# D1460/D1462



Advanced Technology, 10A / 20A Switched-Mode Power Supplies with 9 or 18 Programmable, Switched, 1A outputs and a Range of Housings Designed to Accept 6 or 9 x Lenel™, Mercury™, Vanderbilt™, or Similar Controllers. A PCB-only version is also available.



Specially designed for larger system applications, the Dycon D1460-series features an advanced technology 10A switched-mode power supply module designed to be used singly or in pairs and fitted into a range of housings or control. Featuring Dycon's unique protective technology with intelligent and capacitive load switching surge protection and snubbing and the switched outputs are designed for highly inductive loads (door strikes and locks) removing the chance of an 'electrical spike' or transient causing a door to remain closed or open, a frequent cause of personnel delays and expensive engineer call outs.

Each module has 9 x switched and programmable 12VDC x 1A outputs which can be divided into two separate switched groups, an 'alwayson' group and individual outputs, switching can be selected by jumper link. Using other links, two or three Individual outputs can be
connected in parallel to create 2A or 3A high current outputs making the D1460 a highly flexible, single, power solution. Master/Slave ganging
allows the connection of 2 x D1460's together to provide a formidable 20A solution. Additionally, 3 x normally closed (NC) volt-free 'fault'
outputs are provided for remotely signalling the status and serviceability of units. These fault outputs can be used to indicate
problems either locally or remotely via a suitable signalling device. Battery-health impedance checks and battery presence
checks, over-voltage shutdown protection and a 16-LED status display all go to ensure that an access control, BMS or other
major system, functions continuously and that security is always at an optimum level. Several different housings are available
including two units that are specially designed to accept six or nine Lenel™/Mercury™/Vanderbilt™ door or system controllers
and supplied with cable trunking and fixings to simplify installation. A PCB-only version lets you install a D1460 in existing
housings or controller units, a useful feature when removal of existing housings on-site might prove difficult.

An integral data-port enables a connected Dycon D2330 Data-Logger to show the operational status of the unit including output voltages and current, battery charge rates/voltages, battery impedance and ambient temperature, in addition, it will display if there any current faults. The D2300 can read the internal fault log showing any of eleven different types of fault events that may have occurred since the log was last cleared.



# D1460/D1462-Range Major System Power Solutions

# **Configuration and Housing options**

### D1460-C

## Single 10A module applications + space for a single 7Ah or 17Ah battery

- Dycon 'C-box' is 345 (h) x 430 (w) x 90mm (d).
- There is limited additional space available to fit a single controller or other 3<sup>rd</sup> Party module.

## **D1460-E**

# Single 10A module + space several controllers or other 3rd Party devices and/or a second 7Ah or 17Ah battery

- Dycon 'E-box' is 500 (h) x 400 (w) x 90mm (d).
- Sufficient space to enable a variety of different control or other function modules.
- Space for 2 x 7Ah or 17 Ah standby batteries.

#### D1460-G6

## Single 10A module + space for 6 Mercury™, Lenel™ or Vanderbilt™ controllers + batteries

- 687 (h) x 456(w) x 116mm (d).
- Space and fixings for 6 x Lenel™, Mercury™ or Vanderbilt™ or similar door controllers.
- Suitable feather cable-trunking supplied and fitted.
- Additional space for suitable standby batteries.

#### D1462-G9

# 2 x 10A modules + 9 Mercury™, Lenel™ or Vanderbilt™ controllers + batteries

- 687 (h) x 456 (w) x 116mm (d).
- Space and fixings for 9 x Lenel<sup>™</sup>, Mercury<sup>™</sup> or Vanderbilt<sup>™</sup> or similar door controllers.
- Suitable feather cable-trunking supplied and fitted.
- PSU module-to-PSU module interconnection cable supplied and fitted.
- Additional space for standby batteries, up to 4 x 7Ah or 2 x 17Ah

# D1460+D2435-G

# 1 x 13.8VDC 10A module + 1 x 27.6VDC 5A modules

- Dycon 'G-box' is 687 (h) x 456 (w) x 120mm (d).
- The D1460 module provides 9 x 1A electronically fused outputs to drive 12VDC devices and the D2435 module drives 24VDC peripherals.
- Both modules have battery back-up and recharging capability and the housing has physical space for up to 4 x 7Ah or 2 x 17Ah batteries. The actual configuration depends on what back-up is required for both the 12VDC and 24VDC operations.
- The D2435 27.6VDC module is compliant with the requirements of EN54-2 and EN54-4 and requires a minimum of 2 x 7Ah batteries when used in this unit.

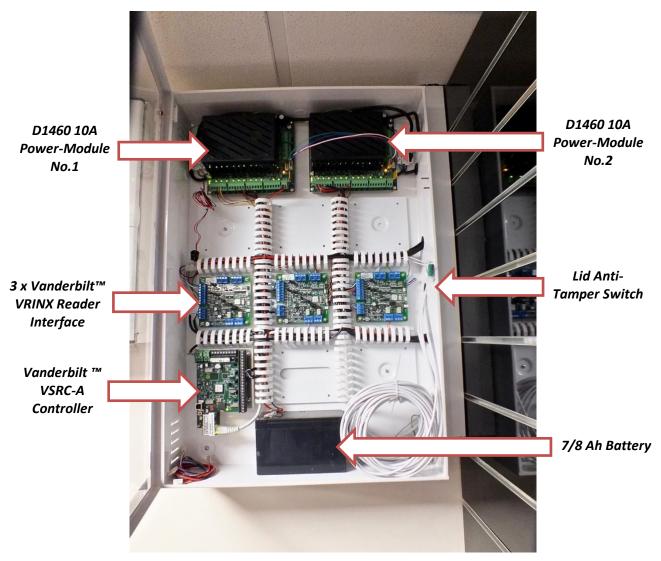
## Common features/options for D1460/1462 'G-Boxes'

- Hinged, solid steel door with Key-Lock security.
- Standard finish is spray painted gloss white and heat-treated to provide a durable, wipe-clean surface.
- Standard colour is white but black can be ordered at extra cost and subject to a minimum quantity order.
- Custom paint colours can be accommodated if that colour is available in the type of paint used by our manufacturing process, please contact us for further information and prices.

#### **Optional Features**

- Front and back anti-tamper switches, which operate if the lid is removed and can detect removal from the wall, may be fitted to any unit either as a factory-fit or supplied for retrofitting on-site.
- Standard NS32-G 7.5mm or N35 15mm DIN-Rail can be supplied in these boxes to facilitate the rapid installation of DIN-rail mounted devices

# A typical D1462-G9-T system during installation



Dycon D1462--T unit with 2 x 10A modules installed and connected; 3 x Vanderbilt<sup>m</sup> Reader Interfaces installed and connected; 1 x 7Ah battery installed and connected with a second still to be fitted. Door tamper switch installed and connected.

Part No.	Power Outputs	Housing Type	Housing Size	Battery Capacity needed to enable full recharge within 24 hrs
D1460-C	9 x 1A + 1A battery charging	C-Box	345 x 430 x 90mm	24Ah
D1460-E	9 x 1A + 1A battery charging	E-Box	500 x 405 x 90mm	24Ah
D1460-G	9 x 1A + 1A battery charging	G-Box	687 x 456 x 116mm	24Ah
D1462-E	18 x 1A + 2 x 1A battery charging	E-Box	500 x 405 x 90mm	2 x 24 Ah
D1462-G	18 x 1A + 2 x 1A battery charging	G-Box	687 x 456 x 116mm	2 x 24Ah
D1460/D2435-G	9 x 13.8VDC 1A + 1 x 27.6VDC 5A, both with battery charging	G-Box	687 x 456 x 116mm	Maximum physical battery capacity is 4 X 7Ah or 2 x 17Ah
D1460-P	9 x 1A + 1A battery charging	PCB-only	170 x 157 x 66mm	24Ah
If you require front and back anti-tamper switches to be fitted, please add -T to any part number				
D2330	Engineer's Data Logger	Hand-Held	76.5 x 127 x 24mm	Integral LiPo battery 3.7V nominal, 800mAh

# D1460/D1462 Major System Power Solutions

# D1460-P 12VDC 10A +(9A + 1A) Switched-Mode Power Supply Module

BASIC POWER MODULE SPECIFICATIONS		
AC Input Voltage	230VAC ±10%, 50Hz.	
SMPS PSU protection	Hysteric over-temperature and over-voltage protection	
Maximum Input Continuous Current	1A @ 230Vac	
Peak inrush current limit	20A (maximum) @12Vdc	
Recommended Switched Spur Input Fuses	250V T3.15A 1.5KA breaking	
Voltage Output AC Present	Minimum 13Vdc, Maximum 13.9Vdc, Load Dependant	
Voltage Output Standby	Minimum 10Vdc, 12 V Nominal, Load Dependant	
Current output with battery charging	10A	
Battery Charging Current	Constant current, low impedance, 1A minimum	
Low Voltage detection thresholds	<11V ±2%, low voltage restore, >11.5V ±2%.	
Battery Fault Circuit Impedance Threshold	>0.18 Ohm ±5%, at a nominal test current of 5A.	
Deep Discharge Disconnection Threshold	<10.5V ±2%.	
Overvoltage Detection Shutdown Threshold	>15V ±2%.	
Output Monitoring Threshold	Battery charging voltage <2V ±2%.	
On-Board AC Power Input Fuse	1A timed, 1.5KA breaking, ceramic	
Battery Fuse	PTC, self-resetting, non-replaceable	
Switched Output Fuses 1 to 9	1.1A PTC, self-resetting, non-replaceable	
Switches SW1 and SW2, control all Inputs or a selection	Logical 0 <1V, Logical 1 >4V, 30V tolerant, 100K pull-down	
Fault Outputs = 3 x Opto-relays for AC, battery and PSU fault	Normally closed, 100mA at 60V. On-Resistance 16 ohms maximum, 1500VRMS Isolation voltage	
Battery current drawn by power supply without AC supply	Maximum 90mA (Depending on PSU status)	
Maximum Ripple Voltage	100mV peak to peak noise and ripple	
Recommended Battery Type	Sealed Lead Acid Gel, 12V 24AH maximum for 24-hour charging	
PCB Footprint Dimensions (h x w x d)	170mm x 157mm x 66mm	
Operating Temperature/Humidity	-10°C to +50°C, 95% maximum humidity, non-condensing	

# **Dycon Power Solutions Ltd**

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For more information about the Dycon range of power products: www.dyconpower.com

Or to discuss specific needs: +44 (0)1443 471 900

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.

D1460/2 data sheet 050420 V9