

AC-DC CONVERTER

UNIVERSAL INPUT, 30 WATTS

SINGLE AND DUAL OUTPUT

UIL30 SERIES



FEATURES

- Universal Input 90-264Vac
- High Efficiency (up to 88%)
- Fully Encapsulated Plastic Case
- Dimensions: 3.5" × 2.5" × 1.25"
- 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
26.4	3.3	8000	150	72	UIL30-33S
40	5	8000	150	75	UIL30-5S
40	6	6650	150	75	UIL30-6S
40	7	5700	150	80	UIL30-7S
40	8	5000	150	80	UIL30-8S
40	9	4400	150	82	UIL30-9S
40	10	4000	150	82	UIL30-10S
42	12	3500	150	84	UIL30-12S
42	13	3200	150	84	UIL30-13S
42	14	3000	150	84	UIL30-14S
42	15	2800	150	84	UIL30-15S
42	16	2625	150	85	UIL30-16S
42	18	2300	150	85	UIL30-18S
42	24	1750	240	86	UIL30-24S
42	27	1550	240	86	UIL30-27S
43.2	36	1200	240	86	UIL30-36S
48	48	1000	240	88	UIL30-48S
40	±5	±4000	150	75	UIL30-05D
42	±12	±1750	150	80	UIL30-12D
42	±15	±1400	150	80	UIL30-15D
42	±24	±875	240	80	UIL30-24D
26.5	3.3/5	5000/2000	150/240	72	UIL30-33S5S
40	5/12	5000/1250	150/240	75	UIL30-5S12S
40	5/15	5000/1000	150/240	75	UIL30-5S15S
40	5/24	5000/625	150/240	78	UIL30-5S24S

UIL30 SERIES

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-9V models
	120Vdc Min., 370Vdc Max.	Vo, lo nom, DC input		±2 Max.	Vi nom, lo nom, Single output, 10V-48V models
				±5 Max.	Dual output
Rated input voltage, Vac	100 - 240 Typ.	Vo, lo nom	Minimum load, %	0 Min.	Vi nom, Single output models
				20 Min.	Vi nom, Dual output models (each output)
Line frequency, Hz	47 Min., 50/60 Typ., 63 Max.	Vi nom, lo nom	Line regulation, %	±1 Typ.	lo nom, Vi min...Vi max
			Load regulation, %	±2 Typ.	Lo min- lo nom, Single output models
Inrush current, A	12 Max.	lo nom, Vi: 115Vac	Transient recovery time, uS	±5 Typ.	Lo min- lo nom, Dual output models
	20 Max.	lo nom, Vi: 230Vac		1,000 Typ.	Vi nom, lo nom = $\longleftrightarrow$ 0.5 lo nom
Input fuse	VDE/UL/CCC, Fuse 2.5A/250V (Slow blow)		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.

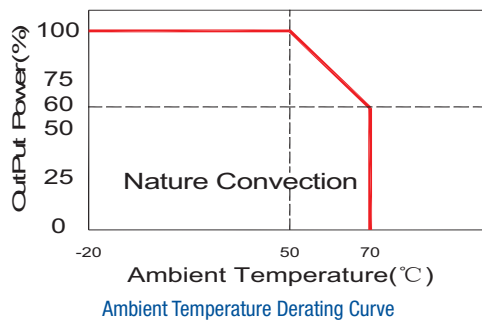
Environmental Specifications			
Operating temperature, °C	Operating at Vi nom, lo nom	-20 Min.	70 Max.
Derating, %/°C	Vi nom, lo nom 51 to 71°C		2 Max.
Storage temperature, °C	Non-operational	-40 Min.	85 Max.
Relativity humidity, % RH	Vi nom, lo nom		95 Max.
Cooling	Free air convection		

Physical Specifications		EMC Specifications	
Design meet safety standard	EN60950-1	EMI conduction and radiation	Compliance to EN55022
Dimensions, inches (mm)	3.5 × 2.5 × 1.25 (88.90 × 63.50 × 31.75)	EMS immunity	Compliance to EN55024

Note:

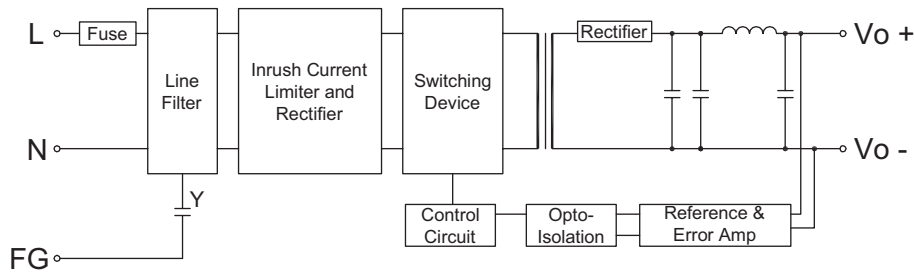
1. Ripple & noise is measured by using 20 MHz bandwidth, measured with a 47μF paralleled with a high-frequency 0.47μF capacitor across each output by full load.

Characteristic Curve

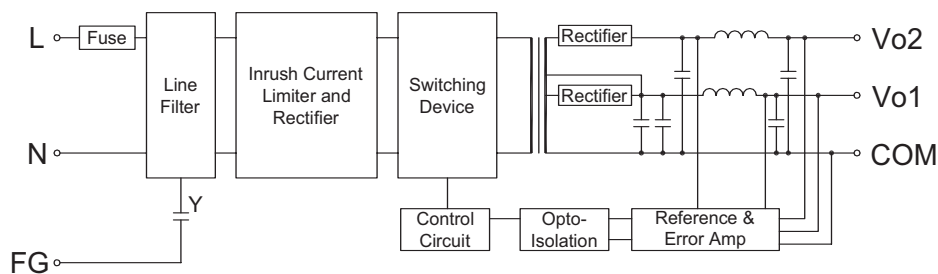
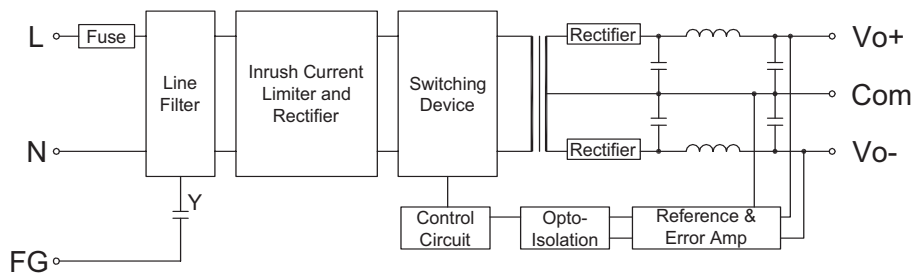


Circuit Schematic

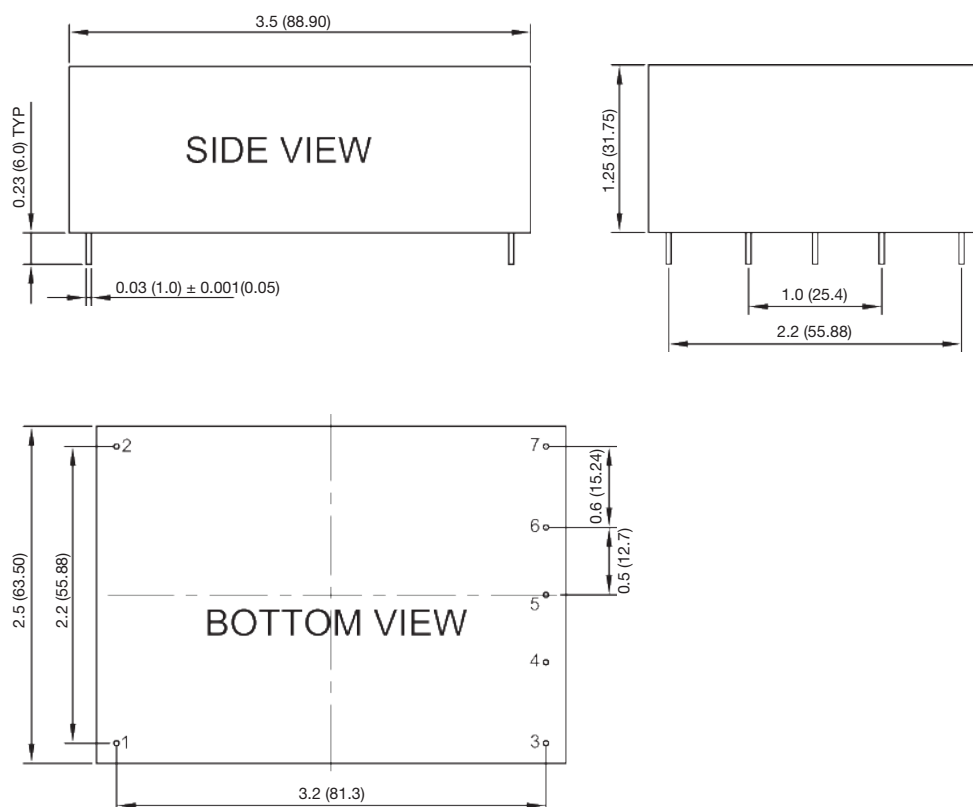
Single Output



Dual Output



Mechanical Drawing



PIN CONNECTION

PIN	SINGLE	DUAL	DUAL
1	ACN	ACN	ACN
2	ACL	ACL	ACL
3	+Vo	+Vo	+Vo2
4	NO PIN	NO PIN	+Vo1
5	-Vo	Com	Com
6	NO PIN	NO PIN	Com
7	NC	-Vo	NO PIN

1. All dimensions in inches (mm)
2. All tolerances are ± 0.50