

NEW FROM KEPCO

SERIES KDN LOW COST POWER SUPPLIES



UL
508
LISTED

Kepeco 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 ≥ 18 cfm of forced air cooling.

(2) Typical.

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

* Hiccup mode with auto recovery

CALL KEPCO TODAY OR VISIT OUR WEBSITE FOR MORE INFO: 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 ⁽¹⁾ , KDN 24-20 ⁽¹⁾
		0°C to +70°C	KDN 24-10 ⁽¹⁾
	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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