



**DYCON**  
power solutions

# Dycon 24VDC Range

## Installation Manual

### For D2412 & D2413

**24VDC switched-mode power supplies, with  
standby battery charging, for powering  
magnetic fire door retainers, other door  
locking devices & general 24VDC  
applications**

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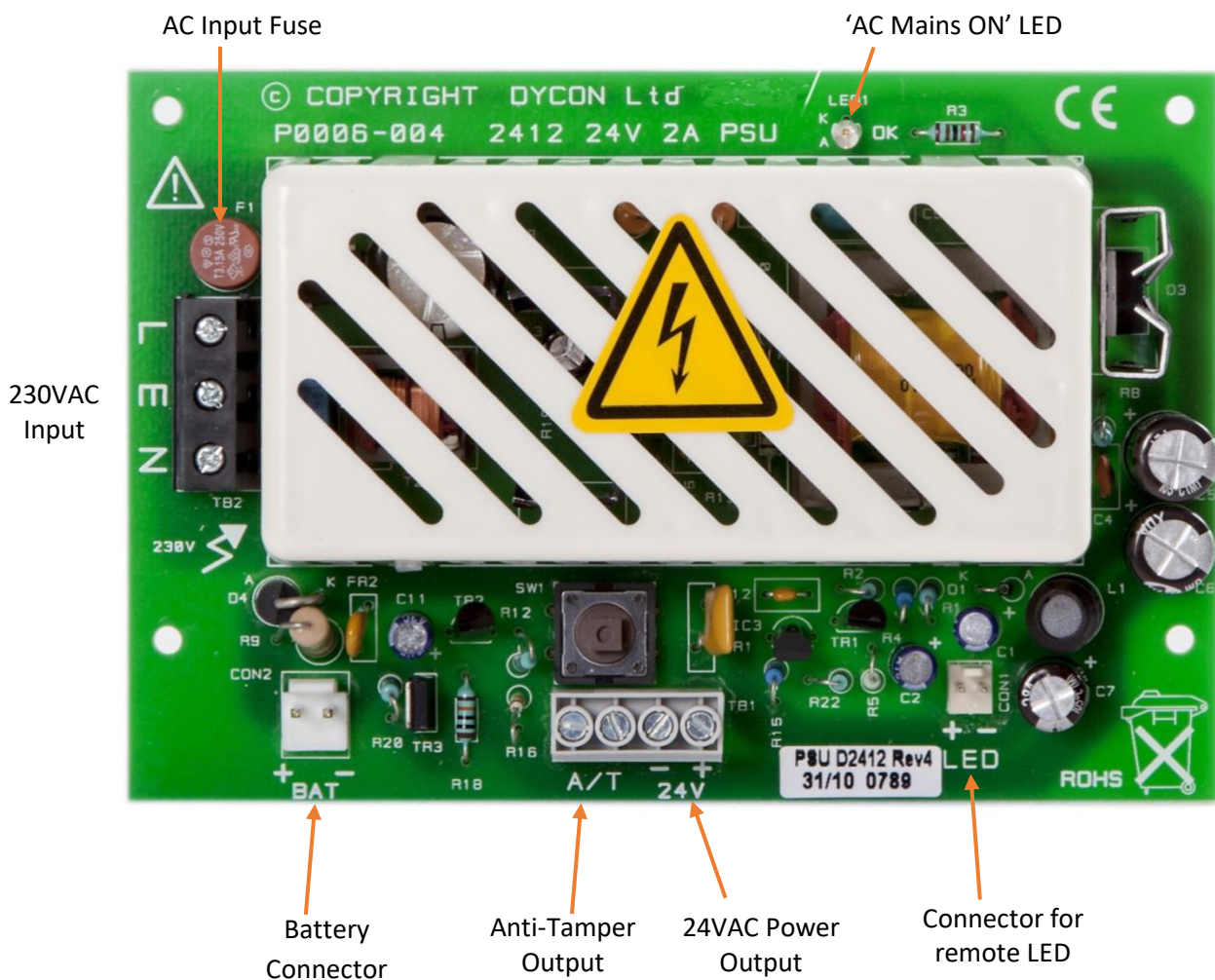
## Overview

The Dycon D2412 and D2413 power supplies are switched mode power supplies with standby battery charging capability. They are ideally suited to powering magnetic door retainers, other types of door locking devices and general 24VDC applications.

The D2412 and D2413 power supplies provide a nominal 24V when powered from a 230V AC supply and they have the following features:

- **ON (OK) LED display, indicating normal operation**
- **Remote LED indicator output**
- **Electronically fused output protection**
- **Battery discharge protection**
- **On-board, PCB mounted anti-tamper switch**
- **Highly efficient power conversion**

## Mounting Dimensions and Layout - D2412 & D2413



## **Installation**

Mount the metal housing onto the wall or secure the PCB module to an appropriate housing

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

Connect the 24v power output to the system.

Switch on the AC supply and confirm that the '**AC Mains ON**' green 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.

## **24VDC 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 is suitable for switching highly inductive loads. The output is controlled by the ON/OFF input (see above).

## **AC Mains ON LED**

The 'AC Mains ON' LED will indicate if the Mains voltage is present.

## **Auxiliary Power Supply (Batteries)**

The D2412 and D2413 units are compatible with 2.1Ah, 7 or 8AH and 17Ah Sealed 12VDC VRLA (Lead Acid or Gel) batteries which should be connected to the "BATT" terminals. If two 12VDC batteries are used, they must be connected in series using the link cable provided .

## **Battery Protection**

The batteries and electronic circuitry are protected against reverse polarity connection by a self-resetting electronic fuse.

## **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	Type A, Ungraded, Environmental Class 2
Voltage input	195VAC – 265VAC at 50 – 60Hz
AC input current	D2412 -200mA; D2413- 500mA;
AC input fuse	D2412 – 1A; D2413 - 1A;
Output voltage with AC power	27.4VDC nominal
Output ripple	< 100mV peak to peak at full rated output
Maximum output current at full load	D2412 – 2A; D2413 -3A;
Battery Recharge Time	< 72 hours
Battery Charging at Full Load	300mA max @27.4VDC float charge current
Output Reset Time	10mS to 18S
Operating Temperature Range	-10°C to +40°C
Humidity	95% non-condensing
PCB size (h x w x d) mm	D2412 - 130 x 87mm; D2413 – 140 x 116mm
Weight – PCB only (kg)	D2412 – 0.19kg; D2413 – 0.21kg
Weight – B, C, XLB and E Housings (kg)	B = 1.9kg; C = 3.3kg; XLB = 2.2kg; E = 5.8kg;

Product Type	PCB only	B box (h x w x d) 60 x 320 x 90mm	XLB/XB box (h x w x d) 295 x 415 x 90mm	C Box (h x w x d) 345 x 430 x 90mm	E box (h x w x d) 400 x 500 x 90mm
2 Amp-24VDC	D2412-P	D2412-B	D2412-XLB	D2412-C	D2412-E
3 Amp-24VDC	D2413-P	D2413-B	D2413-XLB	D2413-C	D2413-E

\* Larger size housings are available, for details see: <https://www.dyconpower.com/product/dycon-housings.php>

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#### For more information about the Dycon products

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Dycon leads the security and associated power supply markets, with UK design and manufacture of advanced power products, engineered to provide high quality, cost-effective solutions to meet current regulations and the specific needs of system integrators and end-users.

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