

225 Watt U-Channel Switching Power Supply with PFC

PMK225U series



3.86"W x 7.01"L x 1.5"H

- 225 Watts Output Power
- Single Output
- Universal 90-264VAC Input
- 5VDC to 48VDC Outputs
- 4242VDC Input to Output Isolation
- Active Power Factor Correction



Model Number	Output Voltage	Output Amps (max)	Ripple & Noise max. (Note 1 & 4)	Efficiency
SINGLE OUTPUT				
PMK225S-5U	5 VDC	40	100mV pk-pk	75%
PMK225S-12U	12 VDC	18.8	120mV pk-pk	79%
PMK225S-15U	15 VDC	15	150mV pk-pk	80%
PMK225S-24U	24 VDC	9.4	240mV pk-pk	80%
PMK225S-36U	36 VDC	6.25	360mV pk-pk	81%
PMK225S-48U	48 VDC	4.7	480mV pk-pk	81%

All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

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INPUT SPECIFICATIONS

Input Voltage Range	90-264 VAC (100-240VAC Nom.)
Frequency Range	47-63 Hz
Power Factor Correction	0.95, min. Nom I/P, FL
Inrush Current, typ:	30A @ 115VAC Cold Start, FL*
	60A @ 230VAC Cold Start, FL*
Input Current (LL/HL)	3.8 Amps max. / 1.3 Amps max.
Leakage Current	<3.5mA, 240Vin, 50Hz

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Line Regulation (LL-HL)	±1%, max.
Load Regulation 10%-FL	±1%, max.
Preset Accuracy (Note 3)	±1%, typ (±2%, 5 Vout)
Ripple/Noise (Notes 1, & 4)	See Selection Chart
Over Voltage Protection	130% max. Auto Recovery *
Over Current Protection	228% max. Auto Recovery *
Short Circuit Protection	Auto Recover after fault condition is removed *
Turn On Delay Time	<4S
Rise Time	<20mS, typ (Nom I/P, FL)
Hold Up Time	20mS, typ (Nom I/P, FL)
Over-Shoot/Under Shoot	<10% of Nominal Output
Remote Sense	Compensates for up to 0.5V drop
Remote Shutdown	Open Collector, Logic "1" = ON "0" = Off. No Termination necessary to maintain constant "On" operation

GENERAL SPECIFICATIONS

Isolation (Note 2)	I/P-O/P: 4242VDC I/P-Ground: 2121VDC O/P-Ground: 707VDC
Insulation Resistance	≥20MΩ
Efficiency (FL, Nom I/P)	See Selection Chart
Safety UL/cUL:	UL60950-1 2nd ed./ C22.2 60950-1 2nd ed.
UL-EU:	EN60950-1 2nd ed.
CE:	EN60601-1-2
CB:	IEC60950-1 2nd ed.

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-20 to +70°C (See Derate Curve)
Storage Temperature	-25 to +85°C *
Relative Humidity	10% to +90%, non-cond. *
	Storage: 5-95%

EMS

Harmonics	Class D, 61000-3-2
Fluctuations	61000-3-3
ESD	61000-4-2
RS	61000-4-3
EFT	61000-4-4
Surge	61000-4-5
CS	61000-4-6
MS	61000-4-8
DIPS	61000-4-11

EMI	EN55022 Class B
MTBF Mil Std 217F, 25°C	79,000 Hrs, min.
Vibration	4G Peak, 50-500Hz, 3 Axes
Drop Test	70 CM

PHYSICAL SPECIFICATIONS

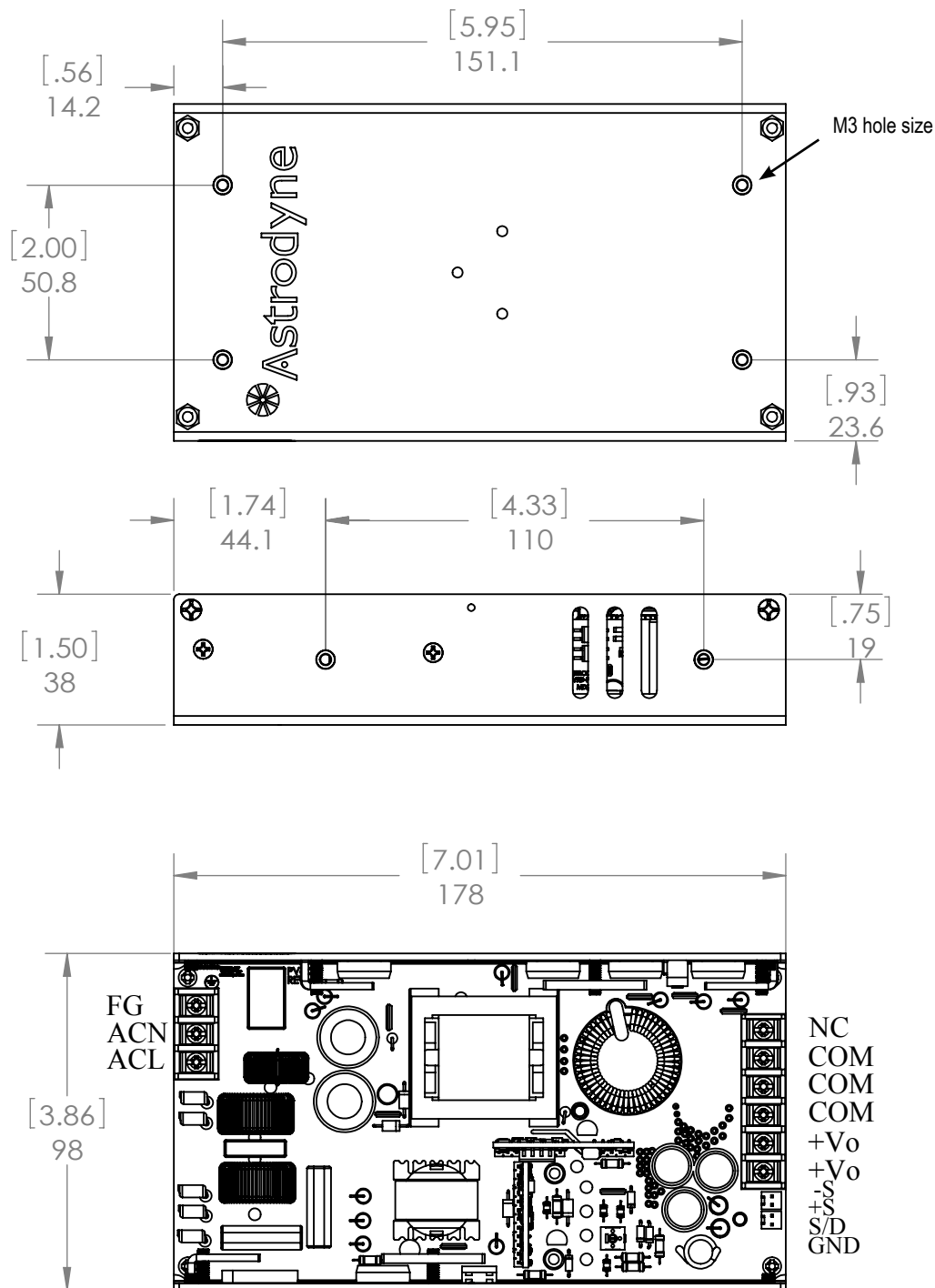
Size	3.86"W x 7.01"L x 1.5"H
Construction	U-Channel
Weight	1.47 lb, (670g)

NOTES

1. All measurements should be made directly at the terminals of the power supply
2. Isolation for up to 1 minute duration.
3. Preset Accuracy measured at nominal load, 120VAC input.
4. O/P Noise measured directly at the pins/terminals at nominal load, 0.1uF ceramic bypass and 47uF electrolytic, pk-pk @ 20MHz bandwidth.

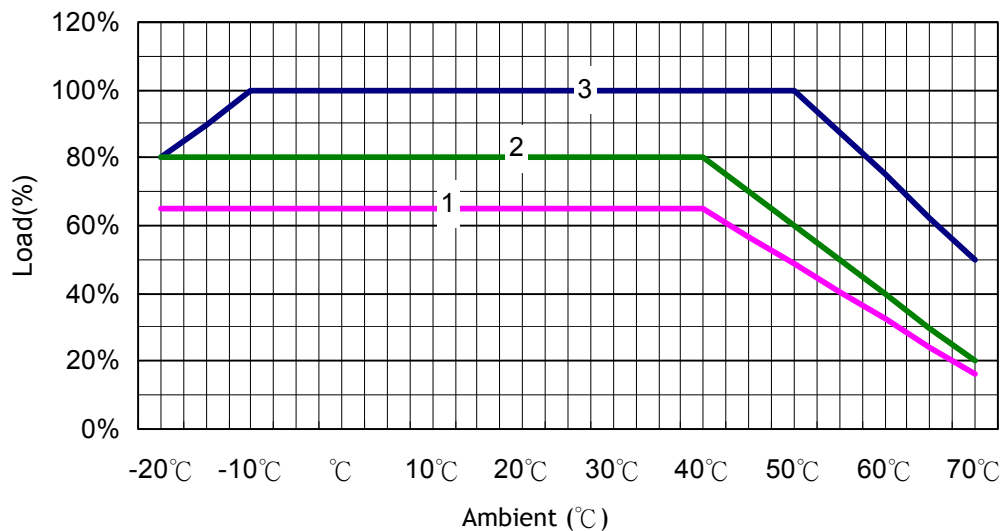
* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Proper operation under conditions other than the standard operating conditions is neither warranted nor implied.

MECHANICAL DIMENSIONS

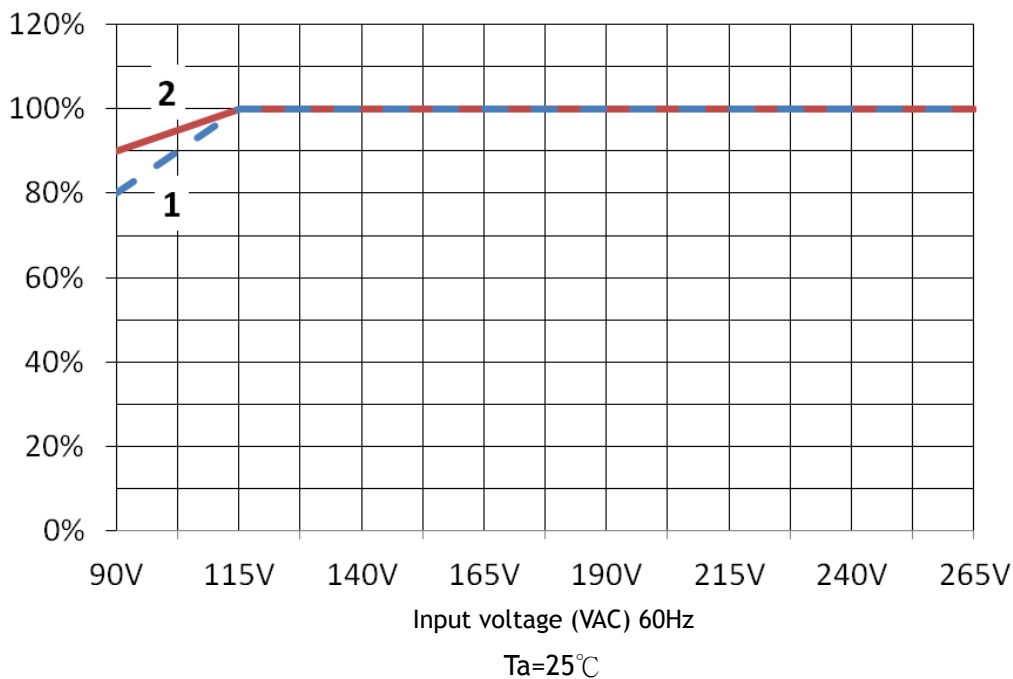


Input Connector: 3P / 8.25mm Pitch Terminal Block
Output Connector: 6P / 8.25mm Pitch Terminal Block

OUTPUT DERATING CURVE



1. 5V convection
2. 12 、 15 、 24 、 36 、 48V convection
3. Forced air cooling 18CFM



1. 5V
2. 12 、 15 、 24 、 36 、 48V