CPS100A Series

100 W AC/DC Switching Power Supply for General Purpose

CoolPower Solutions

- Universal Input Range 90-260VAC, 47-63 Hz
- IEC-320-C14 Input Inlet
- Output Voltage Available from 11 VDC to 48 VDC
- Optional Output Connector (see appendix)
- Over Voltage, Over Load and Short Circuit Protections
- DoE Level VI
- Active Power Factor Correction
- Class I System
- Optional Output Connectors available



Electrical specifications

Input	Voltage	90-260 VAC
	Frequency	47-63 Hz
	Current (Full load)	1.2 A max. (100 VAC) / 0.5 A max. (240 VAC)
	Inrush Current	50A max. (100 VAC), 100A max. (240 VAC) ; Io=Full load, 25°C, Cool start
	Leakage Current	0.75 mA max. (240 VAC 60Hz), Io=Full load
	Power Factor Correction	0.95 min / 1.0 max at Vin= 240VAC
Output	Max Output Power	100 W
	Voltage (VDC)	See table below
	Current (A) max.	See table below
	Line regulation	1.0% max, Full load
	Load regulation	3.0% min / 5.0% max, Vin=230VAC, Load 10…90%
	Efficiency	88% ...90% (See rating chart)
	Ripple & Noise	100 mVp-p
	Transient Response	4 ms max. Full load, Vin=110 VAC
	Hold-up Time	16 ms min., Io=Full Load, Vin=100VAC
	Start-up Time	2.0 s max, Io=Full Load, Vin=100-240VAC
Protection	Over Current Protection	110…150 % Recovers automatically after fault condition is removed
	Over Voltage Protection	112…132 %
Isolation	Input-Output	4242 VDC
	Input-Ground	2652 VDC
Environment	Operating Temperature	0°C…+70°C (Derate linearly from 100% load at 40°C to 50% load at 70°C)
	Storage Temperature	-40°C…+85°C
	Temperature Coefficient	±0.04%/°C
	Humidity	10…95% RH (No-condensing)
	MTBF	100 000 h min. @ 25°C (MILHDBK-217F)
	Derating	Derate linearly from 100% load at 40°C to 50% load at 70°C
Physical	Dimension (L x W x H)	146 x 76 x 43 mm Tolerance ±1.0 mm
	Weight	490 g
	Cooling Method	Free air convection
Safety & EMC	EMI Emission	Class B, Compliance to EN55022 (CISPR22), EN61000-3-2,-3

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Description

The CPS100A series of AC/DC switching mode power supplies provide 100 Watts of continuous output power and is well-suited for a variety of applications. All supplies are UL 94V-1 min compliant, include IEC-320-C14 input for worldwide applications. All models meet FCC Part-15 class B and CISPR-22 Class B emission limits and are designed to comply with UL/c-UL (UL 60950-1: 2nd edition), TUV/GS (EN 60950-1: 2nd Edition) and new CE requirements. All units are 100% burned-in and tested.

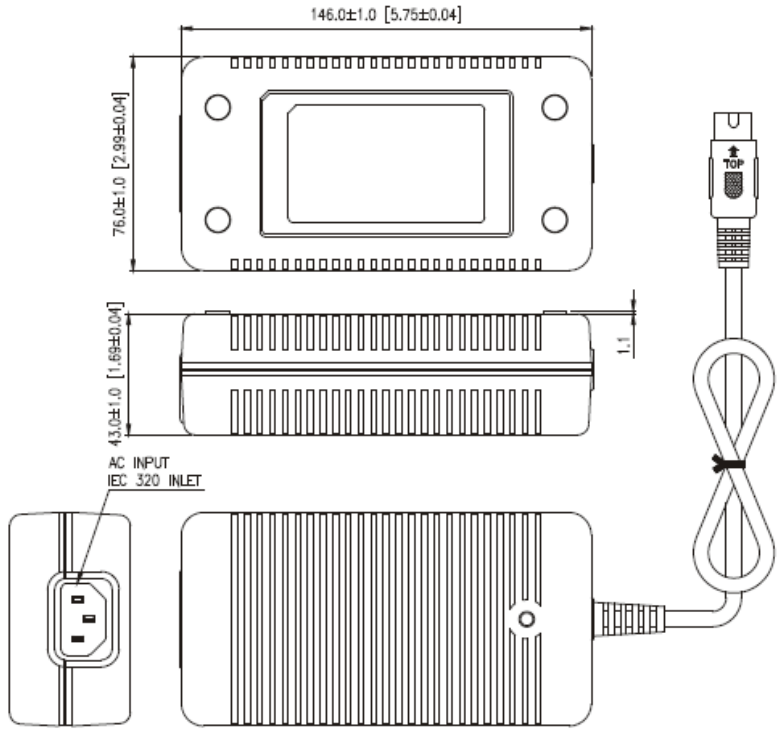
Rating Chart

Model no.	Setting Voltage Range (Factory setting, can't be adjusted)		Output Current (Based on the output volt.)		Maximum Output Power	Ripple & Noise	Total Regulation	Typ. Efficiency	No Load Consumption	Hold-Up Time	Protection Mode
	min	max	min	max							
	(VDC)	(VDC)	(A)	(A)	(W)	(mVp-p)	(%)	(%)	(W)	(ms)	
CPS100A-105	11,0	13,0	9,09	7,69	100	100	±5	88	0,21	16	OLP
CPS100A-106	13,0	16,0	7,69	6,25	100	100	±4	88	0,21	16	OLP
CPS100A-107	16,0	21,0	6,25	4,76	100	100	±4	88	0,21	16	OLP
CPS100A-108	21,0	27,0	4,76	3,70	100	100	±4	89	0,21	16	OLP
CPS100A-109	27,0	33,0	3,70	3,03	100	100	±3	89	0,21	16	OLP
CPS100A-110	33,0	40,0	3,03	2,50	100	100	±3	89	0,21	16	OLP
CPS100A-111	40,0	48,0	2,50	2,08	100	100	±3	89	0,21	16	OLP

1. Selected output connectors and wire, please refer to Appendix.
2. This series is required to use AWG#16×5C/4FT output cable.
3. The regulation and efficiency will be changed by modified output cable.

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Mechanical Specifications



Note:
Dimensions are shown in mm.
Optional output connectors available

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