#### **AC/DC Switching Adapter - Single Output**

#### **FEATURES**

- Meet DOE Level VII and EU ErP Efficiency Compliant
- 3-prong IEC320-C14, Class I AC inlet
- Medical safety approved (2x MOPP between primary to secondary) Suitable for BF application with appropriate system consideration
- Altitude during operation : ITE up to 5000m , Medical Below 3000m
- < 0.15W No Load Input Power</p>
- Touch current less than 100uA
- 3 year warranty

#### **ELECTRICAL SPECIFICATIONS**

- Input range : 90 264VAC
- Frequency : 47 63Hz
- Power Factor : >0.95 @115VAC; > 0.90 @230VAC @full load
- Inrush current : < 25A peak @115VAC;< 50A peak @230VAC cold start '@25°C</p>
- Input current (rms) : 2.5A @115VAC; 1.3A @230VAC max.
- Efficiency : >92% @80% Full load, 230VAC
   >89% @Average efficiency, 115/230VAC
- Maximum output power (Po) : 210 Watts convection cooling
- Hold-up time : >10ms typical @full load, 115VAC
- Short circuit protection : Auto-recovery
- Over load protection : Auto-recovery
- Over voltage protection : Latch off
- Over temperature protection : Latch off

### ITE/Medical AC/DC Power Adapter A08210 Series 210Watts US DOE & EU ErP Efficiency Compliant



#### **RoHS compliant**

Dimension : L 170×W 85×H 44 mm ( 6.69"x3.35"x1.73" ) Weight : 0.78 kgs. ( 1.72 lbs. )

#### SAFETY STANDARDS

UL/cUL 60601-1 TUV EN 60601-1 CB IEC 60601-1 UL/cUL UL 62368-1 TUV EN 62368-1 CB IEC 62368-1

#### **EMC STANDARDS**

EN 60601-1-2 EN 55011 Class B EN 55032 Class B EN 55035 Class B FCC Part 15 Class B FCC Part 18 Class B CE

#### **ENVIRONMENTAL**

- Operating temperature : -20 to +60°C (Refer to derating curve)
- Operating Humidity : 10% to 95%, Non-condensing.
- Storage temperature : -20°C to +85°C, Non-condensing.
- Storage Humidity : 0% to 95%, Non-condensing.
- MTBF : > 350,000 hours @full load and 25°C ambient temperature based on Telcordia SR-332(Bellcore)

#### **DC OUTPUT & FEATURES**

Model No.	Output Rating		Ро	Output Regulation	Ripple & Noise (Vp-p)	Efficiency Level
A08210-12	+12V	17.50A	210W	±5%	100mV	VII
A08210-15	+15V	14.00A	210W	±5%	100mV	VII
A08210-19	+19V	11.05A	210W	±5%	100mV	VII
A08210-24	+24V	8.75A	210W	±5%	150mV	VII
A08210-28	+28V	7.50A	210W	±5%	150mV	VII
A08210-36	+36V	5.83A	210W	±5%	150mV	VII
A08210-48	+48V	4.37A	210W	±5%	150mV	VII

Note: 1. Ripple and noise are measured at oscilloscope 20MHz bandwidth by a 47uF electrolytic

capacitor and a 0.1uF ceramic capacitor in parallel at output connector.

2. (-1 to -20°C ambient temperature and EMS Immunity worse case O/P Regulation  $\leq \pm 0\%$ )

3. The switching frequency of this series is set within 56 to 85KHz at full load.

4. The ripple and noise of this series is tested under full load condition.

### 製品に関するお問合せや見積り依頼は

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**<b>♦**079-560-7333 ■ info@tokitrading.co.jp

### 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 55011:2016+A1:2019+A2:2021 FCC 47 CFR Part 18	
Audio / Video, ITE equipment	IEC 62368-1:2018 EN IEC 62368-1:2020+A11:2020 UL 62368-1, 3rd Ed CAN/CSA C22.2 No. 62368-1:19, 3rd Ed	EN 55032:2015+A11:2020 EN 55035:2017+A11:2020 FCC 47 CFR Part 15B(*) ICES-003 Issue 7	

Tests for conformance to this equirement 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, and
  - (2) This device must accept any interference received, including interference that may cause undesired operation.

#### Insulation level and dielectric withstand (HI-POT)

Audio / Video, ITE equipment	Isolation voltage	Grade insulation	
Primary circuits to secondary circuits	4242Vdc (3000Vac)	Reinforced	
Primary circuits to earth ground	2121Vdc (1500Vac)	Basic	
Secondary circuits to earth ground	2121Vdc (1500Vac)	Basic	

Medical equipment	Isolation voltage	Means of patient protection	
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 : testing in Production use a dc voltage test 4 Sec.

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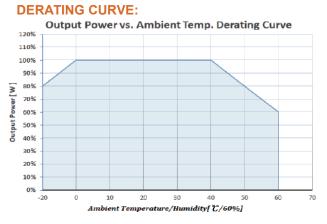
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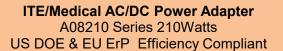
### **AC/DC Switching Adapter - Single Output**

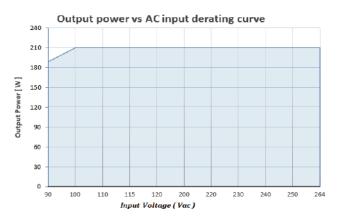
#### ENVIRONMENTAL



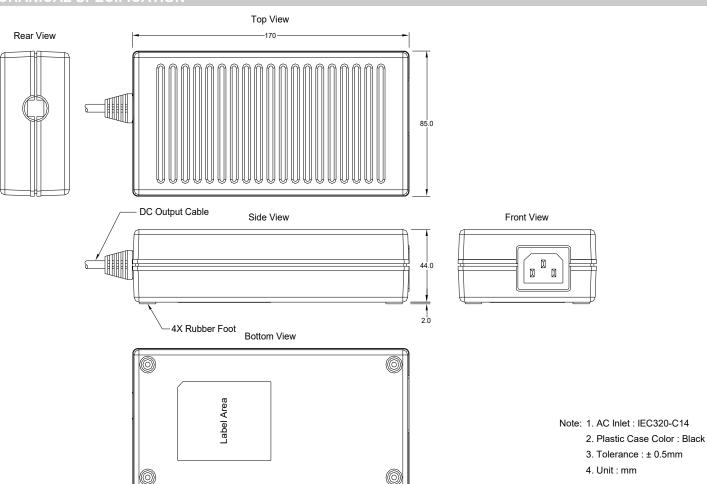
Derate linearly 2% per°C from 41 to 60°C. Derate linearly 1% per°C from 0 to -20°C.

### **MECHANICAL SPECIFICATION**





Derate linearly 1% perVac from 90V to 100V



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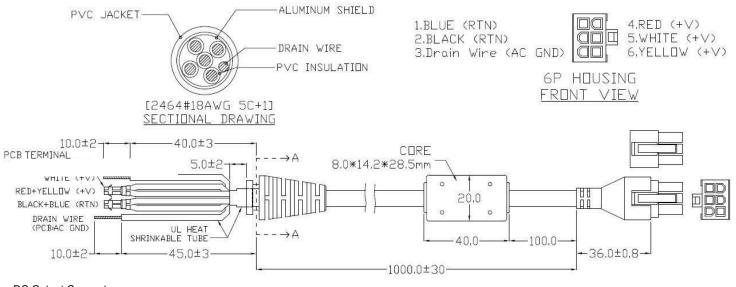
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# STANDARD OUTPUT CABLE

12V

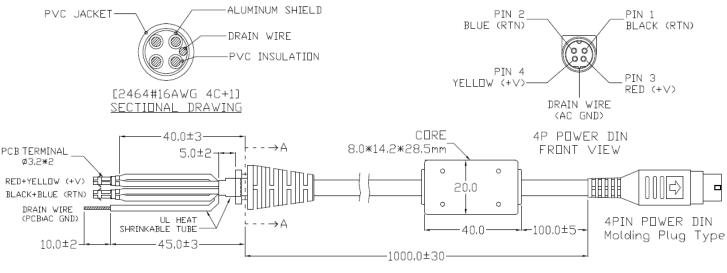


DC Output Connector

Standard male plug(power supply side): 6P=P4.2 UL/CSA/TUV 94V-2 [7A/250V/85℃] Mating Connector : WST P4.20 6PIN WAFTER M-I42002

DC output cable: 5C+1, UL2464, 18AWG, VW-1, 80℃, 300V

# 15,19V,24V,28V,36V,48V



Standard male plug(power supply side): 4PIN POWER DIN Mating Connector : 4PIN POWER DIN(FEMALE)MDP-002-4PIN DC output cable: 4C+1, UL2464, 16AWG, VW-1, 80°C, 300V

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