

**COSEL** AC-DC Power Supplies DIN Rail Type

# KLEA/KLNA240F

**Ordering information**

KL  A **240** F

①      ②      ③      ④      ⑤      ⑥



**Recommended EMI/EMC Filter  
NAC-06-472-D**



High voltage pulse noise type : NAP series  
Low leakage current type : NAM series  
\*The EMI/EMC Filter is recommended to connect with several devices.

- ① Series name  
KLE : Euro Style I/O Terminals  
KLN : Barrier Blocks Style I/O Terminals
- ② Single output
- ③ Output wattage
- ④ Universal input
- ⑤ Output voltage
- ⑥ Option  
C : with Coating  
N2 : Screw mounting

MODEL	KLEA/KLNA240F-24	KLEA/KLNA240F-48
MAX OUTPUT WATTAGE[W]	240	240
DC OUTPUT	24V 10A	48V 5A

**SPECIFICATIONS**

MODEL	KLEA/KLNA240F-24	KLEA/KLNA240F-48	
INPUT	VOLTAGE[V] AC85 - 264 1 φ (Output derating is required) *8		
	CURRENT[A]	ACIN 115V 2.4typ	
		ACIN 230V 1.3typ	
	FREQUENCY[Hz]	50 / 60 (47 - 63)	
	EFFICIENCY[%]	ACIN 115V 88typ	
		ACIN 230V 90typ	
	POWER FACTOR	ACIN 115V 0.98typ	
		ACIN 230V 0.90typ	
INRUSH CURRENT[A]	ACIN 115V 20typ (Io=100%)(at cold start Ta=25°C)		
	*1 ACIN 230V 40typ (Io=100%)(at cold start Ta=25°C)		
LEAKAGE CURRENT[ma]	0.45 / 0.75max (ACIN 100V / 240V 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)		
OUTPUT	VOLTAGE[V]	24	48
	CURRENT[A]	10	5
	LINE REGULATION[mV] *2	96max	192max
	LOAD REGULATION[mV] *2	150max	300max
	RIPPLE[mVp-p] *3	0 to +70°C 150max	150max
		-20 - 0°C 240max	240max
	RIPPLE NOISE[mVp-p] *3	0 to +70°C 180max	180max
		-20 - 0°C 300max	300max
	TEMPERATURE REGULATION[mV]	0 to +70°C 240max	480max
		-20 to +70°C 290max	600max
	DRIFT[mV] *4	96max	192max
	START-UP TIME[ms]	500typ (ACIN 115V, Io=100%)	
	HOLD-UP TIME[ms]	20typ (ACIN 115V, Io=100%)	
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	21.60 to 26.40	43.20 to 52.80	
OUTPUT VOLTAGE SETTING[V]	24.00 to 24.96	48.00 to 49.92	
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically	
	OVERVOLTAGE PROTECTION[V]	27.60 to 33.60	54.00 to 67.20
	DC_OK LAMP	LED (Green)	
ISOLATION	INPUT-OUTPUT	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)	
	INPUT-PE	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)	
	OUTPUT-PE	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)	
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-20 to +70°C (Required to Derating), 20 - 90%RH (Non condensing)	
	STORAGE TEMP., HUMID. AND ALTITUDE	-30 to +85°C, 20 - 90%RH (Non condensing)	
	VIBRATION *7	10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60 minutes along Z axis (Non operating, mounted on DIN Rail)	
	IMPACT	196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis (Packing state)	
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL60950-1, C-UL (CSA60950-1), EN60950-1, UL508, Complies with DEN-AN	
	CONDUCTED NOISE	Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B	
	HARMONIC ATTENUATOR	Complies with IEC61000-3-2 (Class A) *5	
OTHERS	CASE SIZE *6	50 x 124 x 117mm (W x H x D) [1.97 x 4.88 x 4.61 inches]	
	WEIGHT	750g max	
	COOLING METHOD	Convection / Forced air	

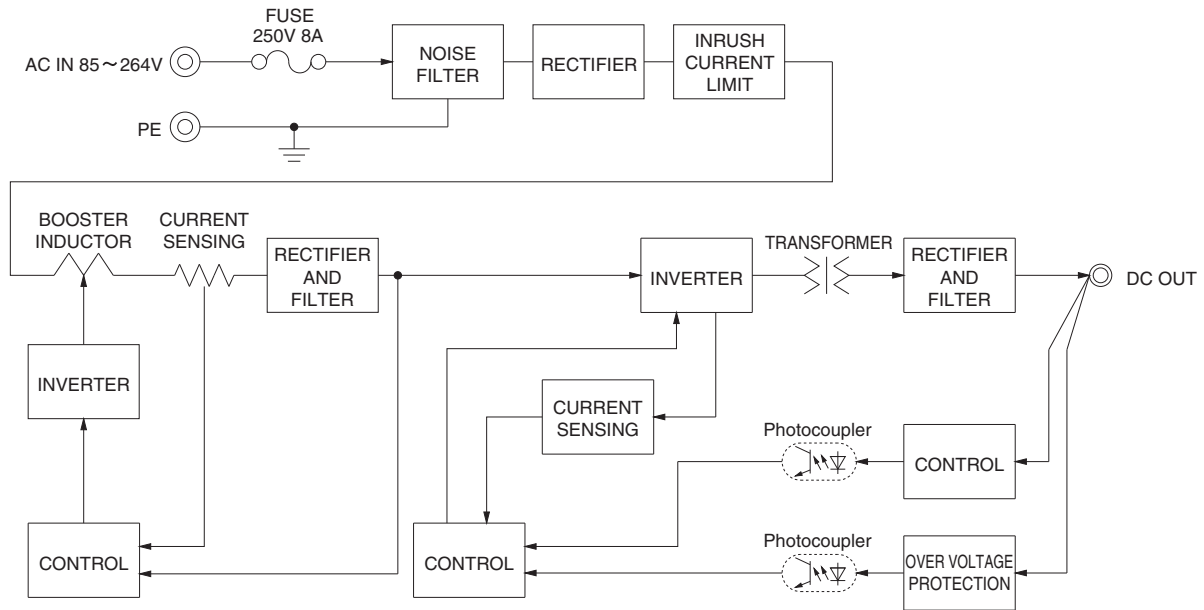
\*1 The value is primary surge. The current of input surge to a built-in EMI/EMC Filter(0.2ms or less)is excluded.  
 \*2 Please contact us about dynamic load and input response.  
 \*3 This is the value that measured on measuring board with capacitor of 22 μF and 0.1 μF at 150mm from output terminal.  
 Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103).  
 Please refer to the instruction manual 2.5.  
 \*4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.  
 \*5 Please contact us about another class.  
 \*6 Case size contains neither the umbo.  
 Only as standard mounting orientation (A). Refer to the instruction manual 4.1.  
 \*7 If install other than standard mounting orientation (A), please fix the power supply for withstand the vibration and impact.  
 \*8 Please contact us about DC input voltage.  
 \* To meet the specifications. Do not operate over-loaded condition.  
 \* A sound may occur from power supply at light or peak loading.

Specifications are subject to change without notice. It is responsibility of each customer to thoroughly test each product and part number under their unique parameters and environments to ensure a product will work properly and reliably.

Click below for more details, to buy on-line or request volume pricing:  
<http://power.sager.com/cosel-KLEA240F-power-supply.html>

**(866) 588-1750**  
 power@sager.com  
<http://power.sager.com>

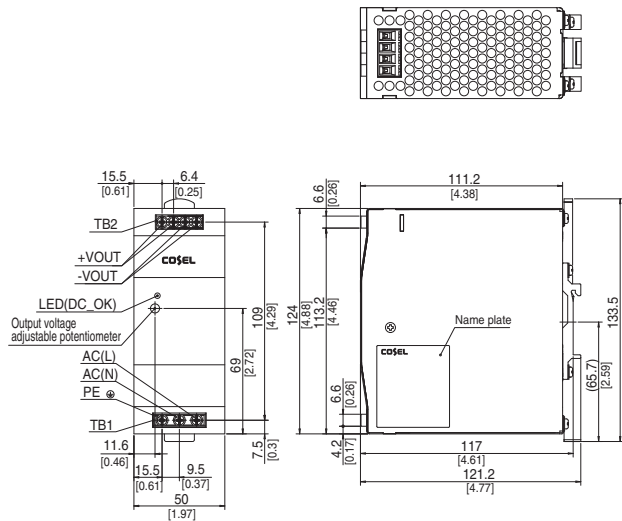
### Block diagram



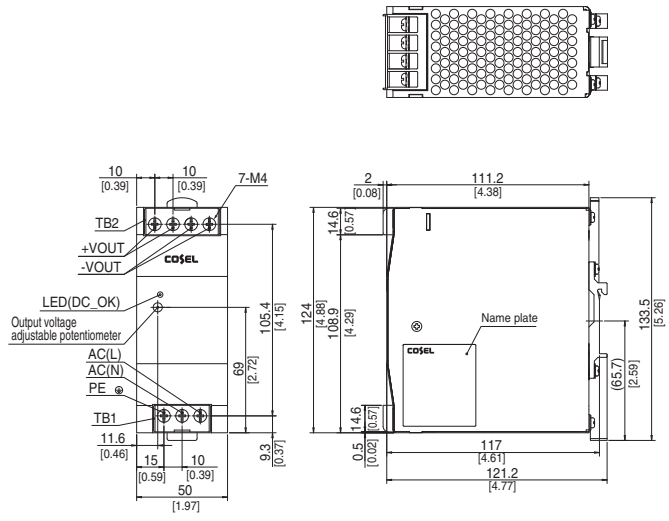
### External view

<KLEA240F(Euro Style I/O Terminals)>

<KLNA240F(Barrier Blocks Style I/O Terminals)>



- ※ Tolerance : ±1.5 [±0.06]
- ※ Weight : 750g max
- ※ PCB Material/thickness : FR-4 / 1.6mm [0.06]
- ※ Chassis material : Aluminum
- ※ Case material : Stainless steel
- ※ Din rail attachment material : Aluminum, Nylon
- ※ Dimensions in mm, [ ] = inches
- ※ Screw tightening torque : 1N · m max



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