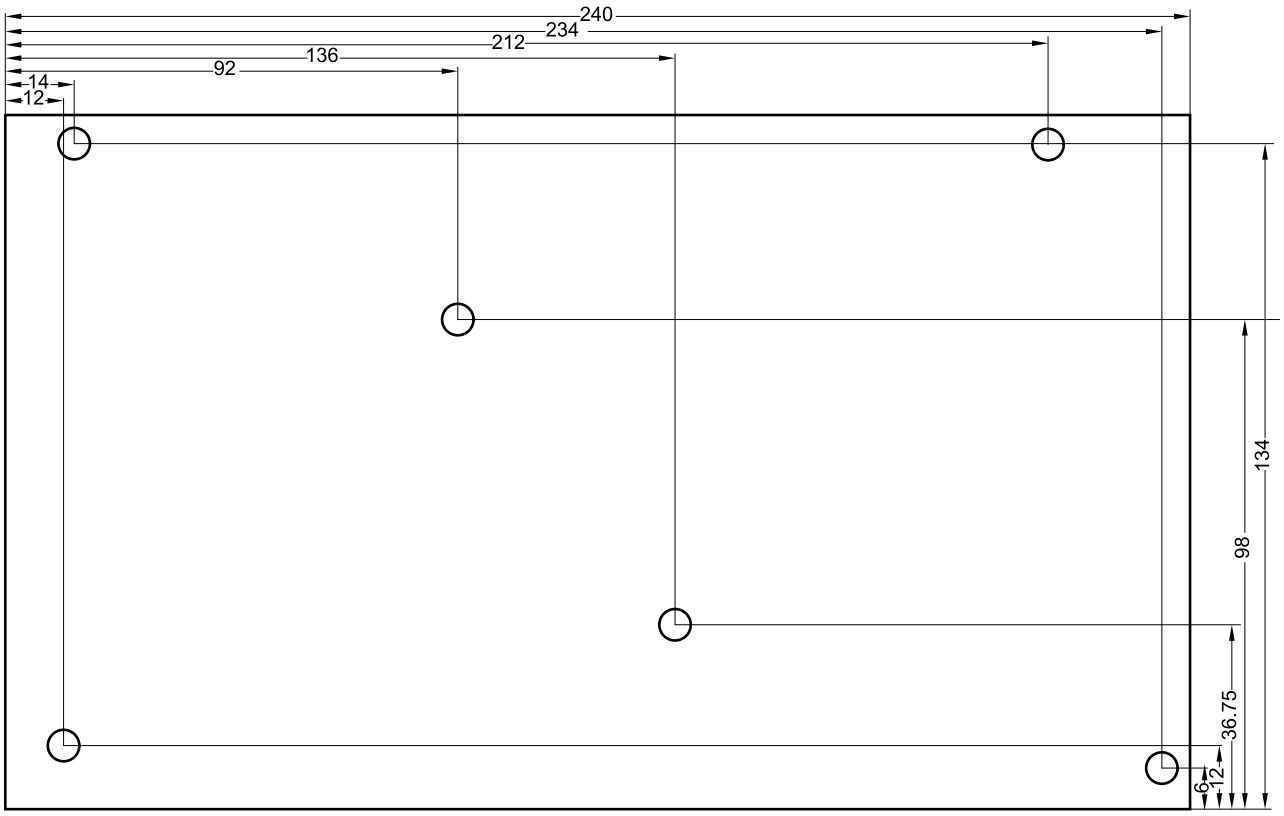
- Six metal stand offs (20 mm)
- Six M4 nuts
- Six metal stand offs (40 mm)
- Six combi screws
- Three cables: 0W49354, 0W76653, 0W76652
- One Insulation cover
- Eight 2–position screw terminals

Parts supplied with Battery Breaker Capacitor Board 0P6602

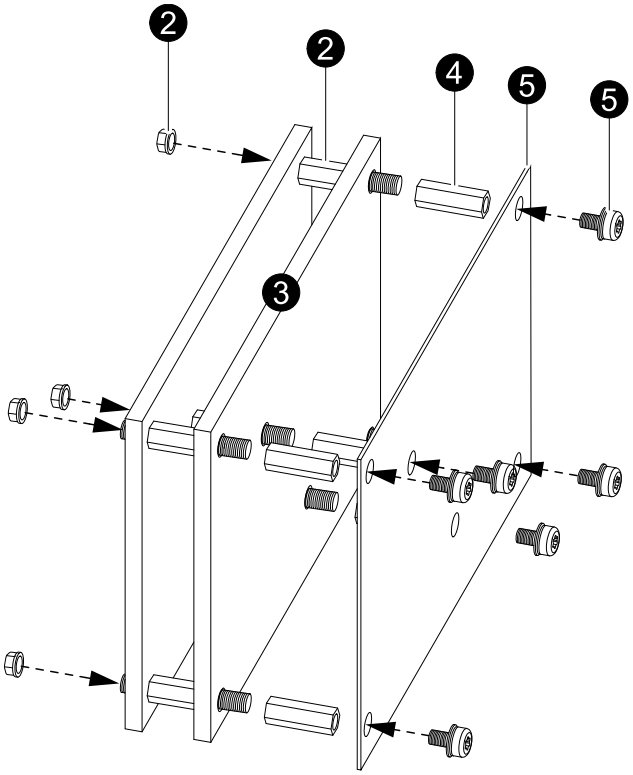
- Eight metal stand offs (20 mm)
- Sixteen M4 nuts

Install the Battery Breaker Trip Board

1. Drill six 4.5 mm (1.7 in) holes in the marked locations.



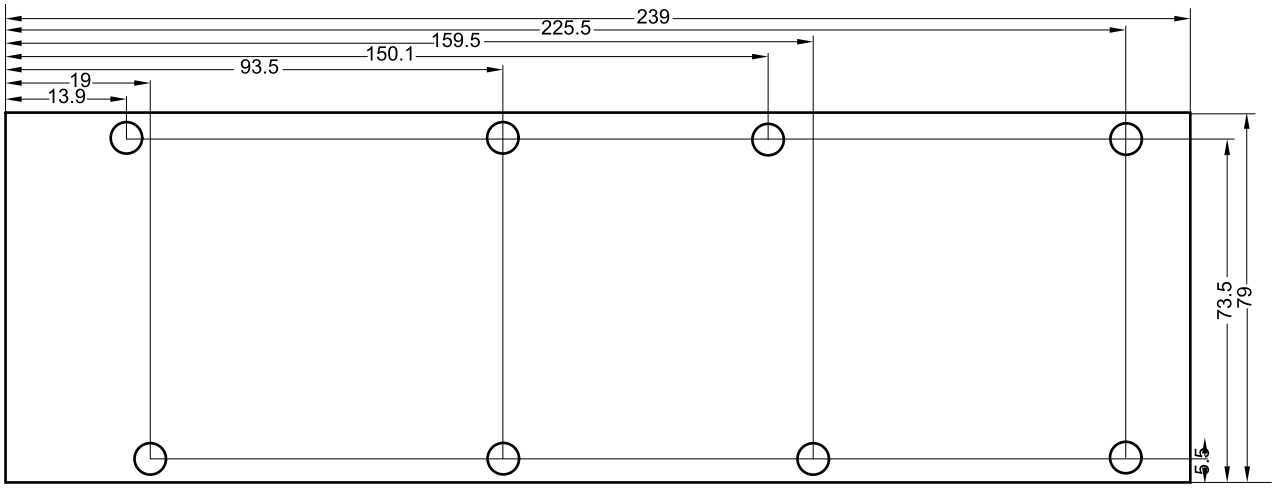
2. Insert the 20 mm metal stand offs in the prepared holes and fasten with the M4 nuts.



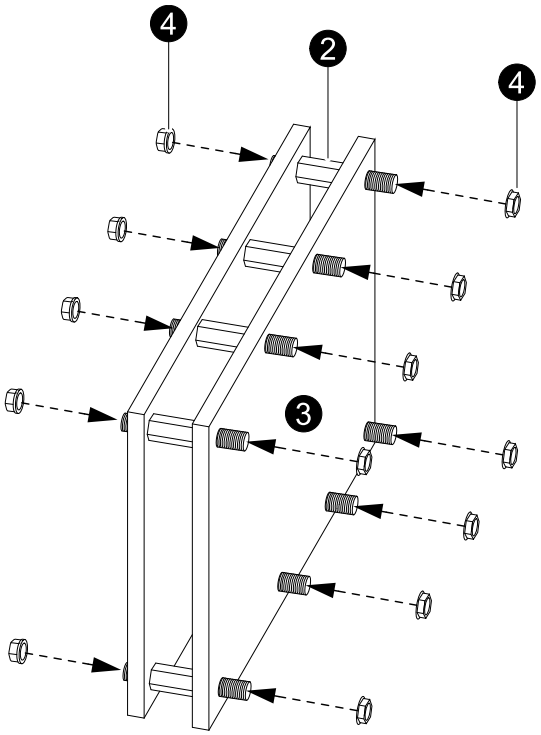
3. Slide the board onto the metal stand offs and push it gently into place.
4. Screw the 40 mm metal stand offs onto the 20 mm metal stand offs.
5. Fasten the insulation cover with the combi screws.

Install the Battery Breaker Capacitor Board

1. Drill eight 4.5 mm (1.7 in) holes in the marked locations.



2. Insert the metal stand offs (supplied) in the prepared holes.



3. Slide the board onto the metal stand offs and push it gently into place.
4. Fasten the board with provided nuts.

Overview of Interfaces

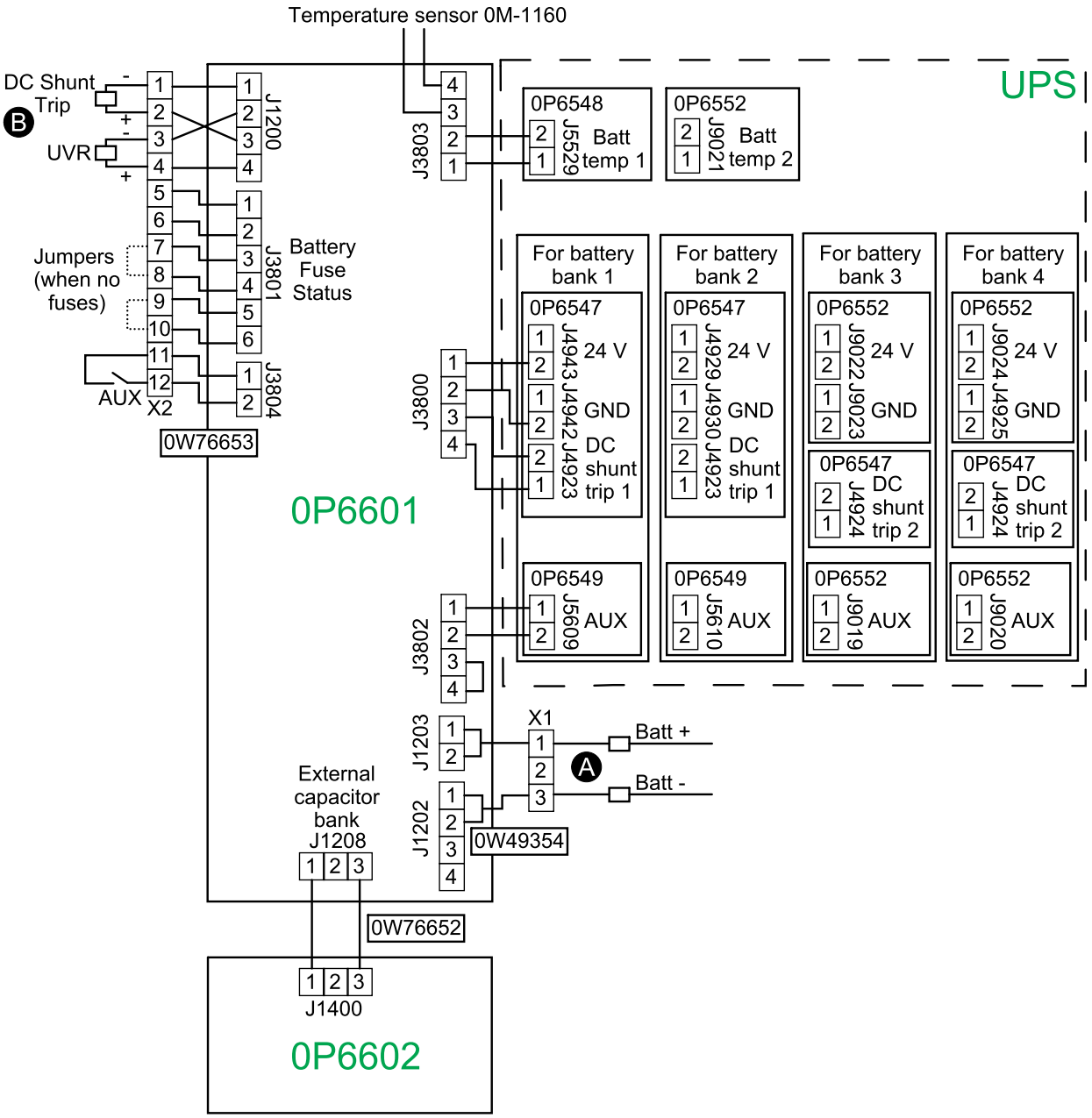
Terminal	Signal	Input/Output	Function	Voltage Rating	Current/Power Rating
J1200[1]	SOR (pins 3,1)	Output	SOR trip connection	Min: 19 VDC Max: 25.2 VDC	36 W at 40 ms, 1.5 A continuously
	UVR (pins 4,2)	Output	UVR trip connection		
J1202	Batt –	Input	Connection to negative battery voltage	Max: 600 VDC with positive connected to J1203	Min: 12 W
J1203	Batt +	Input	Connection to positive battery voltage		
J1208	External energy storage connection (pins 1, 3)	Input/output	Connection to external capacitor bank for adding more energy storage	Max: 25.2 VDC	Limited to 1.5 A and 300 mF
J3800	Trip and relay power	Input	Connection of UPS 24 VDC and trip signal	Max: 27 VDC	Max: 1.5 A
J3801	Battery fuse status	Input/output	Connection for battery fuse indicator	Max: 27 VDC	Max: 1.5 A
J3802	Battery breaker AUX	Input/output	Connection of several battery breaker indicators (from parallel UPSs)	Max: 27 VDC	Max: 1.5 A
J3803	External battery temperature sensor	Input	Connection of Schneider Electric temperature sensor	Max: 27 VDC	Max: 1.5 A
J3804	Battery breaker AUX	Input	Connection of battery breaker indicator	Max: 27 VDC	Max: 1.5 A
J3805	Trip and relay power	Output	Connection of UPS 24 VDC and trip signal	Max: 27 VDC	Max: 1.5 A

1. As the pulse current available for SOR and UVR is supplied from a capacitor bank, it takes a maximum of 47 seconds from the power is connected to the outputs are ready

Overview of Cable Connections

NOTE: The battery breaker capacitor board 0P6002 must be used for Schneider Electric breakers ≥ 1000 A.

NOTE: The supplied 2–position screw terminals must be installed in J3800, J3802, J3803, and J3805.



A. Specifications for connection to battery:
   - Cable: 600 VDC, 12–22 AWG
   - Fuse holder: 50 kA 600 VDC
   - Fuse: 1 A

B. Specifications for UVR and DC shunt trip:
   - For Schneider Electric PowerPact L-frame:
     - UVR: LV429410
     - DC shunt Trip: LV429390
   - For Schneider Electric PowerPact M-frame:
     - UVR: 33668
     - DC shunt trip: 33659