

PS-EE-2G/1AC/12DC/120W/SC - Power supply



1585283

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Primary-switched power supply unit, ESSENTIAL POWER, Screw connection, DIN rail mounting, input: 1-phase, output: 12 V DC / 10 A, adjustable from 12 V DC ... 15 V DC

Commercial data

Item number	1585283
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	CMB312
GTIN	4067923140332
Weight per piece (including packing)	662 g
Weight per piece (excluding packing)	560 g
Country of origin	CN

Technical data

Input data

AC operation

Supply system configuration	TN, TT, IT (PE)
Nominal input voltage range	100 V AC ... 240 V AC
Input voltage range	110 V AC ... 240 V AC $\pm 10\%$ ($P_N = 120\text{ W}$) 100 V AC ... 109 V AC -15% ... $+10\%$ ($P_N = 100\text{ W}$)
Typical national grid voltage	120 V AC 230 V AC
Voltage type of supply voltage	AC
Inrush current	typ. 50 A (at 25 °C)
Inrush current integral (I^2t)	typ. 0.9 A ² s
Frequency range (f_N)	50 Hz ... 60 Hz $\pm 10\%$
Mains buffering time	typ. 19 ms (120 V AC) typ. 60 ms (230 V AC)
Current consumption	max. 2 A (100 W) max. 1.5 A (120 W) typ. 1.3 A (110 V AC (120 W)) typ. 0.6 A (240 V AC (120 W)) typ. 1.2 A (100 V AC (100 W)) typ. 1.1 A (109 V AC (100 W))
Protective circuit	Transient protection; Varistor
Switch-on time	typ. 1 s
Device mains fuse	3.15 A internal (device protection), fast-blow
Recommended breaker for input protection	20 A (Characteristic B, C, D, K or comparable)
Discharge current to PE	< 3.5 mA

Output data

Efficiency	typ. 88 % (120 V AC) typ. 89.5 % (230 V AC)
Nominal output voltage (AC_PS)	12 V DC
Setting range of the output voltage (U_{Set})	12 V DC ... 15 V DC (> 12 V DC, constant capacity restricted)
Nominal output current (I_N) (IN_PMax / AC_PS)	max. 10 A ($P_N = 120\text{ W}$)
Nominal output current (I_N) (IN_PMin / AC_PS)	max. 8.35 A ($P_N = 100\text{ W}$)
Short-circuit-proof	yes
No-load proof	yes
Crest factor	typ. 1,7 (120 V AC) typ. 1,7 (230 V AC)
Output power (P_N)	120 W (240 V AC) 100 W (100 V AC)
Connection in parallel	yes, for increasing power and redundancy with diode
Connection in series	yes, for increased output voltage

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Feedback voltage resistance	≤ 18.5 V DC
Protection against overvoltage at the output (OVP)	≤ 18.5 V DC
Residual ripple	typ. 30 mV _{PP} (with nominal values)
Control deviation	< 1 % (change in load, static 10 % ... 90 %)
	< 5 % (change in load, dynamic 10 % ... 90 %)
	< 0.1 % (change in input voltage ±10 %)
Rise time	< 2 s (U _{Out} = 10 % ... 90 %)
Minimum no-load power dissipation	< 1 W (120 V AC)
Maximum no-load power dissipation	< 1 W (230 V AC)
Minimum nominal load power dissipation	< 17 W (120 V AC)
Power loss nominal load max.	< 15 W (230 V AC)
Integrated fuse protection	no

Connection data

Input

Position	1.x
Identification	1.1 (⊕, ⊖, 0V, 1.3 (N))

Conductor connection

Connection method	Screw connection
rigid	0.75 mm ² ... 2.5 mm ²
flexible	0.75 mm ² ... 2.5 mm ²
flexible with ferrule without plastic sleeve	0.75 mm ² ... 2.5 mm ²
flexible with ferrule with plastic sleeve	0.75 mm ² ... 2.5 mm ²
rigid (AWG)	20 ... 14 (Cu)
Stripping length	6.5 mm
Tightening torque	0.5 Nm ... 0.6 Nm
	5 lb _F -in. ... 7 lb _F -in.
Drive form screw head	Slotted L

Output

Position	2.x
Identification	2.1, 2.2 (+), 2.3, 2.4 (-)

Conductor connection

Connection method	Screw connection
rigid	1.5 mm ² ... 2.5 mm ²
flexible	1.5 mm ² ... 2.5 mm ²
flexible with ferrule without plastic sleeve	1.5 mm ² ... 2.5 mm ²
flexible with ferrule with plastic sleeve	1.5 mm ² ... 2.5 mm ²
rigid (AWG)	17 ... 14 (Cu)
Stripping length	6.5 mm
Tightening torque	0.5 Nm ... 0.6 Nm
	5 lb _F -in. ... 7 lb _F -in.
Drive form screw head	Slotted L