PSE45 Series Multi Ouput 45W Power Adaptor

The PSE45 series of AC/DC switching mode power supplies provide 42 Watts of continuous output power. All models meet EN 55032, BS EN55032 class B and AS/NZS CISPR 32 class B emission limits and are designed to comply with cTUVus , and CE marking conformity assessment. All units pass burn-in test at full load condition.

APPROVALS:

FEATURES:

* Wide Operating Voltage 90 to 264 VAC,47 to 63 Hz
* IEC-320-C14 Input Inlet
* Dual to Triple Output
* Crowbar Mode Over Voltage Protection
* High Altitude of 5000m
* DoE VI (Dual to Triple output)
* 3-Year Warranty

APPLICATIONS:

* POS System
* AV Equipment
* Industrial PC
* Note PC
* LED Lighting

GENERAL SPECIFICATION:

* **Short Circuit Protection**: Auto Recovery
* **Cooling**: Free Air Convection
* **Protection Classes**: Class I
* **Safety**: IEC 62368-1 Edition 2.0, UL 62368-1, CAN/CSA-C22.2 NO.62368-1, EN 62368-1

Electrical Characteristics:

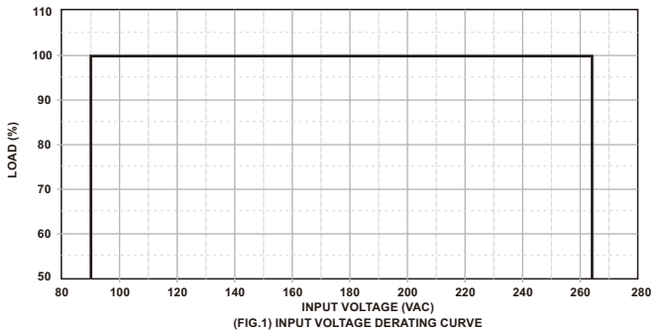
Characteristic	Condition	Min.	Typ.	Max.	Unit
Safety Approval Input Voltage Range	Safety Approval & Specification in Label	100		240	VAC
Input Operate Voltage Range	Detail to See Fig.1	90		264	VAC
Input Frequency	Sine Wave	47		63	Hz
Output Power Range	See Rating Chart			42	W
Low Line Input Current	Full Load, Vin=100VAC		1.35		A
High Line Input Current	Full Load, Vin=240VAC		0.56		A
Low Line Input Inrush Current	Full Load, 25°C, Cool Start, Vin=100VAC			20	A
High Line Input Inrush Current	Full Load, 25°C, Cool Start, Vin=240VAC			48	A
Safety Ground Leakage Current	Vin=240VAC, Fi=60Hz			0.75	mA
Touch Leakage Current	Vin=240VAC, Fi=60Hz			0.25	mA
Efficiency	Full Load, Vin=230VAC, Detail to See Rating Chart	See Rating Chart			
Line Regulation	Full Load, Vin=100~120VAC	0.5		1	%
Load Regulation	Vin=230VAC, 10~90% Load Change at Condition	3		7	%
Over Voltage Protection	Over Voltage Protection	112		132	%
Over Load Protection	Recovers Automatically After Fault Condition is Removed	110		150	%
Time of Transient Response	Io=Full Load to Half Load, Vin=110VAC			4	ms
Hold-Up Time	Full Load, Vin=100VAC	See Rating Chart			
Start-up time	Full Load, Vin=100~240VAC			3	s
Temperature Coefficient	Full load, Vin=100~240VAC			±0.04	%/°C
Dielectric Withstanding Voltage (P-S)	Primary to Secondary			4242	VDC
Dielectric Withstanding Voltage (P-G)	Primary to PE			2121	VDC
EMC Emission	Compliance to EN 55032 (CISPR 32)			B	Class

Environmental:

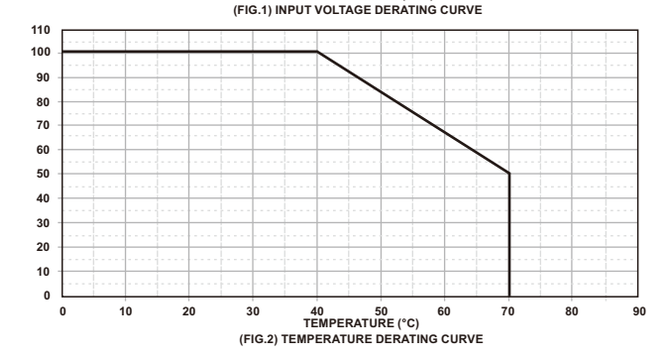
Characteristic	Condition	Min.	Typ.	Max.	Unit
Operating Temperature	Detail to See Fig.2 (Derate Linearly from 100% Load at 40°C to 50% load at 70°C)	0		70	°C
Storage Temperature	10 ~ 95% RH	-40		85	°C
Operating Humidity	Non-Condensing	0		95%	RH
Storage Humidity		0		95%	RH
Electro Static Discharge	Air Discharge, IEC61000-4-2			8	kV
Electro Static Discharge	Contact Discharge, IEC61000-4-2			4	kV
Mean Time Between Failure	Operating Temperature at 25°C, Calculated per MIL-HDBK-217F	100k			h
Operating Altitude (Elevation)	All Condition			5000	m
Vibration	10 ~ 500Hz, 10min./1cycle, 60min. Each Along X, Y, Z Axes			5	G
Surge Voltage	Line-Neutral			1	kV
Surge Voltage	Line-PE & Neutral-PE			2	kV

SPECIFICATION NOTE :

1. Output can provide up to peak load when the power supply starts up. Continuous staying in more than rated load is not allowed.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
4. Load regulation is defined by changing ±40% of measured output load from 60% rated load.
5. The ripple is measured from peak to peak with a bandwidth-limit of 20MHz (Measured at the output connector with a 0.1uF ceramic capacitor and a 47uF electrolytic capacitor).
6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to low limit of main output at rated load and nominal line.
7. Efficiency is measured at rated load, and nominal line.

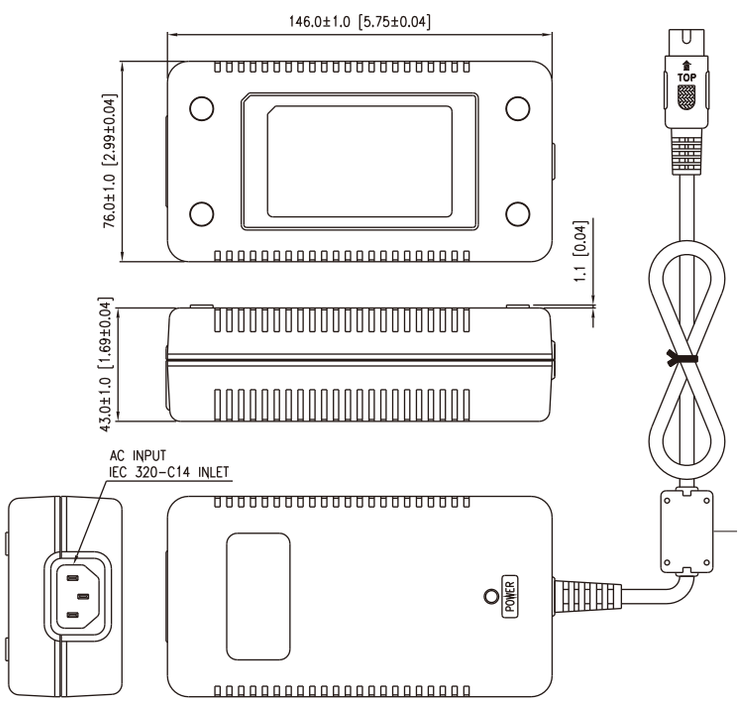


(FIG.1) INPUT VOLTAGE DERATING CURVE



(FIG.2) TEMPERATURE DERATING CURVE

MECHANICAL DIMENSIONS: (UNIT: mm [inch])



OUTPUT CABLE RECOMMEND :

1. Selected output connectors and wire, please refer to Appendix.
2. PSE45-2XX , 3XX are required to use AWG#16X5C/4FT+core output cable.
3. PSE45-301 is required to use AWG#16X5C/1.5FT+core output cable.
4. The regulation and efficiency will be changed by modified output cable.

PACKING :

1. Net weight: 535~560g approx.
2. Optional output connectors available contact sales for details.

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Rating Chart: (Multi Output)

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	Typ. 10% Load Efficiency	Typ. No Load Consumption	Hold-Up Time	Protection Mode
		min	max								
	(VDC)	(A)	(A)	(W)	(mVp-p)	(%)	(%)	(%)	(W)	(ms)	
PSE45-512	+5.0	0.5	5.0	42	50	±5	84.2	74.2	0.3	12	Hiccup
	+12.0	0.3	2.0		120	±5					
PSE45-515	+5.0	0.8	5.0	42	50	±7	84.2	74.2	0.3	12	Hiccup
	+15.0	0.3	1.5		150	±5					
PSE45-524	+5.0	0.5	5.0	42	50	±5	84.2	74.2	0.3	12	Hiccup
	+24.0	0.1	1.0		240	±5					
PSE45-335	+3.3	0.5	5.0	26.5	66	±7	80.7	70.7	0.3	12	Hiccup
	+5.0	0.2	2.0		50	±5					
PSE45-1212	+12.0	0.3	3.0	42	120	±5	84.2	74.2	0.3	12	Hiccup
	-12.0	0.1	1.0		120	±10					
PSE45-1515	+15.0	0.2	2.0	42	150	±5	84.2	74.2	0.3	12	Hiccup
	-15.0	0.1	1.0		150	±10					

Rating Chart: (Multi Output)

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	Typ. 10% Load Efficiency	Typ. No Load Consumption	Hold-Up Time	Protection Mode
		min	max								
	(VDC)	(A)	(A)	(W)	(mVp-p)	(%)	(%)	(%)	(W)	(ms)	
PSE45-5125	+5.0	0.5	5.0	42	50	±5	84.2	74.2	0.3	12	Hiccup
	+12.0	0.2	2.0		120	±5					
	-5.0	0.0	0.8		50	±5					
PSE45-51212	+5.0	0.5	5.0	42	50	±5	84.2	74.2	0.3	12	Hiccup
	+12.0	0.2	2.0		120	±5					
	-12.0	0.0	0.8		120	±5					
PSE45-51515	+5.0	0.5	5.0	42	50	±5	84.2	74.2	0.3	12	Hiccup
	+15.0	0.4	2.0		150	±6					
	-15.0	0.0	0.8		150	±5					