#### **Features:**

- Compact size, PCB mount
- Industry leading 300VAC Universal AC input
- RF friendly shielded case dramatically reduces emissions enabling close proximity placement to RF circuits and antennas
- 85°C Ambient Temperature Operation
- Protection: Short Circuit, Overload, Over Voltage, Over Temperature
- Free air Convection Cooling
- Isolation Class II
- No load power consumption < 0.1W
- 100% full load burn-in test
- High reliability
- 1 Year Warranty



#### **Specifications**

MODEL		AW0412-PNL
OUTPUT	DC VOLTAGE	12V
	RATED CURRENT	1.8A
	CURRENT RANGE	0~1.8A
	RATED POWER	200mVp-p
	RIPPLE / NOISE (max.)	±2.5%
	VOLTAGE TOLERANCE	±0.3%
	LINE REGULATION	±0.5%
	SETUP/RISETIME	1000ms, 20ms/230VAC 1000ms, 20ms/115VAC at full load
	HOLD UP TIME	40ms/230VAC 8ms/115VAC at full load
INPUT	VOLTAGE RANGE	100VAC ~ 300VAC, 120VDC ~ 370VDC
	FREQUENCY RANGE	47Hz ~ 440Hz
	EFFICIENCY (Typ.)	84%
	AC CURRENT (Typ.)	0.6A @ 115VAC, 0.4A @ 230VAC



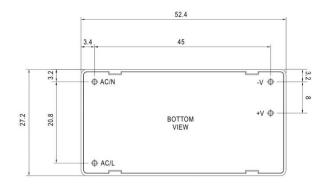


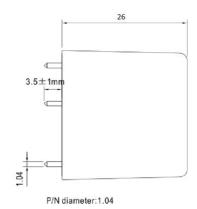
## 20W AC/DC Power Supply

MODEL		AW0412-PNL
	INRUSH CURRENT (Typ)	COLD START 20A @ 115VAC, 40A @ 230VAC
	LEAKAGE CURRENT	< 0.25mA / 240VAC
PROTECTION	OVERLOAD	115% ~ 160% rated output power
		Protection type: Hiccup mode, recovers automatically after fault condition is removed
	OVER VOLTAGE	13.8V ~ 16.2V
		Protection type: Shut off O/P voltage, clamping by Zener diode
ENVIRONMENT	WORKING TEMP.	-30°C ~ +85°C (Refer to "Derating Curve")
	WORKING HUMIDITY	20% ~ 90% RH non-condensing
	STORAGE TEMP	-40°C ~ +85°C, 10% ~ 95% RH
	HUMIDITY	
	TEMP. COEFFICIENT	±0.03% / °C (0°C ~ 50°C)
	VIBRATION	10Hz ~ 500Hz, 5G 10min. / 1-cycle, period for 60 min. each along X, Y, Z axes
SAFETY / EMC	SAFETY STANDARDS	UL62368, TUV EN62368 approved
	WITHSTAND VOLTAGE	I/P - O/P: 3KVAC
	ISOLATION RESISTANCE	I/P - O/P: 100M Ohms / 500VDC / 25% - 70% RH
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, heavy industry level (surge L-N:1KV), criteria A
OTHERS	MTBF	970.3Khrs min. MIL-HDBK-217F (25°C)
	DIMENSION	52.4 * 27.2 * 24mm (L * W * H)
	PACKING	0.05Kg / 240pcs / 13Kg / 0.97CUFT

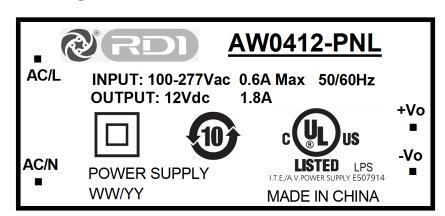


# **Mechanical Specifications**

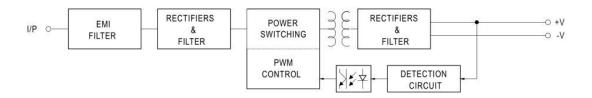




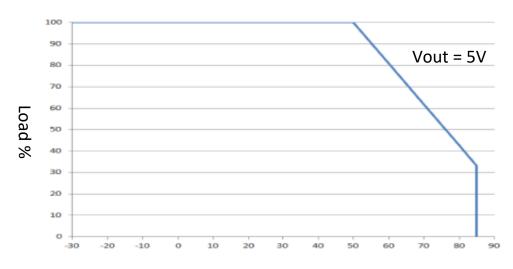
# Labeling



## **Block Diagram**

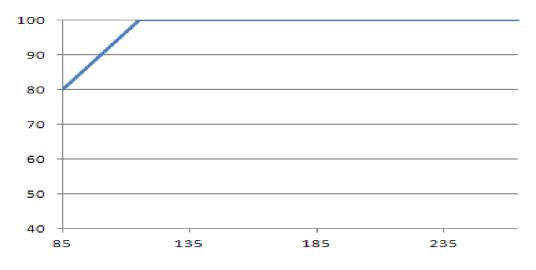


## **Temperature Derating Curve**



Ambient Temperature °C

# **Output Derating vs. Input Voltage**









AW0412-PNL

#### Notes

- 1. The parts are manufactured in accordance with this specification. If other conditions and specifications which are required for this specification, please contact RDI for more information.
- 2. RDI will supply the parts in accordance with this specification unless we receive a written request to modify prior to an order placement.
- 3. In no case shall RDI be liable for any product failure from in appropriate handling or operation of the item beyond the scope of this specification.
- 4. When changing your production process, please notify RDI immediately.
- 5. RDI products are COTS Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and Consumer Applications. RDI's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from RDI is required. Please contact RDI for more information.