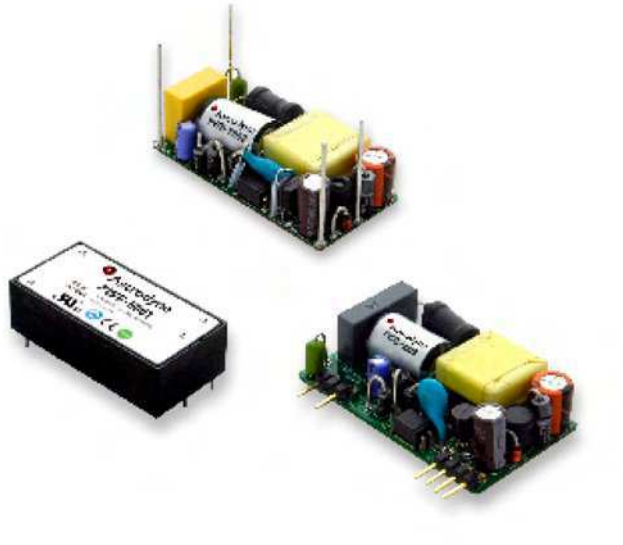
Astrodyne

12 Watt Single Output AC to DC Switching Power Supplies

PWC-12 series



- 12 Watts Output Power
- 3.3Volts(DC) to 48Volts(DC) Single Outputs
- Universal Input
- 3,000VAC Input to Output Isolation
- EN55022 Class B EMI

Model Number	Output Voltage	Output Amps	Ripple & Noise	Efficiency(Min)	Efficiency(Nom)
PWC12-3.3,S,E	3.3 VDC	3.01	50mV pk-pk	70%	72%
PWC12-5,S,E	5 VDC	2.4	50mV pk-pk	72%	75%
PWC12-9,S,E	9 VDC	1.34	75mV pk-pk	75%	78%
PWC12-12,S,E	12 VDC	1.0	120mV pk-pk	75%	80%
PWC12-15,S,E	15 VDC	0.8	120mV pk-pk	75%	80%
PWC12-24,S,E	24 VDC	0.5	200mV pk-pk	77%	82%
PWC12-48,S,E	48 VDC	0.25	200mV pk-pk	77%	82%

ASTRODYNE USA: 1-800-823-8082
ASTRODYNE PACIFIC: 886-2-26983458

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INPUT SPECIFICATIONS

Input Voltage	115-240VAC nom
	90-264VAC max
Input Frequency	47-63 Hz
Input Current	0.4 Amps max @ 90VAC
	0.2 Amps max @ 264VAC
Inrush Current (cold start/25°C)	20A @ 115VAC / 40A @ 230VAC
Power Consumption	<0.5W @ 240VAC with no load
Leakage Current	<0.25mAmps @ 264VAC, 50Hz

OUTPUT SPECIFICATIONS

Output Voltage/Current (Note 2)	See Selection Chart
Preset Accuracy (Note 5)	1.5%, typ: 3.3Volts(DC)
	1%, typ 5~48Volts(DC)
Load Regulation (Note 3)	1% max
Line Regulation (Note 4)	0.5% max
Ripple/Noise (Note 1,6)	See Selection Chart
Over Voltage Protection	Clamp
Hold Up Time	16mS, typ
Short Circuit Protection	Latching, Recovering
Over Current Protection	Latching, Recovering
Turn On Delay Time	< 4S from AC
Rise Time	From 0Volts(DC), <20mS @11VAC
Over Shoot and Under Shoot	< 10% nom

GENERAL SPECIFICATIONS

Hi-pot Test	3000VAC, 60S between I/P O/P
Insulation Resistance	500Volts(DC), 1S between I/P O/P
	≥20M
Switching Frequency	100 KHz, fixed, typ
Efficiency	See Selection Chart
Safety	UL/C-UL: UL60950-1
	TUV: EN60950
	CSA: C22.2 60950-1-03
	CB: IEC 60950-1: 2001
	CE: EN 60601-1-2
EMI	CISPR EN55022B
EMS	61000-4-2;3;4;5;6;11
Burn-in	100%Burn-in with 80~100% loading &
	30~40°C Environment temperature
Vibration Test	2G'S, 10~500Hz, 3axes, after 30min
	test no abnormally to be found
Drop-Test	70cm, after drop test no function
	abnormally to be noted

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-20 to 70°C nom input voltage range
	and free-air convection cooling
	See Derate Curves
Relative Humidity	0-95%
Storage Temperature	-40 to +85°C
MTBF	564MHrs MIL-HDBK-217F(25°C)

PHYSICAL SPECIFICATIONS

Weight		Open Frame & SIP 1.0 oz (29g)
		Encapsulated: 1.94 oz. (55g)
SIze	Open Frame	50.8x25.4x17.0 mm (2.0"x1.0"x0.67")
	Encapsulated	52.4x27.2x23 mm (2.06"x1.07"x0.91")
	SIP	50.8x28.5x17 mm (2.0"x1.12"x0.67")

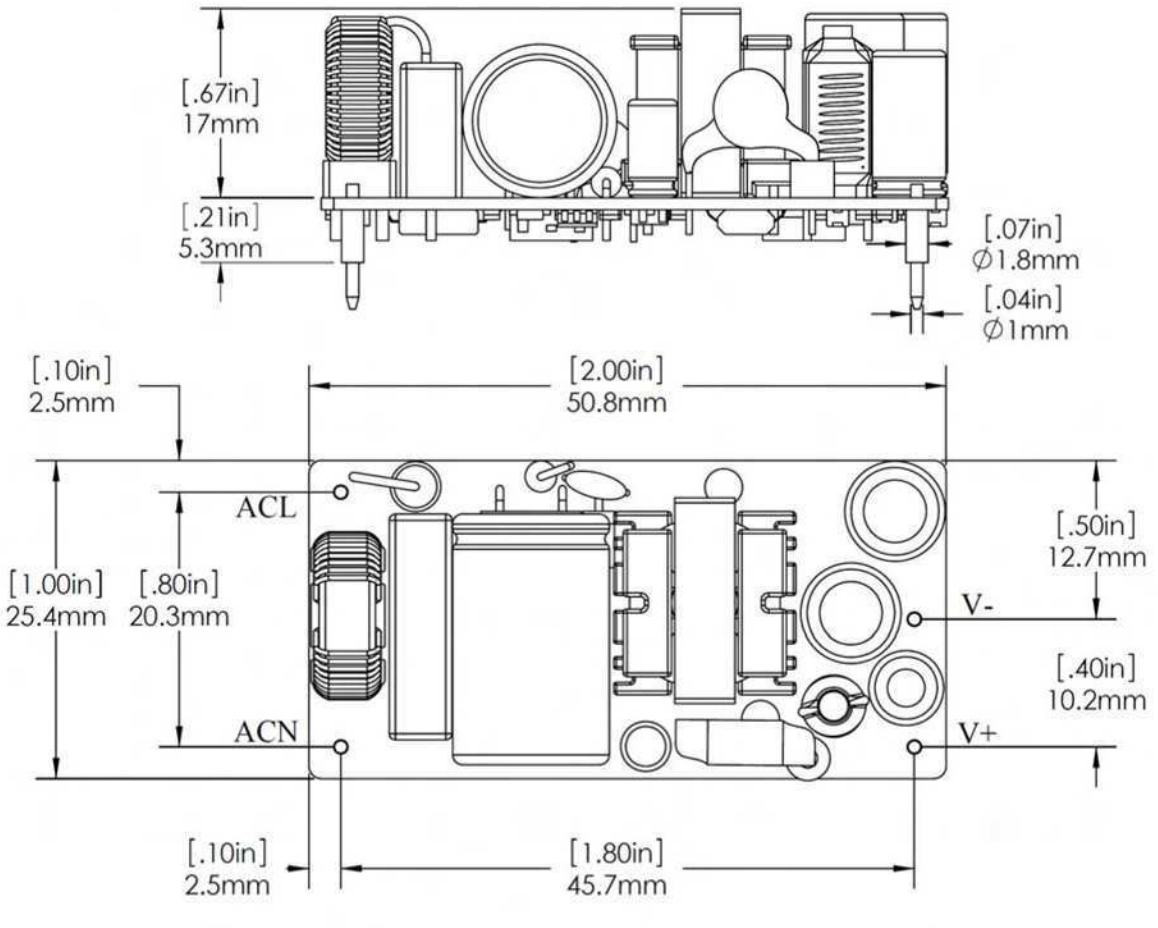
NOTES

1.Ripple & Noise dependent upon output voltage as specified per particular model.
2.Minimum load is NOT required for proper operation.
3. Load regulation is measured from 20% ti FL.
4. Line regulation is measured from 90VAC to 264VAC.
5. Preset accuracy measured at nominal load, 115VAC input.
6. O/P noise measured at directly at pins at max. load, with a 0.1uF/ceramic capacitor bypass, pk-pk @ 20MHz bandwidth.

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

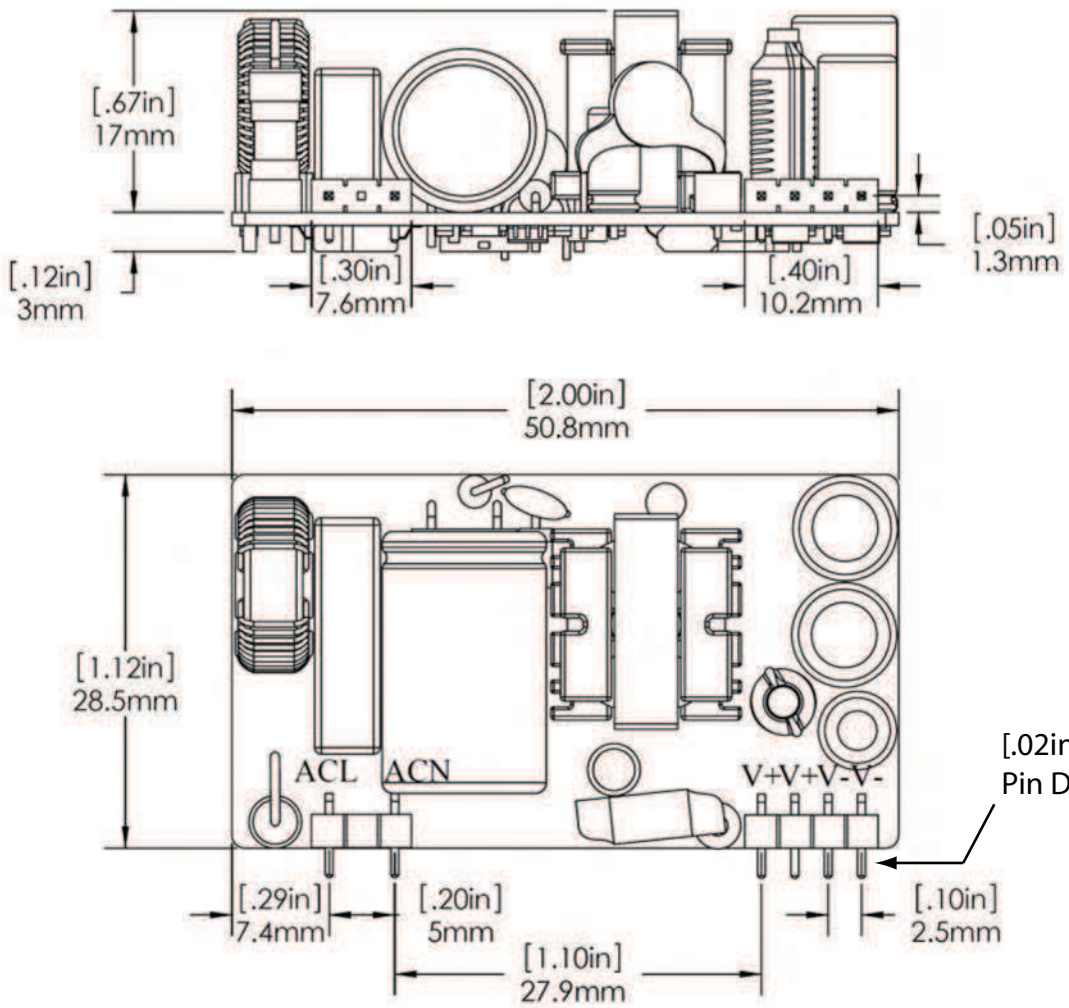
Astrodyne products are not authorized or warranteed for use as critical components in life support systems, equipment used in hazardous environments, nuclear controls systems, or other mission-critical applications.

MECHANICAL SPECIFICATIONS - PWC12 OPEN FRAME

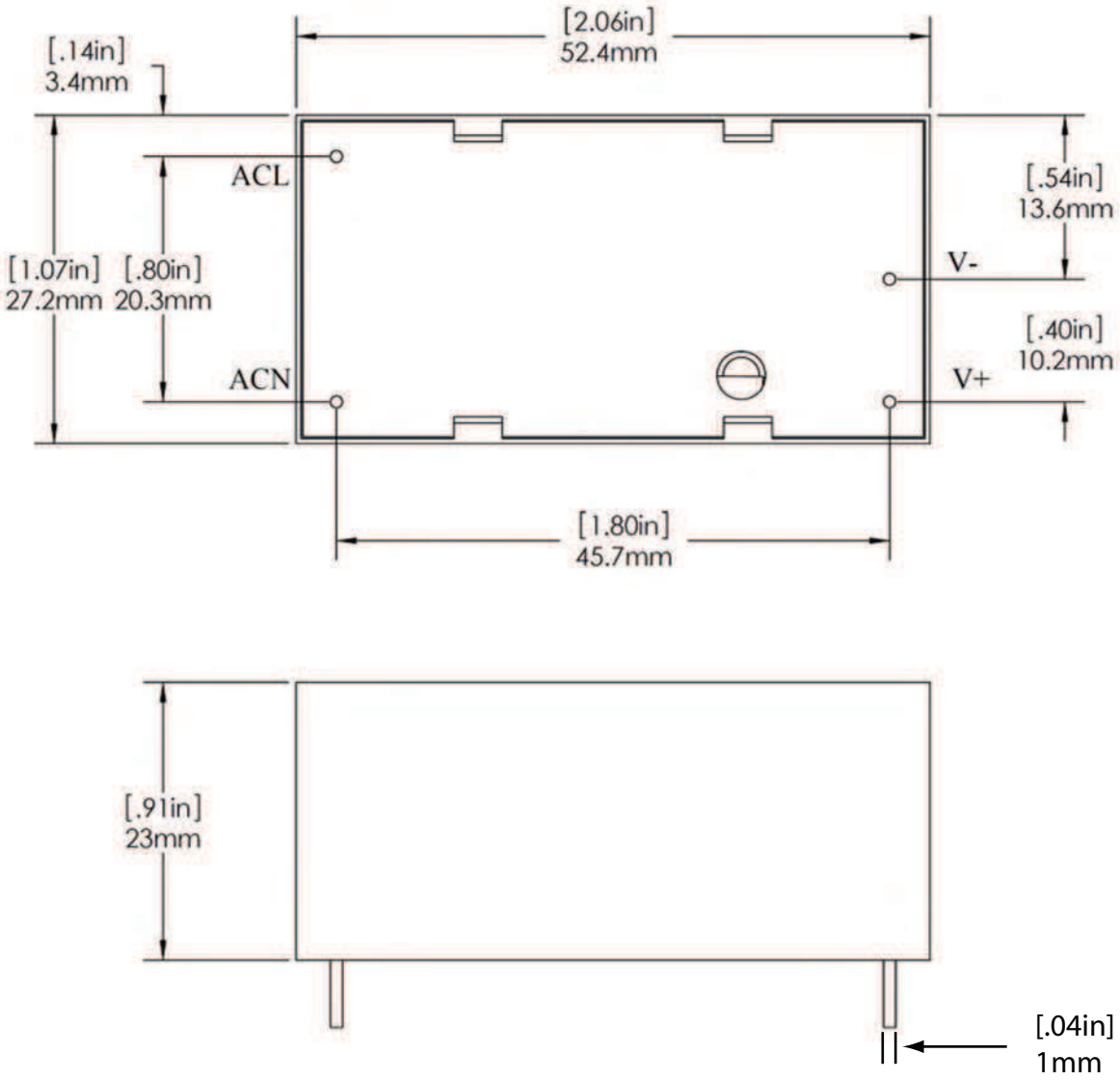


Unit : mm

MECHANICAL SPECIFICATIONS - PWC12 SIP STYLE



MECHANICAL SPECIFICATIONS - PWC12 ENCAPSULATED



Unit : mm

DERATE CURVE