



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 1290	18-Feb-2000	Number 13	Issue date 27-Apr-2019	30-Apr-2020

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Product designation

Tyco, Model PSU Series, power supply units

(Refer to the Schedule/enclosures for further specified details)

Agent/distributor

Tyco Fire Protection Products
Level 3, 95 Coventry Street, SOUTHBANK, VIC, AUSTRALIA, 3006

Registrant

Johnson Controls
17 Mary Muller Drive, HILLSBOROUGH, CHRISTCHURCH, NEW ZEALAND, 8022

Producer

Johnson Controls
17 Mary Muller Drive, HILLSBOROUGH, CHRISTCHURCH, NEW ZEALAND, 8022

Conformance criteria and evaluation

The Tyco, Model PSU Series, power supply units have been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 4428.5-1998, 'Fire detection, warning, control and intercom systems - Control and indicating equipment - Power supply units'.

Limitations/conditions of conformance

Limitations/conditions of conformance, where identified on this certificate, are derived from qualifications from evaluation(s) for conformity and/or other related technical documentation. All details with respect to design, assembly and installation instructions and restrictions should be checked against the producer's current technical manual/data sheets and the requirements of the Authority having Jurisdiction.

This certification is issued within the scope of CSIRO Verification Services – Rules governing ActivFire Scheme and is valid only for the product(s) as submitted for evaluation and verification of conformity, subject to the following conditions.

- Reference to details, limitations and requirements, where documented as a schedule/enclosure with this certificate.
- The Registrant is responsible for their attestation of conformity and ensuring that on-going production complies with the conformance criteria defined in this certificate.
- This certificate will not be valid if any changes or modifications are made to the product which have not been notified and validated by CSIRO Verification Services.
- This certificate is subject to periodical re-validation upon verification that all requirements, as determined by the conformity assessment body, continue to be satisfactorily met by the Registrant.
- This certificate may only be reproduced in its published form, without modification and inclusive of all schedules/enclosures.
- Any changes, errors or omissions, must be submitted in writing and if necessary or requested, substantiated with relevant evidence.
- Any representations, such as advertising or other marketing related activities or articles shall reflect the correct contents of this certificate and conform with all relevant trade practices and consumer protection legislation and regulations.
- Any terms or conditions of use as applicable to content and documentation as published or accessed through web sites administered by the CSIRO Verification Services.

Issued by

David Whittaker
Executive Officer – ActivFire Scheme



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Producer's description

The Tyco, Models PSU2406 and PSU2412, power supply units convert mains AC power to a temperature compensated 24 Vdc supply capable of powering a fire alarm panel or charging the Evacuation Panel batteries and supplying the quiescent panel load and ancillary functions for use in non-emergency conditions. The power supply units include a mains supply indicator built into the mains supply switch and have LED indicators for OPERATING/CURRENT and FAULT. The power supply units output a single Charger Fail signal to the ECP as well as outputting individual fault signals on a 10 way ribbon cable.

The Tyco, Model PSU2406, power supply units delivers 6 Amps at 24 Vdc and the Tyco, Model PSU2412, power supply unit delivers 12 Amps at 24 Vdc.

The Tyco, Models PSU2406 and PSU2412, power supply units are supplied in two forms, "brick" and "rack mounting". Both forms are electrically identical. The Tyco, Model PSU2412, power supply is only available in a rack mounting unit.

Technical specification

The following details are a representative extract of the technical specification for the Tyco, Model PSU Series, power supply units and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

General:

Input voltage:	240 Vac, -15%, +6%, 50 Hz
Mains conditioning:	Varistor clamping, LC filtering
Output voltage:	27.3 V \pm 0.2 V at 20°C
Remote temperature compensation:	-36 mV/°C. Applies to output voltage and charger high / charger low thresholds
Maximum current:	
Model PSU2406	6 A continuous @ 27.3 Vdc
Model PSU2412	12 A continuous @ 27.3 Vdc
Current limit:	
Model PSU 2406	6 A
Model PSU 2412	12 A
Charger high threshold:	28.1 V \pm 0.2 V at 20°C (Adjusted output voltage +0.8 V)
Charger low threshold:	26.5 V \pm 0.2 V at 20°C (Adjusted output voltage -0.8 V)
Battery low threshold:	24.2 V \pm 0.2 V (Adjusted 23 - 25 V)
Battery fail threshold:	19.0 V \pm 0.5 V
Output voltages:	
ECP +24:	ECP 24 V switched, battery fused
FIP/STRM +24:	FIP input module / strobe output 24 V switched, battery backed, fused. (Common switch with ECP)
AMP RACK 24V:	AMP Rack 24 V, switched with circuit breaker, battery backed.
BATT+:	Battery charger output, current limited at 6 A.
24V CURRENT LIM:	ECP 24 V, unswitched, battery backed, protected with 2 Amp PTC.
CHARGER FAIL:	Battery voltage less 5 V max @ 15 mA when no faults present.
Fuse protection:	5 A VNBF (Non battery backed supply not used in QE90) 10 A FIP module / strobe module 5 A ECP module
Front panel indications:	Two LEDs
OPERATING/CURRENT:	Green - duty cycle indicates current magnitude
FAULT:	Yellow - flashes with various cadences to indicate different faults.
Load on battery when Mains off:	Approximately 10 mA
Front panel switches:	Mains DPST 3 A ECP/FIB SPST 10 A AMP RACK SPST 50 A circuit breaker
Operating temperature:	-5 to +45°C
Operating humidity:	10% to 95% RH non-condensing

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Supplementary information

Physical Characteristics:

Rack mounting models:

Dimensions:

Model PSU2406	2U 19 inch rack mounting, 123 mm deep
Model PSU2412	2U 19 inch rack mounting, 180 mm deep

Actual dimensions:

Model PSU2406	Height 89 mm x Width 480 mm x Depth 123 mm (+20 mm for switch lever clearance)
Model PSU2412	Height 89 mm x Width 480 mm x Depth 180 mm (+20 mm for switch lever clearance)

Shipping weight:

Model PSU2406	6 kg
Model PSU2412	7.2 kg

Mounting:

Four screws, 2U 19 inch rack mounting

Brick model:

Dimensions:

Height 96 mm x Width 262 mm x Depth 158 mm

Shipping weight:

5 kg

Mounting:

2 studs + 2 screws (Corner of Tyco RAC CAB)
4 screws (Flat surface)