



# AC-DC POWER SUPPLY MODULES

## UNIVERSAL INPUT, 10 WATTS

SINGLE AND DUAL OUTPUT

UIL10 SERIES



### FEATURES

- Universal Input (90-264Vac)
- High Efficiency Up to 82%
- Protection: Shot Circuit/ Overload/ Over Voltage
- Encapsulated Plastic Case
- Dimensions (2.5" × 1.75" × .75")
- Internal Input Filter
- Safety Meets EN60950-1
- CE Certified
- Compliant to RoHS

### SELECTION GUIDE All specifications are typical at nominal input, rated output current and 25°C, unless otherwise noted.

Output Wattage W	Output Voltage Vdc	Output Current mA	Ripple & Noise mV	Efficiency %	Model Number
10	3.3	3000	100	74	UIL10-33S
10	5	2000	100	76	UIL10-5S
12	12	1000	150	80	UIL10-12S
12	15	800	150	80	UIL10-15S
12	24	500	240	80	UIL10-24S
12	48	250	240	82	UIL10-48S
10	±5	±1000	100	75	UIL10-5D
12	±12	±500	150	75	UIL10-12D
12	±15	±400	150	75	UIL10-15D
12	±24	±250	240	77	UIL10-24D
10	V <sub>o1</sub> =+5, V <sub>o2</sub> =+12	I <sub>o1</sub> =1500, I <sub>o2</sub> =200	100(V <sub>o1</sub> ), 150(V <sub>o2</sub> )	74	UIL10-512D
10	V <sub>o1</sub> =+5, V <sub>o2</sub> =+15	I <sub>o1</sub> =1400, I <sub>o2</sub> =200	100(V <sub>o1</sub> ), 150(V <sub>o2</sub> )	74	UIL10-515D
10	V <sub>o1</sub> =+5, V <sub>o2</sub> =+24	I <sub>o1</sub> =1200, I <sub>o2</sub> =200	100(V <sub>o1</sub> ), 150(V <sub>o2</sub> )	75	UIL10-524D

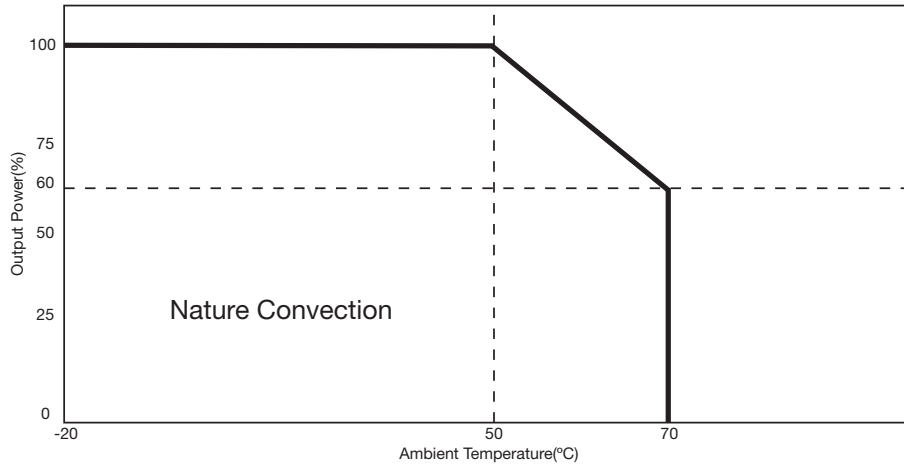
Input Specifications			Output Specifications		
Rated input voltage, Vac	100-240 Typ.	$V_o, I_o$ (nom)		$\pm 3$	$V_o, I_o$ (nom), Single, 3.3V, 5V Model
Voltage range	90 Min., 264 Max.	AC in, $V_o, I_o$ (nom)		$\pm 2$	$V_o, I_o$ (nom), Single, 12V, 48V Model
	120 Min., 370 Max.	DC in, $V_o, I_o$ (nom)		$\pm 5$	Dual output
Frequency, Hz	47 Min., 50/60 Typ., 63 Max.	$V_o, I_o$ (nom)	Line regulation, %	$\pm 1$	$I_o; V_o$ Min., Max.
Input current, A	0.5 Max.	$V_o, I_o$ (nom)	Load regulation, %	$\pm 2$	$I_o$ (nom) Min., Single Output
				$\pm 5$	$I_o$ (nom) Min., Dual Output
Inrush current, A	10 Max.	115Vac, $V_o, I_o$ (nom)	Minimum load, %	0 Min.	$V_o$ (nom), Single Output
	20 Max.	230Vac, $V_o, I_o$ (nom)		20 Min.	$V_o$ (nom), Dual Output
Fast startup, ms	100 Typ.	At 230Vac	Ripple and noise, mV	100 Min, 240 Max.	Measured by 20MHz bandwidth, 47 $\mu$ F paralleled with high-frequency 0.47 $\mu$ F capacitor across each output by full load
Hold-up time, ms	10 Typ.	At 90Vac	Transient recovery time, $\mu$ s	1,000 Typ.	$V_o, I_o$ (nom) = 0.5 $I_o$ (nom)
Input fuse	VDE/CCC Fuse 2.5A/250V(Slow Blow)		Over voltage protection, Vdc	120%-150% rated output	Zener diode clamp protection
			Over load protection, %	Above 110% rated output power	Recovers automatically after fault condition is removed
			Short circuit protection	Recovers automatically after fault condition is removed	

General Specifications			
Isolation voltage,	3KVac/5mA/5Secs		Input to Output
Isolation resistance, M $\Omega$	100 Min.	500Vdc	Input to Output
Derating, %	2 Max.	$V_o, I_o$ +51 to 71 (nom)	
Switching frequency, kHz	65 Typ.	$V_o, I_o$ (nom)	

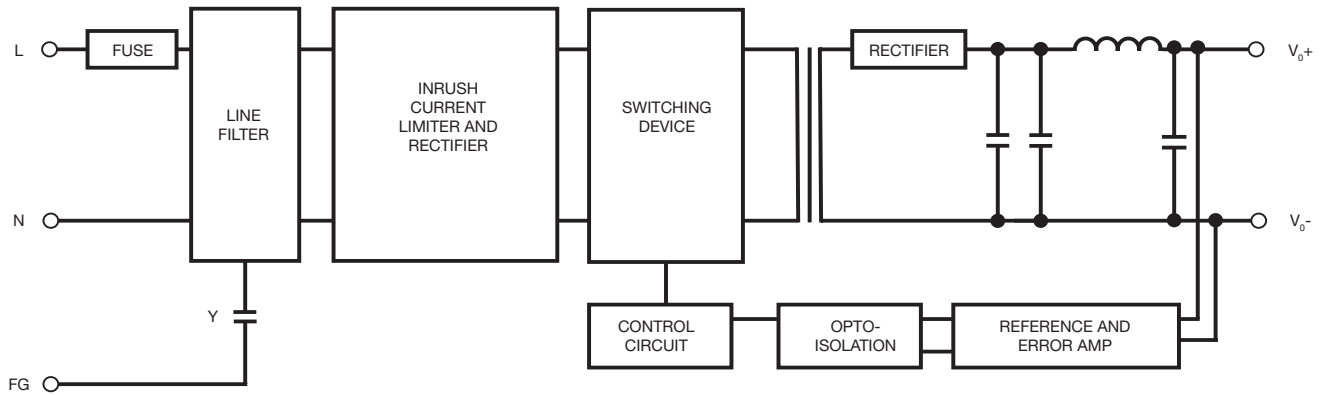
Environmental Specifications			
Operating ambient temperature, $^{\circ}$ C	-20 to +70	Operating at $V_o, I_o$ (nom)	
Storage temperature range, $^{\circ}$ C	-40 to +85	Non operational	
Cooling		Free air convection	
Relative humidity, %RH	+95 Max.	$V_o, I_o$ (nom)	

Physical Specifications		EMC Specifications	
Design meet safety standard	EN60950-1, CE Certified	Relative Humidity, % RH	95 Max. $V_o, I_o$ (nom)
Dimensions, mm (inches)	L63.50 $\times$ W44.45 $\times$ H19.05 mm (2.5 $\times$ 1.75" $\times$ 0.75")	EMI conduction and radiation	EN55022
		EMS immunity	EN55024

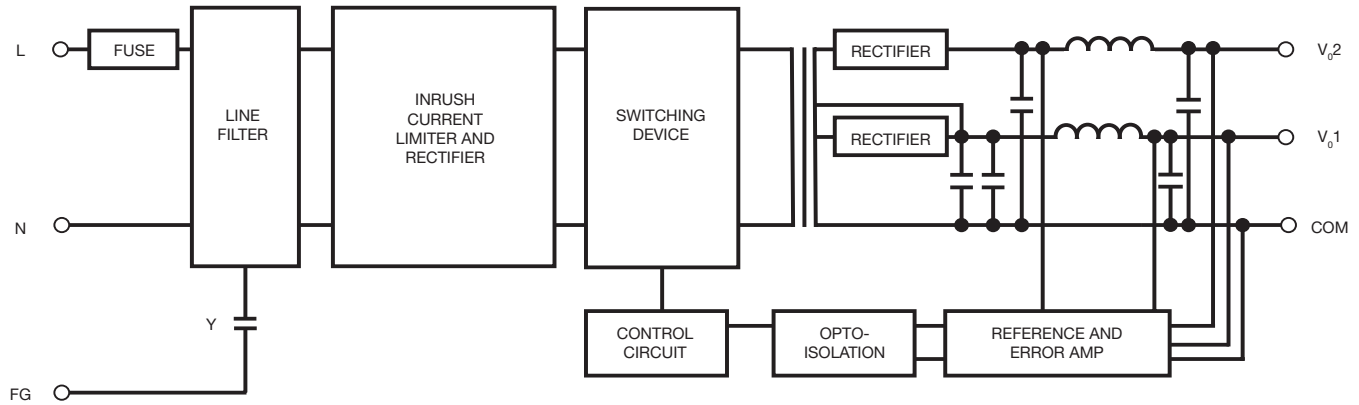
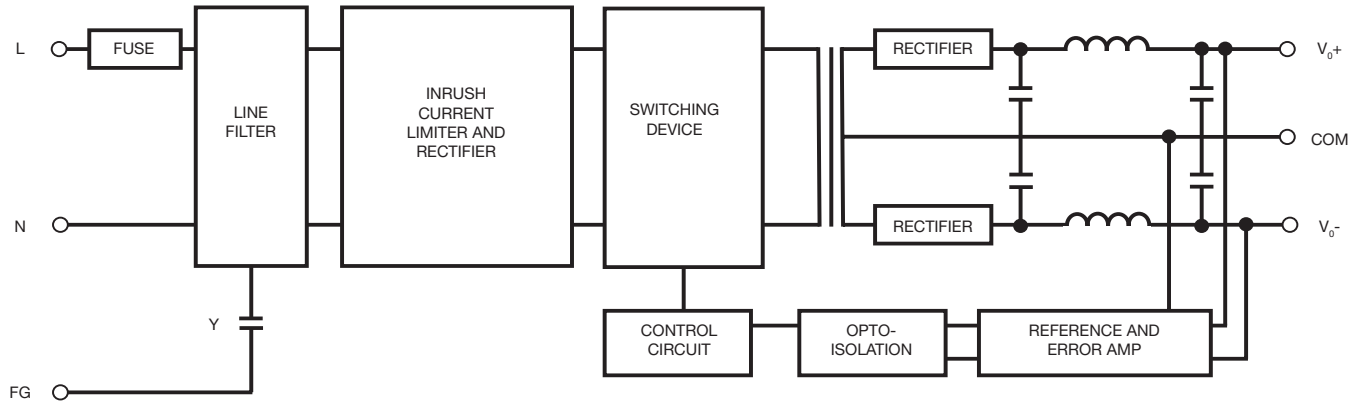
**Temperature Derating Graph**



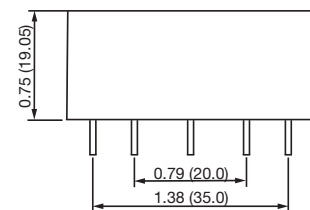
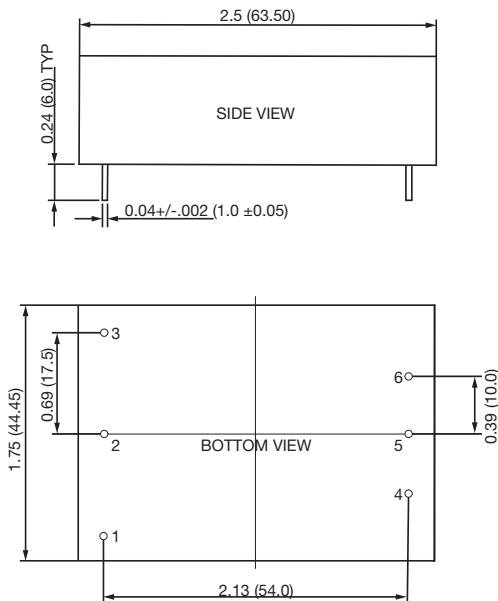
**Circuit Schematic (Single)**



**Circuit Schematic (Dual)**

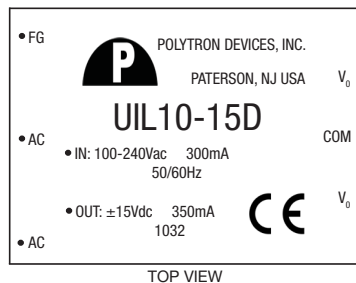


**Mechanical Drawing**



**PIN CONNECTION**

PIN	SINGLE	DUAL	DUAL
1	FG	FG	FG
2	ACN	ACN	ACN
3	ACL	ACL	ACL
4	-Vo	-Vo	+Vo2
5	NO PIN	COM	COM
6	+Vo	+Vo	+Vo1



1. All dimensions in inch (mm)
2. All Tolerance:  $\pm 0.50$

