

REDLINE POWER BOX 6F

Standard Version



The **REDline Power Box 6F** is a primary fuse box designed for power distribution, first in line after the battery or in remote location within the vehicle.

The advantages of the REDline Power Box 6F:

- Provides a sealed housing for up to 6 MIDI fuses
- Can be placed in rough environment (engine, chassis or battery area)

The **REDline Power Box 6F** can be used in both 24 V and 48 V on-board electrical networks thanks to its compatibility with 32 V and 70 V fuses.

Technical data

Mechanical data	
Box dimensions	170 x 112 x 48 mm
Operating temperature	-40 °C up to +85 °C
IP protection class	IP66 / 69K
Material	PBT GF20 V0

Compatible seals		
Part number	Cable outer diameter	Cable dimension
X902416 (output)	0 mm (blind)	0 mm ²
X902413 (output)	4.4 – 7.2 mm	4 – 16 mm ²
X901297 (output)	8.3 – 10.4 mm	16 – 25 mm ²
X902414 (input)	12.2 – 13.50 mm	50 mm ²

Electrical data	
Mounting point type	4 x M6
Total current	Up to 250 A continuous
Output wire size	6 x M5 cable lug (up to 25 mm ²) for 32 V version 6 x M6 cable lug (up to 25 mm ²) for 70 V version Blind sealing available
Input wire size	1 x M8 cable lug (up to 50 mm ²) for 32 V and 70 V versions

The advantages of our REDline Power Boxes summarised:

- **Robust & durable:** Thanks to high IP levels and cable harness reduction
- **Fast project processing:** Due to a broad range of standardised housings and a structured and established product development process
- **High economic efficiency:** Resulting from simplified installation and maintenance as well as low tooling and engineering costs
- **Convincing service concept:** We support you from the first idea up to serial production of your tailor-made solution and beyond
- **Compact & modular architecture:** Thanks to the modular building block system, the customer-specific configurable PCB and the efficient use of space



This item is a standard product, please consider the relevant datasheet notes. The user is responsible for the product's functionality in its purposed system environment. Technical content may be modified and changed by Würth Elektronik ICS GmbH & Co. KG without any notice.

Technical data

Qualification		
Test methods	Qualification norm	Descriptions
IP protection class	ISO 20653: 2013-02	IP66 / IP69K
Low & high temperature	ISO 16750-4: 2010-04	Temperature: -40 °C / +85 °C
Low temperature operation	ISO 16750-4	Duration: 24 h Temperature: -30 °C
High temperature operation	ISO 16750-4	Duration: 48 h / 96 h Temperature: +85 °C
Temperature cycling with specified change rate	ISO 16750-4	Number of cycles: 30 Cycle duration: 240 h Temperature: -40 °C / +85 °C
Damp heat cyclic	ISO 16750-4 IEC 60068-2-30	Number of cycles: 6 Cycle duration: 144 h Temperature: +55 °C
Rapid change of temperature with specified transition duration	ISO 16750-4 IEC 60068-2-14	Number of cycles: 100 Cycle duration: 100 h Temperature: -40 °C / +85 °C
Dewing test	ISO 16750-4	Number of cycles: 5 Cycle duration: 25 h Temperature: +80 °C
Mechanical shock	ISO 16750-3	Pulse shape: half-sinusoidal Acceleration: 500 m/s ² Duration: 6 mn Number of shocks: 10 per direction
Vibration test ISO 16750-3 RMS	ISO 16750-3	RMS: 57.9 m/s ² Duration: 32 h per axis Temperature: -40 °C / +85 °C
Free fall	ISO 16750-3	Number of DUT: 3 Falls per DUT: 2 Drop height: 1 m

Torque fixing point

Compatibility	Up to ISO class 8.8 screws
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Torque electric connection

M5	5 Nm (6 x on 6F)
M8	9 Nm (1 x on 6F)

Passed chemical tests

Chemical agents	Method	T in °C
Diesel fuel	Spraying	90
Bio Diesel	Spraying	90
Engine Oil	Spraying	120
Antifreeze fluid	Spraying	110
Hydraulic fluid	Spraying	100
Urea	Spraying	70
CaCl solution 5 %	Spraying	RT

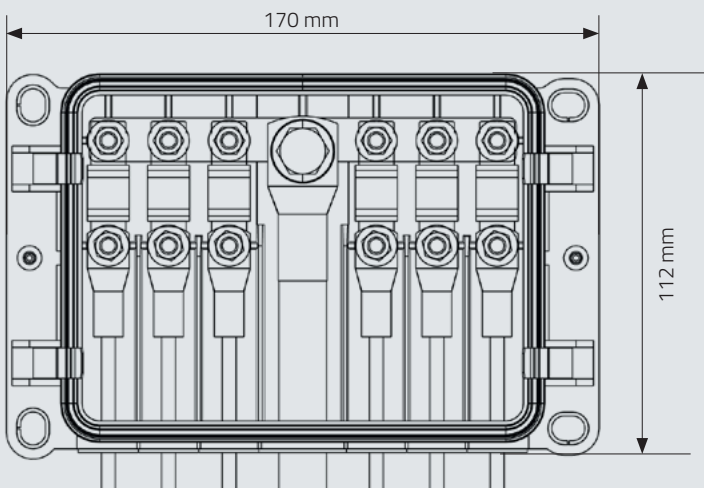
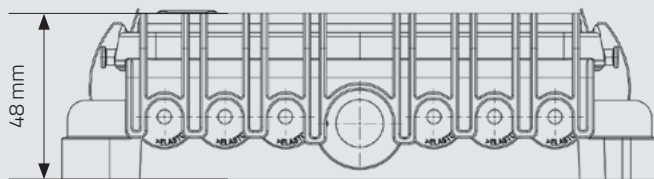
Order information

Equipped for 12 V or 24 V applications	ICS-104010*
Equipped for 48 V applications	ICS-104011*
Housing and sealing without fuses	ICS-104012**
Housing without fuses and sealings	ICS-104966

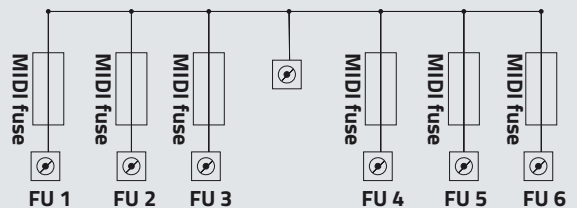
*Equipped with 40 A fuses and 4 - 16 mm² cable entry seals

** Equipped with 4 - 16 mm² cable entry seals

Mechanical information



Electrical schematics



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