

TGA AC/DC Switch module

TGA 709-0002

- Fully featured input power control for DUT
- Plug in module for TGA Architecture¹
- 6 AC/DC switch circuit per module
- Hardware link to RTM module for automatic DUT shutdown
- Multiple modules can be configured to expand number of input channels required in a system
- Excellent for PSU burn-in applications



The TGA AC/DC switch module is ideal for providing input power control and protection during with an automated burnin system. There are six (6) switch circuits on each module and each switch is capable of switching 250V AC at 15A.

Each switch circuit also has a programmable current trip facility to allow the user to set an input current limit for each switch circuit. During the course of the test or burnin process, if the input current to the DUT exceeds the programmed limit value the switch will turn off automatically, thereby protecting the DUT from further damage and possible self destruction.

Each switch circuit is also fitted with hall effect current sensor to monitor the input current. Use of a hall effect sensor, rather than a current shunt ensures that the IR voltage losses through the module are kept to a minimum. This is particularly important for example in an application where the DUT may have a 5V DC input.

The AC/DC switch can be linked (via TGA backplane) to associated RTM modules in an ATE system so that in the event of an RTM circuit trip the associated DUT input switch on the AC/DC switch module will be turned off automatically.

The AC/DC switch can be used in conjunction with other TGA power relay modules to facilitate cost effective programmable input power switching to multiple units, for example; a Power supply burnin system.

The lower cost TGA power relay modules can be used on input lines that do not require the facilities of programmable current limit and current monitoring. The AC/DC switch circuits can be used on some input lines (Neutral for example) where these extra feature are more cost justifiable. In many Burnin applications it may be sufficient to switch just one line (the high side) on the input to the DUT.

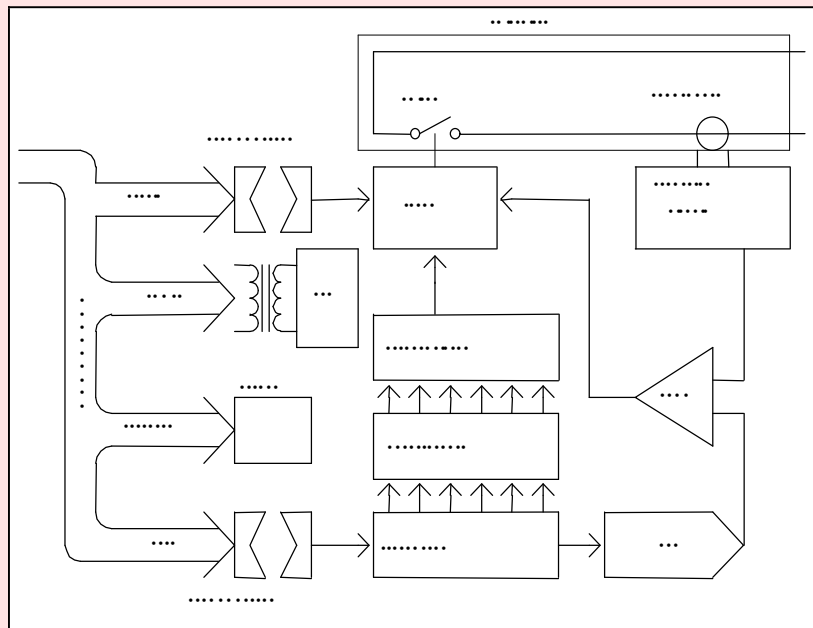
Due to the high power switching capacity of this module all of the switching circuits are enclosed in an EMC shield on the module itself. This is important to reduce any interference on neighboring modules in the TGA or VXI rack.

It has been well proven that use of a *Dynamic* burnin (stress screening) regime will result in a much more effective burnin period and can also help to reduce the overall burnin time. Power cycling is a fundamental and basic method of any dynamic stress screening scenario. The AC/DC switch module is very useful in facilitating this kind of input power cycling.

Connection to the module is via one 15 way "faston" DIN5159 connector this facilitates easy insertion and removal from the ATE system.

The module is fully supported by POWERSCREEN and the POWERSUITE software platform.

| Technical Specifications | | | |
|-----------------------------|--|--------------------------------|---|
| Relay Form : | Single Pole Single Throw | Release Time : | 10mSec Max |
| Max Switch Voltage : | 250VAC | Curr. Trip Range : | 0 - 15A Max |
| Max Switch Current : | 15A | Curr. Trip Resolution : | 5mA |
| Max Inrush Current : | 64A (Resistive) 110A (Inductive) | Curr. Trip Accuracy : | +/- (0.5% Setting + 5mV) |
| Contact Resistance : | 50mOhms Max | Curr. Meas. Range : | 0 to 4.5V representing 0 to 15A (averaged) |
| Operate Time : | 15mSec Max | Curr. Meas. Accuracy : | 2% of reading |
| | | | |
| Trip Holdoff Time | 10mS typically | Storage Temp. | 0°C to 70°C |
| Operating Temp. | 0°C to 55°C | Humidity | 10% to 85% Relative |
| Size | 233mm x 220mm x 45mm TGA module (H x D x W) C Size, Double Slot VXI module | | |



Block diagram of AC/DC switch circuit (6 per module)

Ordering information

709-0002 TGA AC/DC Switch Module

Options



Intepro Systems
1530 S. Lyon Street
Santa Ana, CA 92705
+1.714.679.9749
+1.714.835.3441 (Fax)

EU/Ireland
Intepro Systems
Lonsdale Road
National Technology Park
Limerick / Ireland
+353.61.33.22.33
+353.61.33.25.84 (Fax)

UK
Intepro Systems
Ashville Way
Molly Millar's Lane
Wokingham / UK
+44.118.977.0070
+44.118.979.2969 (Fax)