



Products Specification

Title: Switching Power Supply

Model: EPR-25-24

Design NO: _____

Date	2016-05-16
Rev	A00
Designed	
Checked	
Approved	

ICP DAS USA Inc.
ADD: 24309 Narbonne Ave. Suite 200
Lomita, CA 90717
TEL: 1-310-517-9888
FAX: 1-310-517-0998
E-mail: sales@icpdas-usa.com
<http://www.icpdas-usa.com>



1. Product Function Description	1
2. Basic Parameter	1
3. Technical Characteristics	1
3-1 Input Characteristics	1
3-2 Output Characteristics	1
3-3 Protection Function	2
3-4 Withstand Function	2
3-6 Safety Requirement.....	2
3-7 Reliability	2
4. Environment Requirement.....	3
5. Mechanism Specification.....	4
5-1 Product Dimension	4
5-2 Product Assembly	4
5-3 AC/DC Input And Output Socket.....	4
6. Derating Curve.....	5



1. Product Function Description

EPR 15W、25W、35W、50W、75W、100W、150W CE、UL、TUV、CQC

EPR series are mounted type power supply(15W,25W,35W,50W,75W,100W and 150W),certified with CE,UL,TUV,CQC,etc.The series features high reliability and cost-effectiveness and has been widely applied in industrial control,textile machinery,security and monitoring system,etc.

2. Basic Parameter

Output Voltage	Voltage Adjust Range	Noise & Ripple	Min.Load	Max.Load
24V	±10%	120mV	0A	1.1A

1) Remark1) :Maximum 26.4W continuous output, with air convection.

3. Technical Characteristics

3-1 Input Characteristics

Item	Unit	Min	Rated	Max	Remark
Input Voltage	Vac	90	230	264	
Input Frequency	Hz	47	50	63	
Input Current	A	/	/	0.45	230Vac, Full Load.
				0.55	115Vac, Full Load.
Inrush Current	A	/	/	45	230Vac/50Hz Full load cold start.
				25	115Vac/50Hz Full load cold start.

3-2 Output Characteristics

Item	Unit	Min	Rated	Max	Test Conditions
Output Current	A	0	/	1.1	
Load Regulation	/	/	/	±0.5%	
Line Regulation	/	/	/	±0.5%	
Voltage Tolerance	/	/	/	±1%	
DC Output Ripple&Noise	mVp-p	/	/	120	
Efficiency	/	/	79%	/	230Vac/50Hz, Max load.
Setup Time	mS	/	/	500	115/230Vac Input, Full Load.
DC Output Voltage Rise Time	mS	/	/	150	115/230Vac Input, Full Load.
DC Output Hold-up Time	mS	20	/	/	230Vac Input, Full Load.
		14			115Vac Input, Full Load.

DC output ripple & noise test conditions

1) Oscilloscope should be limited at 20MHz bandwidth.



2) At output terminals with parallel 0.1uF ceramic and 22uF electrolytic capacitors and test at output terminals.

3-3 Protection Function

Item	Range	Comments
Over load Protection	110~200%	Recovers automatically after fault condition is removed
Short Circuit Protection	/	Recovers automatically after fault condition is removed

3-4 Withstand Function

Item	Test Method	Test Conditions
Dielectric Strength:(Hi-pot)	Input To Output	1500Vac 50Hz 1 minute $\leq 10\text{mA}$
	Input To FG	1500Vac 50Hz 1 /minute $\leq 10\text{mA}$
	Output To FG	500Vac 50Hz 1 minute $\leq 10\text{mA}$
Isolation Impedance	Input To Output	DC500V 100M Ω /min(at 25°C, 70%RH)
	Input To FG	DC500V 100M Ω /min(at 25°C, 70%RH)
	Output To FG	DC500V 100M Ω /min(at 25°C, 70%RH)

3-6 Safety Requirement

Safety& EMC:

Designed to meet the following:

Safety standard: UL60950-1, CB(IEC60950-1),CCC GB4943.1:2011 approved

EMC emission: Compliance to EN55022 (CISPR22) Class A, EN61000-3-2,-3

EMC immunity: Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-1, light industry level, criteria A

3-7 Reliability

Burn-in test

230Vac (50Hz) input voltage applied to the power supply, Full load is applied on the product in a 40 degrees C environment in a burn-in room for 4 hours.

Vibration

10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes

MTBF

300,000 Hours at 25 °C



4. Environment Requirement

Item	Unit	Min	Rated	Max	Remark
Temperature	°C	-20	25	70	Operation Temperature (attached drawing)
		-40	25	85	Storage Temperature
Humidity	°C	20%	/	90%	Operation Humidity
		10%	/	95%	Storage Humidity
Cooling Mode	Air Cooling				

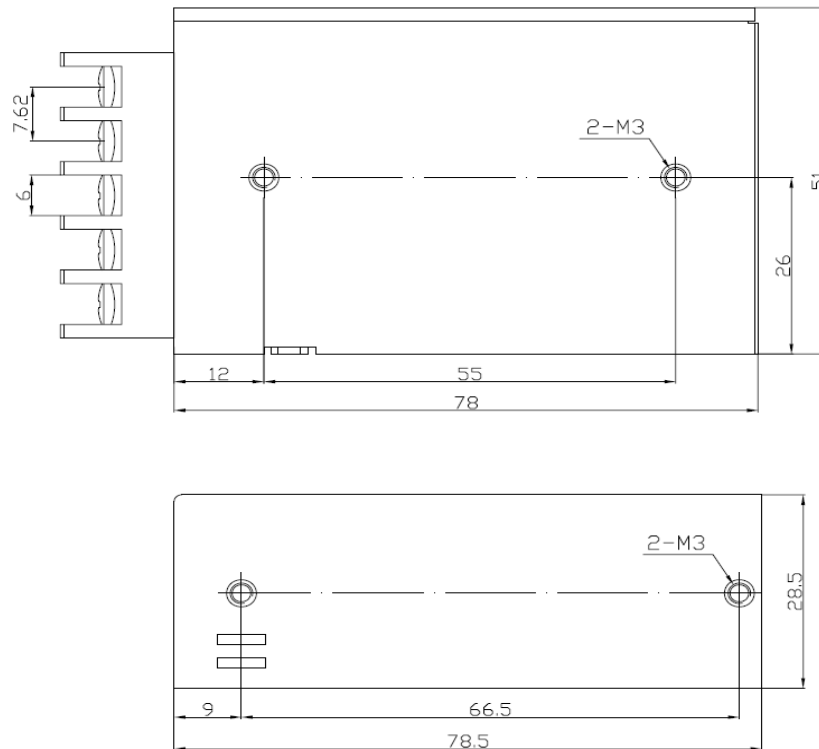


5. Mechanism Specification

5-1 Product Dimension

L78.5mm * W51.5mm * H29mm.

5-2 Product Assembly

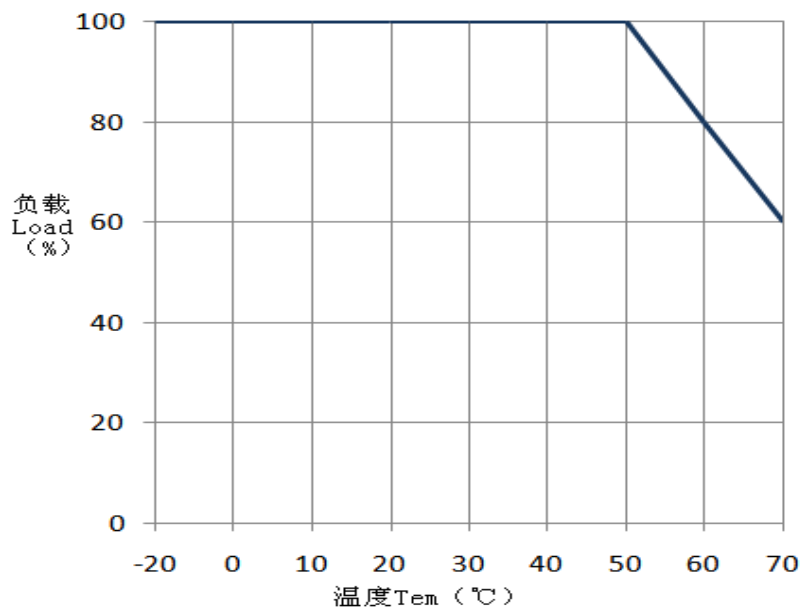
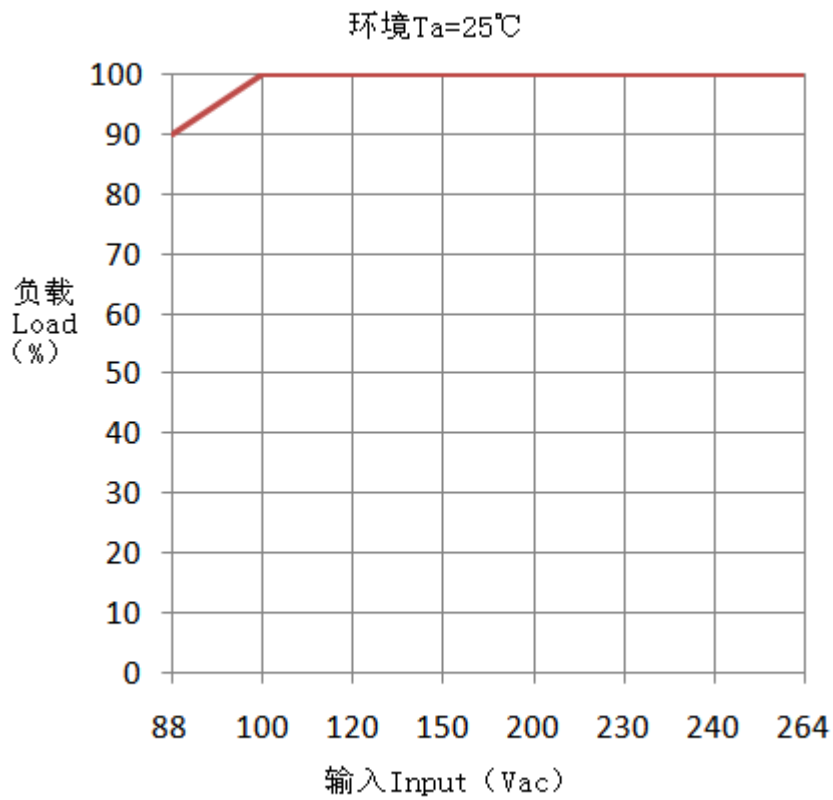


5-3 AC DC Input And Output Socket

	1	2	3	4	5
	AC(L)	AC(N)	FG	-V	+V

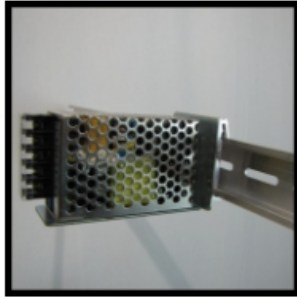


6. Derating Curve

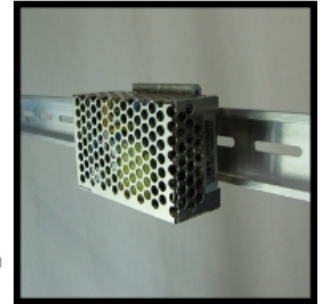
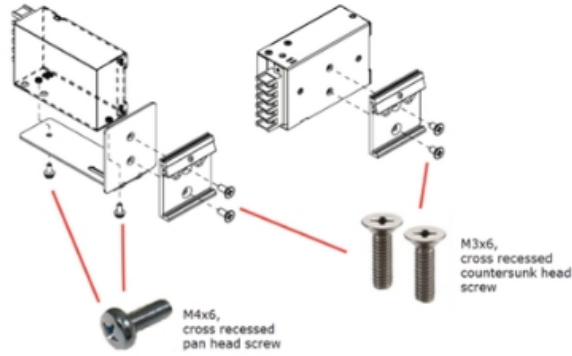


Din Rail

Mounting Options



L Bracket



Direct

Note:
Mounting screws depth should not exceed 4 mm. into the power supply. Included screws are for mounting options above.