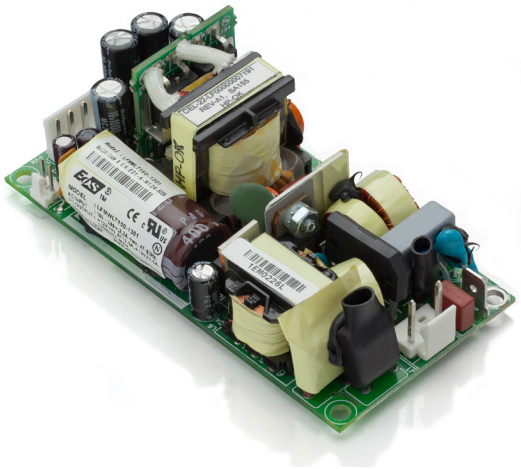
150 Watt Industrial (WLT)



Features

- 4 x 2 x 1.3 inches form factor
- 150 W with forced-air cooling
- Class 1 & Class 2 options
- 12 V @ 0.5 A fan voltage auxiliary output
- High efficiency > 86%
- Low conducted and radiated noise
- Light weight
- Now IEC/EN/UL62368-1 Compliant New
- Approved with metal enclosures/accessories
- Cover kit accessory available

Electrical Specifications

Input Voltage	90–264 VAC/120–390 VDC, Universal	
Input Frequency	47–63 Hz	
Input Current	120 VAC: 1.7 A max.	230 VAC: 0.85 A max.
No Load Power	1.2 W	
Inrush Current	120 VAC: 35 A max.	230 VAC: 65 A max.
Leakage Current	120 VAC: < 150 µA	230 VAC: < 300 µA
Efficiency	120 VAC: 84% typical	230 VAC: 86% typical
Hold-up Time	120 VAC: 6 ms	230 VAC: 10 ms
Power Factor	120 VAC: 0.99	230 VAC: 0.95
Output Power	150 W	
Peak Power	170 W for 0.2 s	
Line Regulation	+/–0.5%	
Load Regulation	+/–2.0%	
Transient Response	< 10%, 50% to 100% load change, 50 Hz, 50% duty cycle, 0.1 A/µs, recovery time < 5 ms	
Rise Time	< 100 ms	
Set Point Accuracy (Main Output)	+/–1%	
Output Adjustability	+/–3.0%	
Over Current Protection	110% typical above rating	
Over Voltage Protection	110 to 150%	
Short Circuit Protection	Short term, autorecovery	
Switching Frequency	PFC converter: Variable, 35–250 kHz; 90 kHz typical Resonant converter: Variable, 35–250 kHz; 90 kHz typical	
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	2.4m Hours, Telcordia -SR332-issue 3	
Isolation Voltage	Min. 4000 VDC between input to output	
Cooling	Convection: 80 W; 300 LFM: 100 W (5 V model) Convection: 100 W; 300 LFM: 150 W (other model)	

Downloaded from Arrow.com.

Model Number	Description	Voltage	Max. Load[1] (Convection)	Max. Load[1] (300 LFM)	Min. Load	Ripple[2]
LFWLT150–1000	Class 1 with Screw Terminal	5 V	16.0 A	20.0 A	0.0 A	1%
LFWLT150–1000–2	Class 2 with Screw Terminal					
LFWLT150–1300	Class 1 with JST Connector			16.0 A		
LFWLT150–1300–2	Class 2 with JST Connector					
LFWLT150–1001	Class 1 with Screw Terminal	12 V	8.33 A	12.5 A	0.0 A	1%
LFWLT150–1001–2	Class 2 with Screw Terminal					
LFWLT150–1301	Class 1 with JST Connector					
LFWLT150–1301–2	Class 2 with JST Connector					
LFWLT150–1002	Class 1 with Screw Terminal	15 V	6.67 A	10.0 A	0.0 A	1%
LFWLT150–1002–2	Class 2 with Screw Terminal					
LFWLT150–1302	Class 1 with JST Connector					
LFWLT150–1302–2	Class 2 with JST Connector					
LFWLT150–1003	Class 1 with Screw Terminal	24 V	4.17 A	6.25 A	0.0 A	1%
LFWLT150–1003–2	Class 2 with Screw Terminal					
LFWLT150–1303	Class 1 with JST Connector					
LFWLT150–1303–2	Class 2 with JST Connector					
LFWLT150–1004	Class 1 with Screw Terminal	48 V	2.08 A	3.13 A	0.0 A	1%
LFWLT150–1004–2	Class 2 with Screw Terminal					
LFWLT150–1304	Class 1 with JST Connector					
LFWLT150–1304–2	Class 2 with JST Connector					
LFWLT100–CK metal cover kit accessory						

For Power supply unit with Base plate (metal accessory option) add “-B” suffix at the end of model number
For Power supply unit with L bracket (metal accessory option) add “-L” suffix at the end of model number
For Power supply unit with U channel (metal accessory option) add “-U” suffix at the end of model number
For Power supply unit with CK Cover kit (metal accessory option) add “-CK” suffix at the end of model number

Downloaded from Arrow.com.

Notes

1. Combined output power from V1 and VFAN should not exceed the total output power rating.
2. Ripple is 2% up to 20% load and < 1% above 20% load. Ripple is peak to peak with 20 MHz bandwidth and 10 µF (Electrolytic capacitor) in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.
3. Fan output voltage tolerance is +/–20%.
4. Peak current for fan output is 1 A.
5. Class 1 products have an Earthing tab. Class 2 version available. Add "-2" suffix at the end of the Model Number to Order. Enquire with EOS Sales Rep before Order.
6. Specifications are for nominal input voltage, 25°C and max. load unless otherwise stated.
7. Derate output power linearly to 80% from 90 VAC to 80 VAC input.
8. When used in Cover Kit, de-rate output power to 70 % under all operating conditions.

Connectors		
J1	Pin 1	AC LINE
	Pin 2	AC NEUTRAL
Spade Connector (Class 1 product only)		EARTH
J2	Pin 1, 2	V1
	Pin 3, 4	RTN
J3	Pin 1	VFAN (+12 V/0.5 A)
	Pin 2	RTN

Downloaded from Arrow.com.

Mechanical Specifications	
AC Input Connector (J1)	Molex: 26–60–4030 or equivalent; Mating: 09–50–3031; Pins: 08–50–0106
EARTH	Molex: 19705–4301 or equivalent Mating: 190030001
DC Output Connector (J2)	Option 1: Tyco: 1776112–4 or equivalent Mating: 13 AWG wire Option 2: JST: B4P–VH–B (LF) (SN) or B4P–VH (LF) (SN) or equivalent Mating: VHR–4M; Pins: SVH–41T–P1.1
Fan Connector (J3)	Tyco: 640456–2 or equivalent Mating: 640440–2
Dimensions	4.0 x 2.0 x 1.324 inches (101.6 x 50.8 x 33.63 mm)
Weight	150 g

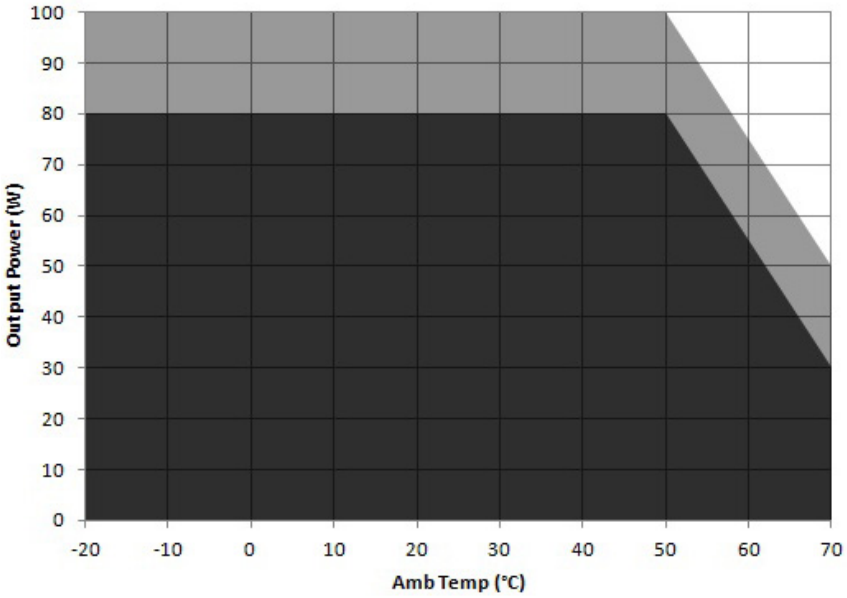
EMC		
Parameter	Conditions/Description	Criteria
Conducted Emissions	EN55032-B, CISPR22-B, FCC PART15-B	Pass
Radiated Emissions	EN 55032 B	Pass
Input Current Harmonics	EN 61000-3-2	Class D
Voltage Fluctuation and Flicker	EN 61000-3-3	Pass
ESD Immunity	EN 61000-4-2	Level 3, Criterion A
Radiated Field Immunity	EN 61000-4-3	Level 3, Criterion A
Electrical Fast Transient Immunity	EN 61000-4-4	Level 3, Criterion A
Surge Immunity	EN 61000-4-5	Level 3, Criterion A
Conducted Immunity	EN 61000-4-6	Level 3, Criterion A
Magnetic Field Immunity	EN 61000-4-8	Level 3, Criterion A
Voltage dips, interruptions	EN 61000-4-11	Criterion A & B

Safety	
CE Mark	Complies with LVD Directive
Approval Agency	Nemko, UL, C–UL, IEC
Safety Standard(s)	EN/IEC/UL 62368-1 (Ed.3)
Safety File Number(s)	Class I UL: Certificate Number : E515384, Nemko: Certificate No: P20225090, CB Test Certificate No: NO111516

Downloaded from Arrow.com.

Derating Curve

Power de-rating : 5V output



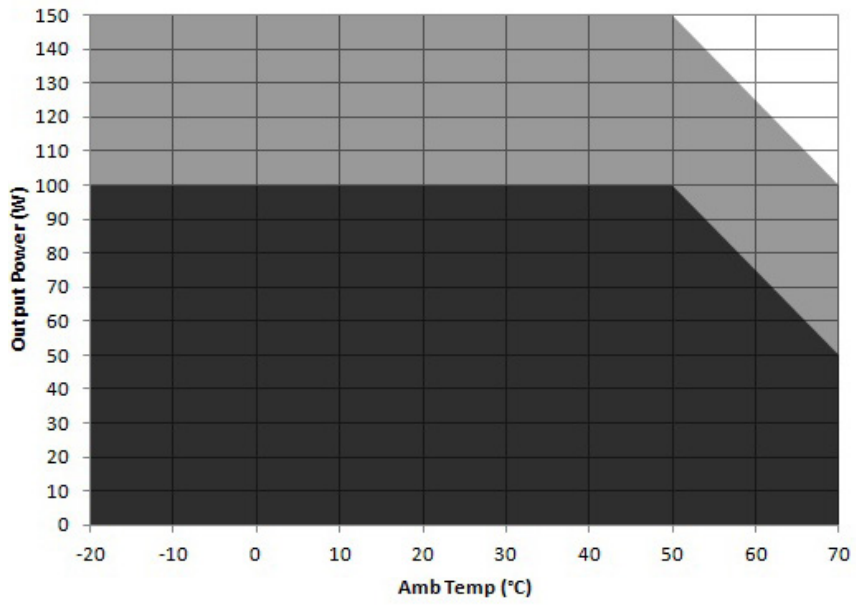
Convection load: 80W up to 50 °C

De-rate above 50 °C @ 3.125% per °C

Forced air cooled load : 100W up to 50°C

De-rate above 50 °C @ 2.5% per °C

Power de-rating : 12V, 15V, 24V, 48V output



Convection load: 100W up to 50 °C

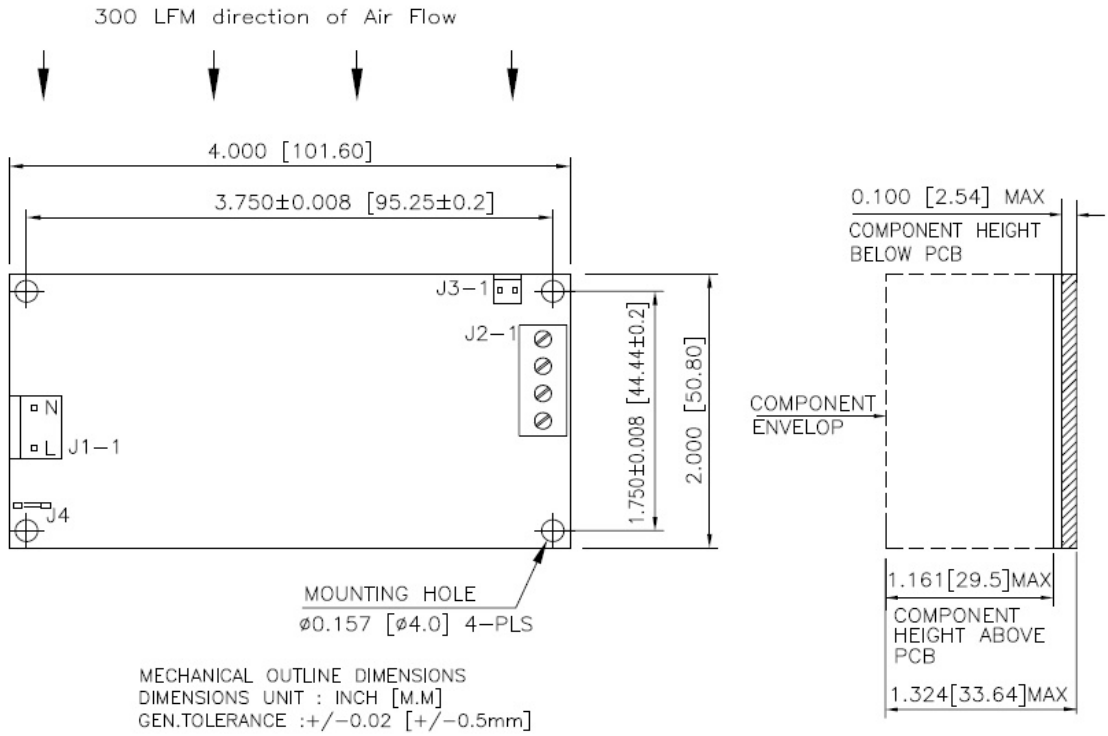
De-rate above 50 °C @ 2.5% per °C

Forced air cooled load : 150W up to 50°C

De-rate above 50 °C @ 1.67% per °C

Downloaded from Arrow.com.

Mechanical Drawing

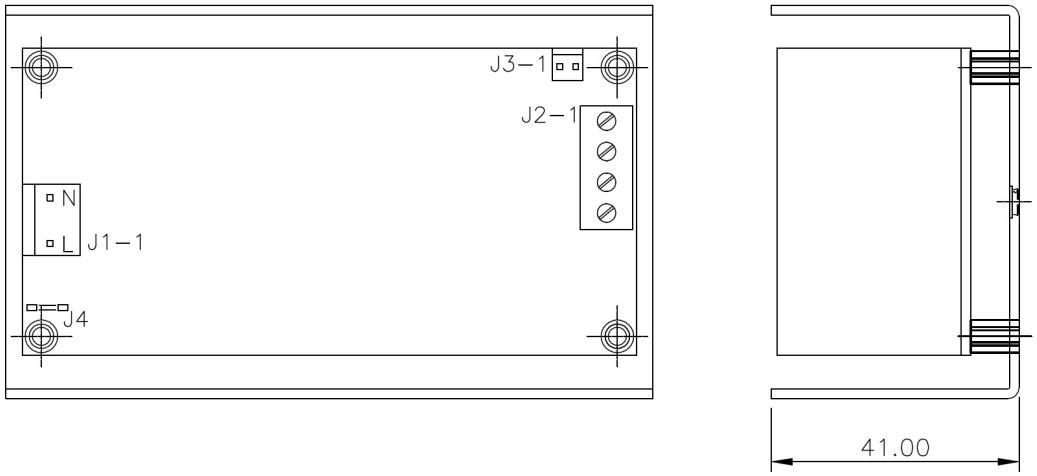


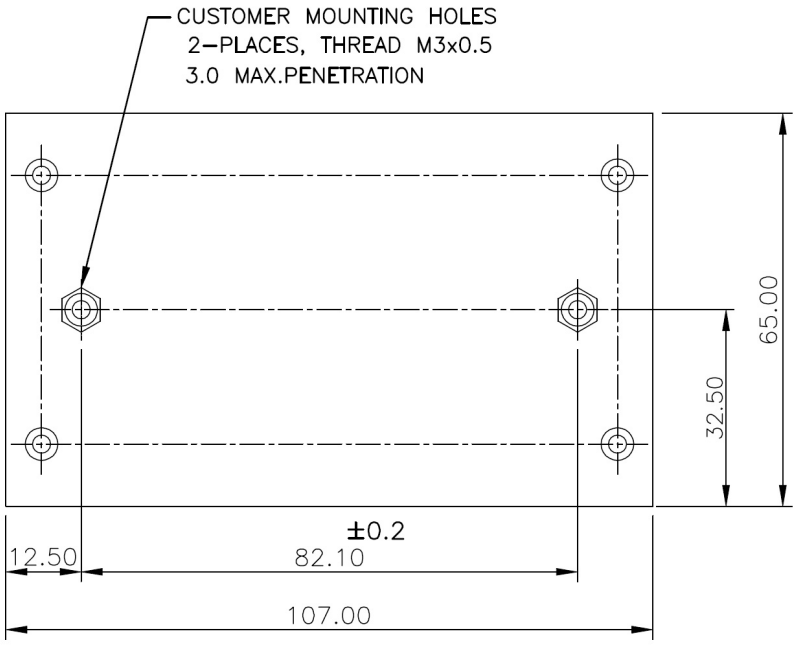
Notes: In case the PCB is mounted in a metal enclosure, using metal hardware ensure the following
1. Stand off, used to mount PCB has OD of 5.4 mm max.
2. Screws, used to fix PCB on stand off, have head dia of 6.0 mm max.
3. Washer, if used, to have dia of 6.5 mm max.

Downloaded from Arrow.com.

Mechanical Drawing

WLT150 WITH 'U' CHANNEL



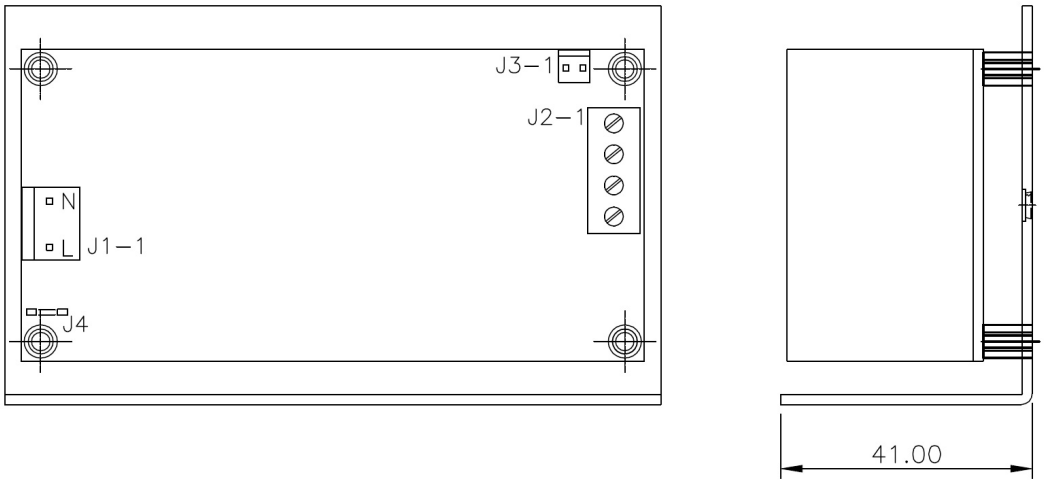


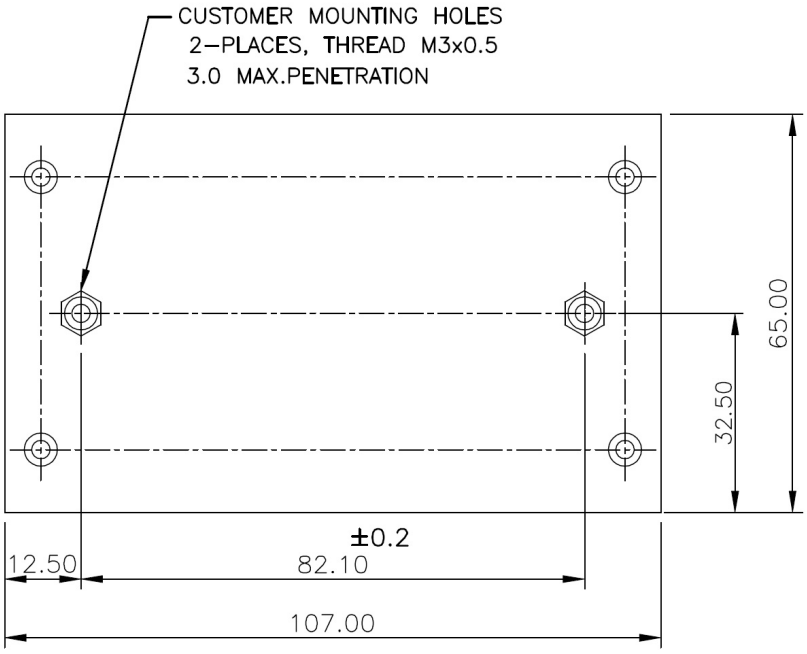
MECHANICAL OUTLINE DIMENSIONS
ALL DIMENSIONS ARE IN MM
GEN.TOLERANCE:+/-0.5 MM

Downloaded from Arrow.com.

Mechanical Drawing

WLT150 WITH 'L' BRACKET



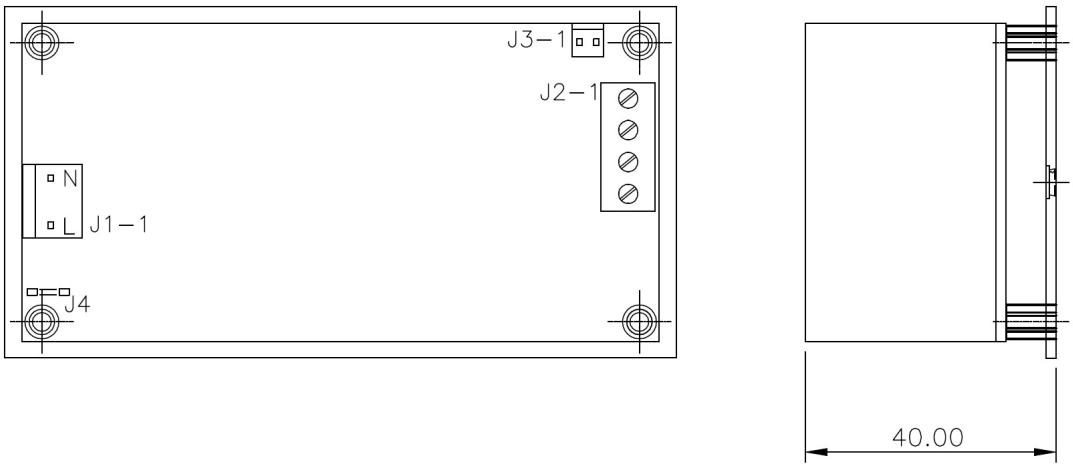


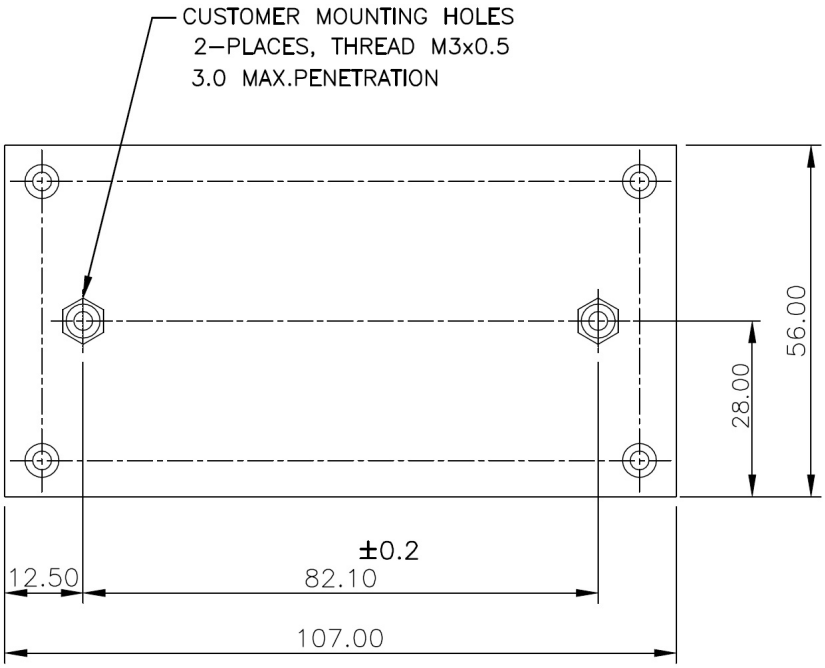
MECHANICAL OUTLINE DIMENSIONS
ALL DIMENSIONS ARE IN MM
GEN.TOLERANCE:+/-0.5 MM

Downloaded from Arrow.com.

Mechanical Drawing

WLT150 WITH BASE PLATE



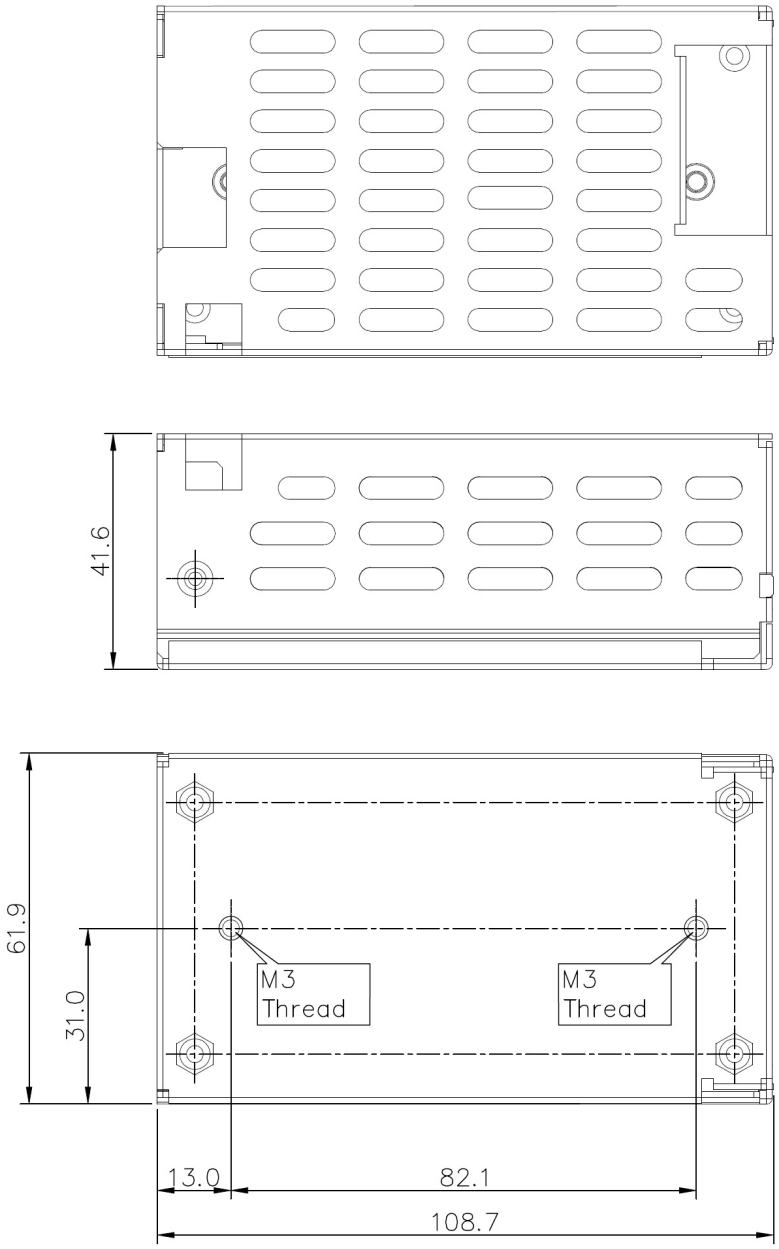


MECHANICAL OUTLINE DIMENSIONS
ALL DIMENSIONS ARE IN MM
GEN.TOLERANCE:+/-0.5 MM

Downloaded from Arrow.com.

Mechanical Drawing

WLT150 WITH COVER KIT



MECHANICAL OUTLINE DIMENSIONS
ALL DIMENSIONS ARE IN MM.
GEN. TOLERANCE: ±1.0 mm

Downloaded from Arrow.com.