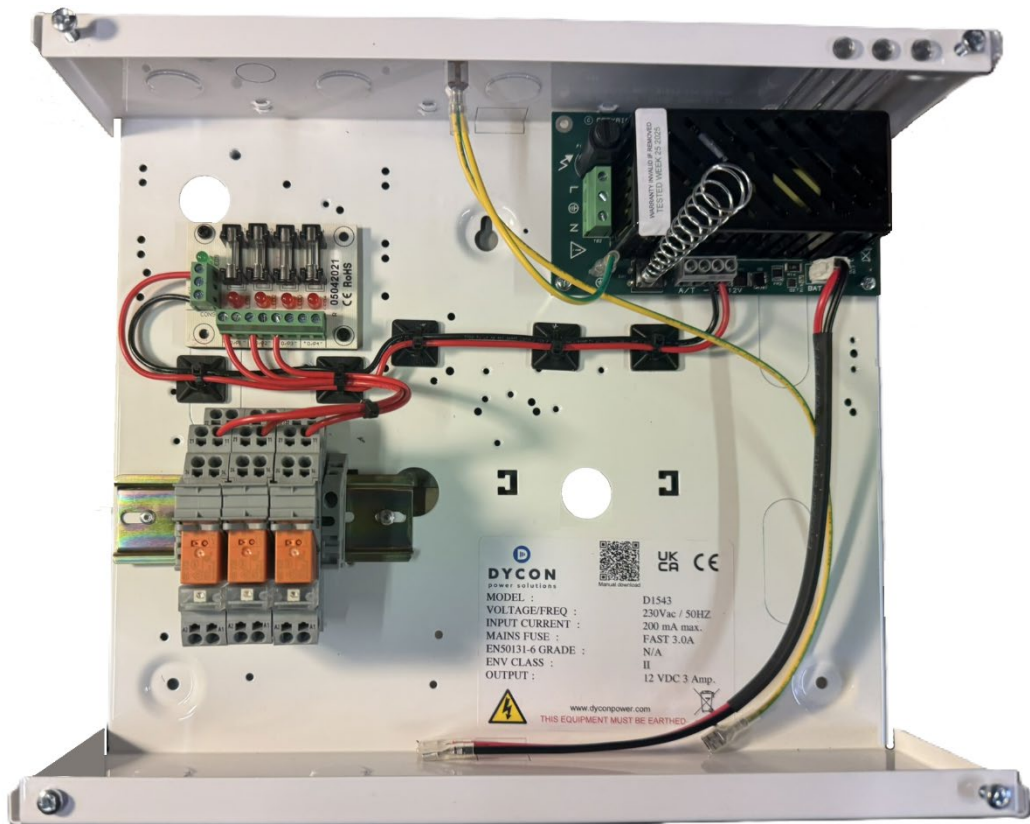




ARES

12VDC PSU





Hardware Manual

2 to 3 Doors

Power Supply	Type A, Ungraded, Environmental Class 2
Voltage Input	230VAC +10% -15%; 50Hz $\pm$ 15%
AC Input Current	D1541-200mA; D1542-300mA; D1543-400mA;
AC Input Fuse	D1541-1A; D1542-2A; D1543-2A;
Output Voltage with AC Power	Maximum 13.7VDC nominal
Output Ripple (P-to-P @ Full Load)	D1541 = 40mV; D1542 = 42mV; D1543 = 53mV
Maximum Output Current @ Full Load	D1541-1A; D1542-2A; D1543-3A;
Battery Charging Current and Voltage	300mA at 13.7VDC float charge voltage
Maximum Over-Voltage Cut-Out	14.4VDC $\pm$ 3%
Battery Deep Discharge Voltage Limit	10VDC $\pm$ 3%
Automatic Reset Time	10ms to 18s (Depending on type of duration of fault)
LED Indicators	GREEN - 230VAC is present ORANGE - Working on internal batteries as 230VAC is missing RED - No 12VDC output power, electronic output fuse tripped
Operating Temperature Range	-10°C to +40°C
Humidity	95% non-condensing

4 Doors

Power Supply	Type A, Ungraded, Environmental Class 2
Voltage Input	230VAC +10% -15%; 50Hz $\pm$ 15%
AC Input Current	600mA
AC Input Fuse	3A
Output Voltage with AC Power	Maximum 13.7VDC nominal
Output Ripple	25mV peak-to-peak at full rated output
Maximum Output Current @ Full Load	5A
Battery Charging Current and Voltage	300mA at 13.7VDC float charge voltage
Maximum Over-Voltage Cut-Out	14.4VDC $\pm$ 3%
Battery Deep Discharge Voltage Limit	10VDC $\pm$ 3%
Automatic Reset Time	10ms to 18s (Depending on type of duration of fault)
LED Indicators	GREEN - 230VAC is present ORANGE - Working on internal batteries as 230VAC is missing RED - No 12VDC output power, electronic output fuse tripped
Operating Temperature	-10°C to +40°C
Humidity	95% non-condensing



Why to install an ARES PSU:

More secure: The ARES PSU is a combined power supply, fuse or resettable fuse and relays so it can protect your main system power supply, also will segregate each door from the system (example if someone shorts a power on one of the locks will blow the fuse on the respective door instead of damaging the system power supply and dragging all system down.)

Increase the reliability: It is a proven fact if the system power supply works at 50% of its capacity it will not overheat so it will last longer.

More protected: By having a separated power supply for the lock will decrease the chance on the main system (power supply and controllers) getting the back emf from the doors

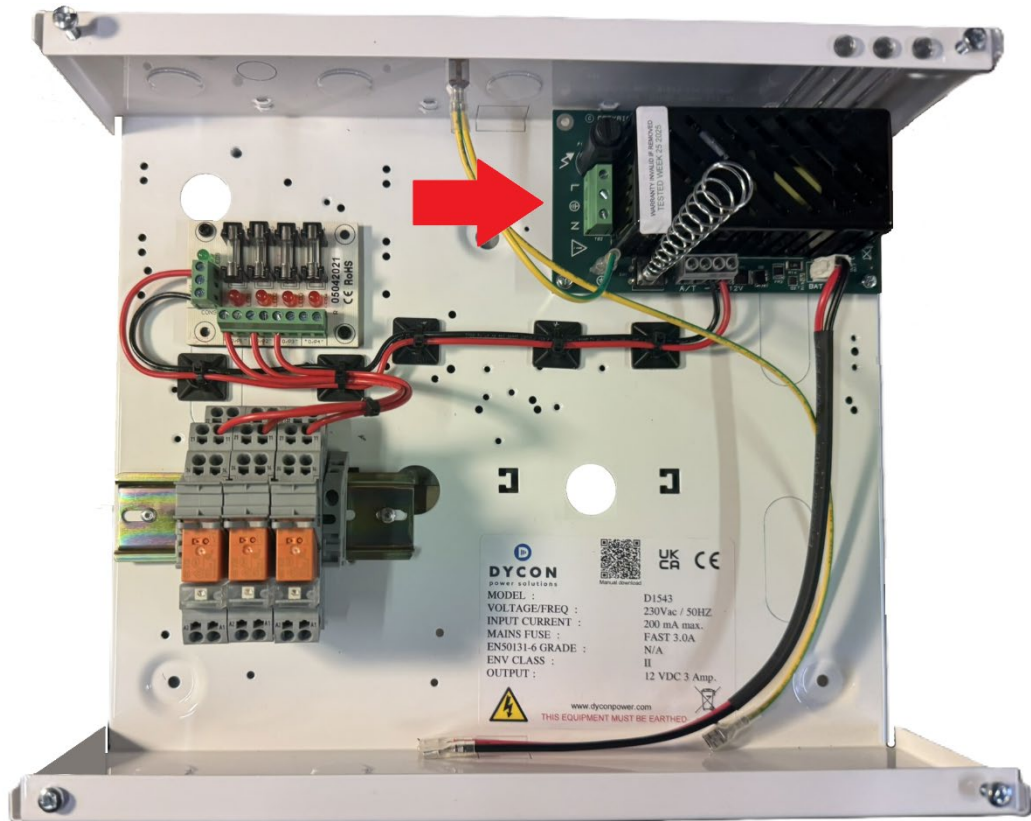
Increase battery backup time: In a system with multiple magnetic lock doors if only have one battery in case of power outage the battery may not have the capacity of keeping the system online for the required time.

Modular system: This will help cutting the cabling long distances on the locks power as the PSU can be placed locally.

Works with any size of systems: It is compatible with any size of system because as it is a modular system, also it can be expanded any time by adding more.



Power Mains 230v ac



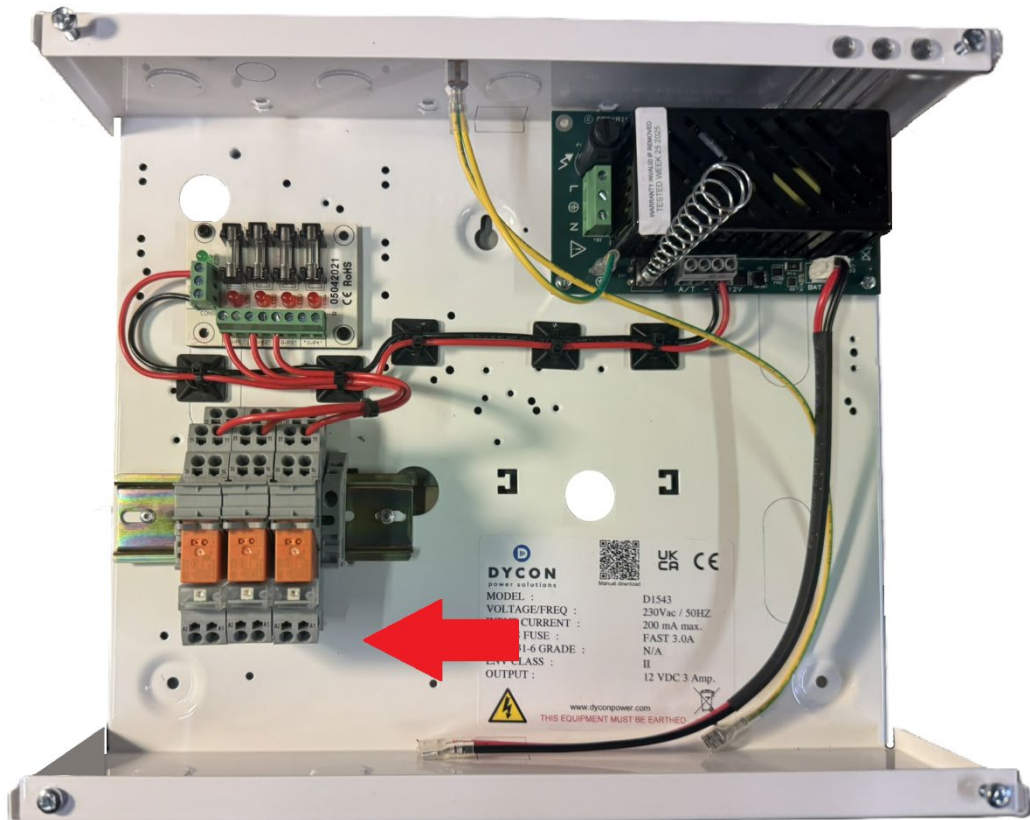
(L) = live wire is a brown colour.

⊕ = earth wire is green/yellow colour.

(N) = neutral wire is blue colour.



From access controller

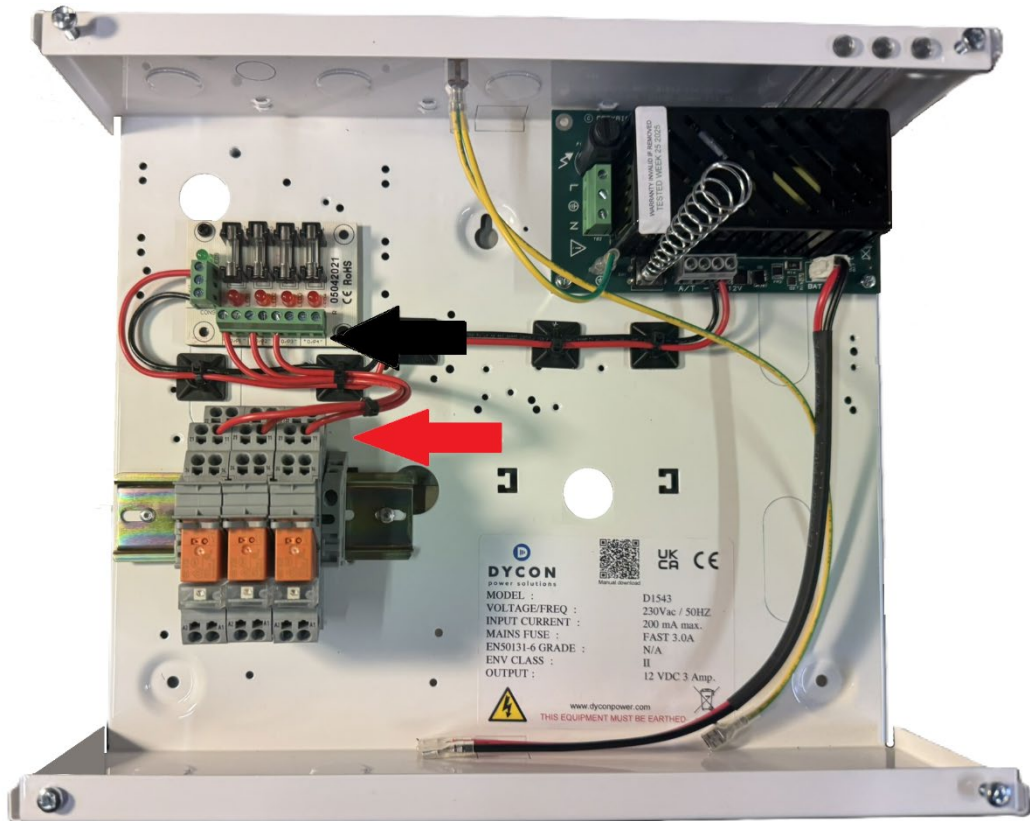


A1 = 12vdc positive wire from the access controller

A2 = 12vdc negative wire from the access controller



Power for the locks



The connection (12) from relay is the 12vdc that connects to the positive on the lock

The connection (-) from the fuse board will connect to the (0V) Negative to the lock



Note

Depending on the ARES PSU version, standard systems (2,3,4 Doors PSU) are designed for 12vdc locks with a maximal load of 960mA per each output.

Please do not mistake the ARES PSU with ARES Smart PSU.

The ARES Smart PSU (with an ARES PLC included). Is builder for dissimilar functions, example controlling doors at long distance via data, multiple entrances management, traffic lights, lift control etc.

Meanwhile ARES PSU is built to handle the power of the doors only.

If required, it is available more versions by request (info@aresbutton.co.uk) like 24VDC outputs with high load required.