

PCA600F

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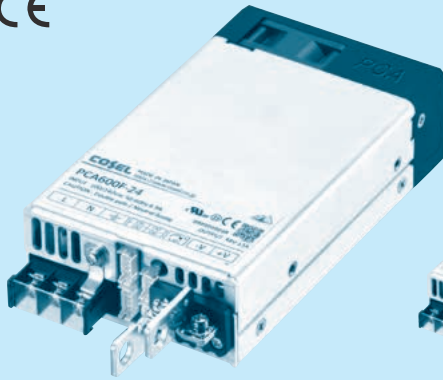
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Terminal Block Style

Example recommended EMI/EMC filter
NAC-16-472



High voltage pulse noise type : NAP series
Low leakage current type : NAM series
* A higher current rating EMI/EMC filter
may be recommended in view of the
other devices that could be connected
in parallel with the power supply.

- ① Series name
② Single output
③ Output wattage
④ Universal input
⑤ Output voltage
⑥ Optional *6
P2: Bus Bar Style
TP2: Terminal Block Style

For details of TP2, refer to
instruction manual 7.1.

*Make sure necessary tests will be carried out on your end equipment with the power supply installed in accordance with any required EMC/EMI regulations.

MODEL	PCA600F-5-P2	PCA600F-12-P2	PCA600F-15-P2	PCA600F-24-P2	PCA600F-32-P2	PCA600F-48-P2
MAX OUTPUT WATTAGE[W]	600	636	645	648	640	624
DC OUTPUT	5V 120A	12V 53A	15V 43A	24V 27A	32V 20A	48V 13A

SPECIFICATIONS

	MODEL		PCA600F-5-P2	PCA600F-12-P2	PCA600F-15-P2	PCA600F-24-P2	PCA600F-32-P2	PCA600F-48-P2	
INPUT	VOLTAGE[VAC]		85 - 264 1 φ (Output derating is required at less than 90V. Refer to instruction manual 5.2.)						
	CURRENT[A]	ACIN 100V	7.3typ						
		ACIN 230V	3.2typ						
	FREQUENCY[Hz]		50/60 (45 - 66)						
	EFFICIENCY[%]	ACIN 100V	(Io=50%)	90typ	91typ	91typ	91typ	91typ	91typ
			(Io=100%)	89typ	90typ	90typ	91typ	91typ	91typ
		ACIN 230V	(Io=50%)	92typ	92typ	92typ	93typ	93typ	93typ
			(Io=100%)	91typ	92typ	92typ	93typ	93typ	93typ
POWER FACTOR	ACIN 100V	0.98typ (Io=100%)							
	ACIN 230V	0.95typ (Io=100%)							
INRUSH CURRENT[A]	ACIN 100V※1	20/40 typ (Io=100%) (Primary inrush current / Secondary inrush current) (More than 3 sec. to re-start)							
	ACIN 230V※1	40/40 typ (Io=100%) (Primary inrush current / Secondary inrush current) (More than 3 sec. to re-start)							
LEAKAGE CURRENT[ma]		0.5max (ACIN 240V 60Hz, Io=100%, According to IEC60601-1)							
OUTPUT	VOLTAGE[V]		5	12	15	24	32	48	
	CURRENT[A]		120	53	43	27	20	13	
	LINE REGULATION[mV]		20max	48max	60max	96max	128max	192max	
	LOAD REGULATION[mV]		40max	100max	120max	150max	150max	300max	
	RIPPLE[mVp-p]	0 to +50℃ ※2※3	160max	240max	240max	240max	320max	480max	
		-20 to 0℃ ※2	280max	320max	320max	320max	420max	640max	
	RIPPLE NOISE[mVp-p]	0 to +50℃ ※2※3	240max	300max	300max	300max	400max	600max	
		-20 to 0℃ ※2	320max	360max	360max	360max	480max	720max	
	TEMPERATURE REGULATION[mV]	0 to +50℃ ※3	50max	120max	150max	240max	320max	480max	
		-20 to +50℃ ※3	75max	180max	180max	290max	400max	600max	
	DRIFT[mV]		※4	20max	48max	60max	96max	128max	
	START-UP TIME[ms]		400typ (ACIN 100/230V Io=100%)						
	HOLD-UP TIME[ms]		20typ (ACIN 230V Io=80%) / 16typ (ACIN 230V Io=100%)						
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		3.00 to 6.00	7.20 to 14.40	9.00 to 18.00	14.40 to 28.80	19.20 to 38.40	28.80 to 57.60		
OUTPUT VOLTAGE SETTING[V]		5.00 to 5.15	12.00 to 12.48	15.00 to 15.60	24.00 to 24.96	32.00 to 33.28	48.00 to 49.92		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating (Recovers automatically, Intermittent overcurrent)						
	OVERVOLTAGE PROTECTION[V]		6.25 to 7.00	15.00 to 16.80	18.75 to 21.00	30.00 to 33.60	40.00 to 44.80	60.00 to 67.20	
	REMOTE SENSING		Provided						
	REMOTE ON/OFF (RC)		Provided						
	DC_OK LAMP		LED (Blue)						
	ALARM LAMP		LED (Orange)						
COMMUNICATION FUNCTION		Provided (Extended UART)							
ISOLATION	INPUT-OUTPUT		AC4,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) 2MOPP						
	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature) 1MOPP						
	OUTPUT-FG		AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)						
OUTPUT・AUX・RC・PG・INFO・MS・ADDR0・ADDR1・ADDR2		AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)							
ENVIRONMENT	OPERATING TEMP.,HUMIDITY,AND ALTITUDE		-20 to +70℃, 20 - 90%RH (Non condensing)						
	STORAGE TEMP.,HUMIDITY,AND ALTITUDE		-20 to +75℃, 20 - 90%RH (Non condensing)						
	VIBRATION		10 - 55Hz 19.6m/s ² (2G) 3minutes period, 60minutes each along X, Y and Z axis						
	IMPACT		196.1m/s ² (20G) 11ms, once each X, Y and Z axis						
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS		UL62368-1, EN62368-1, C-UL (equivalent to CAN/CSA-C22.2 No.62368-1), ANSI/AAMI ES60601-1, EN60601-1 3rd, C-UL (equivalent to CAN/CSA-C22.2 No.60601-1), Complies with IEC60601-1-2 4th Ed.						
	CONDUCTED NOISE		Complies with FCC Part15 classB, VCCI-B, CISPR32-B, EN55011-B, EN55032-B						
	HARMONIC ATTENUATOR ※5		Complies with IEC61000-3-2 (class A)						

SPECIFICATIONS

OTHERS	CASE SIZE/WEIGHT	89 X 41 X 152mm [3.50 X 1.61 X 5.98 inches] (without terminal block and screw) (W X H X D) / 840g max
	COOLING METHOD	Forced cooling (internal fan)

*1 The value is primary surge. The current of input surge to a built-in EMI/EMS Filter(0.2ms or less) is excluded.

*2 Measured by 20MHz oscilloscope or Ripple-Noise meter (equivalent to KEISOKU-GIKEN:RM103).

*3 5V output product, the maximum temperature of 40°C.

*4 Drift is the change in DC output for an eight hours period after a half-hour warm-up at 25°C.

*5 Please contact us about another class.

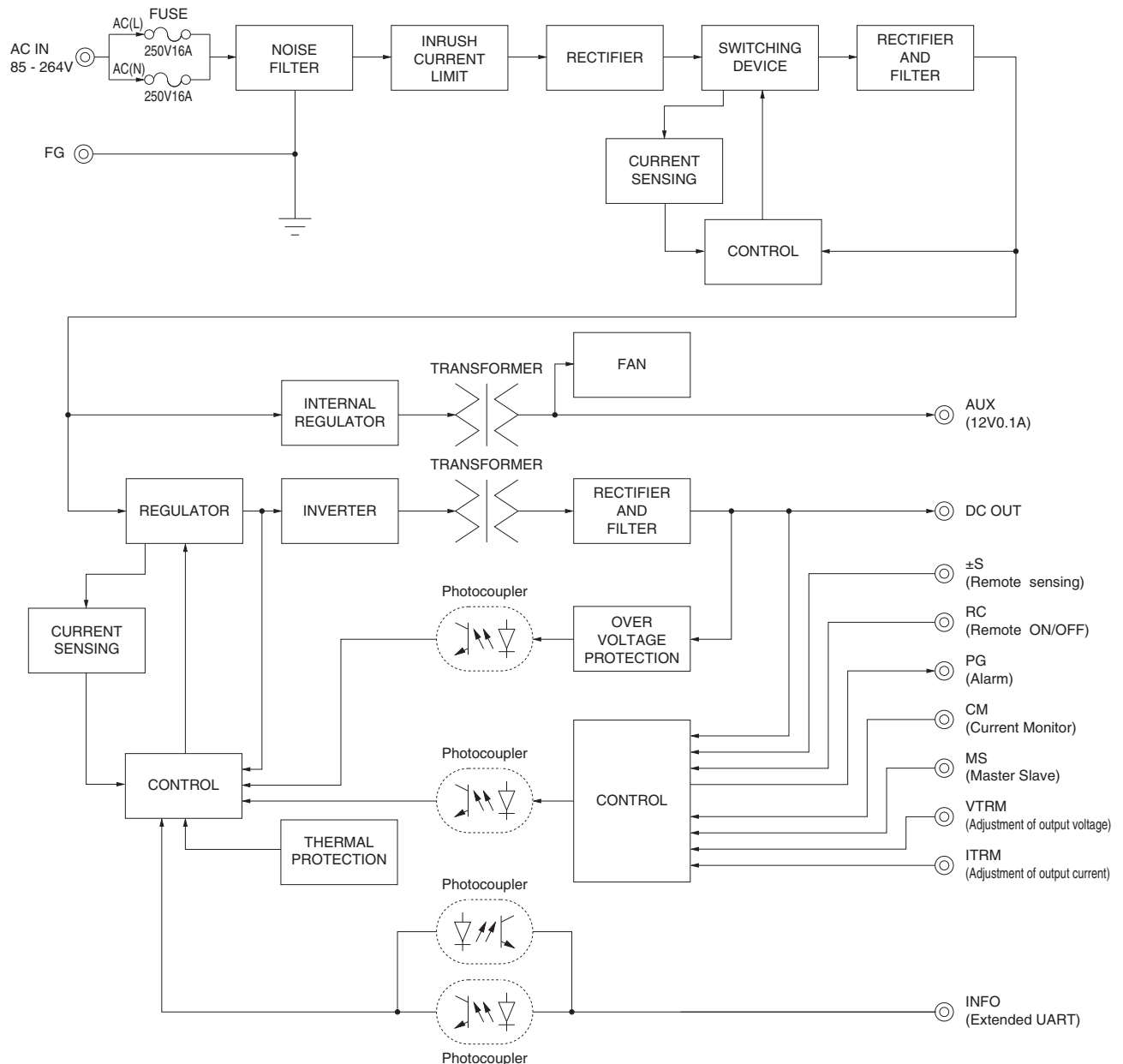
*6 The listed options may affect the published standard specifications. Please contact us for detailed product specifications and safety approvals.

* A sound may occur from power supply at pulse loading.

Features <PCA600F-□-P2>

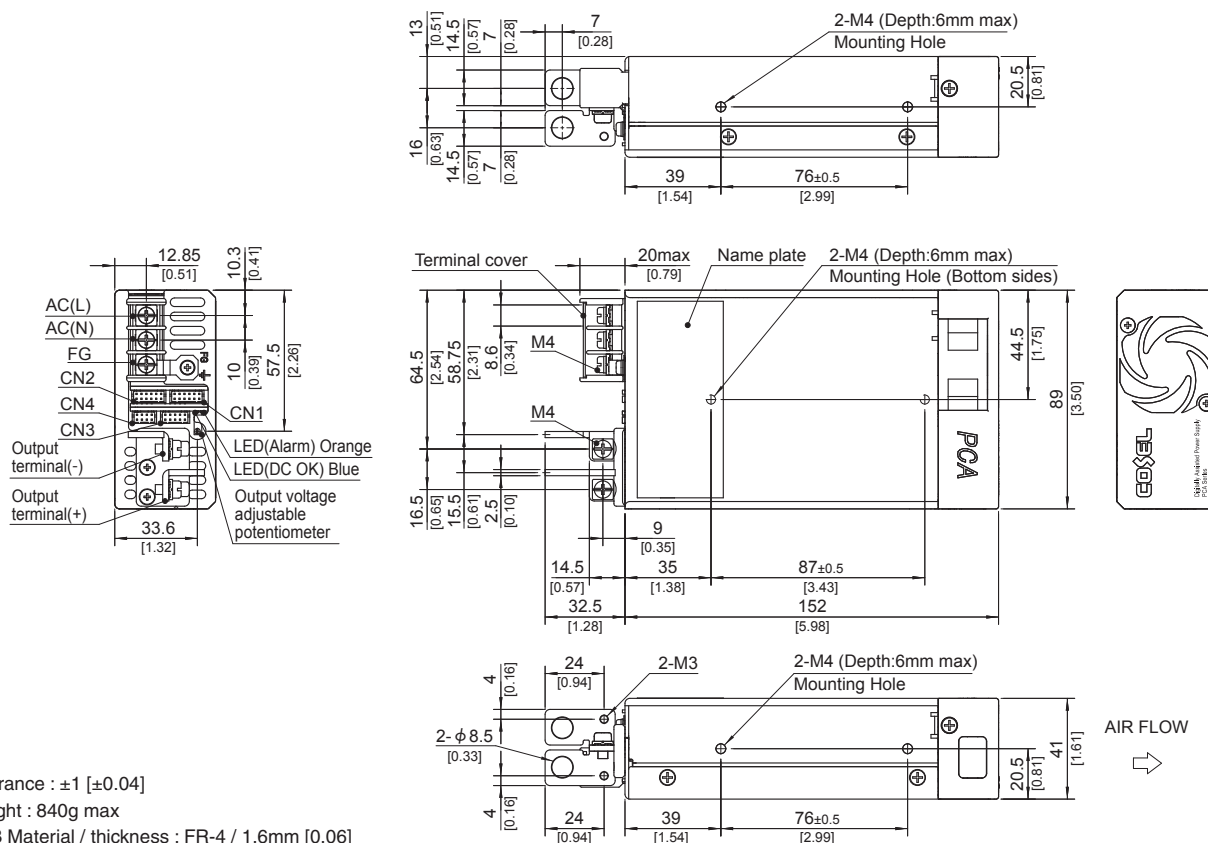
- Low profile (41mm, 1.61 inch = meet to 1U height)
- Universal input 85 - 264VAC (Refer to item 5.2, in case of using at 85 - 90VAC)
- For medical electric equipment (ANSI/AAMI ES60601-1, EN60601-1 3rd, IEC60601-1-2 4th Ed.)
- With AUX output
- Constant current regulation
- Output voltage can be varied to near 0V (Refer to item 3.6)
- With various alarms
- Parallel operation possible
- Monitoring function by communication and various setting values can be changed (Refer to item 3.11)

Block diagram



External view

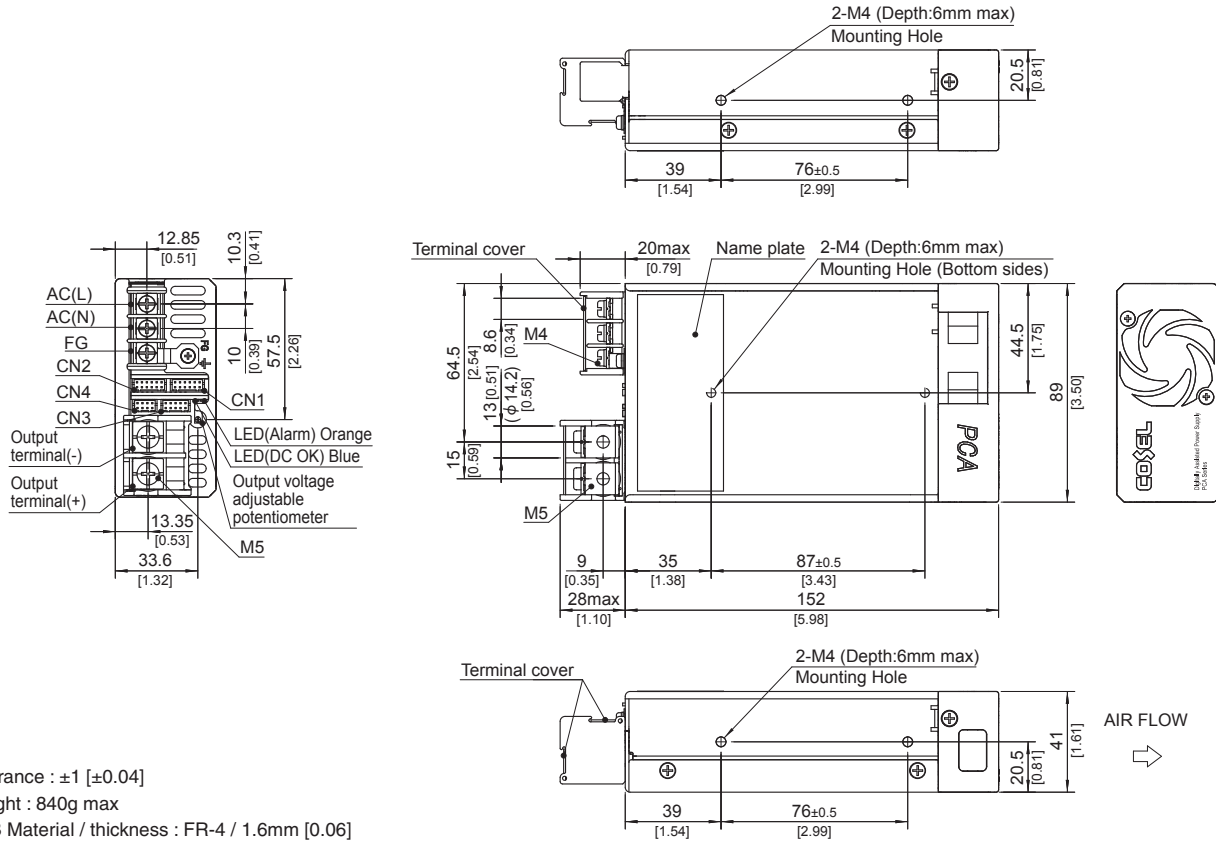
<PCA600F-□-P2 (Bus Bar Style) >



- ※ Tolerance : ±1 [±0.04]
- ※ Weight : 840g max
- ※ PCB Material / thickness : FR-4 / 1.6mm [0.06]
- ※ Chassis Material : Aluminum
- ※ Fan cover Material : PBT
- ※ Dimensions in mm, [] = inches
- ※ Mounting torque : 1.2N·m max
- ※ Input and output terminal screw tightening torque
 - M3 0.6N·m max
 - M4 1.6N·m max
- ※ Please connect safety ground to FG terminal on the unit.

External view

<PCA600F-□-TP2 (Terminal Block Style) >



- ※ Tolerance : ± 1 [± 0.04]
- ※ Weight : 840g max
- ※ PCB Material / thickness : FR-4 / 1.6mm [0.06]
- ※ Chassis Material : Aluminum
- ※ Fan cover Material : PBT
- ※ Dimensions in mm, [] = inches
- ※ Mounting torque : 1.2N·m max
- ※ Input and output terminal screw tightening torque
 - M4 1.6N·m max
 - M5 2.5N·m max
- ※ Please connect safety ground to FG terminal on the unit.