

AC-DC CONVERTER

UNIVERSAL INPUT, 15 WATTS

SINGLE AND DUAL OUTPUT
UIL15 SERIES



FEATURES

- Universal Input 90-264Vac
- High Efficiency (up to 85%)
- Fully Encapsulated Plastic Case
- Dimensions: 2.75" × 1.89" × 0.92"
- Protection: Short Circuit/ Overload/ Over Voltage
- Internal Input Filter
- 2 Year Warranty
- RoHS Compliant

SELECTION GUIDE

All specifications are typical at 230Vac input, full load and 25°C, unless otherwise noted.

Output Wattage W	Output Voltage Vdc	Output Current mA	Ripple & Noise ⁽¹⁾ mV (Max.)	Efficiency %	Model Number
13	3.3	4000	100	72	UIL15-33S
15	5	3000	100	78	UIL15-5S
18	12	1500	100	82	UIL15-12S
18	15	1200	150	82	UIL15-15S
19	24	800	150	83	UIL15-24S
19	48	400	240	85	UIL15-48S
15	±5	±1500	100	75	UIL15-05D
15	±12	±625	150	79	UIL15-12D
15	±15	±500	150	80	UIL15-15D
15	±24	±320	150	80	UIL15-24D
14.8	5/12	2000/400	100/150	74	UIL15-5S12S
14.5	5/15	2000/300	100/150	74	UIL15-5S15S
14.8	5/24	2000/200	100/150	76	UIL15-5S24S

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Input Specifications			Output Specifications		
Voltage range	90Vac Min., 264Vac Max.	Vo, lo nom, AC input	Output voltage accuracy, %	±3 Max.	Vi nom, lo nom, Single output, 3.3V, 5V models
	120Vdc Min., 370Vdc Max.	Vo, lo nom, DC input		±2 Max.	Vi nom, lo nom, Single output, 12V-48V models
Rated input voltage, Vac	100 - 240 Typ.	Vo, lo nom		±5 Max.	Dual output
Line frequency, Hz	47 Min., 50/60 Typ., 63 Max.	Vi nom, lo nom	Minimum load, %	0 Min.	Vi nom, Single output models
			20 Min.	Vi nom, Dual output models (each output)	
Inrush current, A	10 Max.	lo nom, Vi: 115Vac	Line regulation, %	±1 Typ.	lo nom, Vi min...Vi max
	20 Max.	lo nom, Vi: 230Vac	Load regulation, %	±2 Typ.	Lo min- lo nom, Single output models
Input fuse	VDE/UL/CCC, Fuse 2.5A/250V (Slow blow)		Transient recovery time, uS	1,000 Typ.	Vi nom, lo nom = \longleftrightarrow 0.5 lo nom
			Overload protection	Above 110% rated output power Recovers automatically after fault condition is removed	
			Short circuit protection	Recovers automatically after fault condition is removed	
			Over voltage protection (Main output)	120%-150% rated output voltage Zener diode clamp	

General Specifications			
Isolation voltage		Input to Output	3KVac/ 5mA/ 5Secs
Isolation resistance, MΩ	500Vdc	Input to Output	100 Min.
Switching frequency, kHz	Vi nom, lo nom		65 Typ.

Environmental Specifications			
Operating temperature, °C	Operating at Vi nom, lo nom	-20 Min.	70 Max.
Derating, %/°C	Vi nom, lo nom 51 to 71°C		2 Max.
Storage temperature, °C	Non-operational	-40 Min.	85 Max.
Cooling	Free air convection		

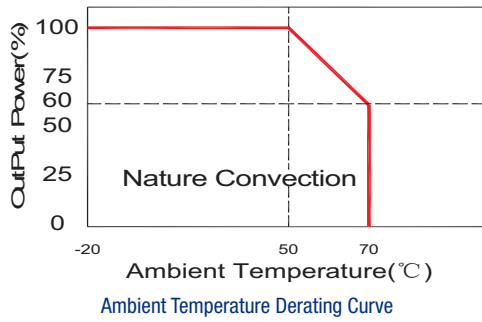
Physical Specifications		EMC Specifications	
Design meet safety standard	EN60950-1	EMI conduction and radiation	Compliance to EN55022
Dimensions, inches (mm)	2.75 × 1.89 × 0.92 (69.85 × 48.01 × 23.37)	EMS immunity	Compliance to EN55024

Note:

1. Ripple & noise is measured by using 20 MHz bandwidth, measured with a 47μF paralleled with a high-frequency 0.47μF capacitor across each output by full load.

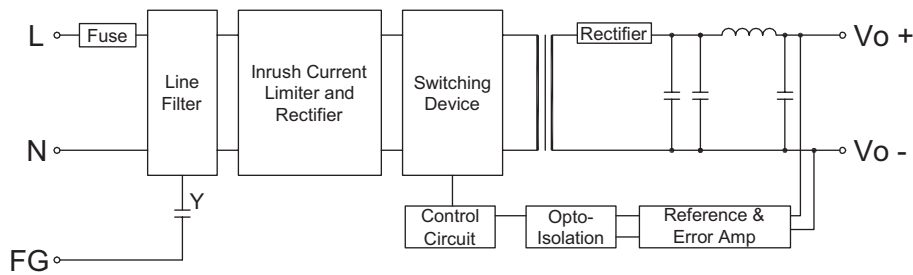
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Characteristic Curve

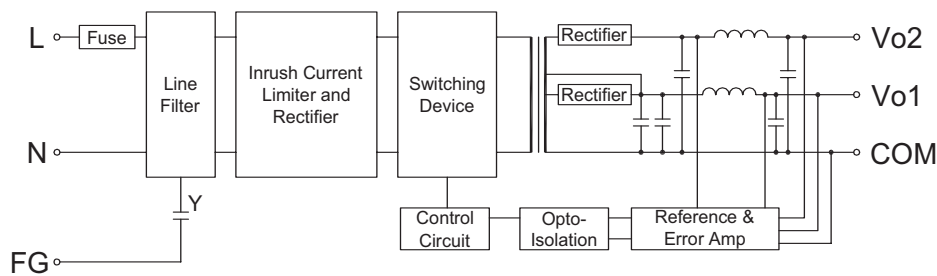
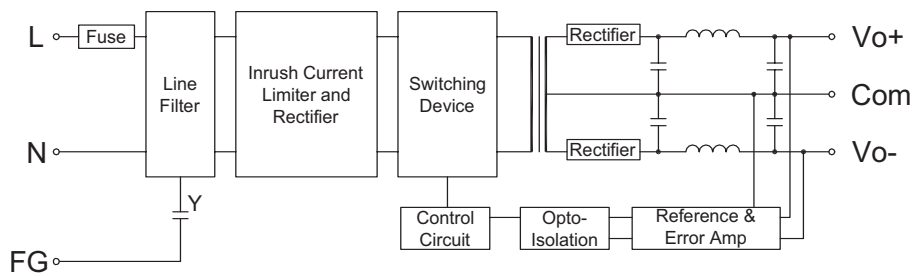


Circuit Schematic

Single Output

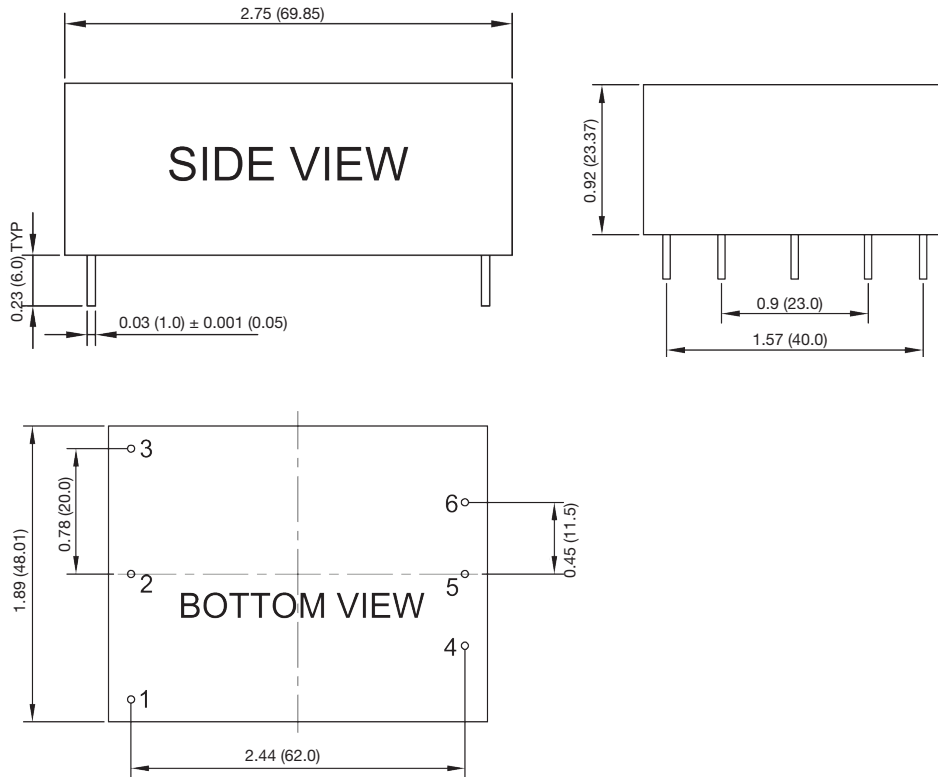


Dual Output



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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 inches (mm)
2. All tolerances are ±0.50