40 Watt Industrial (WLT)

Features

- 40 W convection-cooled rating
- Small 4 x 2 x 1.2 inches form factor
- High efficiency > 85%
- Single to triple outputs
- Low conducted and radiated noise
- No Load Power < 0.3 W
- Class 1 & Class 2 options
- Cover kit accessory available

Electrical Specifications

AC Input	90–264 V, Universal	
Input Frequency[4]	47–400 Hz	
Input Current	120 VAC: 0.85 A max.	230 VAC: 0.45 A max.
No Load Power	< 0.3 W for single output models < 0.5 W for multi output models	
Inrush Current	120 VAC: 30 A max.	230 VAC: 60 A max.
Leakage Current	120 VAC: < 500 µA	230 VAC: < 1000 µA
Efficiency[1]	120 VAC: 85% typical	230 VAC: 85% typical
Hold-up Time	120 VAC: 6 ms	230 VAC: 6 ms
Output Power	40 W	
Line Regulation	+/–0.3%	
Load Regulation	V1: +/–0.5%; V2 & V3: +/–5%	
Transient Response	< 10%, 50% to 100% load change, 50/60 Hz, 50% duty cycle, 0.1 A/µs, recovery time < 5 ms	
Rise Time	< 100 ms	
Set Point Tolerance	V1: +/–3%; V2 & V3: +/–5%	
Output Adjustability	V1: +/–10%	
Over Current Protection	130% typical above rating	
Over Voltage Protection	130% typical for V1 only	
Short Circuit Protection	Short term, autorecovery	
Switching Frequency	Approximately 67 kHz	
Operating Temperature	–20 to 70°C, refer derating curve; –20 to 0°C, start-up is guaranteed	
Storage Temperature	–40 to +70°C	
Relative Humidity	95% Rh, noncondensing	
Altitude	Operating: 10,000 ft.; Nonoperating: 40,000 ft.	
MTBF	> 100 kh, MIL–HDBK–217F	
Isolation Voltage	Min. 4242 VDC between input to output	
Cooling	Convection	

Model Number	Voltage	Max. Load[2]	Min. Load[5]	Ripple[3]
LFWLT40–1000	V1=5.1 V	8.0 A	0.0 A	1%
LFWLT40–1001	V1=12 V	3.5 A	0.0 A	1%
LFWLT40–1002	V1=15 V	2.7 A	0.0 A	1%
LFWLT40–1003	V1=24 V	1.7 A	0.0 A	1%
LFWLT40–1004	V1=48 V	0.83 A	0.0 A	1%
LFWLT40–3000	V1=5.2 V, V2=12.5 V, V3=–12.8 V	V1=6.0 A, V2=2.0 A, V3=0.5 A	V1=0.5 A, V2=0.1 A, V3=0.0 A	1%
LFWLT40–3001	V1=5.2 V, V2=23.8 V, V3=–12.8 V	V1=6.0 A, V2=1.0 A, V3=0.5 A	V1=0.5 A, V2=0.1 A, V3=0.0 A	1%
LFWLT40–3002	V1=5.2 V, V2=14.6 V, V3=–14.8 V	V1=6.0 A, V2=1.5 A, V3=0.5 A	V1=0.5 A, V2=0.1 A, V3=0.0 A	1%
LFWLT40–3003	V1=3.3 V, V2=5.2 V, V3=–12.8 V	V1=6.0 A, V2=3.0 A, V3=0.5 A	V1=1.0 A, V2=0.1 A, V3=0.0 A	V1=1.5%, V2, V3=1%
LFWLT60–CK metal cover kit accessory				

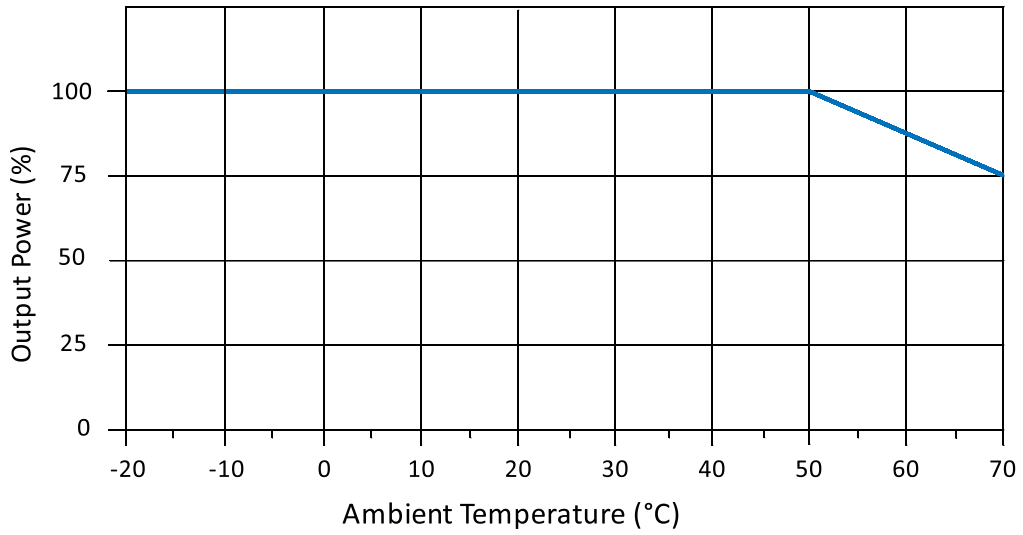
Connectors		
J1	Pin 1	AC NEUTRAL
	Pin 2	AC LINE
Spade Connector		EARTH
J2	Pin 1	V1
	Pin 2	V1
	Pin 3	RTN
	Pin 4	RTN
	Pin 5	V3
	Pin 6	V2
J3	Pin 1	+V1 SENSE
	Pin 2	–V1 SENSE

Notes

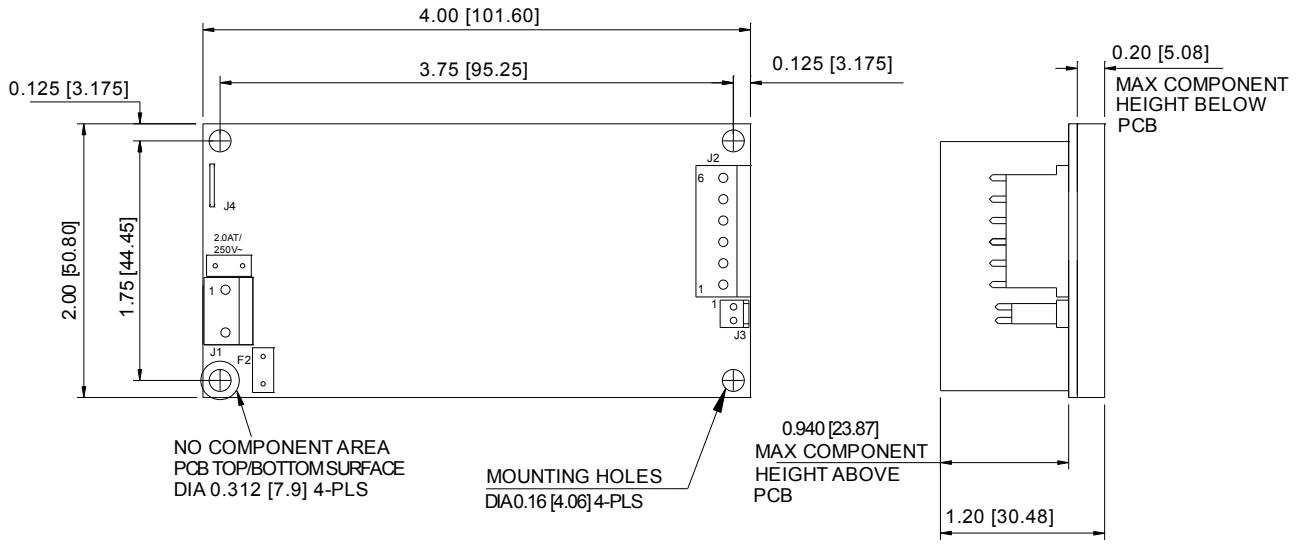
1. For WLT40–3003 efficiency is 75% typical.
2. Maximum current per output channel. Do not exceed total output power rating.
3. Ripple is peak to peak with 20 MHz bandwidth and 10 µF (Tantalum capacitor) in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.
4. Safety approved 47–63 Hz.
5. Min Load specified to meet cross regulation.
6. Add –2 suffix to order Class 2 product.
7. Specifications are for nominal input voltage, 25°C and max. load unless otherwise stated.
8. Derate output power linearly to 80% from 90 VAC to 80 VAC input.

Mechanical Specifications	
AC Input Connector (J1)	Molex: 26−60−4030 or equivalent Mating: 09−50−3031; Pins: 08−50−0106
EARTH	Molex: 19705−4301 Mating: 190030001
DC Output Connector (J2)	Tyco: 640445−6 or equivalent Mating: 647402−6; Pins: 3−647409−1
Signal Connector (J3)	Molex: 22−23−2021 or equivalent Mating: 22−01−2021
Dimensions	4.0 x 2.0 x 1.2 inches (101.6 x 50.8 x 30.48 mm)
Weight	150 g
EMC*	
CE Mark	Complies with LVD Directive
Conducted Emissions	EN55022−B, CISPR22−B, FCC PART15−B
Static Discharge	EN61000−4−2, Level−3
RF Field Susceptibility	EN61000−4−3, Level−3
Fast Transients/Bursts	EN61000−4−4, Level−3
Radiated Emissions	EN55022−B, CISPR22−B, FCC PART15−B To be controlled in end system
Surge Susceptibility	EN61000−4−5, Level−3
Harmonic Current	EN61000−3−2, Class A
Safety*	
Safety Standard(s)	IEC60950−1 (ed.2), EN60950−1, UL60950−1 (2nd Edition), CSA C22.2 No. 60950−1 (2nd Edition), Class 1 SELV
Approval Agency	Nemko, UL, C−UL
*Safety File Number(s)	Pending

Derating Curve



Mechanical Drawing



MECHANICAL OUTLINE DIMENSIONS
ALL DIMENSIONS ARE IN INCHES[MM]
GEN.TOLERANCE:+/-0.02 [+/-0.5mm]

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