

D2435-M-MS1-PSUM

1. Specification
2. Contents
3. Installation
4. PSU Monitor
5. Manual
6. Battery status
7. Further details (dimensions, ordering, warranty and contact details)



DYCON
power solutions



[Overview](#)

V3 18022025



Specification

- Dycon D2435-M-MS1-PSUM is a high-efficiency, 5 Ampere switched-mode, dual-output, 'intelligent' 24VDC power supply (PSU) with an integral Dycon D-PSU-MON-24 PSU monitor and display.

- [Datasheet](#)



[Datasheet](#)



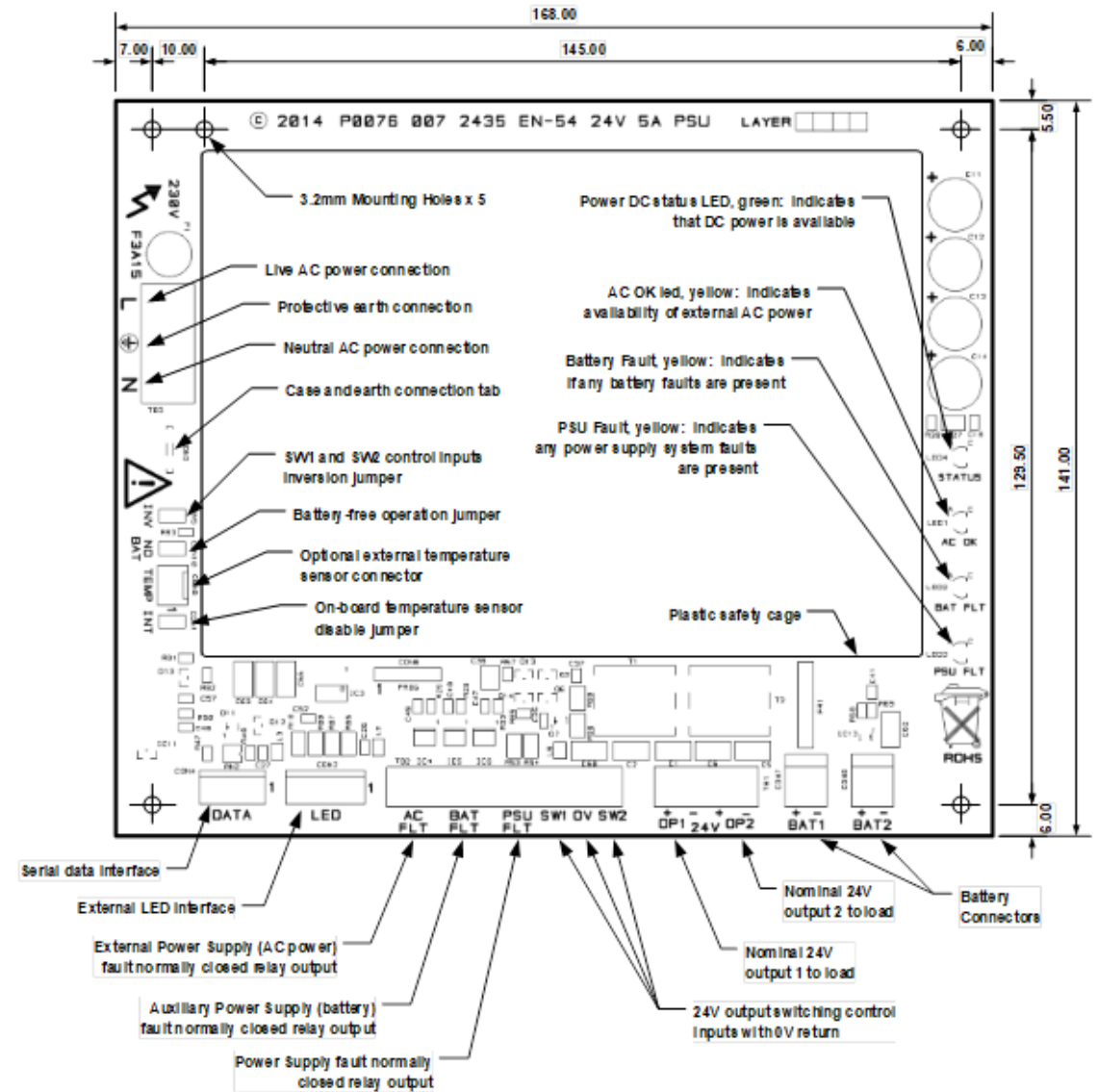


Specification

- On-demand battery charging and load output current sharing
- Automatic output reconnection after short circuit fault
- Two independent switched outputs with programmable (jumper selectable) control inputs
- On board or remote temperature sensing (jumper selectable) with optional remote sensor
- Separate AC healthy, battery fault and power supply fault outputs
- Three fault outputs, AC Power Fail, Battery Fault, PSU Fault
- PTO relay, normally closed floating relay fault outputs
- Over-voltage output protection
- Battery-free option selected by a jumper

Specification

- STATUS: The yellow LED indicates that DC power is available.
- AC OK: The green LED is lit when AC power is available.
- BAT FLT: The yellow LED is lit when any battery related faults are detected.
- PSU FLT: The yellow LED is lit when any power supply related faults are detected.





Contents

2mm steel plate with PSU and 230VAC mains connector, ready-assembled and wired

D2435-P 24VDC 5A
'Intelligent' power module



PSUMON-01 Real-Time PSU monitor with colour display

All necessary connectors, housing earthing leads, battery terminal caps and remote green LED with 350mm lead



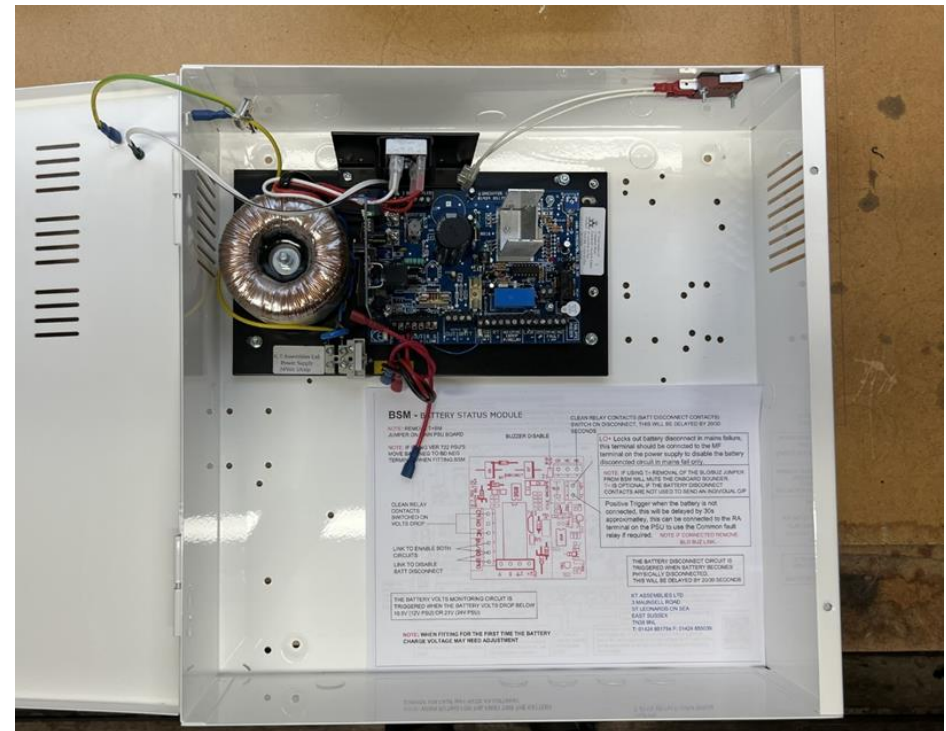
Contents

- 1 x D2435 PSU
- 1 x PSU monitor
- 1 x steel plate
- 1 x earth cable
- 1 x earth cable
- 2 x battery cables
- 1 x label
- 1 x PSU monitor cable
- 4 x battery terminal caps
- 1 x terminal block
- 1 x terminal block cap for mains connector
- 1 x fuse mains
- 1 x green LED



D2435-M-MS1-PSUM installation

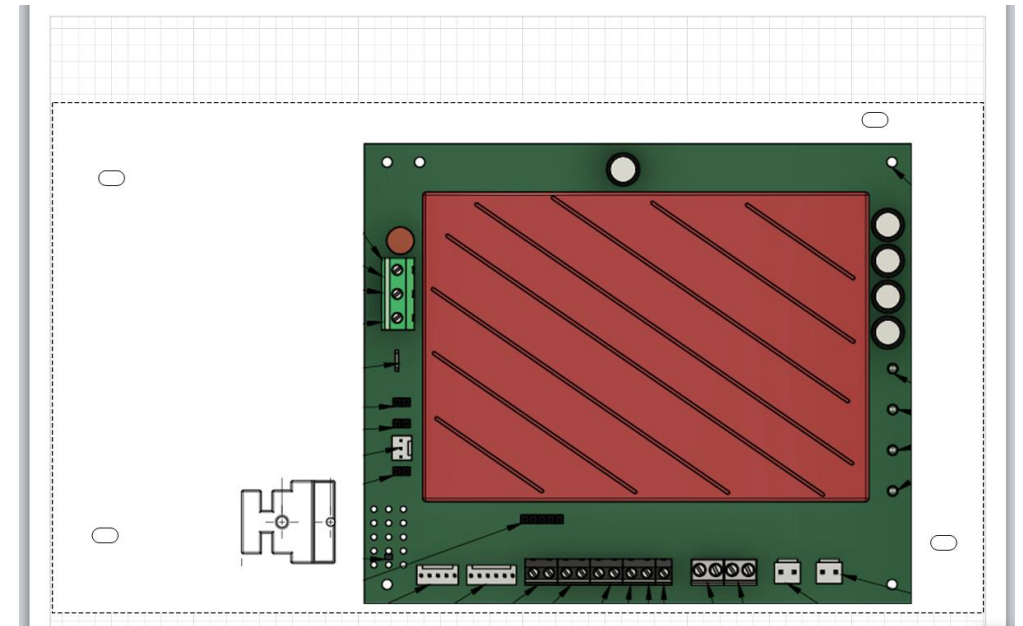
- Existing KT Assemblies PSU in their housing
- To be replaced with a Dycon D2435 PSU and PSU monitor on a metal plate into a KT Assemblies housing





D2435-M-MS1-PSUM installation

1. 2 wiring for mains, power out, fault and batteries to be disconnected from KT Assemblies PSU
2. 4 x M4 nuts with washer to be removed
3. Remove existing PSU plate and fit new fixing plate with D2435 (using 4 x M4 nuts)
4. Fit/replace external LED in lid of the housing
5. Wire up mains 3 wires (do not power up)

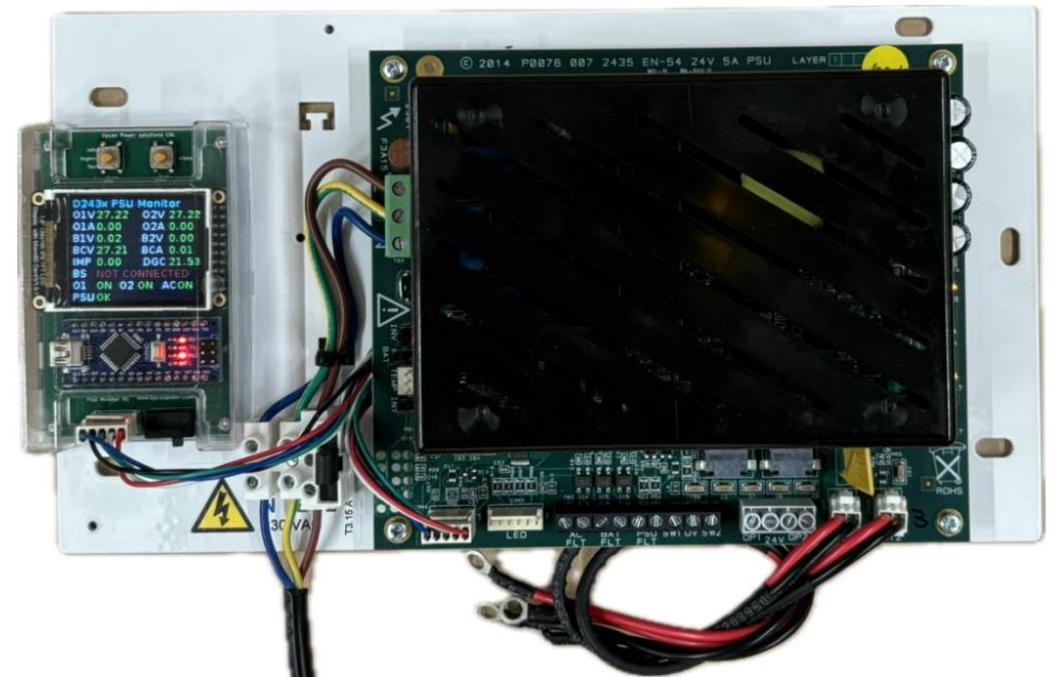




D2435-M-MS1-PSUM installation

6. Fit 2 x spade for earth to base and lid.
7. Wire in the fault outputs, note D2435 has 3 outputs which can be connected in series if only 1 is currently used or additional wiring required to Mercury controller.
8. Connect 2 x battery cables (WARNING: batteries must be connected in series)
9. Fit mains cover (if supplied)

LED's are still visible on PSU





D2435-M-MS1-PSUM installation

10. Power up mains

11. Check status LED's. Note battery impedance test can be delayed up to 1 minutes
See Manual for more information

12. Fit label to outside housing door (indicate PSU has been upgraded)





PSU Monitor

- The PSU monitor provides real-time display and monitoring of voltage, current, impedance & faults on Dycon D243X Intelligent 24VDC power supply units
- [Datasheet](#)



[Datasheet](#)





PSU Monitor

- When powering up, the unit will start with the product page, then to legend, fast sampling and finally normal mode





PSU Monitor

- Page 2 is display legend (photo shows legend)
- Note 'n' is for input, output or battery 1 or 2



```
Display Legends
O{n}V:Output{n} Volt
O{n}A:Output{n} Amp
B{n}V:Battery{n} Volt
BCV:Battery Charge V
BCA:Battery Charge A
DGC:Temperature(C)
IMP:Batt. Impedance
BS:Batt. Status
```



PSU Monitor

- Page 3 is the fast sampling for 10 seconds
- This allows to see in real time data which you cannot see with an LCD multi-meter
- The fast sampling allows to see fluctuations and short changes of voltage and current
- Useful when start up in rush currents as it can cause a problem or short circuit on the outputs can cause a shutdown of a port
- High inrush currents will show the batteries assisting with the power output and dip in the output voltage

```
Fast Sampling (10sec)
O1V 25.94   O2V 25.97
O1A 0.18   O2A 0.00
B1V 13.33   B2V 12.62
BCV 25.95   BCA
IMP 0.00   DGC 25.56
BS  OK
O1  ON  O2  ON  AC
PSU OK
```



PSU Monitor

- The final page is the default page which gives provides data every 800 milli seconds instead of every 8000 of a milli second

```
D243x PSU Monitor
O1V 25.98   O2V 25.98
O1A 0.18   O2A 0.00
B1V 13.31  B2V 12.67
BCV 25.97  BCA
IMP 0.00   DGC 25.44
BS  OK
O1  ON  O2  ON  AC
PSU OK
```



PSU Monitor

- The top left button switches between these 3 pages
- Note: only press once and let it scroll through the pages





PSU Monitor

- The top right button puts the PSU monitor in sleep mode
- Current draw of the PSU monitor is only 10mA and in sleep mode reduces down to just under 1 mA
- Press the button again to wake up the PSU monitor





PSU Monitor

- The bottom right slider allows to switch off the power completely to the unit
- Slide it back to turn on the power



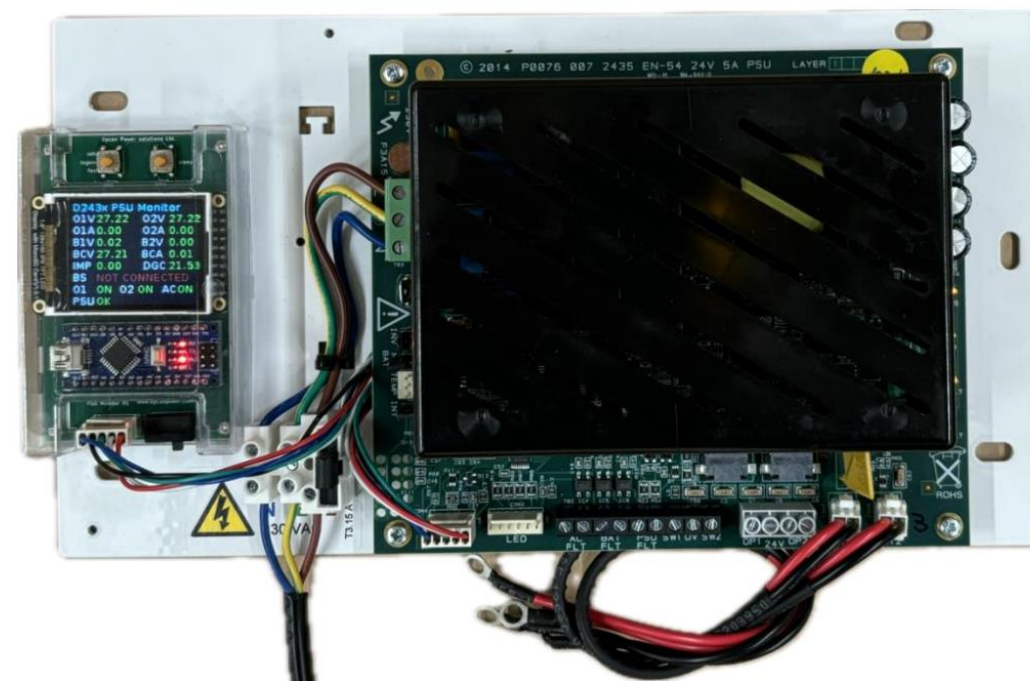


D2435 Manual

- Link here for the [D2435-M-MS1-PSUM manual](#)



[Datasheet](#)





Battery Status TBD

Impedance levels	
8	
9	
10	
11	
12	
13	
14	
15	
16	



Further information

- D2435-M-MS1-PSUM dimension:
- Net dimensions: 150mm (h) x 285mm (w) 78mm
- Gross dimensions: 177mm (h) x 295mm (w) 82mm
- Net weight 1.5kg
- Gross weight 1.8kg



Further information

- **Order details:**
- Part number: D2435-M-MS1-PSUM
- To order please send an email to sales@dyconpower.com with your credit application form
- State quantity required and delivery address
- Contact us for delivery pricing and lead times
- To speed up the ordering process please fill out the [credit account application form](#) (pdf)
- [Credit account application form](#) (Word)



Warranty

- Please find our [terms and conditions](#)
- Please find our [warranty statement](#)
- Please find our [repairs and returns policy](#)



Contact information

- Sales: sales@dyconpower.com
- Accounts: accounts@dyconpower.com
- Telephone: +44 (0)1443 471 900
- Please visit our website for our full range of PSUs: <https://www.dyconpower.com/>
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