



DYCON

power solutions

Installation Manual for D247X Series of 24V Switched Mode Power Supplies for Access Control

D247X Series Part Numbers	
D2473-A	3A – 24 volts in A box
D2473-B	3A – 24 volts in B box
D2473-C	3A – 24 volts in C box
D2473-P	3A – 24 volts – PCB only
D2475-C	5A – 24 volts in C box
D2475-B	5A – 24 volts in B box
D2475-C	5A – 24 volts in C box
D2475-P	5A – 24 volts – PCB only

Sizes and Weights

	PCB	A box	B box	C box
Size (H x W x D mm)	130 x 100 x 38	235 x 170 x 85	260 x 320 x 90	345 x 430 x 90
Weight (kg)	0.19	2.0	3.2	4.3

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Overview

The Dycon D247X Series of power supplies are switched mode power supplies with a normally closed voltage-free output for signalling status and serviceability of the unit.

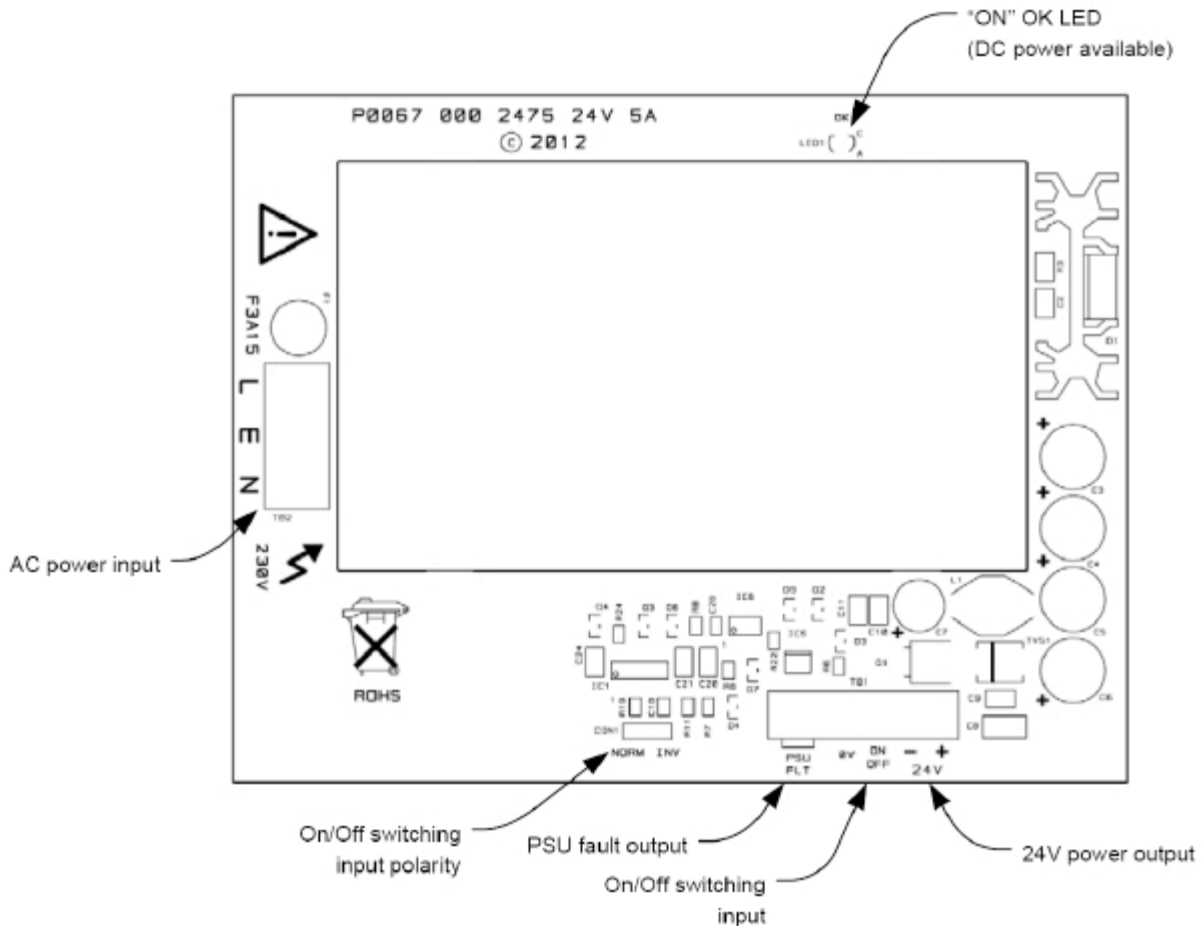
The power supplies all provide a nominal 24V when powered from a 230V AC supply.

The power supplies have the following features:

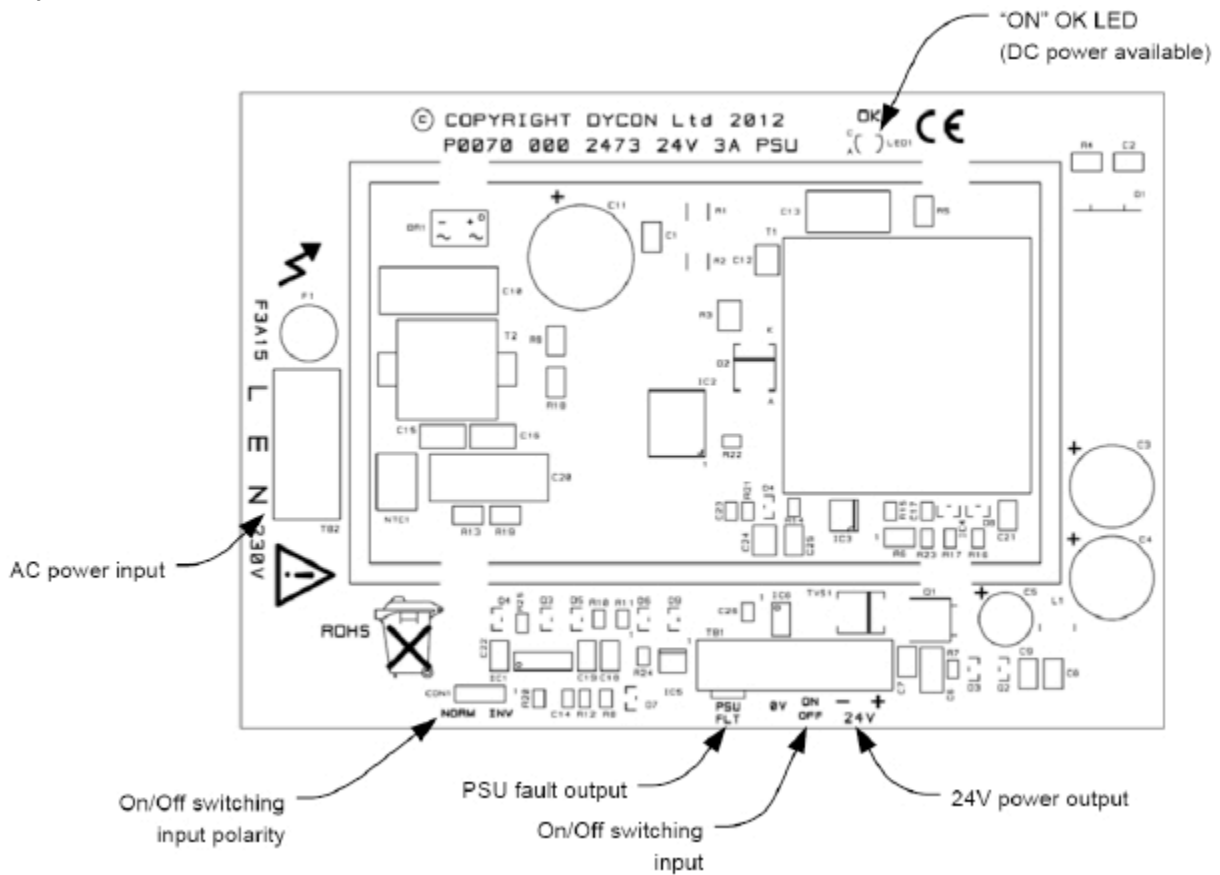
- On/Off power switching control input with pull-up, compatible with voltage-free contacts
- Jumper for selecting inverted or normal power switching input operation
- ON (OK) LED display indicating normal operation and On/Off switching status
- Inductive and capacitive load switching surge protection and snubbing
- Electronic overload protection with automatic reset
- Highly efficient power conversion – better than 84%

The switched output is designed for highly inductive loads such as access control door strikes and locks and is protected from high voltage back-EMF spikes.

Layout D2475



Layout D2473



Installation

Mount the metal enclosure onto the wall.

Connect the Live, Earth and Neutral terminals to an un-switched fused spur.

Connect the On/Off switching control to the control unit. Select the mode of operation using the jumper (see below).

Connect the Normally Closed relay output to the monitoring equipment used to report and signal equipment faults.

Connect the 24v power output to the system.

Switch on the AC supply and confirm that the AC OK LED is lit.

External Power Supply (AC Supply)

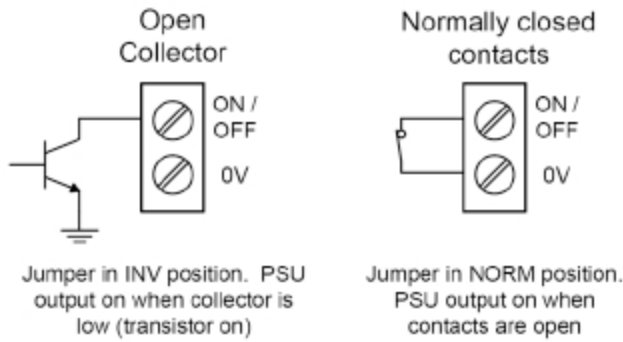
The power supply has a three-way terminal block for Live, Earth and Neutral connections. When supplied boxed, earth is connected to the metal enclosure and the lid earthed with a flying push-fit lead.

ON/OFF Input

This input is 30V tolerant and 5V logic compatible. It has an internal 100K resistor pull-up connected to 5V and is designed to work with 5V logic outputs, NO and NC voltage-free contacts and open collector outputs.

If the ON/OFF input is left unconnected when the jumper is in the NORM position, the power supply will be switched on.

Switching examples are shown below:



24V Power Output

Terminal blocks are provided to connect to the system. The output is floating and can be referenced to earth if required. The output is short circuit and overload electronically protected and suitable for switching highly inductive loads. The output is controlled by the ON/OFF input (see above).

PSU Fault

The PSU fault relay will open when the 24V power supply is not available, including:

- Thermal shutdown due to overload
- AC power is not present
- 24V output is switched on and shorted

The PSU fault relay status will not be changed when the output is switched on or off using the ON/OFF input.

ON LED

The ON LED will indicate if the 24V is available and switched on by lighting steadily and will flash if the 24V is available and switched off using the ON/OFF input.

Maintenance

There are no serviceable parts. No maintenance is required other than routine periodic testing.

Please note that high voltage is present under the cage – handle with care. Do NOT touch. Do NOT remove the cage.

Specifications

Power supply	Type A, Ungraded, Environmental Class 2
Voltage input	195VAC – 265VAC at 50 – 60Hz
AC input fuse	D2473 – 2A; D2475 – 3A
- D2473	- 230V, 3.15A
- D2475	- 230V, 3.15A
Output voltage	Maximum 24.6V, minimum 23.0V
Output ripple	Less than 0.6V peak to peak at full rated output
Maximum output current at full load	D2473 – 3A; D2475 – 5A
Maximum power input at full load	D2473 – 88W; D2475 – 146W
Fault Relay rating	60V at 100mA, 1500V isolation
Operating temperature range	-10°C to +40°C
Humidity	95% non-condensing

In case of problems, telephone Dycon Technical Support on +44 (0)1443 471 900, or email technical@dyconpower.com.