

Industrial Power Supply HARTING Ha-VIS pCon 2035



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 2.5 seconds)
- Active PFC
- International approvals

General

The power supplies of the product family HARTING pCon 2000 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

HARTING Ha-VIS pCon 2035-24

Industrial Power Supply

Part number

20 80 000 3123

Drawing



Dimensions in mm

All data given are in line with the actual state of art and therefore not binding.
HARTING reserves the right to modify designs without giving the relevant reasons.

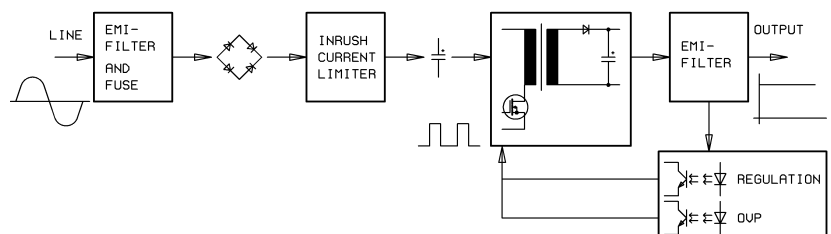
Identification	Part number	Drawing	Dimensions in mm
<p>HARTING Ha-VIS pCon 2035-24</p> <p>Industrial Power Supply For mounting onto top-hat mounting rail according to DIN EN 60715</p>	<p>20 80 000 3123</p>		

Technical characteristics

Input:

Nominal input voltage	100V AC / 230 V AC (wide range input) input voltage tolerances: according to IEC 61131-2 and DIN 19240
Input voltage range	85 to 264 V AC (100 to 375 V DC)
Input frequency	47 to 63 Hz
Input Current I_{in}	< 0,7 A at 230 V AC and <1,3 A at 100 V AC
Inrush current	< 40 A (active limitation)
leakage current	< 0,25 mA (at 47 – 63 Hz mains frequency and max. input voltage)
Internal fuse	T 4 AL / 250 V
Recommended back-up fuse	6, 10 or 16A characteristic B (EN 60898)
Transient surge protection	according to VDE 0160 (Varistor)
Power Factor Correction	active PFC

Block Diagram:



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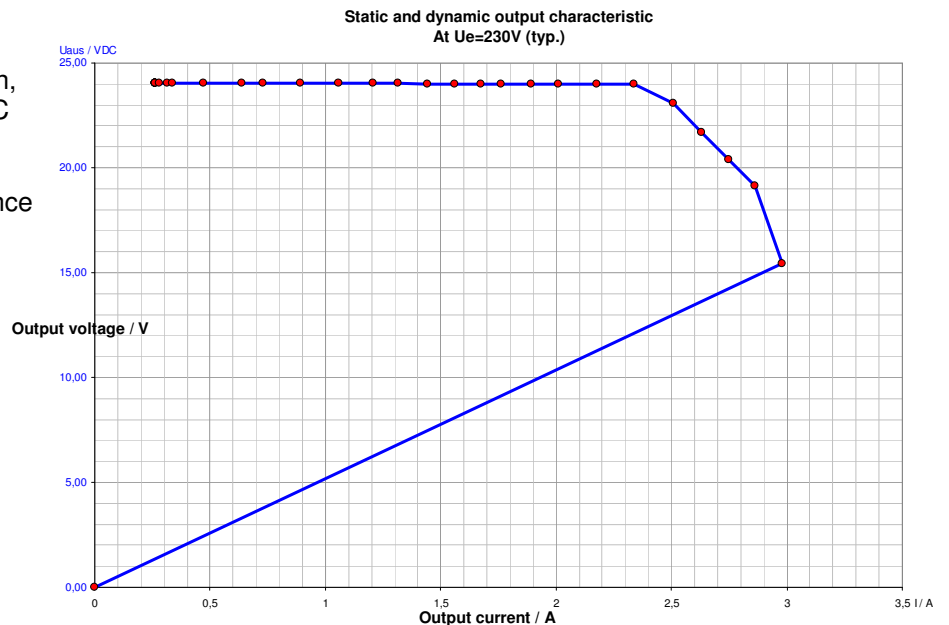
Technical characteristics

Output:

Output voltage accuracy	24 V DC (setting range 23 – 29 V) ± 1 % über over the total load and input voltage range
Output current	1,4 A static 1,76 A (25 % over nominal load) dynamic for max. 7 seconds 2,1 A (50 % over nominal load) dynamic for max. 2,5 seconds
Max. output power	30 W
Ripple/Noise	< 40 mVss (at $U_{in} = 264 V$)
steady-state control accuracy	< 2%
Overload behavior	current limitation > 2,3 A static; > 2,8 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 35 V DC

During overload the output voltage is reduced to approx. 17V, a low-resistance connections induces hiccup mode to protect against the danger of fire.



≥ 100 ms at 230 V AC; ≥ 15 ms at 115 V AC

Mains buffering at nominal load (typical)	$U_{in} = 230 V$: 89,1% / power dissipation (typ.) 4,1 W
Efficiency (typical at nominal load)	$U_{in} = 115 V$: 87,3% / power dissipation (typ.) 4,8 W
	$U_{in} = 100 V$: 86,2% / power dissipation (typ.) 5,4 W

LED green

Output voltage indication ≤ 600 ms after applying the mains voltage

Turn-on time
35 V
< 4 mF and nominal load

Resistance to reverse feed
Start-up of capacitive loads

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Technical characteristics

General Data

MTBF >250.000 hours (according to IEC 1709, SN 29500)

insulation co-ordination
Isolation voltage Input / Output Type-/ routine test 3 kV AC

Connectable in parallel yes, with redundancy module (decoupling diodes)

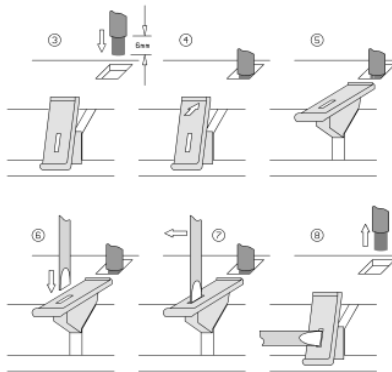
Connection

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

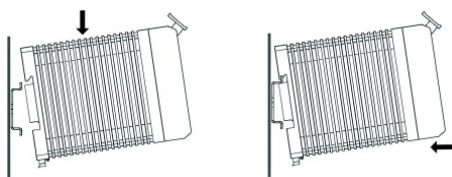
Conductor cross-sections
Stranded conductor: 0,3 to 2,5mm² (AWG 22 – 14)
Solid conductor: 0,3 to 4mm² (AWG 22 – 12)

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

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

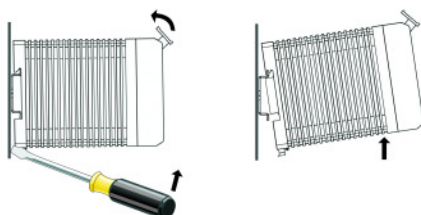


Installation / Removal



The power supply can be snapped onto a 35 mm mounting rail acc. to EN 60715. 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 ($T_u = 70\text{ °C}$).



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)	30 x 75 x 105,5 mm
Mounting	35mm DIN rail according to DIN EN 60715,
Weight	approx. 170 g
Degree of protection acc. to DIN 60529	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

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 73/23/EEC

Electrical safety of information technology equipment	IEC/EN 60950, UL 60950, CSA22.2-60950
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CCSA-NRTL/C



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