



Installation Maintenance Bypass Panel (MBP) CAN I/O Board

About this manual

This installation sheet contains information on how to install the MBP CAN I/O Board into a Maintenance Bypass Panel.

The MBP CAN I/O Board should be used for both Smart-UPS[®] VT, MGE[™] Galaxy[™] 3500 parallel configurations, or for Symmetra MW parallel configurations. Pages 2 (Smart-UPS VT, MGE Galaxy 3500) and 3 (Symmetra MW) show the cable connections for the three UPS series.

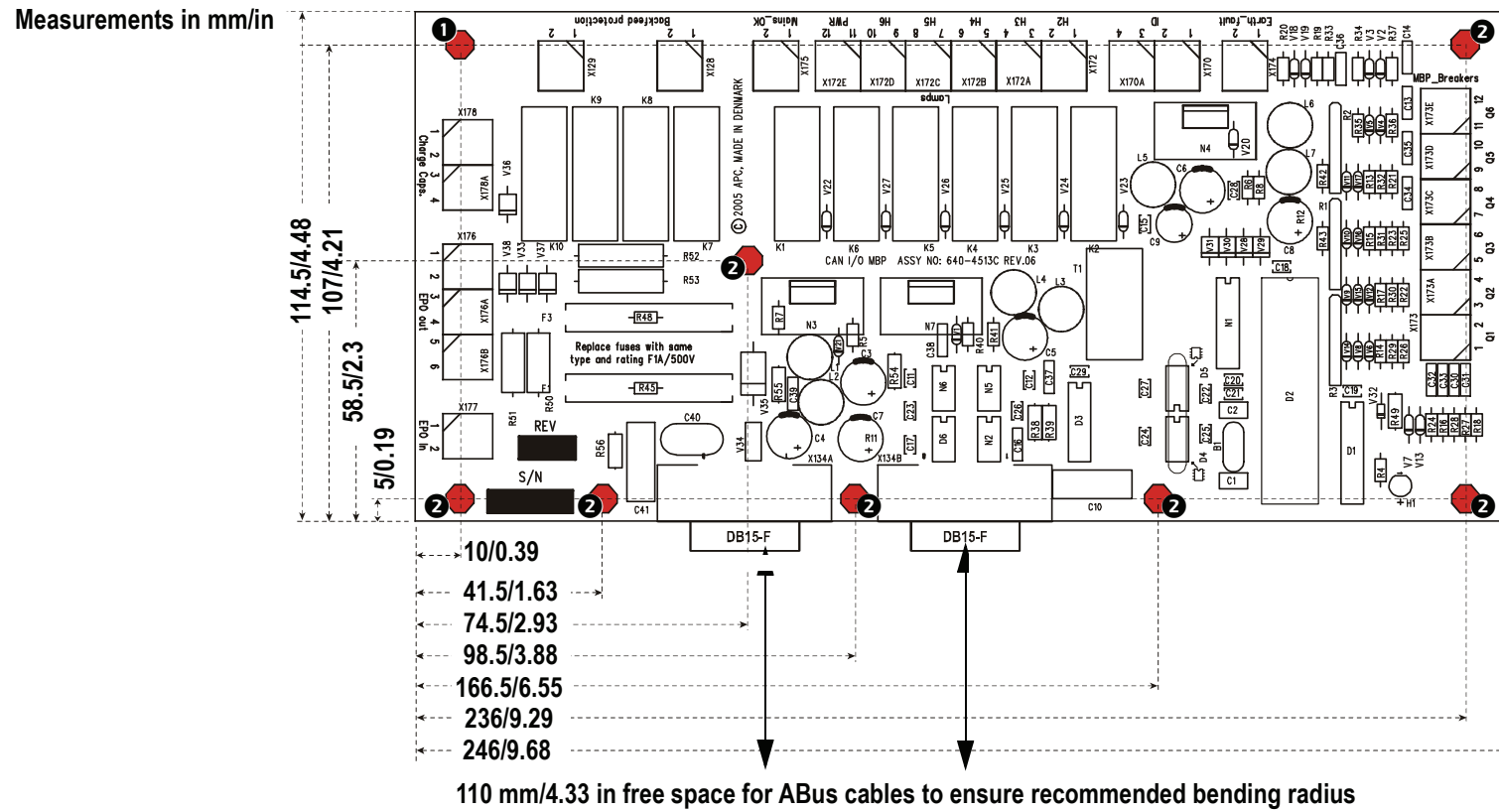


Electrical Hazard. All power and control wiring must be installed by a qualified electrician and must comply with applicable local and country codes.

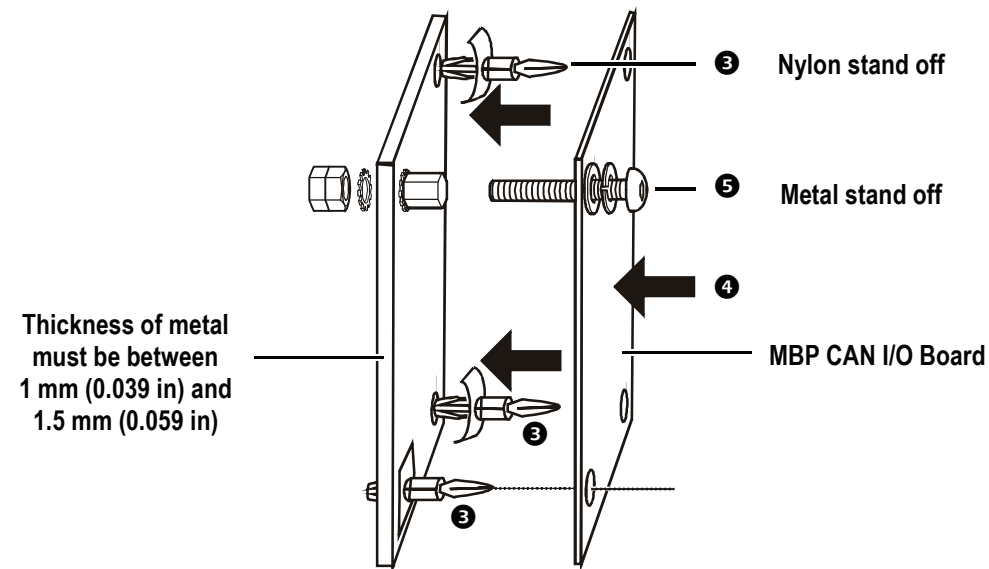


This unit contains components that are sensitive to electrostatic discharge (ESD). Follow proper ESD procedures to avoid severe damage to electronic components.

Installing the CAN I/O Board



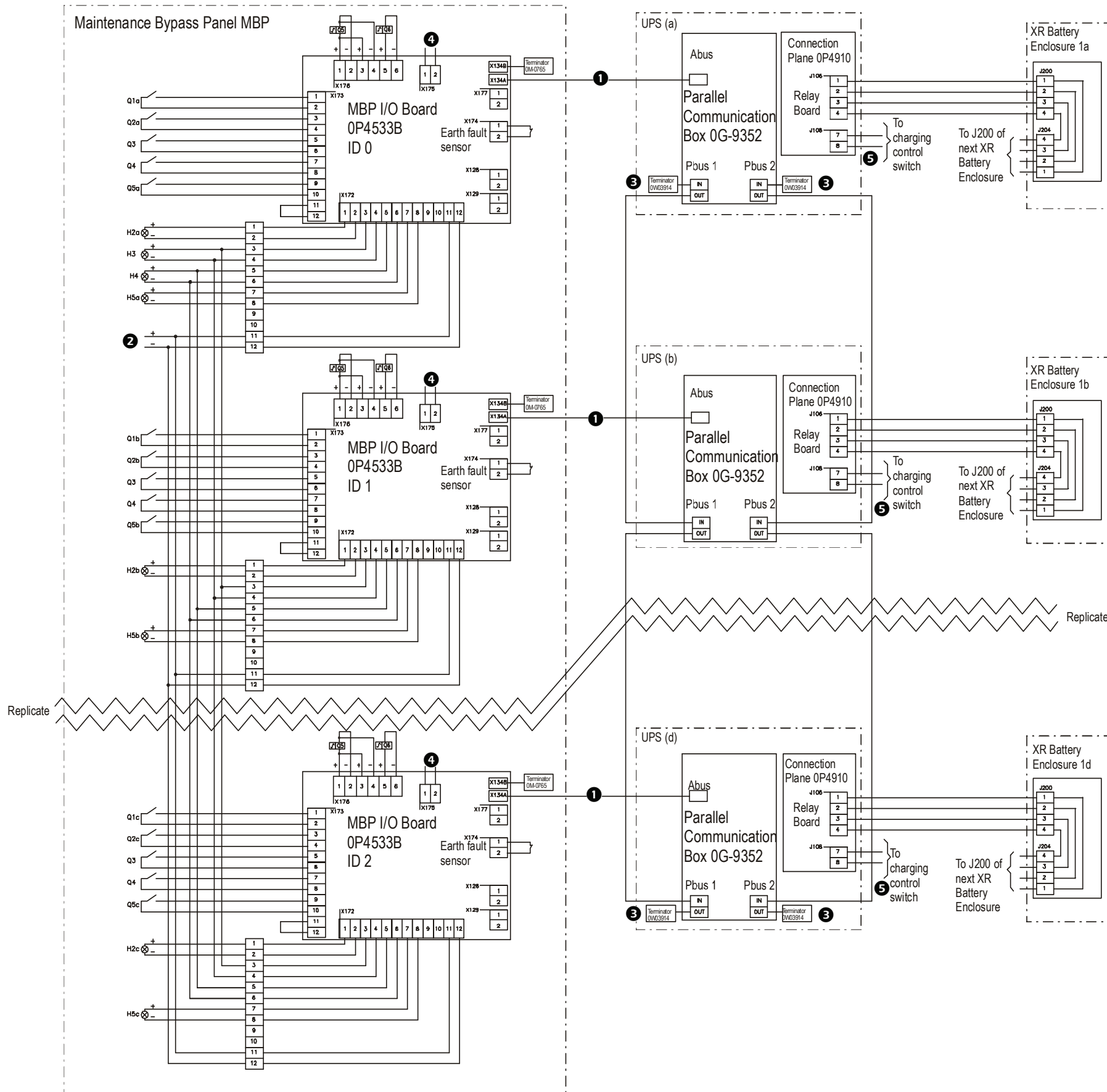
- 1 Drill one 4.5 mm (1.7 in) hole in a grounded surface in the Maintenance Bypass Panel (MBP) in the upper left corner according to the measurements on the illustration above.
- 2 Drill seven 4.7 mm (1.8 in) holes for the remaining marked holes in the MBP for the nylon stand offs.



- 3 Insert the 7 nylon stand offs (supplied) in the prepared holes.
- 4 Fasten the board to the nylon stand offs by pushing it gently in place.
- 5 Attach the board with the supplied stay, bolt and nut to the upper left corner.



Smart-UPS VT, MGE Galaxy 3500 cable connections



- ❶ The ABUS cable 1x30 m (1x98.42 ft) is provided with this MBP I/O Board OP4533. Connect the ABUS cable to X134A on the boards and run the cables (in conduits if applicable) to the UPS. One ABUS terminator is also provided with the board.
- ❷ External lamp supply Vac or Vdc, max. 250 Vac, 5A. The supply should be taken from the mains/utility side.
- ❸ Insertion of terminators in “IN” ports on Parallel Operation Box on UPS (a) and in “OUT” ports on Parallel Operation Box on UPS (d).
- ❹ Relay output.
- ❺ When pins 7 and 8 are closed, the UPS charges batteries with a pre-defined percentage (0-25-50-75-100%) of maximum power, to be used in generator applications, or if special codes requires control of charging.

Contactor functions.

X173	Function	X172	Function
1, 2	Q1 input breaker to UPS	1, 2	Not in use
3, 4	Q2 output breaker from UPS	3, 4	H2 permission to operate Q2
5, 6	Q3 manual bypass breaker	5, 6	H3 permission to operate Q3
7, 8	Q4 common output breaker	7, 8	H4 permission to operate Q4
9, 10	Q5 input breaker to Static Bypass	9, 10	H5 permission to operate Q5
11, 12	Not in use	11, 12	Lamp supply max 230V, 5A

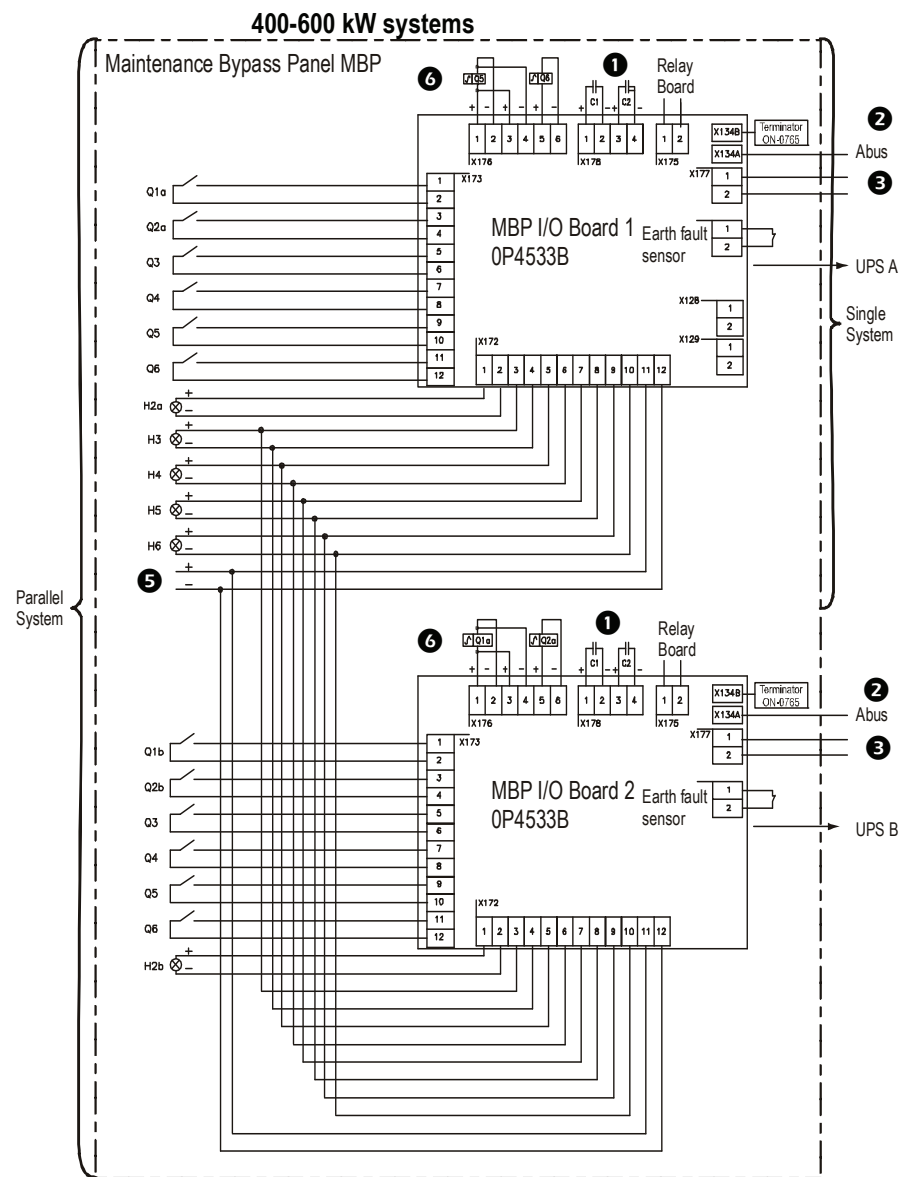
X176	Function	X178	Function
1, 2	24Vdc trip of input breaker	1, 2	C1 Energy for EPO trip
3, 4		3, 4	C1 Energy for EPO trip
5, 6	24Vdc trip of output breaker		

Contactors X128, X129, X174 and X177 are not in use.

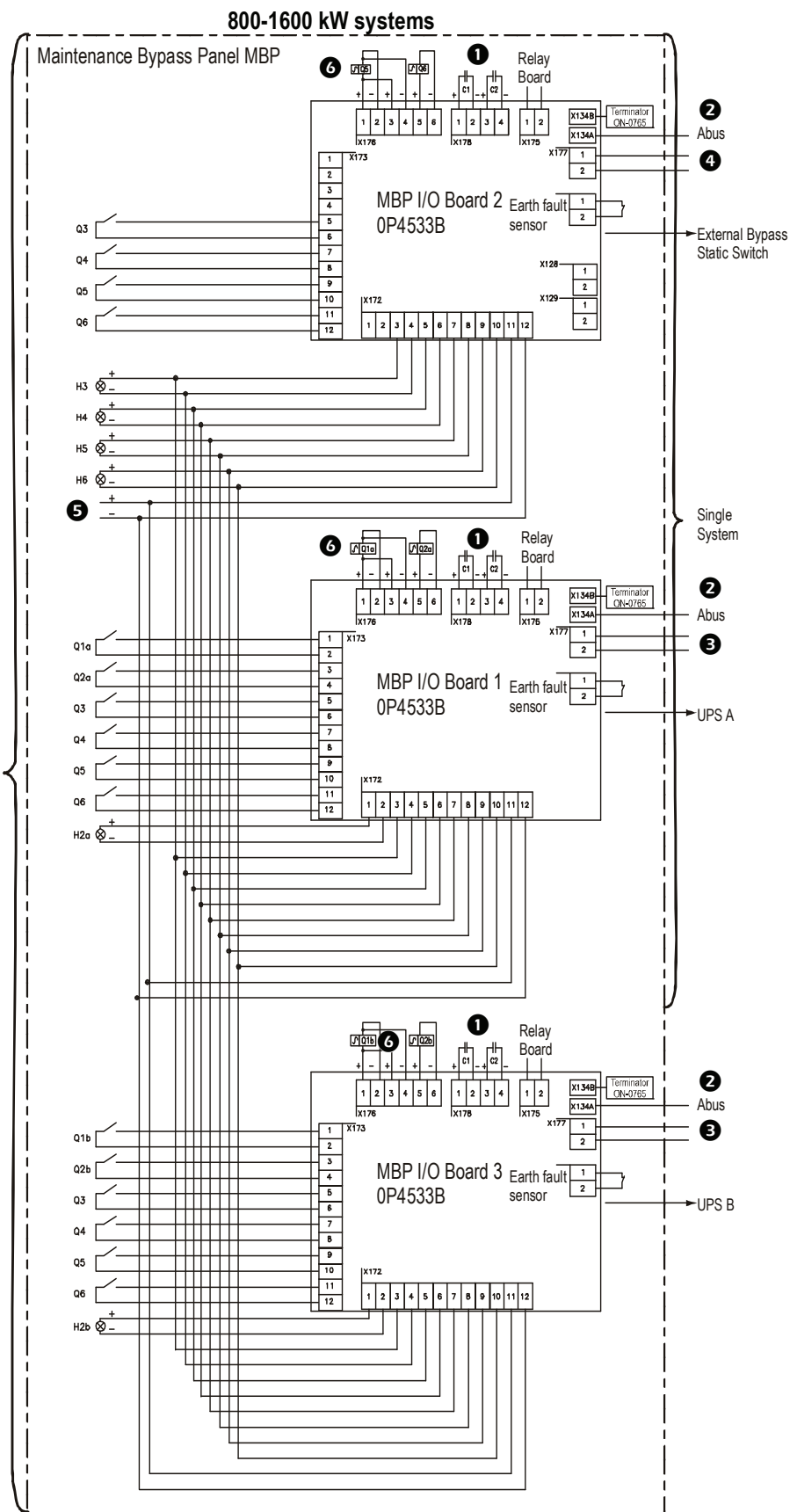


Note: A Smart-UPS VT and MGE Galaxy 3500 parallel configuration can consist of up to four units.

Symmetra MW cable connections



*) This is an example of 2 units in parallel. For more and up to 4 units in total the number of CAN Boards should be equal to the number of units.



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- 1 The capacitors are energy storage for Emergency Power Off (EPO) when no other source is available C1= 33000μF. Recommended size depending on power consumption of trip relays on breakers. Capacitor voltage should be 40 Vdc.
- 2 15 conductor cable is shielded twisted pair provided by APC by Schneider Electric.
- 3 Emergency Power Off (EPO) outage to UPS connection plane.
- 4 Emergency Power Off (EPO) outage to External Bypass Static Switch connection plane.
- 5 External lamp supply Vac or Vdc, max. 250 Vac, 5A.
- 6 24 Vdc shunt trip for back feed protection.



Note: The ABUS and PBus cables are delivered with the Symmetra MW system, and must be installed on site.

Contact information

For local, country-specific centers: go to www.apc.com/support/contact.