RHENXV
Your Vision, Our Solutions

AC - DC CONVERTERS

10 WATTS

ACE10W-xxVM

FEATURES

- Universal AC Input/ Full Range
- No load power consumption<0.1W
- Wide operating temperature range -30~+85°C
- High efficiency up to 82%
- Protections: Short circuit/Over load/Over voltage
- Isolation Class II
- 3 Years Warranty

UK CA CE RoHS

ACE10W-xxVM is a 10W miniature (46.08*25.78*21.7mm) AC-DC module-type power supply, ready to be soldered onto the PCB boards of various kinds of electronic instruments or industrial automation equipments. This product allows the universal input voltage range of 85~305VAC.

MODEL ENCODING

ACE10W-xxVM

- Series Name
- Enclosed
- Rated Wattage
- Package
- Output Voltage

SELECTION GUIDE

Part Number	DC Voltage (Vdc)	Rated Current (mA)	Rated Power (W)	Max.Capacitive Load(uF)
ACE10W-03VM	3.3	2500	8.25	8000
ACE10W-05VM	5	2000	10	5000
ACE10W-12VM	12	850	10.2	2000
ACE10W-15VM	15	670	10.05	1000
ACE10W-24VM	24	420	10.08	800

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INPUT

Parameter	Units	Model
RATED VOLTAGE RANGE	100-277VAC	
VOLTAGE RANGE	85-305VAC/120-430VDC	
FREQUENCY RANGE	47-63Hz	
NO LOAD POWER CONSUMPTION	<0.1W	
AVERAGE EFFICIENCY(Typ.)	74%	ACE10W-03VM
	77%	ACE10W-05VM
	82%	ACE10W-12VM
	82%	ACE10W-15VM
	82%	ACE10W-24VM
AC CURRENT(Typ.)	0.25A/115VAC	
	0.15A/230VAC	
	0.125A/277VAC	
INRUSH CURRENT(Typ.)	Cold Start 40A at 230VAC 60Hz	
	Cold Start 20A at 115VAC 60Hz	
LEAKAGE CURRENT	<0.707mA/277VAC	

OUTPUT

Parameter	Units	Model
RIPPLE & NOSE(MAX.)	200mVp-p	All Series
VOLTAGE TOLERANCE	±2.5%	All Series
LINE REGULATION	±0.3%	All Series
LOAD REGULATION	±0.5%	All Series
SETUP,RISE,HOLD UP TIME	1.0s,30ms,30ms/230VAC(at full load)	
	1.5s,30ms,8ms/115VAC(at full load)	

PROTECTION

Parameter	Units
OVER LOAD	110~200%
	Hiccup mode, recovers automatically after fault condition is removed.
SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed.
OVER VOLTAGE	3.8 ~ 6V
	5.8 ~ 7.5V
	12.8 ~ 16V
	17 ~ 24V
	27 ~ 34V
	Hiccup mode, recovers automatically after fault condition is removed.

ENVIRONMENT

Parameter	Units
WORKING TEMP.	-30 ~ +85°C (Full load can be operated at -30°C to 50°C, while load should be reduced at 50°C to 85°C. Refer to"Derating Curve".)
WORKING HUMIDITY	20 ~ 90%RH Non-condensing
STORAGE TEMP, HUMIDITY	-40°C ~ +85°C,10 ~ 95%RH Non-condensing
TEMP. COEFFICIENT	± 0.03%/(0 ~ 40°C)
VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes
SOLDERING TEMPERATURE	Wave soldering:265°C,5s(max.); Manual soldering: 390°C,3s(max.)
OVER VOLTAGE CATEGORY	OVC II; According to EN62368-1; altitude up to 2000 meters
MTBF	9094.9Khrs min. MIL-HDBK-217F(25°C)

SAFETY & EMC

<table>
<tr><th>Parameter</th><th colspan="3">Units</th></tr>
<tr><td>SAFETY STANDARDS</td><td colspan="3">EN62368-1</td></tr>
<tr><td>WITHSTAND VOLTAGE</td><td colspan="3">I/P-O/P:4.2KVac</td></tr>
<tr><td>ISOLATION RESISTANCE</td><td colspan="3">I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH</td></tr>
<tr><td rowspan="5">EMC EMISSION</td><td>Parameter</td><td>Standard</td><td>Test Level/Note</td></tr>
<tr><td>Conducted</td><td>EN55032(CISPR32)-1</td><td>CLASS B</td></tr>
<tr><td>Radiated</td><td>EN55032(CISPR32)</td><td>CLASS B</td></tr>
<tr><td>Harmonic Current</td><td>EN61000-3-2</td><td>CLASS A</td></tr>
<tr><td>Voltage flicker</td><td>EN61000-3-3</td><td>.....</td></tr>
<tr><td rowspan="9">EMC IMMUNITY</td><td colspan="3">BS EN/EN55035, BS EN/EN61000-6-2</td></tr>
<tr><td>Parameter</td><td>Standard</td><td>Test Level/Note</td></tr>
<tr><td>ESD</td><td>EN61000-4-2</td><td>Level 3, 8KV air; Level 2, 4KV contact, criteria A</td></tr>
<tr><td>RF field susceptibility</td><td>EN61000-4-3</td><td>Level 3, criteria A</td></tr>
<tr><td>EFT/Burst</td><td>EN61000-4-4</td><td>Level 3, criteria A</td></tr>
<tr><td>Surge</td><td>EN61000-4-5</td><td>Level 3,1KV/L-N, criteria A</td></tr>
<tr><td>Conducted</td><td>EN61000-4-6</td><td>Level 3, criteria A</td></tr>
<tr><td>Magnetic Field</td><td>EN61000-4-8</td><td>Level 4, criteria A</td></tr>
<tr><td>Voltage Dips and interruptions</td><td>EN61000-4-11</td><td>> 95% dip 0.5 periods, 30% dip 25 periods,
>95% interruptions 250 periods</td></tr>
</table>

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.

2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μF & 47μF parallel capacitor.

3. Tolerance : includes set up tolerance, line regulation and load regulation.

4. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.

5. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5 °C/1000m with fan models for operating altitude higher than 2000m (6500ft).

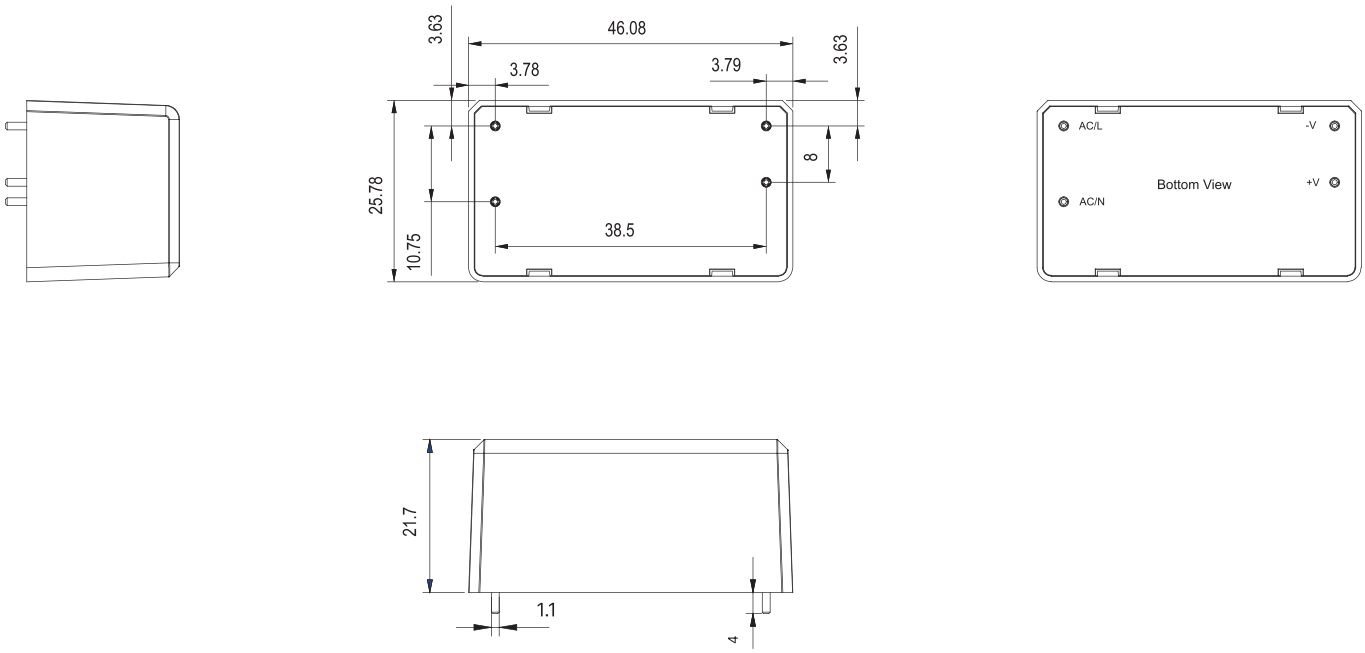
6. The power supply is considered as an independent unit ,but the final equipment still need to re-confirm that the whole system complies with the EMC directives.For guidance on how to perform these EMC tests.

DIMENSIONS, WEIGHT & PACKING

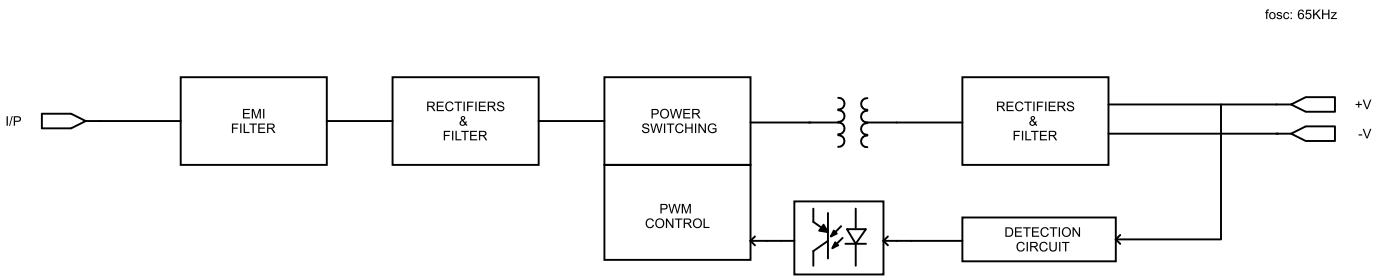
Parameter	Units
DIMENSION (LxWxH)	46.08 × 25.78 × 21.7 mm
WEIGHT:	35g/pcs
COOLING METHOD:	Natural Air Cooling
TEXTURE:	Black flame retardant and heat resistant plastic
CARTON SIZE:	41 × 36 × 16 cm
MASTER CARTON QUANTITIES:	200pcs/carton

DIMENSIONS AND INSTALLATION

(Unit: mm , tolerance: ±0.5mm)

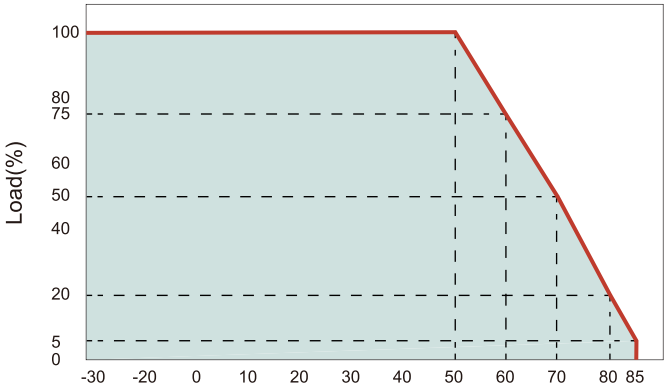


FUNCTIONAL DIAGRAM



ENGINEERING DATA

Derating Curve



Static Characteristics