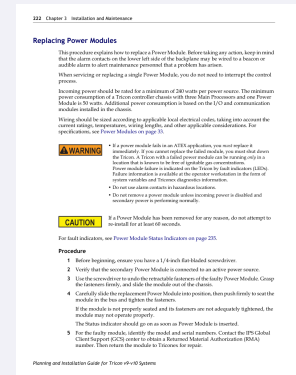


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

Invensys Triconex 8310
120 VAC/VDC Power Module



PRODUCT	8310
FAMILY	Tricon v9-v10
FUNCTION	120 VAC/VDC Power Module
STATUS	Verify exact configuration

Prepared by Amikon Limited from Invensys 9700077-012, February 2009. This guide does not replace the complete manufacturer manual, site procedure, hazardous-area drawing, or approval document.

01 CONFIRM THE ORDERED CONFIGURATION

Recommended input	120 VAC/VDC, -15% to +10%
Extended input range	85-140 VAC or 95-180 VDC
Input frequency	47-63 Hz
Input-to-output isolation	1000 VAC or 1500 VDC
Minimum input source capacity	240 W per power source
Typical power factor	0.70
Typical crest factor	2.5

02 MOUNTING AND CONNECTION

- Review the complete power-module replacement procedure and hazardous-location restrictions.
- Verify that the secondary power module has an active source and is performing normally.
- Disable incoming power to the module being removed.
- Use the specified 1/4-inch flat-bladed screwdriver on the retractable fasteners.
- Seat and secure the correct replacement; verify its status indication.

Replacing Power Modules

This procedure explains how to replace a Power Module. Before taking any action, keep in mind that the alarm contacts on the lower left side of the backplane may be wired to a beacon or audible alarm to alert maintenance personnel that a problem has arisen.

When servicing or replacing a single Power Module, you do not need to interrupt the control process.

Incoming power should be rated for a minimum of 240 watts per power source. The minimum power consumption of a Tricon controller chassis with three Main Processors and one Power Module is 50 watts. Additional power consumption is based on the I/O and communication modules installed in the chassis.

Wiring should be sized according to applicable local electrical codes, taking into account the current ratings, temperatures, wiring lengths, and other applicable considerations. For specifications, see [Power Modules on page 33](#).



- If a power module fails in an ATEX application, you *must* replace it immediately. If you cannot replace the failed module, you must shut down the Tricon. A Tricon with a failed power module can be running *only* in a location that is known to be free of ignitable gas concentrations. Power module failure is indicated on the Tricon by fault indicators (LEDs). Failure information is available at the operator workstation in the form of system variables and Triconex diagnostics information.
- Do not use alarm contacts in hazardous locations.
- Do not remove a power module unless incoming power is disabled and secondary power is performing normally.



If a Power Module has been removed for any reason, do not attempt to re-install for at least 60 seconds.

For fault indicators, see [Power Module Status Indicators on page 235](#).

Procedure

- 1 Before beginning, ensure you have a 1/4-inch flat-bladed screwdriver.
- 2 Verify that the secondary Power Module is connected to an active power source.
- 3 Use the screwdriver to undo the retractable fasteners of the faulty Power Module. Grasp the fasteners firmly, and slide the module out of the chassis.
- 4 Carefully slide the replacement Power Module into position, then push firmly to seat the module in the bus and tighten the fasteners.
If the module is not properly seated and its fasteners are not adequately tightened, the module may not operate properly.
The Status indicator should go on as soon as Power Module is inserted.
- 5 For the faulty module, identify the model and serial numbers. Contact the IPS Global Client Support (GCS) center to obtain a Returned Material Authorization (RMA) number. Then return the module to Triconex for repair.

Planning and Installation Guide for Tricon v9-v10 Systems

Official manufacturer reference reproduced from Invensys 9700077-012, February 2009. Use the current source document and all referenced drawings and notes for installation.

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CABLE ROUTING AND CONNECTION

- Verify that the secondary power module has an active source and is performing normally.
- Disable incoming power to the module being removed.
- Use the specified 1/4-inch flat-bladed screwdriver on the retractable fasteners.
- Seat and secure the correct replacement; verify its status indication.
- Do not reinstall a removed power module for at least 60 seconds.

05

INITIAL SYSTEM CHECKS

- Confirm model identity and compatible system components before energizing.
- Verify wiring, grounding, enclosure, and applicable hazardous-area requirements.
- Confirm normal indications and fault-contact state after commissioning.
- Record the installed order number and baseline operating condition.

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CONTROLLED DOCUMENTS

Official source	Invensys 9700077-012, February 2009
Product record	8310
Manufacturer	Invensys Triconex
Support	INFO@AMIKON.CN