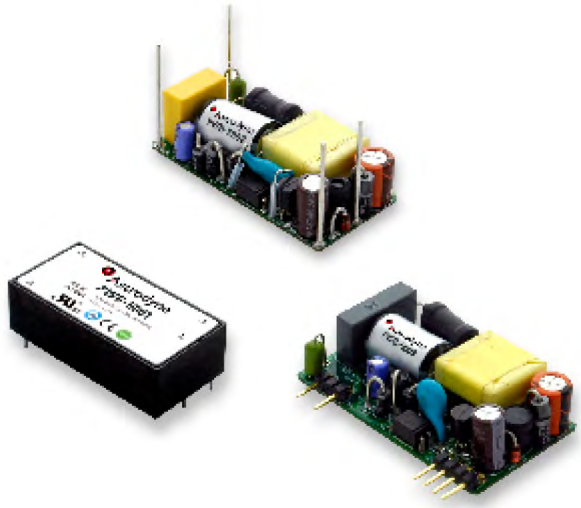


# Astrodyne

12 Watt Single Output AC to DC Switching Power Supplies

**PWC-12 series**



- 12 Watts Output Power
- 3.3Volts to 48Volts 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%

### INPUT SPECIFICATIONS

Input Voltage	100-240VAC 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)	30A @ 115VAC / 60A @ 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 1%, typ 5~48Volts
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 nom input	16mS, typ
Short Circuit Protection	Latching, Recovering
Over Current Protection	Latching, Recovering
Turn On Delay Time	< 4S
Rise Time	<20mS @110VAC
Over Shoot and Under Shoot	< 10% nom

### ENVIRONMENTAL SPECIFICATIONS

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

### PHYSICAL SPECIFICATIONS

Weight	Open Frame & SIP 1.0 oz (29g) Encapsulated: 1.94 oz. (55g)
Size	Open Frame 50.8x25.4x17.5mm (2.0"x1.0"x0.69") Encapsulated 52.4x27.2x23mm (2.06"x1.07"x0.91") SIP 50.8x28.5x17.5mm (2.0"x1.12"x0.69")

### GENERAL SPECIFICATIONS

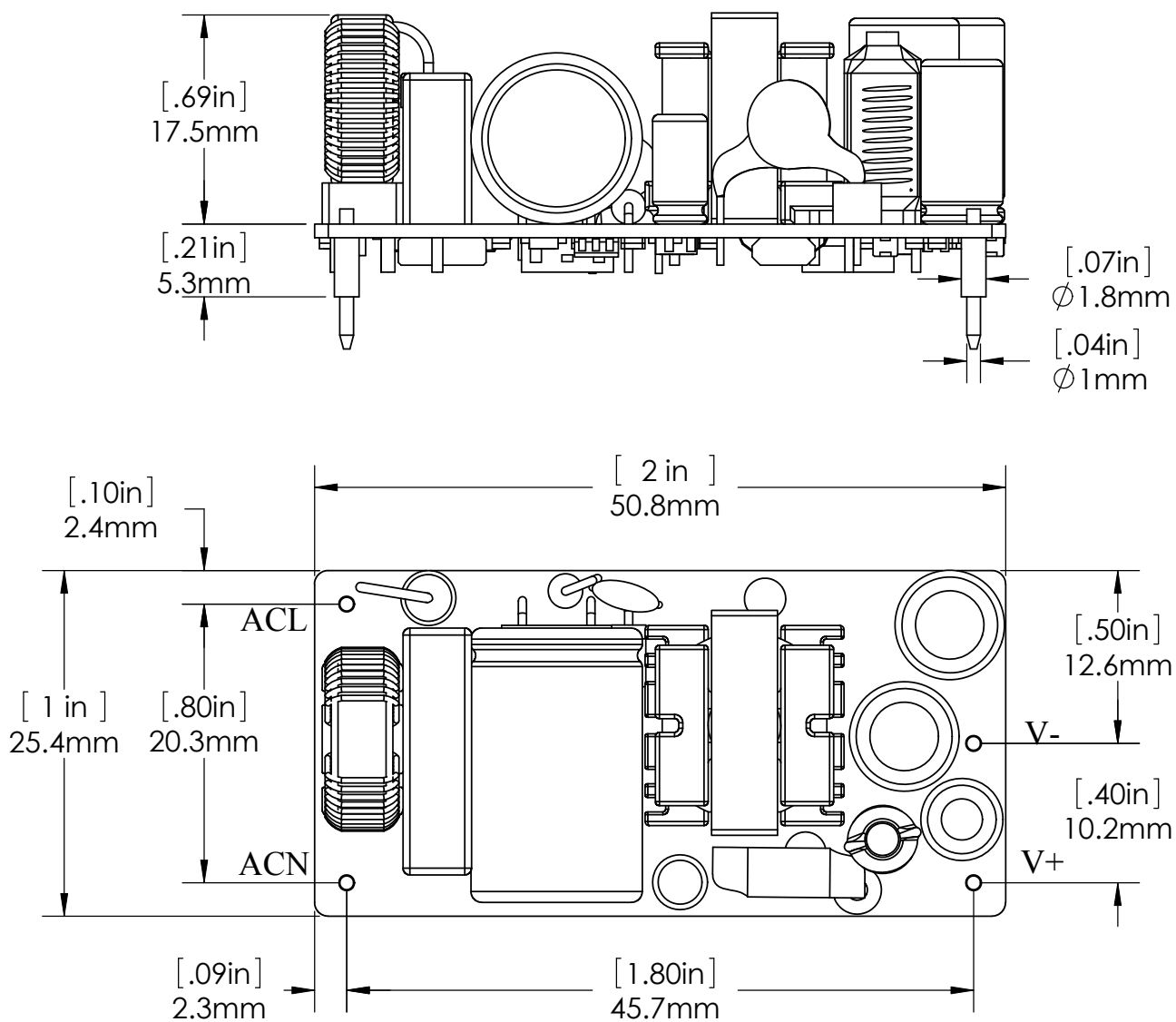
Input to Output Isolation	3000VAC, 60S between I/P O/P
Insulation Resistance	≥20M
Switching Frequency	100 KHz, fixed, typ
Efficiency	See Selection Chart
Safety	UL/cUL: UL60950-1 2nd ed./ C22.2 60950-1 2nd ed. UL-EU: EN60950-1 2nd ed. CE: EN55022:2006 Class B CB: IEC60950-1 2nd ed.
EMI	CISPR EN55022 Class B
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 abnormality to be found
Drop-Test	70cm, after drop test no function abnormality to be noted

### NOTES

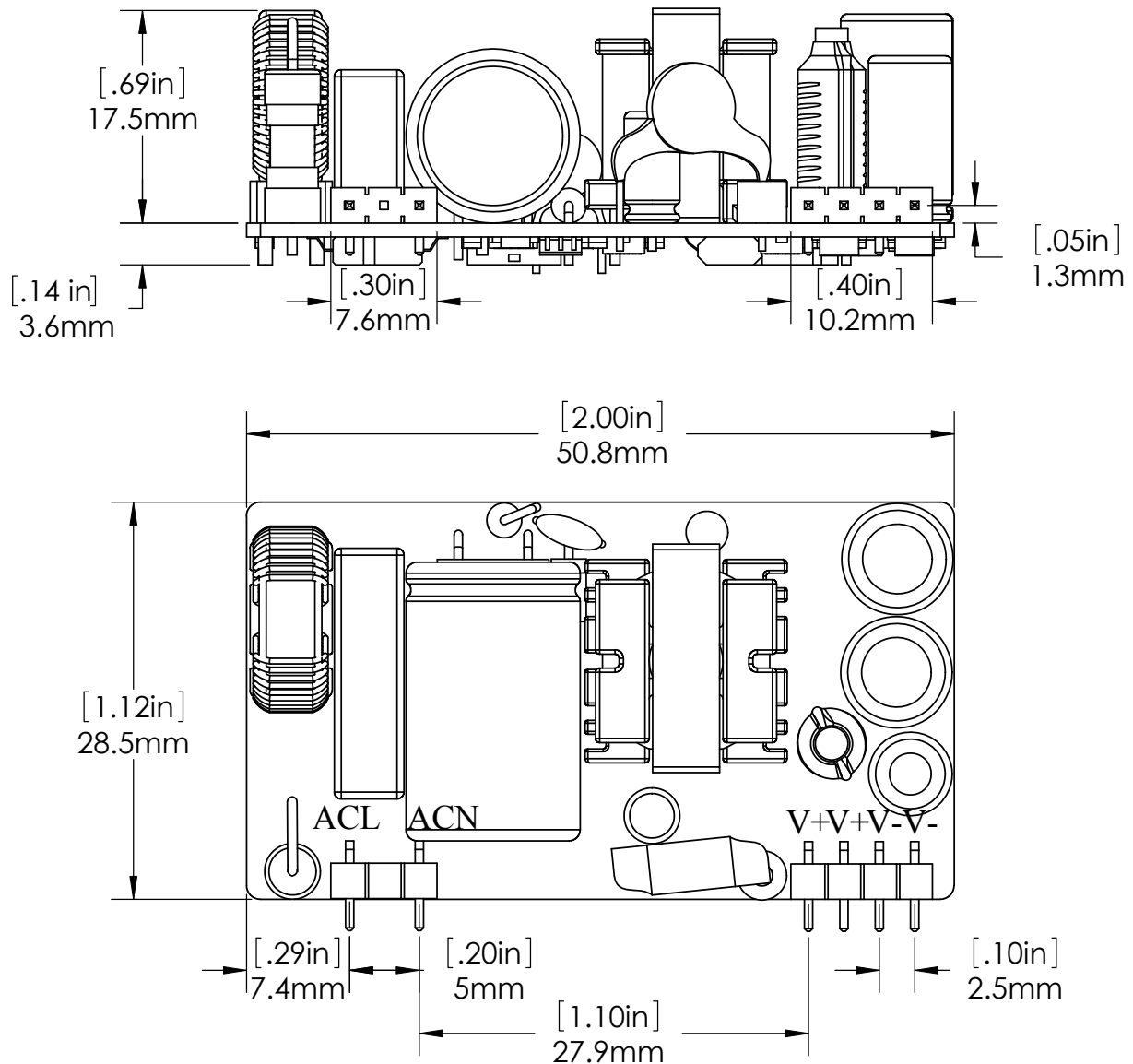
1. Ripple & Noise dependent upon output voltage as specified per particular model.
2. Minimum load is NOT required for proper operation.
3. Load regulation is measured from 20% to FL.
4. Line regulation is measured from 90VAC to 264VAC.
5. Preset accuracy measured at nominal load, 115VAC input.
6. O/P 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 otherwise noted*

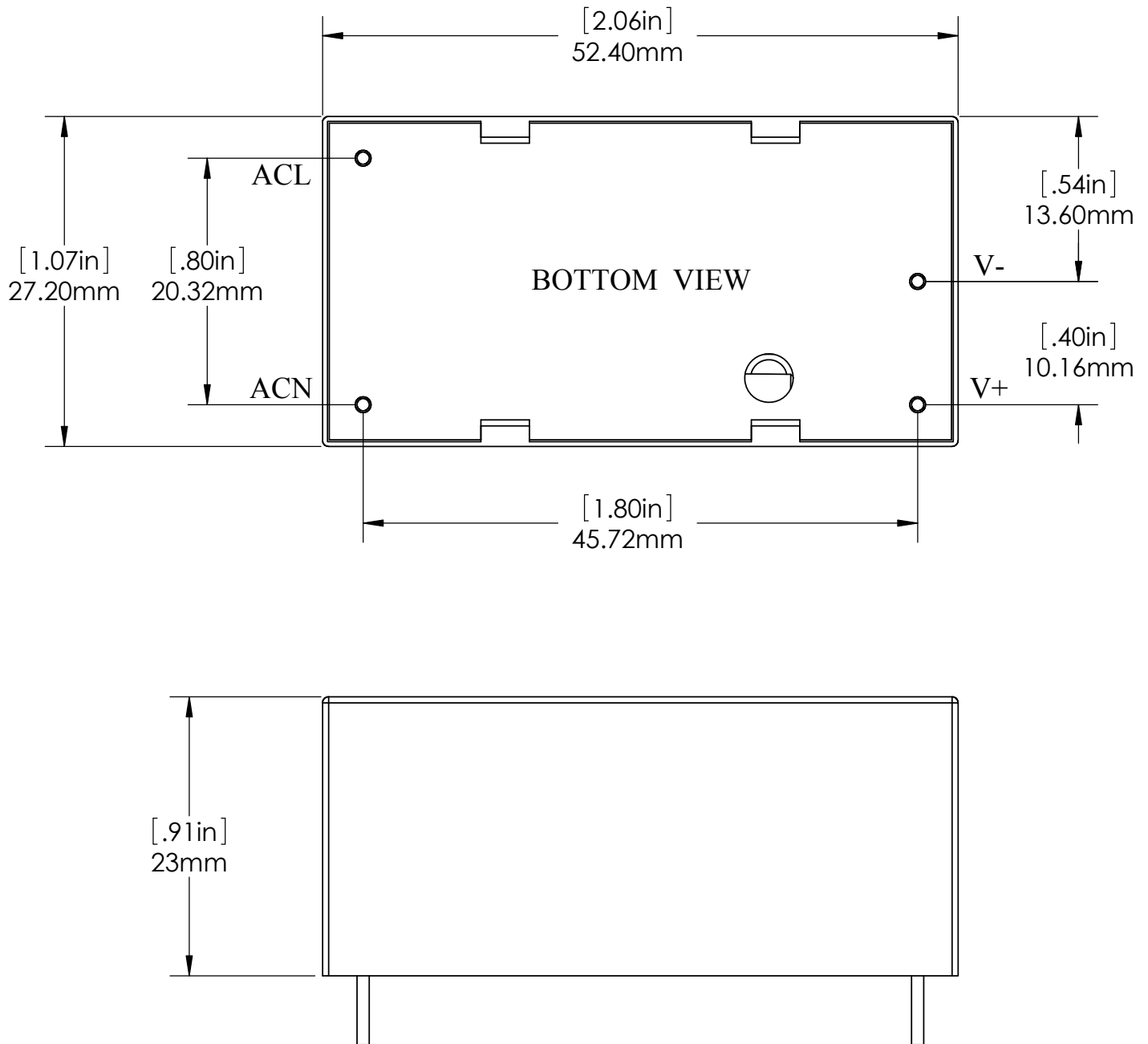
### MECHANICAL SPECIFICATIONS - PWC12 OPEN FRAME



### MECHANICAL SPECIFICATIONS - PWC12 SIP STYLE



### MECHANICAL SPECIFICATIONS - PWC12 ENCAPSULATED



### DERATE CURVE

