# Wall mount PoE Injector and Power Supply



# **Electrical Specification**

# RoHS Compliant

#### Input

Input Voltage Range : 90V AC to 264V AC
Rated Voltage Range : 100V AC to 240V AC
Input Frequency Range : 47Hz to 63Hz

Rated Input Frequency : 50Hz/60Hz

Input Current : 0.3A max. at full load

Inrush Current (Cold Start) : 50A typ. peak, 220V AC Input

Output

Output Voltage : 48V DC

Output Volt Limit : 45.6V DC to 50.6V DC

 Ripple & Noise
 : 240mV

 Output Current
 : 0.5A

 Output power
 : 24W

 OCP (A)
 : 0.8A

Note: Ripple Voltage is measured with oscilloscope with bandwidth 20MHz. A  $10\mu F$  E-cap and  $0.1\mu F$  ceramic-cap shall be connected to the connector in parallel

#### DC Output Overshoot At Turn On & Turn Off

Output Voltage	Proportion of the output voltage overshoot		
	Turn on	Turn off	
48V	5%	5%	

Note: All of DC output current from Min. to Max.

#### **Combined Load/Line Regulation**

Voltage	Min. Load	Rated Load	Line Regulation	Load Regulation
48V DC	0A	0.5A	±5%	±5%

#### **Turn on Delay Time**

3 Second Max. at 115V AC input and output Max. load.

#### Rise Time

40ms Max. at 115V AC input and output Max load.

#### **Hold Up Time**

5ms Min. at 115V AC input and output Max. Load.

## Efficiency COC Tier 2/DOE/ERP/MEPS Level VI

Average efficiency reach 86.2% minimum at 25%,50%,75%&100% of full-loading and 230V AC input (After warm up 30 minutes). Efficiency of 10% of full load Limit>76.2% No-load input power≤ 0.1W(DOE) / 0.075W(ERP).

### **Protection**

### Short circuit protection

The power supply will be auto recovered after short circuit faults remove.

# Over current Protection

OCP limits to 120%~150% auto start, The power supply will be auto recovered after over current faults remove.

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# Wall mount PoE Injector and Power Supply PRDELEC

## **Reliability Requirements**

#### Burn-in

The power supply shall be burn-in for 2 - 4 Hours under normal input and 80% rated load at 40°C ±5°C

#### **MTBF Qualification**

The MTBF shall be at least 50,000 hours at 25°C. (Full load and nominal input condition)

## **Environment Requirement**

#### **Operating Temperature**

0°C to 40°C (Full load and normal operation)

#### **Storage Temperature**

-40°C to +85°C (With package)

#### **Relative Humidity**

5%(0°C) ~ 95%(40°C) RH, 72Hrs (Full load and normal operating)

### **Storage Humidity**

10%(0°C) ~ 90%(40°C) RH, 72Hrs (Full load and normal operating)

#### Vibration

Operating: IEC 721-3-3 3M3

5~9Hz,A=1.5mm

9 ~ 200Hz, Acceleration 5m / S2

## **Transportation**

IEC 721-3-2 2M2

5-9Hz,A=3.5mm

200 ~ 500Hz, Acceleration=15m/S2

### Axes,10 cycles per axis

No permanent damage may occur during testing.

The product can restore to its original situation after power off / on.

### **Dielectric Strength Testing**

Hi-pot test shall be met the table 1 requirements, an item listing this test as a 100% production test must be performed and be maintained at that level for a minimum of 1 min, without failure.

Item	Specification	Distance	Remark
Primary to Secondary	3000V AC/4242V DC /10mA/1min	7mm	No arcing
Primary to P.G			No broken
Secondary to P.G			

## Leakage Current

0.25mA max. at 240V AC / 50Hz input

## Insulation Resistance

 $100M\Omega$  min. @ primary to secondary add a 500V DC test voltage



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# **Mechanical Requirement**

### **Enclosure**

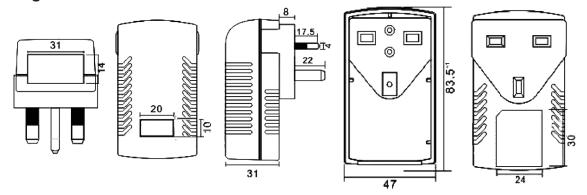
The power supply size: (L) 83.5mm × (W) 47mm × (H) 31mm

Input Connector
Three pin input plug

# **Mechanical Specifications**

Plastic material : ABS + PC
Colour : Black
Weight : 120g

# **Diagram**



Dimensions: Millimetres

## **Part Number Table**

Description	Part Number
Wall Mount PoE Injector and Power Supply, UK Plug, 48V, 0.5A	28-21705

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