

AC/DC Switching Adapter - Single Output

Medical AC/DC power adapter AD-A8 V2 Series 170/175Watts US DOE & EU ErP Efficiency Compliant

FEATURES

- Medical 60601-1 3.2 Edition approval
- 3-pin IEC320-C14 or C6 Class I and 2-pin IEC320-C18 or C8 Class II models available
- Medical safety approved (2x MOPP between primary to secondary)
Suitable for BF application with appropriate system consideration.
- Altitude during operation: Medical up to 5000m.
- Touch current less than 100uA
- Approval IP42 for class II version
- 3 year warranty

ELECTRICAL SPECIFICATIONS

- Input range : 90 - 264VAC
- Frequency : 47 - 63Hz
- Power Factor : > 0.95 @115VAC; > 0.90 @230VAC @full load
- Inrush current : < 50A peak @115VAC; < 100A peak @230VAC cold start @25°C
- Input current (rms) : 2.5A @115VAC; 1.3A @230VAC max.
- Efficiency : > 89% @Average efficiency, 115/230VAC
- Maximum output power (Po) : 170/175watts
- Hold-up time : > 10ms typical @full load, 115VAC
- Short Circuit Protection: Auto-recovery
- Over Load Protection: Auto-recovery
- Over Voltage Protection: Latch off, AC recycle
- Over Temperature Protection: Shutdown and latch off, AC recycle [Optional]

ENVIRONMENTAL

- Operating temperature : -20 to +60°C (Refer to derating curve)
- Storage temperature : -20°C to +85°C
- Operating Humidity: 10% ~ 95% non-condensing
- Storage Humidity: 0% ~ 95% non-condensing
- MTBF : > 400,000 hours at full load and 25°C ambient temperature based on Bellcore TR-332



RoHS Compliant

Dimension : L170 × W85 × H44 mm (6.69" × 3.35" × 1.73")
Weight : 0.79 kgs (1.73 lbs.)

SAFETY STANDARDS

UL/cUL 60601-1 3.2 Edition
TUV EN60601-1 3.2 Edition
CB IEC60601-1 3.2 Edition

EMC STANDARDS

EN60601-1-2 Ed4:2015
IEC60601-1-2 Ed4:2014
EN 55011 Class B
EN 55035 Class B
FCC Part 18 Class B
CE

Class II versions exclusive:

EN60601-1-11 1ST Edition
IEC60601-1-11 1ST Edition

DC OUTPUT & FEATURES

Model	Output Rating		Po	O/P Regulation	Ripple & Noise(Vp-p)	DOE Efficiency	EU ErP
<u>PW-M170A2-1Y120HZ</u>	12V	14.17A	170W	±5%	120mV	VI	Tier 2
<u>PW-M175A2-1Y150HZ</u>	15V	11.67A	175W	±5%	120mV	VI	Tier 2
<u>PW-M175A2-1Y190HZ</u>	19V	9.22A	175W	±5%	150mV	VI	Tier 2
<u>PW-M175A2-1Y240HZ</u>	24V	7.30A	175W	±3%	150mV	VI	Tier 2
<u>PW-M175A2-1Y280HZ</u>	28V	6.25A	175W	±3%	150mV	VI	Tier 2
<u>PW-M175A2-1Y360HZ</u>	36V	4.87A	175W	±3%	200mV	VI	Tier 2
<u>PW-M175A2-1Y480HZ</u>	48V	3.65A	175W	±3%	200mV	VI	Tier 2
<u>PW-M175A2-1Y540HZ</u>	54V	3.25A	175W	±3%	200mV	VI	Tier 2

- Note:**
1. Ripple and noise are measured at oscilloscope 20MHz bandwidth by a 10uF electrolytic capacitor and a 0.1uF ceramic capacitor in parallel at output connector.
 2. AC Inlet Z=1 : Class I, IEC320-C14, Z=2 : Class I, IEC320-C6, Z=3 : Class II, IEC320-C18, Z=4 : Class II, IEC320-C8
 3. The switching frequency of this series is set within 65 to 90KHz at full load.

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SAFETY AGENCY CERTIFICATIONS

SAFETY AND EMC PERFORMANCE

Description	Safety	EMC
Medical equipment	IEC 60601-1:2005+AMD1:2012+AMD2:2020 EN 60601-1:2006/A1:2013/A12:2014/A2:2021 ANSI/AAMI ES60601-1:2005/A2:2021 CAN/CSA C22.2 NO. 60601-1:14/A2:22	EN 60601-1-2:2015+A1:2021 EN 55035:2017+A11:2020 EN 55011:2016+A1:2019+A2:2021 FCC 47 CFR Part 18

Tests for conformance to this requirement will be performed with final system

(*) FCC PART 15 compliance information and warnings :

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions :

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

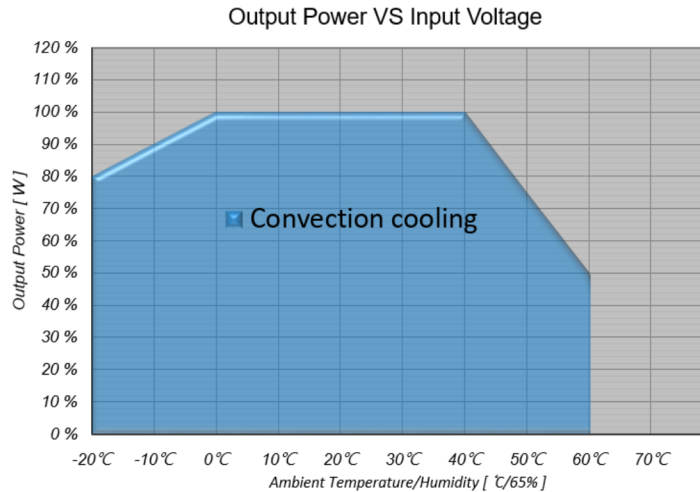
INSULATION LEVEL AND DIELECTRIC WITHSTAND (HI-POT)

Medical equipment	Isolation voltage	Grade insulation
Primary circuits to secondary circuits	5656Vdc (4000Vac)	2 MOPP
Primary circuits to earth ground	2121Vdc (1500Vac)	1 MOPP
Secondary circuits to earth ground	2121Vdc (1500Vac)	1 MOPP

Note : Production testing use dc voltage test 4 Sec.

ENVIRONMENTAL

DERATING CURVE



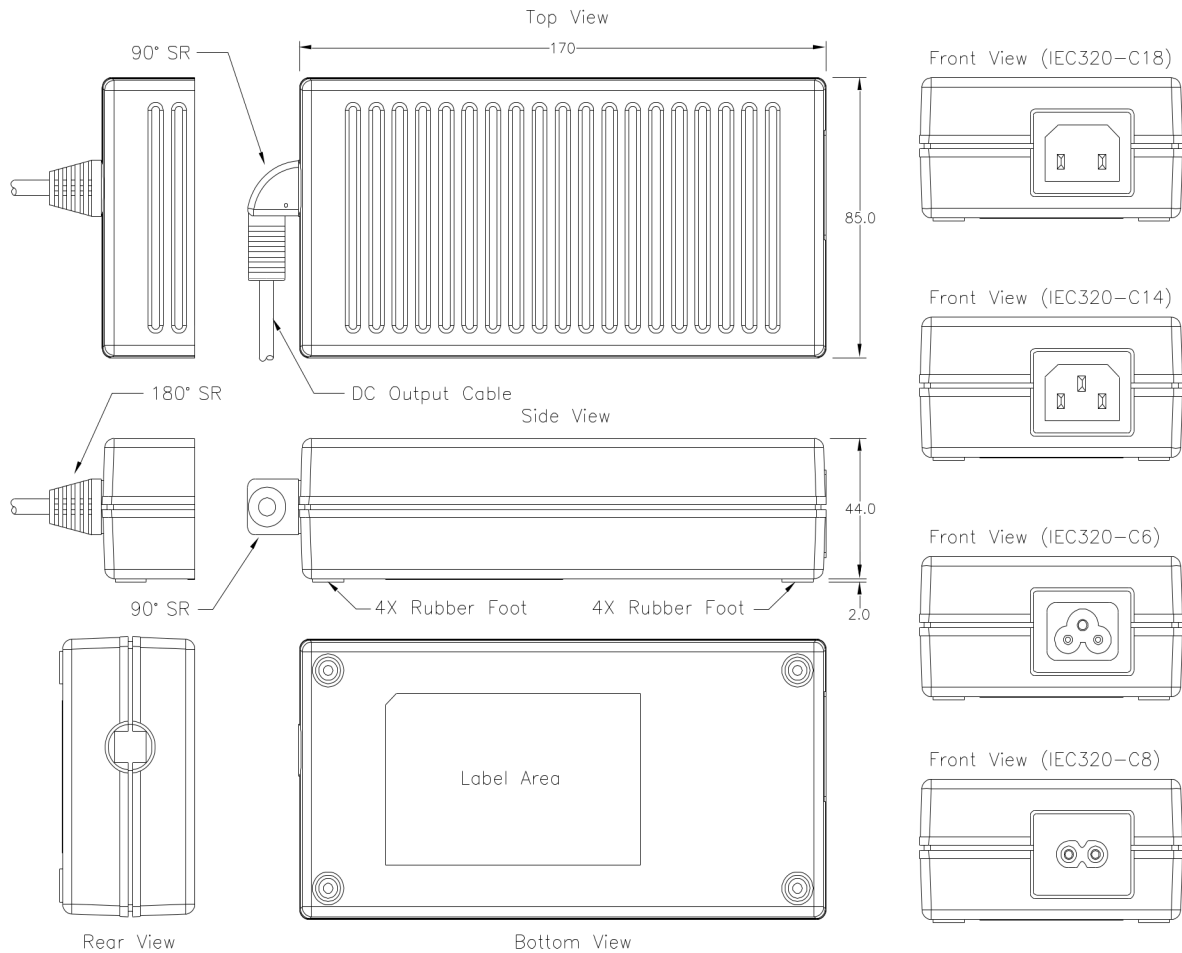
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MECHANICAL SPECIFICATION



Note:

1. AC Inlet : IEC320-C14, C18, C6 or C8
2. Plastic Case Color : Black
3. Tolerance : $\pm 0.5\text{mm}$
4. Unit : mm

STANDARD OUTPUT CABLE

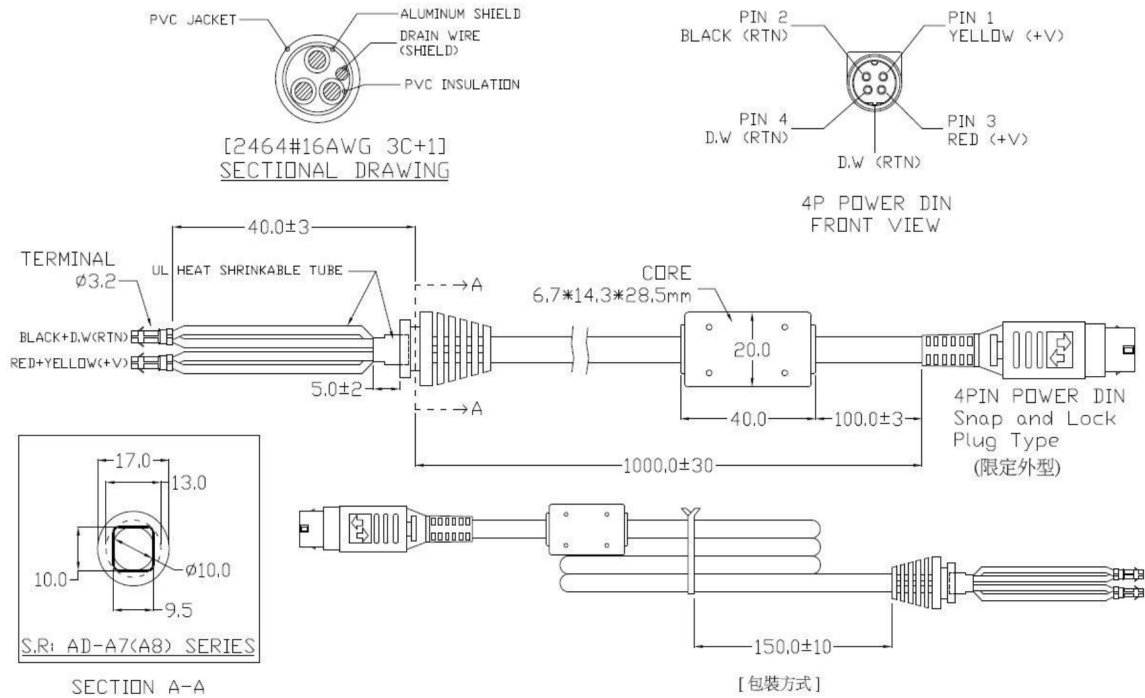
1. AWM 2464 # 16 AWG / 3C + SHIELDING, UL 80°C 300V VW-1, 1050 mm. (12V, 15V & 19V)
2. AWM 2464 # 18 AWG / 3C + SHIELDING, UL 80°C 300V VW-1, 1050 mm. (24V, 28V, 36V, 48V & 54V)
3. Depends on customers requirements.

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AC/DC Switching Adapter - Single Output

Standard Output Cord for 12V~19V D1207A



Medical AC/DC power adapter AD-A8 V2 Series 170/175Watts DOE Level VI & EU ErP Tier 2 Efficiency Compliant

Standard Output Cord for 24V~54V D1208A

