

Features

- Universal Input 100~240VAC 50/60Hz
- EMC: IEC60601-1-2:2014(ED 4.0)
- Safety Approvals: cULus / UKCA / CB / PSE /
FCC / CE / TUV / RoHS / REACH
- Meets Efficiency Level VI
- Means of Protection: 2 X MOPP
- Single Output to 65W



Ideal Power's 44ATM065T-Pxyz-RS 65W AC/DC External Desktop Medical Power Supply (PSU) Series are certified to cULus, UKCA, CB, PSE, FCC, CE, TUV, RoHS, REACH & EN 60601-1/IEC 60601-1/ES 60601-1 Standards and comply with (EU) 2019/1782, Level VI Efficiency Regulations. These are primarily used in Medical, ITE, Audio & Video Industries and customised solutions are available upon request.

Models

Model Number	RS Part Number	Output Voltage	Output Current	Output Power
44ATM065T-P120-RS	229-7860	12.0Vdc	5.00A	60.0W
44ATM065T-P150-RS	229-7862	15.0Vdc	4.34A	65.0W
44ATM065T-P180-RS	229-7864	18.0Vdc	3.62A	65.0W
44ATM065T-P190-RS	229-7865	19.0Vdc	3.43A	65.0W
44ATM065T-P240-RS	229-7867	24.0Vdc	2.71A	65.0W
44ATM065T-P300-RS	229-7869	30.0Vdc	2.17A	65.0W
44ATM065T-P360-RS	229-7871	36.0Vdc	1.81A	65.0W
44ATM065T-P480-RS	229-7873	48.0Vdc	1.36A	65.0W

General Specification

Type	Switched Mode Power Supply
Input Connector	IEC 320-C14
Output Connection	2.5x5.5x11.0mm +ve inner/centre
Number of Outputs	1
Energy Efficiency Level	VI
Mounting Style	Desktop
MTBF	300,000 hours calculated at 25°C, by Telcoria SR-332
Power Indicator	LED Indicator for power on
Cable Length	1500mm(
Cable Type	16AWG/18AWG (Depending on model)
Medical Approved	Yes

Input Specification

Rated Input Voltage	100~240Vac (±10%)
Rated Frequency	50/60Hz
Efficiency Level VI	Level VI / Efficiency (EU) 2019/1782
Input Current	1.6A-0.7A
Inrush Current	80A Max. / 230Vac (Cold Start At 25°C, Full Load)
Touch Current	Less than 100µA
Input Protection	Internal Primary Current Fuse

Output Specification

Output Regulation	±5%
Ripple & Noise (max.)	1% Vp-p Max. for Output Voltage @ Full Load
Voltage Tolerance	±5%
Load Regulation	±5%
No Load Power Consumption	<0.15W
Hold-up Time	10mS @ Full Load
Transient Response	0.5mS for 50% Load Change(Typical)
Number of Outputs	1
Insulation Class	I
Dielectric Strength	Primary to Secondary 4,000Vac for 1 Minutes
Isolation Resistance	10MΩ for 500Vdc
Over Circuit Protection	Auto-recovery.
Over Voltage Protection	V out * 150% MAX., latch off.
Over Current Protection	I out * 170% MAX., auto-recovery.

Mechanical Specifications

Housing Material	Fully Enclosed Plastic Case
Overall Dimensions	119mm x 60mm x 36mm
Overall Length	119mm
Overall Depth	60mm
Overall Width	36mm
Weight	350g

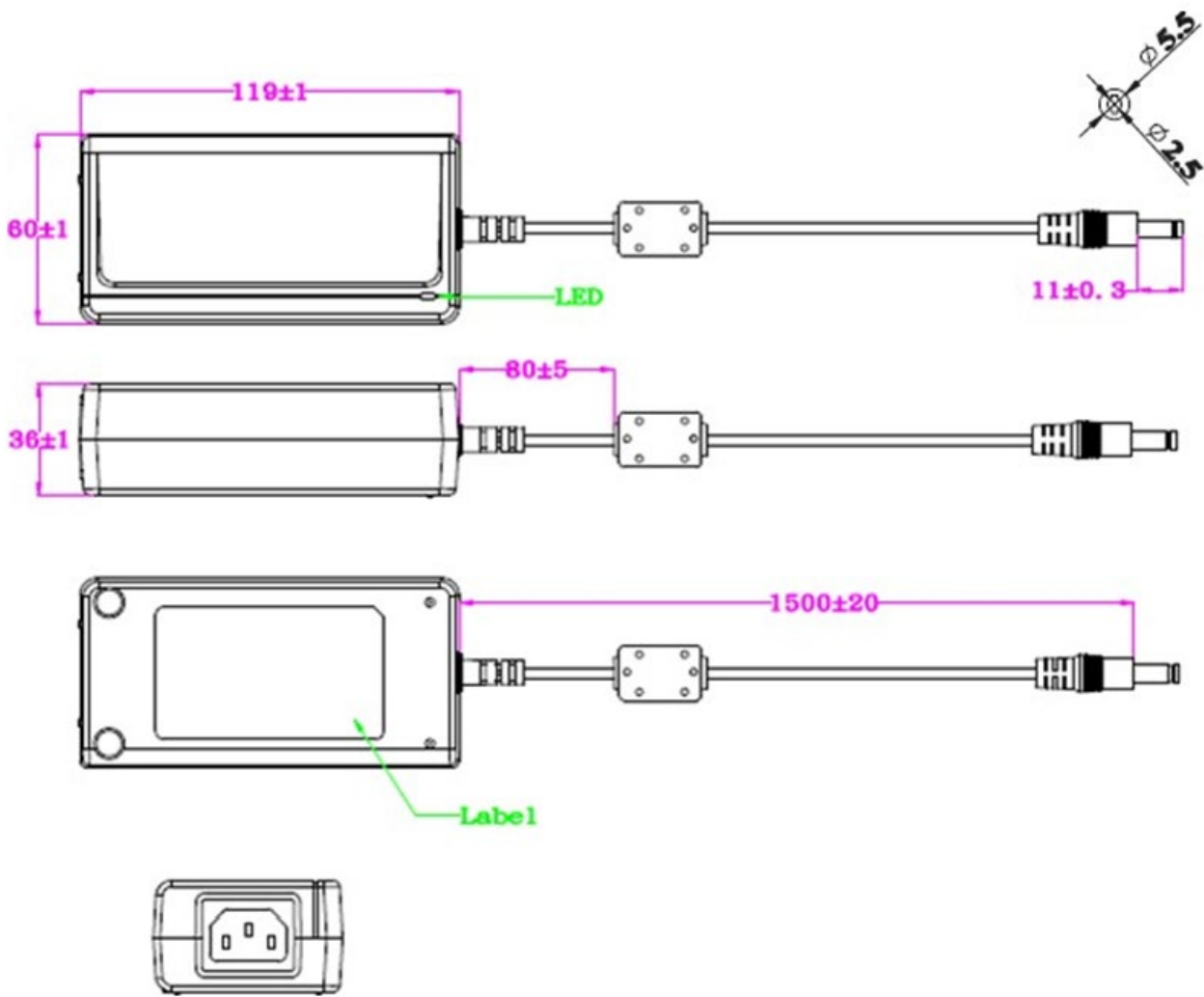
Protection Category

Means of Protection	2 X MOPP
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Approvals

Compliance/Certifications	CB/ UL/ cUL/ TUV
Safety Standard	IEC/EN/ANSI/AAMI ES 60601-1
EMC Emission:	FCC Part 18 FCC MP-5 IEC 60601-1-2: 2014 EN 60601-1-2: 2015 CISPR 11: 2009 + A1: 2010 EN 55011: 2009 + A1: 2010 (Group 1, Class B) IEC 61000-4-2: 2008; EN 61000-4-2: 2009 IEC 61000-4-3: 2006 + A1: 2007 + A2: 2010. EN 61000-4-3: 2006 + A1: 2008 + A2: 2010 IEC 61000-4-4: 2012; EN 61000-4-4: 2012 IEC 61000-4-5: 2014; EN 61000-4-5: 2014 IEC 61000-4-6: 2013; EN 61000-4-6: 2014 IEC 61000-4-8: 2009; EN 61000-4-8: 2010 IEC 61000-4-11: 2004; EN 61000-4-11: 2004 IEC 61000-3-2: 2014; EN 61000-3-2: 2014 IEC 61000-3-3: 2013; EN 61000-3-3: 2013

Mechanical Drawing



AC – DC

Cable Drawing

A. Line Regulation Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
90Vac / 50 % Load	18.05 V ~ 19.95 V	19.30V	19.35V	19.34V
115Vac / 50 % Load	18.05 V ~ 19.95 V	19.30V	19.35V	19.34V
132Vac / 50 % Load	18.05 V ~ 19.95 V	19.30V	19.35V	19.34V
180Vac / 50 % Load	18.05 V ~ 19.95 V	19.30V	19.35V	19.34V
230Vac / 50 % Load	18.05 V ~ 19.95 V	19.30V	19.35V	19.34V
264Vac / 50 % Load	18.05 V ~ 19.95 V	19.30V	19.35V	19.34V

B. Efficiency Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac	88 % Min.	88.68 %	88.70 %	88.49 %
230Vac	88 % Min.	89.28 %	89.25 %	89.10 %
230Vac@10% load	79 % Min.	88.59 %	88.53 %	86.14 %

$$\text{Eff (av)} = \frac{E1 + E2 + E3 + E4}{4}$$

E1=efficiency with 25% rated load ; E2= efficiency with 50% rated load
E3=efficiency with 75% rated load ; E4= efficiency with 100% rated load

C. Load Regulation Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 0 % Load	18.05 V ~ 19.95 V	19.44V	19.49V	19.50V
115Vac / 50 % Load	18.05 V ~ 19.95 V	19.30V	19.35V	19.34V
115Vac / 100 % Load	18.05 V ~ 19.95 V	19.16V	19.21V	19.17V
230Vac / 0 % Load	18.05 V ~ 19.95 V	19.44V	19.49V	19.50V
230Vac / 50 % Load	18.05 V ~ 19.95 V	19.30V	19.35V	19.34V
230Vac / 100 % Load	18.05 V ~ 19.95 V	19.15V	19.20V	19.15V

Test Results (continued)

D. Ripple & Noise Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	190mV Max.	63.4 mV	60.8 mV	65.4 mV
230Vac / 100 % Load	190mV Max.	61.2 mV	62.1 mV	63.3 mV

E. Inrush Current

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
240Vac / 100 % Load	80A Max	63 A	65 A	64 A

F. Over Current Protection

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	(Iout *170%) Max.	122 %	120 %	121 %
230Vac / 100 % Load	(Iout *170%) Max.	121 %	122 %	123 %

G. Short Circuit Protection

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	Auto Recovery	OK	OK	OK
230Vac / 100 % Load	Auto Recovery	OK	OK	OK

H. Input Power Consumption(No Load)

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
230Vac / 0 % Load	≤ 0.21 W	0.05 W	0.05 W	0.05 W

Test Results (continued)

Efficiency Test Report

- A. Model Number : ATM065T-P190(19.0V/3.43A)
- B. DC Power Cord : UL1185 , 18AWG ,1.5M
- C. Efficiency :
LEVEL VI EFF(av) ≥ 88% & Eff ≥ 79% @10% Load
- D. NO Load Power Consumption :
LEVEL VI 0.21W max.
- E. Testing Dequiptment :
 - 1. AC Power Source : " Chroma 61605
 - 2. Electronic Load : " PRODIGIT " 3311F
 - 3. Power Meter : "YOKOGAWA " WT310
 - 4. Digital Meter : " FLUKE " 179
- F. AC Input Voltage : 115Vac/60Hz

Reported \ Load Conditions	100%* I ₀	75%* I ₀	50%* I ₀	25%* I ₀	10%* I ₀	0%* I ₀	
Rms Output Current(mA)	3430mA	2573mA	1715mA	858mA	343mA	0mA	
Rms Output Voltage(V)	18.770V	18.860V	18.970V	19.070V	19.120V	19.160V	
Active Output Power(W)	64.38W	48.52W	32.53W	16.35W	6.56W	0.00W	
Rms Input Voltage(V)	115V	115V	115V	115V	115V	115V	
Rms Input Current(A)	1.229A	0.943A	0.679A	0.369A	0.169A	0.016A	
Rms Input Power(W)	73.57W	54.86W	36.47W	18.26W	7.40W	0.05W	
Total Harmonic Distortion of the input current	162.00%	177.50%	194.32%	217.72%	239.97%	154.21%	
True Power Factor	0.515	0.489	0.463	0.426	0.378	0.065	
Power Consumed by UUT(W)	9.19W	6.34W	3.94W	1.91W	0.84W	0.05W	
Efficiency	87.51%	88.44%	89.21%	89.55%	88.62%	*	
Average Efficiency	88.68%						*

- G. AC Input Voltage : 230Vac/50Hz

Reported \ Load Conditions	100%* I ₀	75%* I ₀	50%* I ₀	25%* I ₀	10%* I ₀	0%* I ₀	
Rms Output Current(mA)	3430mA	2573mA	1715mA	858mA	343mA	0mA	
Rms Output Voltage(V)	18.740V	18.840V	18.950V	19.060V	19.120V	19.160V	
Active Output Power(W)	64.28W	48.47W	32.50W	16.34W	6.56W	0.00W	
Rms Input Voltage(V)	230V	230V	230V	230V	230V	230V	
Rms Input Current(A)	0.721A	0.556A	0.444A	0.211A	0.093A	0.024A	
Rms Input Power(W)	72.32W	54.43W	36.32W	18.27W	7.43W	0.08W	
Total Harmonic Distortion of the input current	223.85%	239.25%	253.31%	276.62%	365.71%	456.32%	
True Power Factor	0.432	0.422	0.405	0.373	0.335	0.022	
Power Consumed by UUT(W)	8.04W	5.96W	3.82W	1.93W	0.87W	0.05W	
Efficiency	88.91%	89.09%	89.55%	89.59%	88.59%	*	
Average Efficiency	89.28%						*

AC - DC