

Open Frame Power Supply

Leveraging our in-depth networking knowledge and years of experience, EnGenius open frame AC to DC power supply module offering output power up to 950W is specialized for networking systems. With increasing popularity of AP and surveillance IP camera powered by network, Power over Ethernet (PoE) is becoming a standard feature. High efficiency universal AC input with fully regulated output power supply plays the essential role. EnGenius open frame AC-DC power supply series deliver high efficiency and optimized no-load performance to meet the growing demand. Featuring industry standard footprints, efficient design, compact size and rock-solid reliability make these power supplies the ideal solution for Open Compute Project (OCP) compliant servers, networking systems, industrial, and various network appliances.

Features

- Efficiency: 90%~93% at 230Vac at full load
- With active Power Factor Correction
- Over Voltage Protection
- Over Current Protection
- Short Circuit Protection
- Zero Current Switching technology to reduce power dissipation
- MTBF > 200,000 hours at 25°C full load
- Operation altitude: 5000 meters
- Surge protection:
 - EPM480D: 3KV(L/N-PE) and 3KV(L-N)
 - EPM180D/EPM300D/EMA950D-A: 4KV(L/N-PE) and KV(L-N)
- Can withstand 300Vac input voltage for 1 minute
- PoE Isolation



EPM180D



EPM300D



EPM480D



EMA950D-A

Technical Specifications

Output

	EPM180D		EPM300D		EPM480D		EMA950D-A	
Output Voltage	12V	-54V	12V	-54V	12V	-54V	12V	-54V
Load (max.)	3.0A	3.0A	5.83A	4.63A	5A	7.8A	16.6A	14.8A
Output Power	36W	162W	70W	230W	60W	421W	200W	800W
Operation Current	0~3.0A	0.04~3.0A	0~5.83A	0~4.25A	0~5A	0~7.8A	0~16.6A	0~14.8A
Total Maximum Power	180W	180W	300W	300W	480W	480W	950W	950W
Ripple & Noise (max.)	120mVp-p	500mVp-p ^{Note}	120mVp-p	500mVp-p ^{Note}	120mVp-p	500mVp-p ^{Note}	120mVp-p	500mVp-p ^{Note}
Load Regulation	±5%	±5%	±5%	±5%	±5%	±5%	±5%	±5%
Efficiency (Typ.)	90%	90%	91%	91%	92%	92%	93%	93%

Note: <500Hz Vp-p=500mV; 500 Hz to 150 kHz Vp-p=200mV; 150 kHz to 500 kHz Vp-p=150mV; 500 kHz to 1MHz Vp-p=100mV

Technical Specifications

Input

	EPM180D	EPM300D	EPM480D	EMA950D-A
Voltage Range	90~264Vac	90~264Vac	90~264Vac	90~264Vac
Operation Voltage	100~240Vac	100~240Vac	100~240Vac	100~240Vac
Frequency Range	47~63Hz	47~63Hz	47~63Hz	47~63Hz
Operation Range	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Inrush Current	80A peak@115Vac / 230Vac, Cold start at full load	50A peak@100Vac, 100A peak@ 200Vac, Cold start at full load	50A peak@100Vac, 100A peak@ 200Vac, Cold start at full load	60A peak@115Vac / 230Vac, Cold start at full load

Environment

Operation Temp.

-10~50°C with fan

Working Humidity

5%~90% RH Non-Condensing

Storage Temp., Humidity

EPM180D/EPM300D/EPM480D

-40 ~ 80°C, 5~95% RH

EMA950D-A

5 ~ 95% RH Non-Condensing

Vibration

ISTA-2A Standard

Surge

IEC 61000-4-5 4KV (L/N-PE) and 3KV (L-N)

Safety

UL, CB, FCC, CE

Withstand Voltage

I/P-O/P: 3KVac, I/P-FG: 1.5KVac, -54V/12V: 1.5KVac

Isolation Resistance

20M ohm min, 500Vdc 1 min. at 25°C and 70% RH

Dimensions

EPM180D

140mm x 100mm x 36.6mm (Lx Wx H)

EPM300D

155mm x 79.5mm x 38.35mm (Lx Wx H)

EPM480D/EMA950D-A

190.5mm x 101.6mm x 38.6mm (Lx Wx H)

Input & Output Connectors

EPM180D

AC Input Connector CN1 (3961-03N2 DW)

2 Pin

PIN 1: AC Input Line

PIN 2: AC Input Neutral

12V Output Connector CN2 (W2501-S1041221

MOST WELL)

4 Pin

PIN 1: 24V (Reserved)

PIN 2: GND

PIN 3: GND

PIN 4: 12V

-54V Output Connector CN3 (W3962-S1041211-131

MOST WELL)

4 Pin

PIN 1: -54Vrtn

PIN 2: -54Vrtn

PIN 3: -54V

PIN 4: -54V

EPM300D

AC Input Connector CN1 (3961-03N2 DW)

2 Pin

PIN 1: AC Input Line

PIN 2: AC Input Neutral

12V Output Connector CN3 (W2501-S1041221

MOST WELL)

4 Pin

PIN 1: GND

PIN 2: GND

PIN 3: 12V

PIN 4: 12V

-54V Output Connector CN2 (W3962-S1041211-131

MOST WELL)

4 Pin

PIN 1: -54Vrtn

PIN 2: -54Vrtn

PIN 3: -54V

PIN 4: -54V

EPM480D

AC Input Connector CN1 (3961-03N2 DW)

2 Pin

PIN 1: AC Input Line

PIN 2: AC Input Neutral

12V Output Connector CN4 (W3962-S1041211-131

MOST WELL)

4 Pin

PIN 1: GND

PIN 2: GND

PIN 3: 12V

PIN 4: 12V

-54V Output Connector CN2 (W3960-S10611T1

MOST WELL)

6 Pin

PIN 1: -54Vrtn

PIN 2: -54Vrtn

PIN 3: -54Vrtn

PIN 4: -54V

PIN 5: -54V

PIN 6: -54V

Input & Output Connectors

EMA950D-A

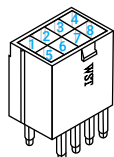
AC Output Connector (DG25C-B-02P-13-00A(H) or equivalent)

No.1: L / Line

No.2: N / Nature

Note: The PE (Power Earth) of the power supply is directly connected to the case of the system (It needs to use M4 type screws) through a 16AWG yellow-green wire.

12V Output Connector (M8-I42002 or equivalent)



No.1: 12V / 12V

No.2: 12V / 12V

No.3: GND / 0V

No.4: GND / 0V

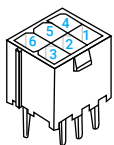
No.5: 12V / 12V

No.6: 12V / 12V

No.7: GND / 0V

No.8: GND / 0V

-54V Output Connector (CSP-0131-0603 or equivalent)



No.1: -54Vrtn / -54V

No.2: -54Vrtn / -54V

No.3: -54V / 0V

No.4: -54Vrtn / -54V

No.5: -54V / 0V

No.6: -54V / 0V