

AC-DC CONVERTER

UNIVERSAL INPUT, 5-6 WATTS

SINGLE OUTPUT

UIL5 SERIES



FEATURES

- Universal Input 90-264Vac
- High Efficiency (up to 80%)
- Dimensions: 1.37" × 1.0" × 0.7"
- Protection: Short Circuit/ Overload
- Internal Input Filter
- 2 Year Warranty
- RoHS Compliant
- Safety Approvals: UL60950-1, IEC60950-1

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 mV (Max.)	Efficiency %	Model Number
3.3	3.3	1000	150	70	UIL5-33S
5	5	1000	150	70	UIL5-5S
5	6	830	150	70	UIL5-6S
5	7	715	150	72	UIL5-7S
5	8	625	150	72	UIL5-8S
5	9	555	150	75	UIL5-9S
5	10	500	150	75	UIL5-10S
6	12	500	150	75	UIL5-12S
6	13	460	150	76	UIL5-13S
6	14	430	150	76	UIL5-14S
6	15	400	150	76	UIL5-15S
6	16	375	150	76	UIL5-16S
6	18	335	150	78	UIL5-18S
6	24	250	240	78	UIL5-24S
6	27	220	240	78	UIL5-27S
6	36	165	240	80	UIL5-36S
6	48	125	240	80	UIL5-48S

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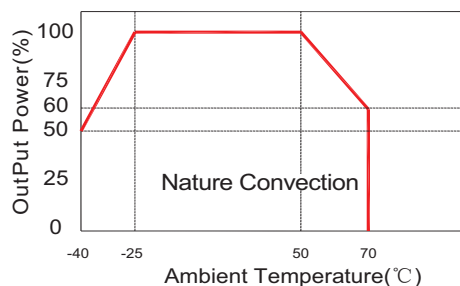
Input Specifications		Output Specifications	
Voltage range	90Vac Min., 264Vac Max.	Vo, lo nom, AC input	Output voltage accuracy, %
	120Vdc Min., 370Vdc Max.	Vo, lo nom, DC input	±2 Max. Vi nom, lo nom
Rated input voltage, Vac	100 - 240 Typ.	Vo, lo nom	Minimum load, %
Line frequency, Hz	47 Min., 63 Max.	Vi nom, lo nom	0 Min. Vi nom
Inrush current, A	10 Max.	lo nom, Vi: 115Vac	Line regulation, %
	20 Max.	lo nom, Vi: 230Vac	±0.2 Typ. lo nom, Vi min...Vi max
Leakage current, mA	0.25 Max.		Load regulation, %
Input current, mA	Full load, 130 (115Vac) Max., 80 (230Vac) Max.		±1.0 Typ. 3.3V Models
			±0.5 Typ. 5...48V Models
External fuse	Recommended, VDE/UL/CCC, Fuse 1.0A/250V (Slow blow)		Transient recovery time, µS
			1,000 Typ. Vi nom, lo nom = ↔ 0.5 lo nom
		Overload protection	Above 110% rated output power
		Short circuit protection	Recovers automatically after fault condition is removed

General Specifications			
Isolation voltage, Vac		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		-40 Min.	70 Max.
Storage temperature range, °C	Non-operational	-40 Min.	85 Max.
Relative humidity, % RH	Vi nom, lo nom		95 Max.
Cooling	Free air convection		

Physical Specifications		EMC Specifications	
Design meet safety standard	UL60950-1, IEC60950-1	EMI conduction and radiation	Compliance to EN55022
Dimensions, inches (mm)	1.37 × 1.0 × 0.7 (35.0 × 25.4 × 17.8)	EMS immunity	Compliance to EN55024

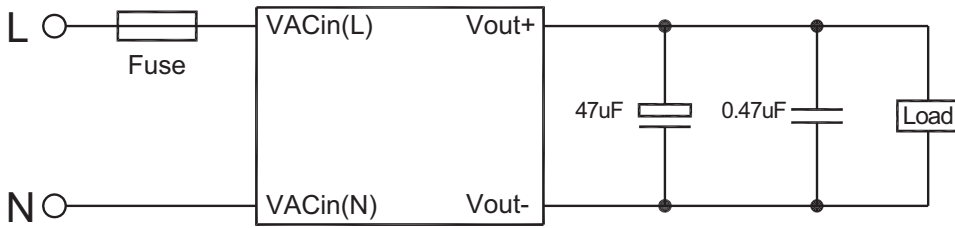
Characteristic Curve



Ambient Temperature Derating Curve

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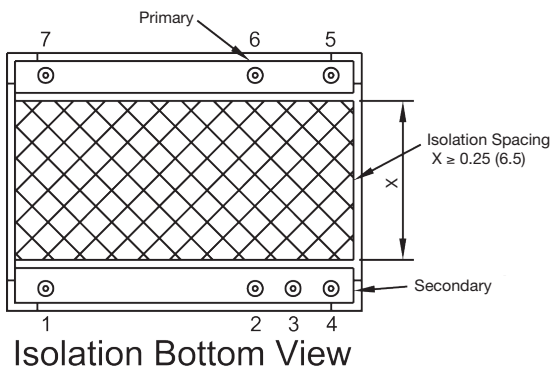
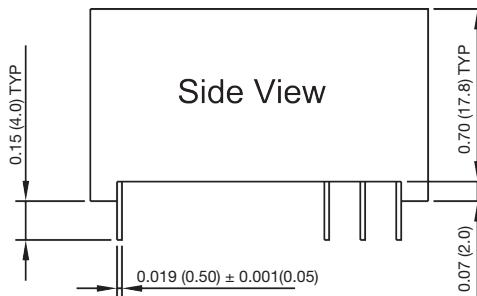
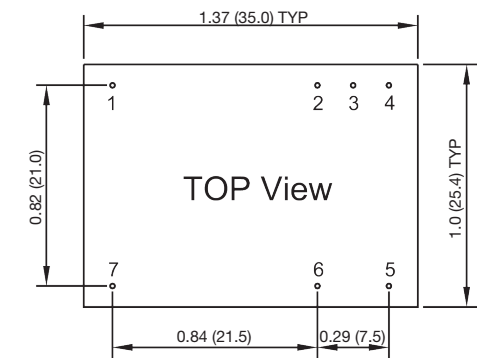
Recommended Application Circuit



Note:

1. Fuse: 1A/250V (Slow blow).
2. 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.

Mechanical Drawing



PIN CONNECTION

PIN	DEFINE
1	NC
2	+Vo
3	-Vo
4	NC
5	L
6	N
7	NC

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