

TECHNICAL SPECIFICATION OF POWER SUPPLY FOR THYRISTOR CONVERTER

Material code : BP9047583175

Input data

Input nominal voltage range : 100 V AC ... 240 V AC
AC input voltage range : 85 V AC ... 264 V AC
Short-term input voltage : 300 V AC
DC input voltage range : 90 V DC ... 350 V DC
AC frequency range : 45 Hz ... 65 Hz
DC frequency range : 0 Hz
Current consumption : Approx. 2.8 A (120 V AC) Approx. 1.2 A (230 V AC)
Inrush current limitation : < 15 A (typical)
I_{2t} : < 1.5 A²s
Power failure bypass : > 40 ms (120 V AC) and > 40 ms (230 V AC)
Typical response time : < 0.5 s
Protective circuitry : Transient surge protection Varistor
Input fuse, integrated : Yes

Output data

Nominal output voltage: : 24 V DC \pm 1%
Setting range of the output voltage : 18 V DC ... 29.5 V DC (> 24 V constant capacity)
Output current : 10 A (-25°C ... 70°C)
Power loss nominal load max. : \leq 18 W
Maximum power dissipation idling : \leq 7 W
Efficiency : > 92.5 % (for 230 V AC and nominal values)
Residual ripple : < 50 mVPP (with nominal values)
Connection in parallel : Yes, for redundancy and increased capacity
Connection in series : Yes
Surge protection against internal surge voltages : Yes, limited to approx. 35 V DC
Status display : "DC OK" LED green / U_{OUT} < 0.9 x U_N: LED flashing

General data

Insulation voltage input/output : 4 kV AC (type test) and 2 kV AC (routine test)
Insulation voltage input / PE : 3.5 kV AC (type test)
2 kV AC (routine test) Insulation voltage output / PE : 500 V DC (routine test)
Degree of protection : IP20
Class of protection : I, with PE connection
Type of housing : Steel sheet, zinc-plated
Housing material : Steel sheet, zinc-plated
Mounting : 35mm DIN-RAIL Horizontal
Terminal : Screw type suitable for 2.5sq mm
Dimensions W / H / D : Approx 60 mm / 130 mm / 125 mm
Weight : Approx 1.1 kg

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Signature



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Ambient conditions

Ambient temperature (operation)	: -25 °C ... 60 °C
Vibration (operation)	: < 15 Hz, amplitude ± 2.5 mm in acc. with IEC 60068-2-6 and 15 Hz . 150 Hz, 2.3g, 90 min.
Shock	: 30g in all directions in acc. with IEC 60068-2-27
Pollution degree in acc. with EN 50178	: 2
Climatic class	: 3K3 (in acc. with EN 60721)

Standards

Electrical Equipment for Machinery	: EN 60204
Safety transformers for power supply units	: IEC 61558-2-17
Protection against electric shock	: DIN 57100-410
Limitation of mains harmonic currents	: EN 61000-3-2