

# Usage Manual



## SWITCHING POWER SUPPLY

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Thank you for choosing EKR8-4 Series Switching Power Supply.  
Please read this manual before installation, operation and maintenance.

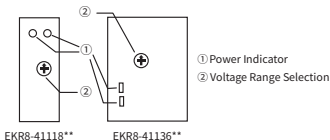
## **STANDARD AND QUALITY CERTIFICATES**

### **CE RoHS**

EKR8-4 series is an economical ultra thin DIN Rail type power supply conforming to 15W German working standards, which is suitable for installation on TS-35/7.5 or TS-35/15 rails. The products uses

AC85-264V full range AC input(AC277V is applicable), and conforms to EN61000-3-2 standard the harmonic current specification for the European Union.

## Model & Explanation



### Characteristic:

International standard input: 85-264VAC(277VAC available)

No-load Consumption<0.3W

Isolation Level: Class II

Pass LPS(Limited power supply)

DC output voltage can be adjusted

Protection type: short circuit/overload/over-voltage

Natural air cooling (Working temperature: -30~+70°C)

Mounted on TS-35/7.5 or TS-35/15 rails

Over-voltage: Class III

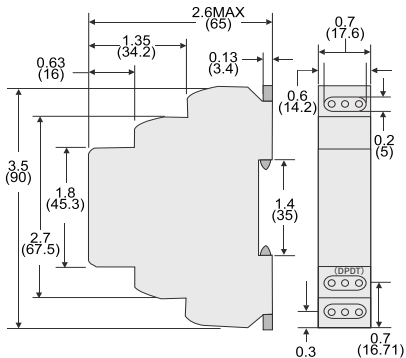
LED indicates power ON

### Application:

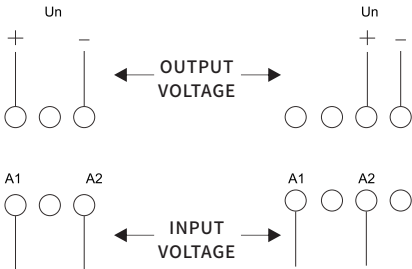
Home control system    Building automation    Industrial control system

Automated Industry    Electrical equipment

## Dimensions Inches(Millimeters)



## Wiring Diagrams



Model No.		EKR8-4111805	EKR8-4111812	EKR8-4111815	EKR8-4111824	EKR8-4111848
Output	DC Voltage	5V	12V	15V	24V	48V
	Rated Current	2.4A	1.25A	1A	0.63A	0.32A
	Rated Power	12W	15W	15W	15.2W	15.4W
	Ripple& Noise(Max.)*2	80mVp-P	120mVp-P	120mVp-P	150mVp-P	240mVp-P
	Vol. Adj. Rang	4.5-5.5V	10.8-13.8V	13.5-18V	21.6-29V	43.2-55.2V
	Voltage Accuracy*3	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Linear Adjusted Rate	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Load Adjusted Rate	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Start & Rise Time	2000ms,80ms/230VAC		2000ms,80ms/115VAC (Fully Loaded)		
Maintain Time (Typ.)	30ms/230VAC		12ms/115VAC (Fully Loaded)			
Input	Voltage Range	85-264VAC (277VAC Available)		120-370VDC (390VDC Available)		
	Frequency Range	47-63Hz				
	Efficiency (Typ.)	80%	85%	85.5%	86%	87%
	AC Current (Typ.)	0.5A/115VAC 0.25A/230VAC				
	Surge Current (Typ.)	Cold Start 25A/115VAC 45A/230VAC				
Protection	Overload	110-145% of Rated Output Power				
		it's Hiccup Mode when output voltage less than 50%. It can automatically recover after the abnormal load condition is removed.				
	Over voltage	5.75-6.75V	14.2-16.2V	18.8-22.5V	30-36V	56.5-64.8V
		Protection Mode: Turn off output and clamped it through Zener diode.				
Environment	Working Temperature	-30°C~+70°C				
	Working Humidity	20%-90%RH, No condensation				
	Storage temperature & Humidity	-40°C~+85°C, 10%-95%RH, No condensation				
	Temperature coefficient Coefficient	±0.03%/°C(0-50°C)				
Remarks	*1. Without special mark, all specifications are measured at 230V input, rated load within 25°C ambient temperature.					
	*2. Ripple&Noise measuring: Using a 12" twisted-pair cables, and 0.1uf and 47uf capacitors should be connected in parallel at the terminal. The measuring should be performed under the 20MHz bandwidth.					
	*3. Accuracy: Including setting error, linear adjusted rate and load adjusted rate.					

Model No.		EKR8-4113605	EKR8-4113612	EKR8-4113615	EKR8-4113624	EKR8-4113648
Output	DC Voltage	5V	12V	15V	24V	48V
	Rated Current	3A	2A	2A	1.5A	0.75A
	Rated Power	15W	24W	30W	36W	36W
	Ripple& Noise(Max.)*2	80mVp-P	120mVp-P	120mVp-P	150mVp-P	240mVp-P
	Vol. Adj. Rang	4.5-5.5V	10.8-13.8V	13.5-18V	21.6-29V	43.2-55.2V
	Voltage Accuracy*3	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Linear Adjusted Rate	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Load Adjusted Rate	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Start & Rise Time	2000ms,80ms/230VAC		2000ms,80ms/115VAC (Fully Loaded)		
Maintain Time (Typ.)	30ms/230VAC		12ms/115VAC (Fully Loaded)			
Input	Voltage Range	85-264VAC (277VAC Available)		120-370VDC (390VDC Available)		
	Frequency Range	47-63Hz				
	Efficiency (Typ.)	82%	88%	89%	89%	90%
	AC Current (Typ.)	0.5A/115VAC 0.25A/230VAC				
	Surge Current (Typ.)	Cold Start 25A/115VAC 45A/230VAC				
Protection	Overload	110-145% of Rated Output Power				
		it's Hiccup Mode when output voltage less than 50%. It can automatically recover after the abnormal load condition is removed.				
	Over voltage	5.75-7.5V	15-18V	18.8-22.5V	30-36V	57.6-67.2V
		Protection Mode: Turn off output and clamped it through Zener diode.				
Environment	Working Temperature	-30℃~+70℃				
	Working Humidity	20%-90%RH, No condensation				
	Storage temperature & Humidity	-40℃~+85℃, 10%-95%RH, No condensation				
	Temperature coefficient Coefficient	±0.03%/℃(0-50℃)				
Remarks	*1. Without special mark, all specifications are measured at 230V input, rated load within 25℃ ambient temperature.					
	*2. Ripple&Noise measuring: Using a 12" twisted-pair cables, and 0.1uf and 47uf capacitors should be connected in parallel at the terminal. The measuring should be performed under the 20MHz bandwidth.					
	*3. Accuracy: Including setting error, linear adjusted rate and load adjusted rate.					