# Plug-In ArtTrack 1, 2, & 3 Light Power Supply Dimensions

# L6R24 / L6R30 Series

Innovative, reliable, and inexpensive. That's the L6R24/L6R30 Series.

This economical, UL/cUL 62368-1 approved, DOE Level VI compliant power supply/charger is rated up to 30W when powering stationary or charging portable devices.

Plenty of voltage levels to choose from, too. From 5.0Vdc all the way up to 48.0Vdc (in increments of 0.1V), to match your need.

Call us (800-657-0853) for the part number to match your specifications.

## **Specifications**

#### Input

Input Voltage Input Frequency

No Load Input Power Input Current Inrush Current

Leakage Current Input Connection 90 Vac ~ 264 Vac

47 Hz to 63 Hz

< 0.1W

1.2A Max.

40A Max.

0.25mA Max.

US (others available)

### Output

Output Voltage Range **Output Current Range** 

5.0 to 48.0 Vdc

L6R24: 667 - 3000mA, 24W Max.

L6R30: 833 - 3000mA, 30W Max.

Minimum Load

Line Regulation

No min. load required.

± 1% at rated load across input voltage range

Load Regulation

Ripple & Noise Overvoltage Protection Overload Protection

Auto recovery Auto recovery

100mVp-p Max.

± 5%

**Short Circuit Protection** 

Auto recovery

#### General

Insulation Resistance Efficiency

50Μ $\Omega$  Min.

Level VI compliant

**MTBF** 

50,000 hrs to MIL-HDBK-217F at +25°C

#### Environmental

Operating Temperature Operating Humidity

0°C to 40°C

5% - 95% RH, Non-Condensing

Storage Temperature -20°C to +80°C

### EMC & Safety

Safety Approvals

UL: UL62368-1

cUL: cUL62368-1

**EMC Approvals** 

FCC

### Warranty

Warranty Period

3 years

### **Dimensions and Notes**

Dimensions in mm Tolerance

Weight

Size

+ 0.2mm

71.2 x 43.2 x 29.5 mm

2.80 x 1.70 x 1.16 Inches

Approx. 150g (4.3oz.)

AC input, US 2-prong inlet plug

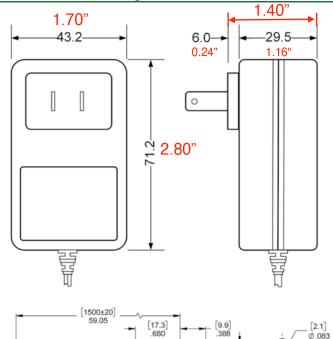
DC output, standard 5.5 x 2.1 x 9.5mm corded dc output plug or per customer specification.

Cord length

Connectors

1500 ± 20 mm (59 ± .8")

## Mechanical Drawing



2021-02

# Plug-In ArtTrack 4 & 5 Light Power Supply Dimensions

# **L6R18 Series**

Economical and dependable whether powering stationary or portable devices.

This DOE Level VI compliant power supply/charger is rated up to 19W, with plenty of voltage levels to

choose from: 5.0Vdc to 36Vdc (in increments of 0.1V), to match your specific need.

Call us (800-657-0853) for the part number to match your particular need.

# **Specifications**

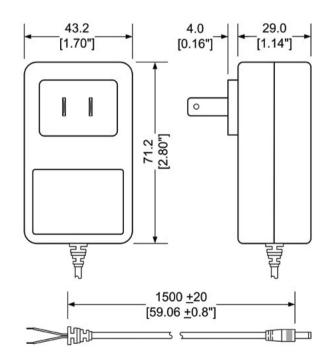
Input	
Input Voltage	• 90 VAC ~ 264 Vac
Input Frequency	• 47 Hz to 63 Hz
No Load Input Power	• ≤ 0.1W
Input Current	• 1.2A Max.
Inrush Current	• 40A Max.
Leakage Current	• 0.25mA Max.
Input Connection	US (others available)
Output	
Output Voltage Range	• 5.0 ~ 36Vdc
Output Current Range	• 500 - 2100mA, 19.2W Max.
Minimum Load	<ul> <li>No min. load required.</li> </ul>
Line Regulation	<ul> <li>± 1% at rated load across input voltage range.</li> </ul>
Load Regulation	• ± 5%
Ripple & Noise	<ul> <li>240mV p-p Max.</li> </ul>
Overvoltage Protection	Auto recovery
Overload Protection	Auto recovery
Short Circuit Protection	Auto recovery
General	
Insulation Resistance	• 50MΩ Min.
Efficiency	<ul> <li>Level VI compliant</li> </ul>
MTBF	• 50,000 Hrs to MIL-HDBK-217F at +25°C
Environmental	
Operating Temperature	• 0°C to 40°C
Operating Humidity	• 5% - 95% RH, Non-Condensing
Storage Temperature	• -20°C to +80°C
EMC & Safety	
Safety Approvals	• cULus: UL60950-1

CE

• FCC

EMC Approvals:

Warranty Period	• 1 year		
Dimensions			
Tolerance	• ± 0.2mm		
Size	• 71.2 x 43.2 x 29.0 mm		
	2.80 x 1.70 x 1.14 Inches		
Weight	<ul> <li>Approx. 125g (4.4 oz.)</li> </ul>		
Connectors • AC input, US 2-prong inlet plug			
	<ul> <li>DC output, standard 5.5mm x 2.1mm x x 9.5mm corded dc output plug or per customer specification.</li> </ul>		
Cord length	• 1500 ± 20 mm (59 ± .8")		



# Plug-In ArtTrack 4 & 5 Light

# **L6R18 Series**

# 18W Wall Mount Power Supply

DOE Level VI Efficiency Rating

Universal Input: 90 ~ 264Vac, 47/63 Hz

Safety Approvals: UL/cUL, CE

Corded Output Connection

Lightweight & Compact



Model No.*	Application	Output	Output		Load (A)		Voltage	Ripple	Line	Load	
Wiodel No.	Application	Connector	Voltage	Min	Rated	Peak	Accuracy	Noise	Reg.	Reg.	
L6R18-050	ITE	Corded Plug	+5.0V	0	2.1	ı	±5%	50mVpp	± 1%	±5%	
L6R18-090	ITE	Corded Plug	+9.0V	0	2.1	ı	±5%	90mVpp	± 1%	± 5%	
L6R18-120	ITE	Corded Plug	+12.0V	0	1.5	ı	±5%	120mVpp	± 1%	± 5%	
L6R18-150	ITE	Corded Plug	+15.0V	0	1.2	ı	±5%	150mVpp	± 1%	± 5%	
L6R18-180	ITE	Corded Plug	+18.0V	0	1.0	ı	±5%	180mVpp	± 1%	± 5%	
L6R18-240	ITE	Corded Plug	+24.0V	0	0.8	_	±5%	240mVpp	± 1%	± 5%	
L6R18-300	ITE	Corded Plug	+30.0V	0	0.6	_	±5%	240mVpp	± 1%	± 5%	
L6R18-360	ITE	Corded Plug	+36.0V	0	0.5	_	±5%	240mVpp	± 1%	± 5%	

<sup>\*</sup> Model No. format: L6R18-YYY, where YYY=050 to 360 representing output voltage. Output voltages from 5.0Vdc to 36Vdc are available for Level VI compliance in increments of 0.1V. Please contact Tri-Mag, LLC for the part number and specifications for your output voltage and/or specific output connector requirements and application.

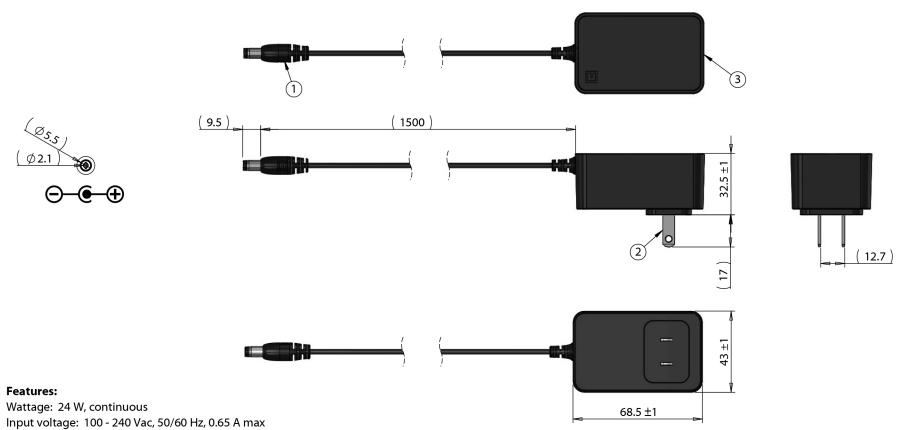
- Output voltage is verified to specification at 60% rated load condition.
- Line Regulation is defined by changing ± 10% of input voltage from nominal line at rated load.
- Load Regulation is defined by changing ± 40% of measured output load from 60% rated load.
- The ripple and noise is measured by using 20MHz bandwidth limited oscilloscope and terminated each output with a 10 μF electrolytic and a 0.1 μF capacitor at rated load and nominal line.
- Efficiency is measured at rated load and nominal line.





Plug-In ArtTrack 6 & 7 Light Power Supply Dimensions

<del> </del>				
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	COMPONENT NOTES
1	10-03171	Cable, 1500 mm, 5.5x2.1x9.5 mm 50-00133 plug to stripped tinned, 24 AWG, 30-00344 wire	1	
2	Nema 1-15 plug	NEMA 1-15 plug, nickel plated	1	
3	26-00002	Case, wall mount, ac-dc power supply, 68.5x43x32.5 mm, NEMA 1-15	1	



Output voltage: 24 Vdc Output current: 1 A Efficiency: DoE Level VI Safety: UL 62368-1

Revision:	Date:	Description:	Prepared:
А	03/18/2019	Initial release	Digitally signed by AW Date: 2019.08.13 11:20:51 -07'00'
			Verified:
			PS Digitally signed by PS Date: 2019.08.14 10:20:33-07'00'
			Dimensions are in
			millimeters.
			Tolerances:
			X: ± 0.5 mm
			X.X: ± 0.3 mm
			X.XX: ± 0.05 mm

#### Notes: RoHS compliant Approvals:



Description: Adapter, WP, 120V, US, 2P, 24V 1000 mA, 5.5x2.1x9.5 mm plug, 10-03171 cable, C+, Level VI

tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com

Size:	Part number:		
Α	16-002	206	
Scale:	1:2		Sheet 1 of 2

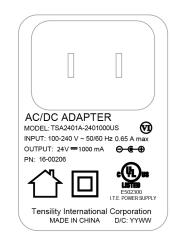
5

3

2

To see a custom version of this power supply, call Tensility at 541-323-3228 or email engineering@tensility.com

Over current protection       110 - 200% of max load input power shutdown, auto-recovery after fault removed       output short         Reliability & Safety         Leakage current       0.25 mA max       nominal ac input voltage and frequency         Burn-in test       2 hours       45 °C max at normal input voltage and rated load         Efficiency       DoE Level VI, 86.2% min       115 or 230 Vac         MTBF       30,000 hours min       Telecordia SR-332         Hi-Pot (primary to secondary)       3300 Vac, 5 mA max       3 seconds (production testing)         Hi-Pot (primary to secondary)       3000 Vac, 10 mA max       60 seconds (safety testing)         Insulation resistance       100 MΩ, primary to secondary       500 Vdc         Safety testing       UL 62368-1         Mechanical         Weight       105 ± 10 g         Environmental         Operating temperature       0 to 45 °C       10 - 90% relative humidity		Rating	ower Supply Dimension Conditions	
So - 60 Hz   Steady ac current   0.65 A max   100 - 240 Vac   Intrush current   60 A max   240 Vac, cold start   Standby power   0.1 W max   115 or 230 Vac	Input			
Frequency 50 - 60 Hz Steady ac current 0.65 A max 100 - 240 Vac Inrush current 50 A max 240 Vac, cold start Standby power 0.1 W max 115 or 230 Vac  Output  No load output voltage 22.8 - 25.2 Vdc Full load output voltage 22.8 - 25.2 Vdc 1A Power 24 Watts continuous all specified conditions  Ripple voltage 150 mV p-p at 1A 20 MHz bandwidth oscilloscope, terminated with 0.1 µF ceramic capacitor and 10 µF electrolytic capacitor, 25 °C  Over current protection 110 - 200% of max load input power shutdown, auto-recovery after fault removed  Reliability & Safety  Leakage current 0.25 mA max nominal ac input voltage and frequency Burn-in test 2 hours 45 °C max at normal input voltage and rated load Efficiency De Level VI, 86.2% min 115 or 230 Vac MTBF 30,000 hours min Telecordia SR-332 Hi-Pot (primary to secondary) 3000 Vac, 5 mA max 3 seconds (production testing) Hi-Pot (primary to secondary) 3000 Vac, 10 mA max 60 seconds (safety testing) Insulation resistance 100 MC, primary to secondary 500 Vdc  Mechanical  Weight 105 ± 10 g  Environmental  Operating temperature 0 to 45 °C 10 - 90% relative humidity	Input voltage	100 - 240 Vac	single phase	
Inrush current Standby power 0.1 W max 115 or 230 Vac  Output  No load output voltage 22.8 - 25.2 Vdc Full load output voltage 22.8 - 25.2 Vdc 1A Power 24 Watts continuous Ripple voltage 150 mV p-p at 1A 20 MHz bandwidth oscilloscope, terminated with 0.1 μF ceramic capacitor and 10 μF electrolytic capacitor, 25 °C Over current protection 110 - 200% of max load Short circuit protection input power shutdown, auto-recovery after fault removed  Reliability & Safety  Leakage current 2 hours 3 hours 45 °C max at normal input voltage and frequency Burn-in test 2 hours 45 °C max at normal input voltage and rated load Efficiency DoE Level VI, 86.2% min 115 or 230 Vac MTBF 30,000 hours min 17 Felecordia SR-332 Hi-Pot (primary to secondary) Hi-Pot (primary to secondary) Hi-Pot (primary to secondary) Sould vac, 10 mA max 10 MΩ, primary to secondary Safety testing UL 62368-1  Mechanical  Weight 105 ± 10 g  Environmental  Operating temperature 0 to 45 °C 10 - 90% relative humidity		50 - 60 Hz	3 1	
Output     Output       No load output voltage     22.8 - 25.2 Vdc       Full load output voltage     22.8 - 25.2 Vdc       Power     24 Watts continuous       Ripple voltage     150 mV p-p at 1A       Over current protection     110 - 200% of max load       Short circuit protection     input power shutdown, auto-recovery after fault removed       Reliability & Safety       Leakage current     0.25 mA max     nominal ac input voltage and frequency       Burn-in test     2 hours     45 °C max at normal input voltage and rated load       Efficiency     DoE Level VI, 86.2% min     115 or 230 Vac       MTBF     30,000 hours min     Telecordia SR-332       HI-Pot (primary to secondary)     3300 Vac, 5 mA max     3 seconds (production testing)       Hi-Pot (primary to secondary)     3000 Vac, 10 mA max     60 seconds (safety testing)       Insulation resistance     100 MΩ, primary to secondary     500 Vdc       Safety testing     UL 62368-1     500 Vdc       Mechanical       Weight     105 ± 10 g     10 - 90% relative humidity		0.65 A max	100 - 240 Vac	
No load output voltage 22.8 - 25.2 Vdc 1A Power 24 Watts continuous all specified conditions Ripple voltage 150 mV p-p at 1A 20 MHz bandwidth oscilloscope, terminated with 0.1 μF ceramic capacitor and 10 μF electrolytic capacitor, 25 °C Over current protection 110 - 200% of max load input power shutdown, auto-recovery after fault removed  Reliability & Safety  Leakage current 0.25 mA max nominal ac input voltage and frequency Burn-in test 2 hours 45 °C max at normal input voltage and rated load Efficiency DoE Level VI, 86.2% min 15 or 230 Vac MTBF 30,000 hours min Telecordia SR-332 Hi-Pot (primary to secondary) 3300 Vac, 5 mA max 3 seconds (production testing) Hi-Pot (primary to secondary) 3000 Vac, 10 mA max 60 seconds (safety testing) Insulation resistance 100 MΩ, primary to secondary 500 Vdc Safety testing UL 62368-1  Mechanical  Weight 105 ± 10 g  Environmental Operating temperature 0 to 45 °C 10 - 90% relative humidity	Inrush current	60 A max	240 Vac, cold start	
No load output voltage   22.8 - 25.2 Vdc   1A	Standby power	0.1 W max	115 or 230 Vac	
Full load output voltage  Power  24 Watts continuous  Ripple voltage  150 mV p-p at 1A  20 MHz bandwidth oscilloscope, terminated with 0.1 μF ceramic capacitor and 10 μF electrolytic capacitor, 25 °C  Over current protection  110 - 200% of max load  Short circuit protection  Input power shutdown, auto-recovery after fault removed  Reliability & Safety  Leakage current  Burn-in test  2 hours  45 °C max at normal input voltage and frequency  Burn-in test  2 hours  45 °C max at normal input voltage and rated load  Efficiency  DoE Level VI, 86.2% min  115 or 230 Vac  MTBF  30,000 hours min  Hi-Pot (primary to secondary)  Hi-Pot (primary to secondary)  Hi-Pot (primary to secondary)  Hi-Pot (primary to secondary)  Insulation resistance  100 MΩ, primary to secondary  UL 62368-1   Mechanical  Weight  105 ± 10 g  Environmental  Operating temperature  0 to 45 °C  10 - 90% relative humidity	Output			
Power 24 Watts continuous all specified conditions  Ripple voltage 150 mV p-p at 1A 20 MHz bandwidth oscilloscope, terminated with 0.1 μF ceramic capacitor and 10 μF electrolytic capacitor, 25 °C  Over current protection 110 - 200% of max load input power shutdown, auto-recovery after fault removed output short  Reliability & Safety  Leakage current 0.25 mA max nominal ac input voltage and frequency Burn-in test 2 hours 45 °C max at normal input voltage and rated load Efficiency DoE Level VI, 86.2% min 115 or 230 Vac  MTBF 30,000 hours min Telecordia SR-332 Telecordia SR-332  HI-Pot (primary to secondary) 3300 Vac, 5 mA max 3 seconds (production testing) Hi-Pot (primary to secondary) 3000 Vac, 10 mA max 60 seconds (safety testing) Insulation resistance 100 MΩ, primary to secondary 500 Vdc  Safety testing UL 62368-1  Mechanical  Weight 105 ± 10 g  Environmental  Operating temperature 0 to 45 °C 10 - 90% relative humidity	No load output voltage	22.8 - 25.2 Vdc		
Power 24 Watts continuous all specified conditions  Ripple voltage 150 mV p-p at 1A 20 MHz bandwidth oscilloscope, terminated with 0.1 μF ceramic capacitor and 10 μF electrolytic capacitor, 25 °C  Over current protection 110 - 200% of max load input power shutdown, auto-recovery after fault removed output short  Reliability & Safety  Leakage current 0.25 mA max nominal ac input voltage and frequency  Burn-in test 2 hours 45 °C max at normal input voltage and rated load efficiency DoE Level VI, 86.2% min 115 or 230 Vac  MTBF 30,000 hours min Telecordia SR-332  Hi-Pot (primary to secondary) 3300 Vac, 5 mA max 3 seconds (production testing)  Hi-Pot (primary to secondary) Ioo Max (100 MΩ, primary to secondary 500 Vdc  Safety testing UL 62368-1  Mechanical  Mechanical  Coperating temperature 0 to 45 °C 10 - 90% relative humidity		22.8 - 25.2 Vdc	1A	
Ripple voltage  150 mV p-p at 1A  20 MHz bandwidth oscilloscope, terminated with 0.1 μF ceramic capacitor and 10 μF electrolytic capacitor, 25 °C  Over current protection  110 - 200% of max load input power shutdown, auto-recovery after fault removed  Reliability & Safety  Leakage current Burn-in test 2 hours 45 °C max at normal input voltage and rated load  Efficiency DoE Level VI, 86.2% min 115 or 230 Vac  MTBF 30,000 hours min Telecordia SR-332 Hi-Pot (primary to secondary) 13000 Vac, 10 mA max 60 seconds (safety testing)  Insulation resistance 100 MΩ, primary to secondary Safety testing  Weight  105 ± 10 g  Environmental  Operating temperature  0 to 45 °C 10 - 90% relative humidity			1	
Over current protection  110 - 200% of max load input power shutdown, auto-recovery after fault removed  Reliability & Safety  Leakage current  0.25 mA max  0.2			•	
Fault removed   Fault removed   Fault removed   Fault removed	Over current protection	110 - 200% of max load		
Leakage current       0.25 mA max       nominal ac input voltage and frequency         Burn-in test       2 hours       45 °C max at normal input voltage and rated load         Efficiency       DoE Level VI, 86.2% min       115 or 230 Vac         MTBF       30,000 hours min       Telecordia SR-332         Hi-Pot (primary to secondary)       3300 Vac, 5 mA max       3 seconds (production testing)         Hi-Pot (primary to secondary)       3000 Vac, 10 mA max       60 seconds (safety testing)         Insulation resistance       100 MΩ, primary to secondary       500 Vdc         Safety testing       UL 62368-1         Mechanical         Weight       105 ± 10 g         Environmental         Operating temperature       0 to 45 °C       10 - 90% relative humidity			output short	
Burn-in test 2 hours 45 °C max at normal input voltage and rated load Efficiency DoE Level VI, 86.2% min 115 or 230 Vac MTBF 30,000 hours min Telecordia SR-332 Hi-Pot (primary to secondary) 3300 Vac, 5 mA max 3 seconds (production testing) 60 seconds (safety testing) Insulation resistance 100 M $\Omega$ , primary to secondary 500 Vdc Safety testing UL 62368-1 Weight 105 $\pm$ 10 g  Environmental  Operating temperature 0 to 45 °C 10 - 90% relative humidity	Reliability & Safety			
EfficiencyDoE Level VI, 86.2% min115 or 230 VacMTBF30,000 hours minTelecordia SR-332Hi-Pot (primary to secondary)3300 Vac, 5 mA max3 seconds (production testing)Hi-Pot (primary to secondary)3000 Vac, 10 mA max60 seconds (safety testing)Insulation resistance100 MΩ, primary to secondary500 VdcSafety testingUL 62368-1MechanicalWeight $105 \pm 10 \mathrm{g}$ EnvironmentalOperating temperature0 to 45 °C $10 - 90\%$ relative humidity	Leakage current	0.25 mA max	nominal ac input voltage and frequency	
MTBF       30,000 hours min       Telecordia SR-332         Hi-Pot (primary to secondary)       3300 Vac, 5 mA max       3 seconds (production testing)         Hi-Pot (primary to secondary)       3000 Vac, 10 mA max       60 seconds (safety testing)         Insulation resistance $100 \text{ M}\Omega$ , primary to secondary $500 \text{ Vdc}$ Safety testing       UL 62368-1         Mechanical         Weight $105 \pm 10 \text{ g}$ Environmental         Operating temperature       0 to $45 \text{ °C}$ $10 - 90\%$ relative humidity	Burn-in test	2 hours	45 °C max at normal input voltage and rated load	
Hi-Pot (primary to secondary) 3300 Vac, 5 mA max 3 seconds (production testing)  Hi-Pot (primary to secondary) 3000 Vac, 10 mA max 60 seconds (safety testing)  Insulation resistance 100 M $\Omega$ , primary to secondary 500 Vdc  Safety testing UL 62368-1  Mechanical  Weight 105 $\pm$ 10 g  Environmental  Operating temperature 0 to 45 °C 10 - 90% relative humidity	Efficiency	DoE Level VI, 86.2% min		
Hi-Pot (primary to secondary) 3000 Vac, 10 mA max 60 seconds (safety testing) Insulation resistance 100 M $\Omega$ , primary to secondary 500 Vdc  Safety testing UL 62368-1  Mechanical  Weight 105 $\pm$ 10 g  Environmental  Operating temperature 0 to 45 °C 10 - 90% relative humidity	MTBF	30,000 hours min	Telecordia SR-332	
Insulation resistance $100  \text{M}\Omega$ , primary to secondary $500  \text{Vdc}$ Safety testing $UL  62368-1$ Mechanical  Weight $105 \pm 10  \text{g}$ Environmental  Operating temperature $0  \text{to}  45  ^{\circ}\text{C}$ $10 - 90\%  \text{relative humidity}$	Hi-Pot (primary to secondary)	3300 Vac, 5 mA max	3 seconds (production testing)	
Safety testing         UL 62368-1           Mechanical           Weight         105 ± 10 g           Environmental           Operating temperature         0 to 45 °C         10 - 90% relative humidity	Hi-Pot (primary to secondary)	3000 Vac, 10 mA max	60 seconds (safety testing)	
Mechanical       Weight $105 \pm 10  g$ Environmental       Operating temperature $0 \text{ to } 45  ^{\circ}\text{C}$ $10 - 90\%$ relative humidity	Insulation resistance	100 M $\Omega$ , primary to secondary	500 Vdc	
Weight $105 \pm 10  \mathrm{g}$ Environmental  Operating temperature $0 \text{ to } 45  ^{\circ}\text{C}$ $10 - 90\% \text{ relative humidity}$	Safety testing	UL 62368-1		
Environmental  Operating temperature 0 to 45 °C 10 - 90% relative humidity	Mechanical			
Operating temperature 0 to 45 °C 10 - 90% relative humidity	Weight	105 ± 10 g		
- Frank Standard Stan	Environmental			
Storage temperature -25 to 70 °C 5 - 95% relative humidity	Operating temperature	0 to 45 °C	10 - 90% relative humidity	
	Storage temperature	-25 to 70 °C	5 - 95% relative humidity	



Cont.

Not to Scale

Revision:	Date:	Description:	Prepared:
Α	03/18/2019	Initial release	Digitally signed by AV Date: 2019,08.13 11:21:02 -07'00'
			Verified: PS Digitally signed by PS Date: 2019.08.14 10:20:20 -07'00'
			Dimensions are in millimeters.
			Tolerances: X: + 0.5 mm
			X.X: ± 0.3 mm X.XX: ± 0.05 mm

Notes: RoHS compliant Approvals:





Description: Adapter, WP, 120V, US, 2P, 24V 1000 mA, 5.5x2.1x9.5 mm plug, 10-03171 cable, C+, Level VI TENSILITY

tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com

Size: Part number: A 16-00206

Scale: 1:1

2

Sheet 2 of 2