

# APU 1 1 SERIES

## 10W Wall Mount Low Operating Temperature Power Supplies.

### Description:

The APU11 series of AC/DC switching mode power supplies provide 10 Watts of continuous output power. All supplies are UL 94V-1 min compliant. All models meet FCC class B and are designed to comply and new CE requirements. All units are 100% burned in and tested.



### Features:

- Wide Operating Voltage 90 to 264 VAC, 47 to 63 Hz
- 2 Prong Plug-In Mains Connector
- Optional Output Connector (See appendix)
- Single Output
- Energy Star 2.0, Efficiency level V
- Operating temperature -40~70°C
- Class II
- 2 year warranty

## PRELIMINARY

### Electrical Characteristics:

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit.
Vin	Safety Approvals Input Voltage Range		100		240	VAC
	Operate Voltage Range		90		264	VAC
fin	Input Frequency		47		63	Hz
Po	Output Power Range	Vin=90 to 264VAC	0		10	W
Vo	Output Voltage Range		See rating chart			V
Io	Output Current Range		See rating chart			A
Iil	Input Current (Low Line)	Io=Full load, Vin=115VAC			0.3	A
Iih	Input Current (High Line)	Io=Full load, Vin=230VAC			0.2	A
Irl	Low Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=115VAC		35	40	A
Irh	High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC		70	80	A
Eff	Efficiency	Io=Full Load, Vin=230VAC	See rating chart			%
REG-i	Line Regulation	Io=Full Load		0.5	1	%
REG-o	Load Regulation	Vin=230VAC		3	5	%
OVP	Over Voltage Protection		Nil			%
OCP	Over Current Protection	Nil. But, output protected to short circuit conditions				%
Ttr	Time of Transient Response	Io=Full Load to Half Load, Vin=100VAC			4	mS
Thold	Hold-Up Time	Io=Full Load, Vin=110VAC	5	10		mS
Ts	Start Up Time	Io=Full Load, Vin=100VAC		2	3	S
Vp-p	Ripple & Noise (Peak to Peak)	Full Load, Vin=90VAC		0.5	1	%
Ilk	Safety Ground Leakage Current	Io=Full Load, Vin=240VAC		0.2	0.25	mA
TC	Temperature Coefficient	All output	-0.04		0.04	%/°C
Pno	No-Load Power Consumption	No load, Vin=230VAC	See rating chart			W

### Environmental :

Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Toper	Operating Temperature		-40	40	70	°C
Tstg	Storage Temperature		-40		85	°C
Ho	Operating Humidity		0		95	%
Hr	Storage Humidity		0		95	%
MTBF	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F		0.1M			Hrs
Pd	Derate linearly from 100% load at 40°C to 50% load at 70°C					

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### Safety Specifications:

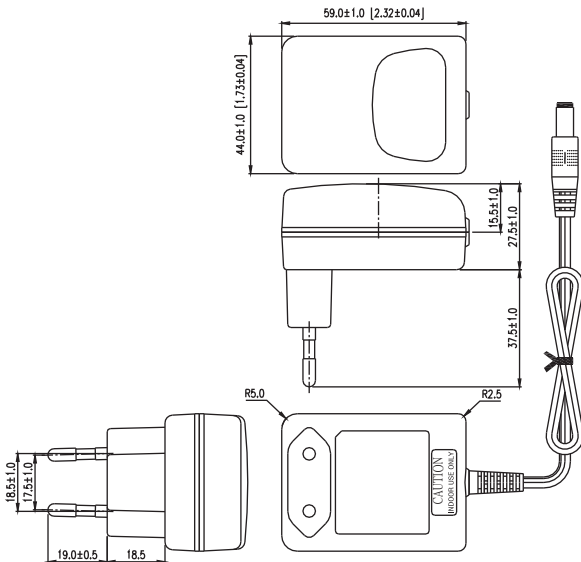
Sym.	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Vps	Dielectric Withstanding Voltage for Primary to secondary	Primary to secondary	4242			VDC
CISPR	EMI requirements for CISPR-22	Vin=220VAC	B			CLASS
FCC	EMI requirements for FCC PART-15	Vin=120VAC	B			CLASS

### Output Voltage And Current Rating Chart ( Single Output ) :

Model Number	Output Voltage	Output Current	Total $\Phi$ Regulation	Efficiency (min.)	Maximum Output Power	Pno (max.)
APU11-102	5 ~ 6 VDC	1.60 ~ 1.33 A	5 %	72 %	8W	0.2W
APU11-103	6 ~ 8 VDC	1.33 ~ 1.00 A	5 %	75.5 %	8W	
APU11-104	8 ~ 11 VDC	1.25 ~ 0.90 A	5 %	76.6 %	10W	
APU11-105	11 ~ 13 VDC	0.90 ~ 0.76 A	5 %	76.6 %	10W	0.3W
APU11-106	13 ~ 16 VDC	0.76 ~ 0.62 A	5 %	77 %	10W	
APU11-107	16 ~ 21 VDC	0.62 ~ 0.47 A	3 %	77 %	10W	
APU11-108	21 ~ 27 VDC	0.47 ~ 0.37 A	3 %	77 %	10W	
APU11-109	27 ~ 33 VDC	0.37 ~ 0.30 A	3 %	77 %	10W	
APU11-110	33 ~ 40 VDC	0.30 ~ 0.25 A	3 %	77 %	10W	
APU11-111	40 ~ 48 VDC	0.25 ~ 0.20 A	3 %	77 %	10W	

- ① APU11-102~105 are required to use AWG#20 / 4FT output cable.
- APU11-106~110 are required to use AWG#24 / 4FT output cable.
- The regulation and efficiency will be changed by modified output cable.

### Mechanical Specifications: (European Type)



#### Note:

1. Dimensions are shown in mm.
2. Weight: 90gs approx.
3. Optional output connector: See page Appendix.