

# NEW FROM KEPSCO

## SERIES KDN LOW COST POWER SUPPLIES



**UL**  
**508**  
LISTED

Kepco Inc., the Power Supplier since 1946, is pleased to announce its new KDN series of low cost, UL 508 listed, DIN-Rail mounted power supplies. The series consists of three 24 Volt output models rated at 5, 10 and 20 Amps. The KDN series offer 90-264 V a-c input with PFC, 23.5-28 Volt adjustment range and a 120% peak current capability for up to one minute with no forced air cooling required.

### FEATURES

- Low cost.
- UL 508 listed.
- Active PFC using ZVS (Zero Voltage Switching).
- 85% efficiency typical @115V a-c; 90% efficiency typical @ 230V a-c.
- Parallel operation (KDN 24-20), optional Or-ing diode kit for KDN 24-5 and KDN 24-10.
- 23.5-28 Volt output adjustment range.

**KDN MODEL TABLE**

MODEL	OUTPUT	ADJUSTMENT RANGE	OVP RANGE	OUTPUT CURRENT			EFFICIENCY (2)		CURRENT LIMIT PROTECTION (2)	RIPPLE/NOISE (3)
	Nominal Volts	Volts	Volts	Min	Rated	Peak (1)	115V a-c	230V a-c	Limit	mV p-p
KDN 24-5	24	23.5-28	29-34	0	5A	6A	87%	90%	7.8A *	<40
KDN 24-10	24	23.5-28	32-38	0	10A	12A	85%	90%	14A *	<50
KDN 24-20	24	23.5-28	31.5-35.5	0	20A	25A	85%	90%	28A *	<240

(1) One minute maximum duration @25°C ambient; continuous with  $\geq 18$  cfm of forced air cooling.

(2) Typical.

(3) Bandwidth 15MHz, full load, nominal line, output terminated with 0.47 $\mu$ f cap.

\* Hiccup mode with auto recovery

CALL KEPSCO TODAY OR VISIT OUR WEBSITE FOR MORE INFO: [www.kepcopower.com/kdn.htm](http://www.kepcopower.com/kdn.htm)

AN ISO 9001 COMPANY  

**KEPCO**  
 THE POWER SUPPLIER™  
 SINCE 1946

# SERIES KDN LOW COST POWER SUPPLIES

KDN GENERAL/ENVIRONMENTAL SPECIFICATIONS			
SPECIFICATION		RATING/DESCRIPTION	CONDITION
Temperature	Operating	-10°C to +70°C	KDN 24-5 <sup>(1)</sup> , KDN 24-20 <sup>(1)</sup>
		0°C to +70°C	KDN 24-10 <sup>(1)</sup>
	Start up	-10°C	KDN 24-5, KDN 24-20
		0°C	KDN 24-10
Storage	-40°C to +85°C		
Safety Standards		UL 508, CAN/CSA C22.2 No. 14-M95	UL
		EN60950-1	TÜV
Conducted Emissions		EN55022 B, FCC Class B	0.15MHz - 1GHz
Radiated Emissions		EN55022 B, FCC Class B	30MHz - 1GHz
Input Current Harmonics		EN61000-3-2	
ESD Immunity		EN61000-4-2	6KV contact, 8KV air
Radiation Field Immunity		EN61000-4-3	10mV Criteria B
Fast Transient/Burst Immunity		EN61000-4-4	2KV
Surge Immunity		EN61000-4-5	4KV
Conducted Noise Immunity		EN61000-4-6	Criteria A
Magnetic Field Pwr. Freq Immunity		EN61000-4-8	Criteria A
Voltage Dip/Short Interruption Immunity		EN61000-4-11	Normal operation
Dimensions HxWxD	Metric	125mm x 65mm x 110mm	KDN 24-5
	English	4.92" x 2.56" x 4.33"	
	Metric	125mm x 122mm x 110mm	KDN 24-10
	English	4.92" x 4.80" x 4.33"	
	Metric	125mm x 237mm x 110mm	KDN 24-20
	English	4.92" x 9.33" x 4.33"	
Weight	Metric (English)	730g (1.61 lbs.)	KDN 24-5
	Metric (English)	1100g (2.43 lbs)	KDN 24-10
	Metric (English)	1980g (4.37 lbs)	KDN 24-20
Cooling		Convection	
Mounting		DIN-Rail, Hook	35mm standard symmetrical

(1) Derate 3W/°C above 60°C for KDN 24-5, derate 6W/°C above 60°C for KDN 24-10, derate 12W/°C above 50°C @ 115V a-c and above 60°C @ 230V a-c for KDN 24-20



KDN INPUT CHARACTERISTICS					
SPECIFICATION		RATING/DESCRIPTION			CONDITION
		KDN 24-5	KDN 24-10	KDN 24-20	
Input Voltage	Range	90-264V a-c (1)			
Input Frequency	Range	47-63 Hz			
Input Current	115V a-c	<2A	<6A	<10A	
	230V a-c	<1A	<2.6A	<5A	
Surge Current	Nominal Low	30A			25°C ambient cold start
	Nominal High	60A			
Leakage Current		≤0.2 mA	≤0.25 mA	≤0.35 mA	Line to ground 115V a-c 60 Hz input
Power Factor	115V a-c	0.99			Meets EN61000-3-2 Class D
	230V a-c	0.95			
Switching Frequency		120KHz		62KHz	Typical

(1) 125-264V d-c safety agency listing for a-c input only.

KDN OUTPUT CHARACTERISTICS					
SPECIFICATION		RATING/DESCRIPTION			CONDITION
		KDN 24-5	KDN 24-10	KDN 24-20	
Source Effect	max	±1%			115V a-c ±10% 230V a-c ±10%
Load Effect	max	±1%	±2%	±1%	0-100% I for KDN 24-5 and KDN 24-10 4-12A and 12-20A for KDN 24-20
Setting Tolerance		±2%			
Transient Recovery Characteristic	Recovery	100mV 1ms	200mV 1ms	1V 1ms	For load change from 20% to 10% and 100% to 20%
Start Up Time	typ	1.7	1.9	1.8	115V a-c
	typ	<1 Sec			230V a-c
Hold Up Time	typ	20ms			90-264V a-c full load

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