

FEATURES

- ITE and Household Approvals
- 3-pin IEC320-C14 or C6 Class I and 2-pin IEC320-C18 or C8 Class II models available
- Altitude during operation: 62368-1 :5000m, 61558-1 :2000m
- < 0.15W No Load Input Power
- Touch current less than 250uA
- Power ON LED indicator
- 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) : 2.2A @115VAC; 1A @230VAC max.
- Efficiency : > 89% @ Average efficiency, 115/230VAC
92% @ 75% Full load, 230VAC (91% @ 12Vdc)
- Maximum output power (Po) : 170 Watts
- Hold-up time : > 20ms typical @ 80% Full load
- Short Circuit Protection: Auto-recovery
- Over Load Protection: Auto-recovery
- Over Voltage Protection: Latch off
- Over temperature protection: Auto-recovery

RoHS compliant

Dimension : L 153xW 70xH 35 mm (6.03"x2.76"x1.38")
Weight : 0.57kgs. (1.26 lbs.)

SAFETY STANDARDS

- UL/cUL UL 62368-1
- TUV EN 62368-1
- CB IEC 62368-1
- IEC/EN 61558-1(Class II)
- IEC/EN 61558-2-16(Class II)

EMC STANDARDS

- EN (BS EN) 55032 Class B
- EN (BS EN) 55035 Class B
- FCC Part 15 Class B
- EN55014-1
- EN55014-2
- ICES-003
- 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 : > 300,000 hours @full load and 25°C ambient temperature based on Telcordia SR-332(Bellcore)

DC OUTPUT & FEATURES

Model No.	Output Rating		Po	Output Regulation	Ripple & Noise (Vp-p)	Peak Power (3s)	Efficiency Level
A13170-12Z	+12V	13.34A	160W	±5%	120mV	200W	VII
A13170-19Z	+19V	8.95A	170W	±5%	150mV	200W	VII
A13170-24Z	+24V	7.08A	170W	±5%	200mV	200W	VII
A13170-36Z	+36V	4.72A	170W	±5%	200mV	200W	VII
A13170-48Z	+48V	3.54A	170W	±5%	200mV	200W	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. AC Inlet **Z=A** : Class I, IEC320-C14, **Z=B** : Class I, IEC320-C6, **Z=C** : Class II, IEC320-C18, **Z=D** : Class II, IEC320-C8.
3. -1 to -20°C ambient temperature and EMS Immunity worst case O/P Regulation ≤ +/-10%.
4. The switching frequency of this series is set within 60 to 90KHz at full load.
5. Peak power is usually applied at a typical nominal input voltage.



AC/DC Switching Adapter - Single Output

SAFETY AGENCY CERTIFICATIONS

Safety and EMC Performance

Description	Safety	EMC
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 (BS EN) 55032:2015+A11:2020 EN (BS EN) 55035:2017+A11:2020 FCC 47 CFR Part 15B(*) ICES-003 Issue 7
Particular requirements and tests for SMPS. (Household electrical appliances)	IEC 61558-1:2017 IEC 61558-2-16:2009/AMD1:2013 EN IEC 61558-1 :2019 EN 61558-2-16:2009+A1 :2013	EN(BS EN) IEC 55014-1 :2021 EN(BS EN) IEC 55014-2: 2021 CISPR 14-1 :2020 AN/NZS CISPR 14-1 :2021

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

Class II complies 61558-1 & 61558-2-16 for use in household electrical appliances (60335-1).

(*) 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)

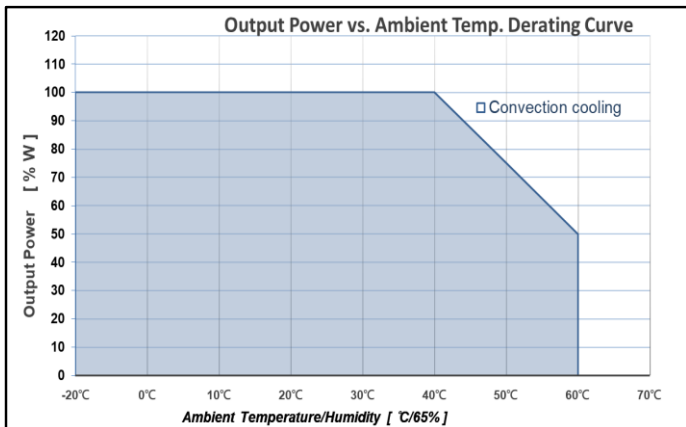
Audio / Video, ITE equipment	Isolation voltage	Grade insulation
Primary circuits to secondary circuits	4242Vdc (3000Vac)	Reinforced
Primary circuits to earth ground (class I only)	2121Vdc (1500Vac)	Basic

Particular requirements and tests for SMPS (Household).	Isolation voltage	Grade insulation
Primary circuits to secondary circuits	4242Vdc (3000Vac)	Reinforced

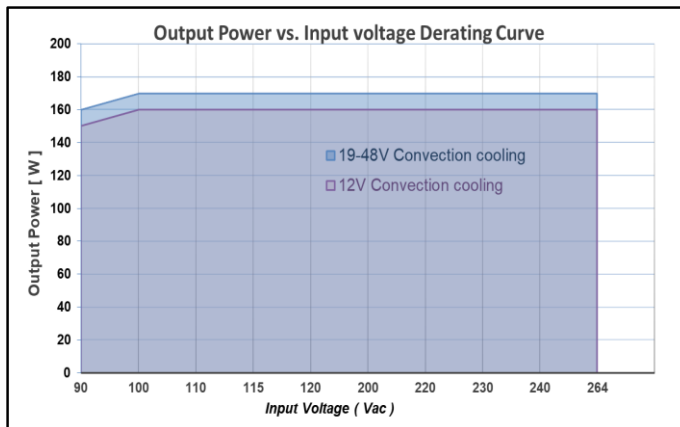
Note : Testing in Production uses a DC voltage test for 4 Sec.

ENVIRONMENTAL

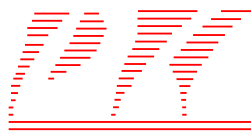
DERATING CURVE:



160W/170W Convection cooling
Derate linearly 2.5% per °C from 41 to 60°C



160W/170W Derate linearly 0.6% per Vac from 100 to 90Vac
convection cooling at ambient temperature 40°C Max.



POWER-WIN TECHNOLOGY CORP.

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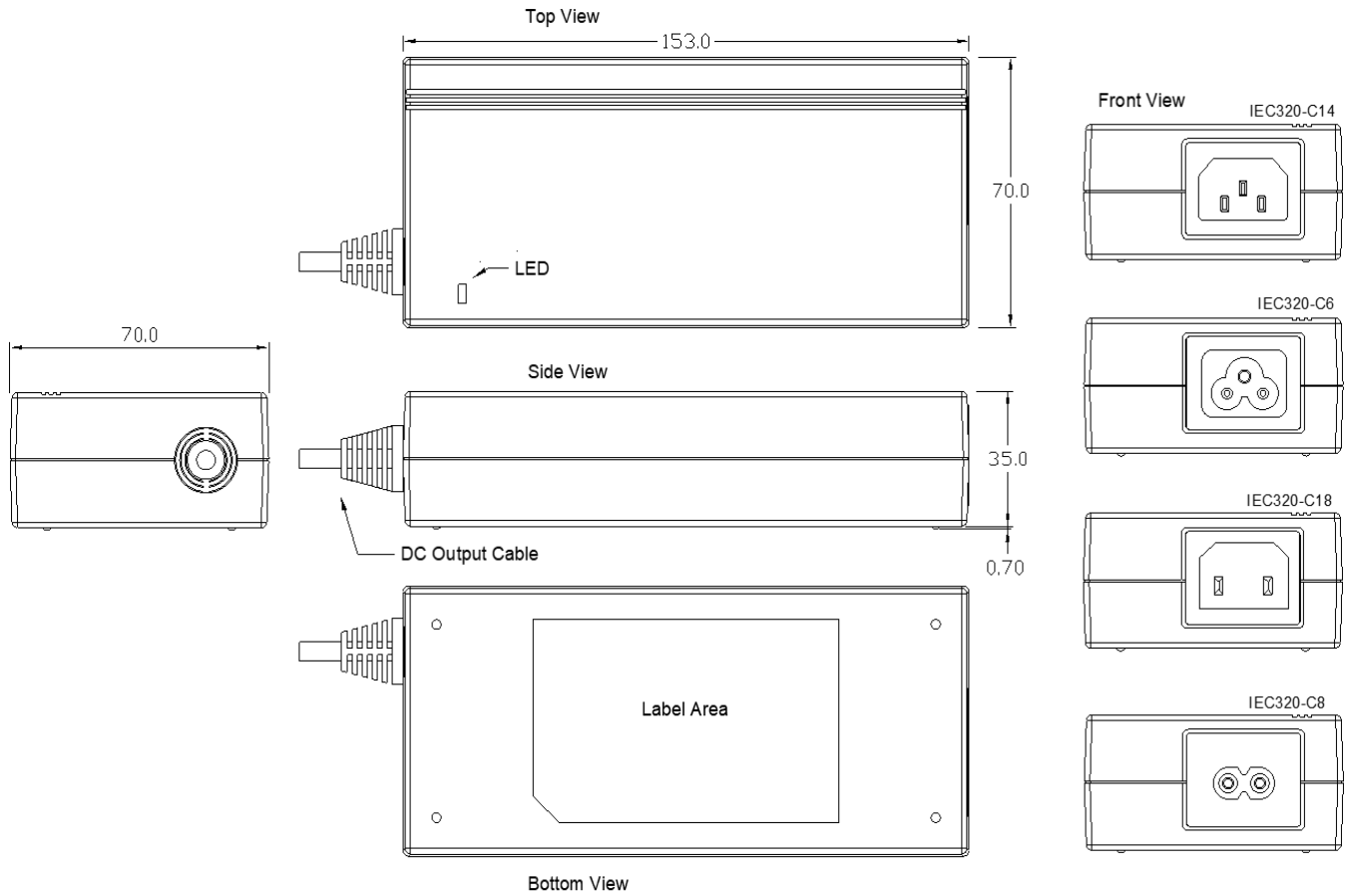
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MECHANICAL SPECIFICATION



Note:

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

STANDARD OUTPUT CABLE

1. AWM 11353 # 14 AWG / 1C + SHIELDING (or 16AWG+1) , UL 80°C 300V VW-1, 1000 mm.
2. AWM 2464 # 18 AWG / 4C + SHIELDING, UL 80°C 300V VW-1, 1000 mm.
3. Depends on customers requirements.



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