



Industrial Power Supply HARTING pCon 2120

Advantages

- Compact design and high power density
- Easy installation and tool-less connection
- Wide input range for world-wide use
- Wide operating temperature range (up to 70 °C without derating)
- Can be used directly in industrial environments
- Protection class II (no earth connection necessary)
- Proof against sustained short-circuits, overloads and no-load operation
- Proof against dynamic overload (150 % rated current for up to 3.0 seconds)
- International approvals

General

The power supplies of the HARTING pCon 2000 product family are designed as power supply solutions for control units, Ethernet and other automation components.

With their wide range of input voltage, the units are suitable for world-wide use.

The quick connection technology and the 2 terminals per connection point guarantees easy and quick installation.

Identification

Part number

HARTING pCon 2120-48
Industrial Power Supply

20 80 000 3125



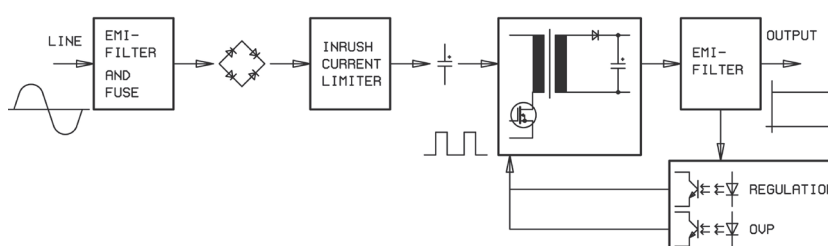
| Identification | Part number | Drawing | Dimensions in mm |
|---|----------------|---------|------------------|
| <p>HARTING pCon 2120-48</p> <p>Industrial Power Supply For mounting onto top-hat mounting rail according to DIN EN 60 715</p> | 20 80 000 3125 | | |

Technical characteristics

Input

| | |
|----------------------------|---|
| Nominal input voltage | 100 V AC / 230 V AC (wide range input) |
| Input voltage tolerances | according to IEC 61 131-2 and DIN 19 240 |
| Input voltage range | 85 to 264 V AC (100 to 375 V DC) |
| Input frequency | 47 ... 63 Hz |
| Input Current I_{in} | < 1.6 A at 230 V AC and < 2.0 A at 100 V AC |
| Inrush current | < 40 A (active limitation) |
| Leakage current | < 0.7 mA (at 47 ... 63 Hz mains frequency and max. input voltage) |
| Internal fuse | T 4 AH / 250 V (not accessibly) |
| Recommended back-up fuse | 6, 10 or 16 A characteristic B (EN 60 898) |
| Transient surge protection | according to VDE 0160 (varistor) |

Block Diagram:

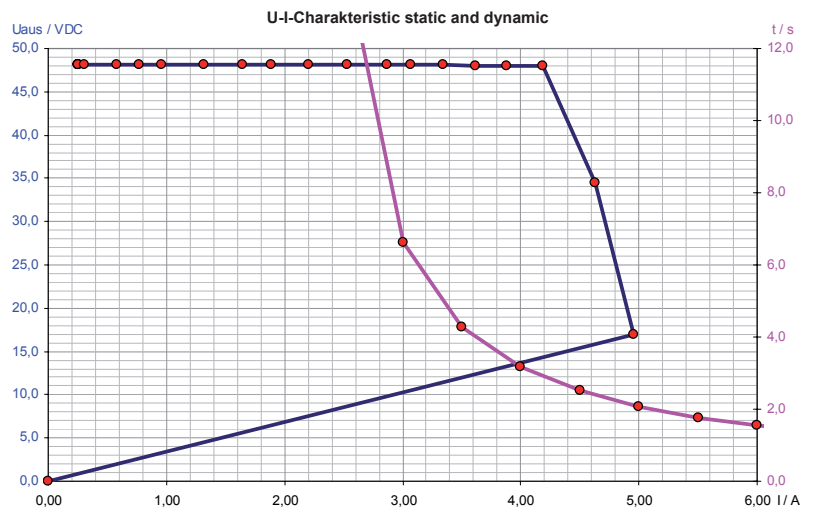


Technical characteristics

Output

| | |
|-------------------------------|---|
| Output voltage | 48 V DC (setting range 47 ... 52 V) |
| Accuracy | ± 1 % over the total load and input voltage range |
| Output current | 2.5 A static 3.125 A (25 % over nominal load) dynamic for max. 7 seconds 3.75 A (50 % over nominal load) dynamic for max. 3.0 seconds |
| Max. output power | 120 W |
| Ripple/Noise | < 40 mVss (at $U_{in} = 264$ V) |
| Steady-state control accuracy | < 2 % |
| Overload behavior | current limitation > 2.7 A static; > 4.0 A dynamic |

The device is electronically protected against short-circuit and no load operation. In the event of a malfunction, the output voltage is limited to 67 V DC. During overload the output voltage is reduced to approx. 34 V, a low-resistance connections induces hiccup mode to protect against the danger of fire.



| | |
|---|---|
| Mains buffering at nominal load (typical) | ≥ 100 ms at 230 V AC; ≥ 15 ms at 115 V AC |
| Efficiency (typical at nominal load) | $U_{in} = 230$ V: 90.7 % / power dissipation (typ.) 12.3 W $U_{in} = 115$ V: 90,4 % / power dissipation (typ.) 12.7 W $U_{in} = 100$ V: 90,1% / power dissipation (typ.) 13.2 W |
| Output voltage indication | LED green |
| Turn-on time | ≤ 600 ms after applying the mains voltage |
| Resistance to reverse feed | 35 V < 4 mF and Nennlast |

Technical characteristics

General Data

| | |
|----------------------------------|--|
| MTBF | > 250.000 hours (according to IEC 1709, SN 29 500) |
| Insulation co-ordination | |
| Isolation voltage Input / Output | Type-/ routine test 3 kV AC |
| Connectable in parallel | yes, with redundancy module (decoupling diodes) |

Connection

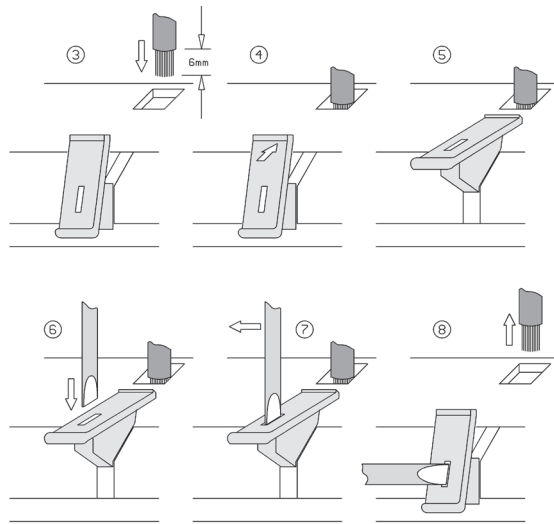
Primary: 2 x L1 / 2 x N (below)
 Secondary: 2 x U1 / 2 x GND (above)

Conductor cross-sections

Stranded conductor: 0.3 ... 2.5 mm² (AWG 28 ... 12)
 Solid conductor: 0.3...4 mm² (AWG 28 ... 12)

The connection can be made with or without screw driver (3 mm width), as shown in the following pictures

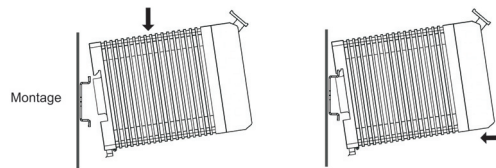
- ③ - ⑤ : make contacts
- ⑥ - ⑧ : break contacts



Installation / Removal

The power supply can be snapped onto a 35 mm mounting rail acc. to EN 60 715.

The unit should be mounted at a slight angle from above onto the rail. Push down until the slide at the back of the unit snaps in (see diagram).



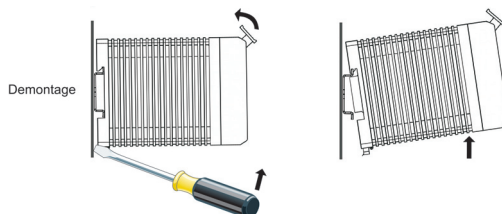
The device must be mounted in such a way that the ventilation slots are not covered and air convection is unimpeded.

Leave a space of at least 3 cm above and below the unit.

The air temperature at the bottom of the unit must be not higher than the max. operating temperature ($T_u = 70 \text{ }^\circ\text{C}$)!

Disconnect all cables before starting removal.

To remove, first unlock the slide with a screwdriver and then take the unit away from the rail.



Technical characteristics

Design features

| | |
|---|--|
| Housing | plastic enclosure anthracite-grey RAL 7016 |
| Dimensions (W x H x D) | 70 x 85 x 105 mm |
| Mounting | 35 mm DIN rail according to DIN EN 60 715 |
| Weight | approx. 500 g |
| Degree of protection acc. to DIN 60 529 | IP 20 |
| Class of protection | II (no earth connection necessary) |

Environmental conditions

| | |
|-----------------------|---|
| Operating temperature | -25° C to 70°C (without forced ventilation) |
| Storage temperature | -30 °C to +85 °C |
| Relative humidity | 30 % to 95 % (non-condensing) |

Mechanical stability

| | |
|-----------|-----------------|
| Shock | IEC 60 068-2-27 |
| Vibration | IEC 60 068-2-6 |

Product standards

- EN 50 178 (VDE 0160)
- EN 60 950 (SELV)
- EN 60 204 (PELV)

EMC standards

| | |
|------------------------------------|--------------------------------|
| Interference immunity ESD | IEC 61 000-4-2 |
| Interference immunity HF, radiated | IEC 61 000-4-3 |
| Interference immunity Burst | IEC 61 000-4-4 |
| Interference immunity Surge | IEC 61 000-4-5 |
| Interference immunity | IEC 61 000-4-6 |
| Emitted radiation | EN 55 011, (EN 55 022) Class B |
| System perturbation | IEC 61 000-3-3 |
| Rail standard | EN 50 121-3-2 |

Approvals

Conforms to EMC guideline 89/336/EEC and low voltage directive 2006/95/EG

Electrical safety of information technology equipment

IEC/EN 60 950, UL 60 950, CSA 22.2-60 950
CCSA-NRTL/C

