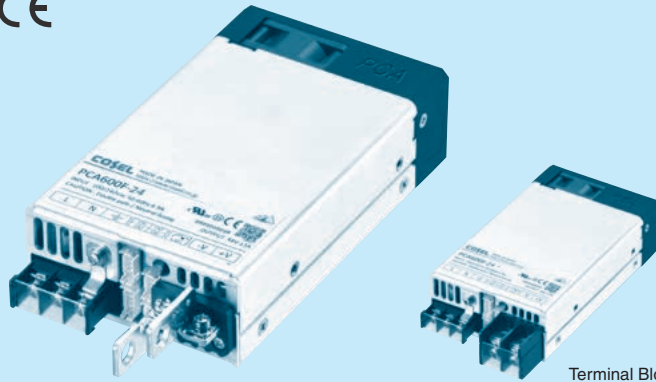


# PCA600F

PC A 600 F -5 -□

① ② ③ ④ ⑤ ⑥



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
MAX OUTPUT WATTAGE[W]	600	636	645	648
DC OUTPUT	5V 120A	12V 53A	15V 43A	24V 27A

## SPECIFICATIONS

	MODEL	PCA600F-5-P2	PCA600F-12-P2	PCA600F-15-P2	PCA600F-24-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	(lo=50%)	90typ	91typ	91typ	91typ
			(lo=100%)	89typ	90typ	90typ	91typ
		ACIN 230V	(lo=50%)	92typ	92typ	92typ	93typ
			(lo=100%)	91typ	92typ	92typ	93typ
	POWER FACTOR	ACIN 100V	0.98typ (lo=100%)				
		ACIN 230V	0.95typ (lo=100%)				
INRUSH CURRENT[A]	ACIN 100V*1	20/40 typ (lo=100%) (Primary inrush current / Secondary inrush current) (More than 3 sec. to re-start)					
	ACIN 230V*1	40/40 typ (lo=100%) (Primary inrush current / Secondary inrush current) (More than 3 sec. to re-start)					
LEAKAGE CURRENT[ma]	0.5max (ACIN 240V 60Hz, lo=100%, According to IEC60601-1)						
OUTPUT	VOLTAGE[V]	5	12	15	24		
	CURRENT[A]	120	53	43	27		
	LINE REGULATION[mV]	20max	48max	60max	96max		
	LOAD REGULATION[mV]	40max	100max	120max	150max		
	RIPPLE[mVp-p]	0 to +50°C *2*3	160max	240max	240max	240max	
		-20 to 0°C *2	280max	320max	320max	320max	
	RIPPLE NOISE[mVp-p]	0 to +50°C *2*3	240max	300max	300max	300max	
		-20 to 0°C *2	320max	360max	360max	360max	
	TEMPERATURE REGULATION[mV]	0 to +50°C *3	50max	120max	150max	240max	
		-20 to +50°C *3	75max	180max	180max	290max	
	DRIFT[mV]	*4	20max	48max	60max	96max	
	START-UP TIME[ms]	400typ (ACIN 100/230V lo=100%)					
	HOLD-UP TIME[ms]	20typ (ACIN 230V lo=80%) / 16typ (ACIN 230V lo=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		
OUTPUT VOLTAGE SETTING[V]	5.00 to 5.15	12.00 to 12.48	15.00 to 15.60	24.00 to 24.96			
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		
	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°C, 20 - 90%RH (Non condensing)					
	STORAGE TEMP., HUMIDITY AND ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing)					
	VIBRATION	10 - 55Hz 19.6m/s <sup>2</sup> (2G) 3minutes period, 60minutes each along X, Y and Z axis					
	IMPACT	196.1m/s <sup>2</sup> (20G) 11ms, once each X, Y and Z axis					
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL60950-1, C-UL (CSA60950-1), EN60950-1, ANSI/AAMI ES60601-1, EN60601-1 3rd, 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

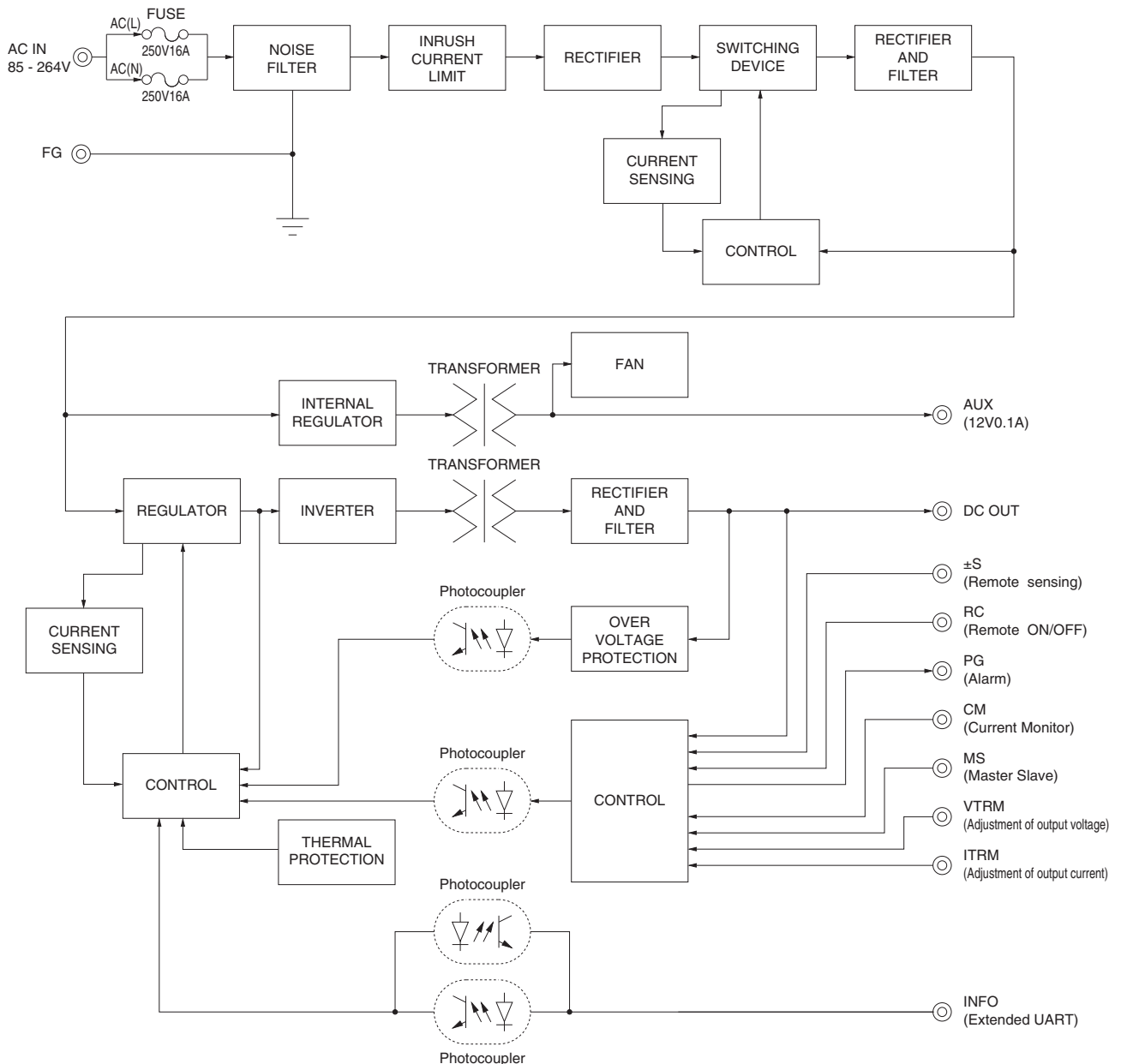
OTHERS	CASE SIZE/WEIGHT	89 X 41 X 152mm [3.50 X 1.61 X 5.98 inches] (without terminal block and screw) (W X H X D) / 840g max
	COOLING METHOD	Forced cooling (internal fan)

- \*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

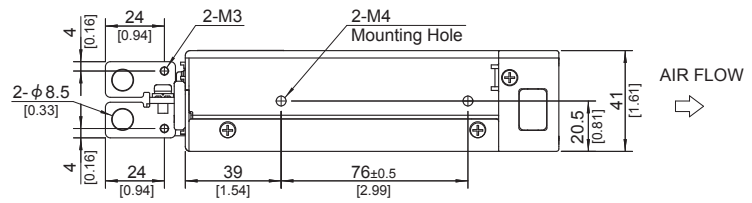
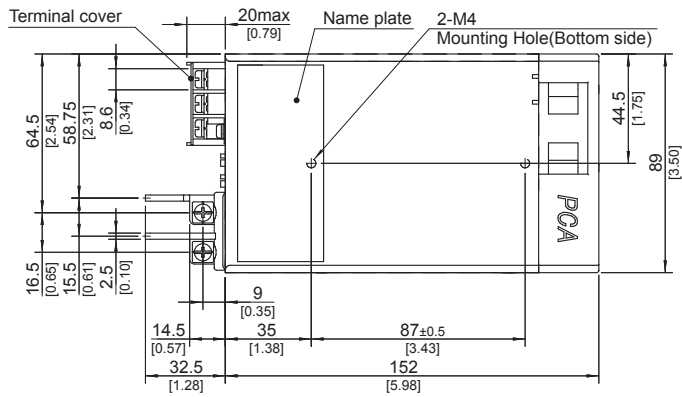
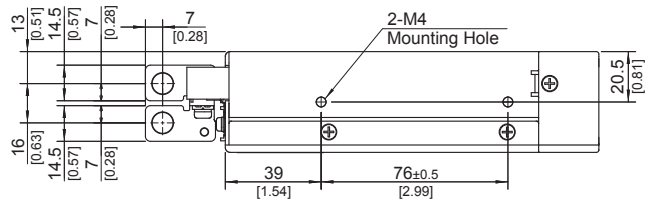
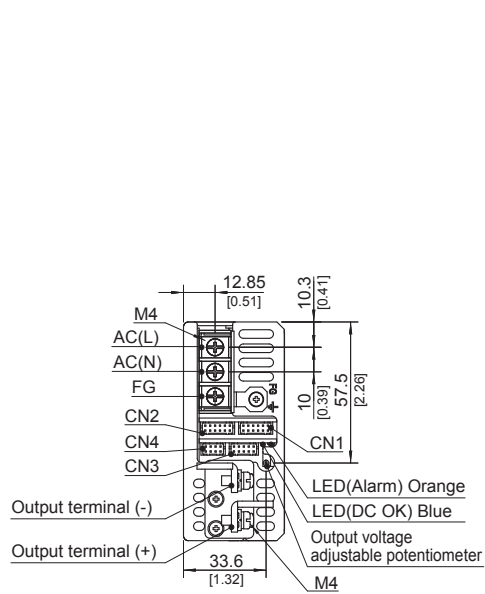
- Low profile (41mm, 1.61 inch = meet to 1U height)
- Universal input 85 - 264VAC (Refer to item 5.2, in case of using at 85 - 90VAC)
- For medical electric equipment (ANSI/AAMI ES60601-1, EN60601-1 3rd, IEC60601-1-2 4th Ed.)
- With AUX output
- Constant current regulation
- Output voltage can be varied 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

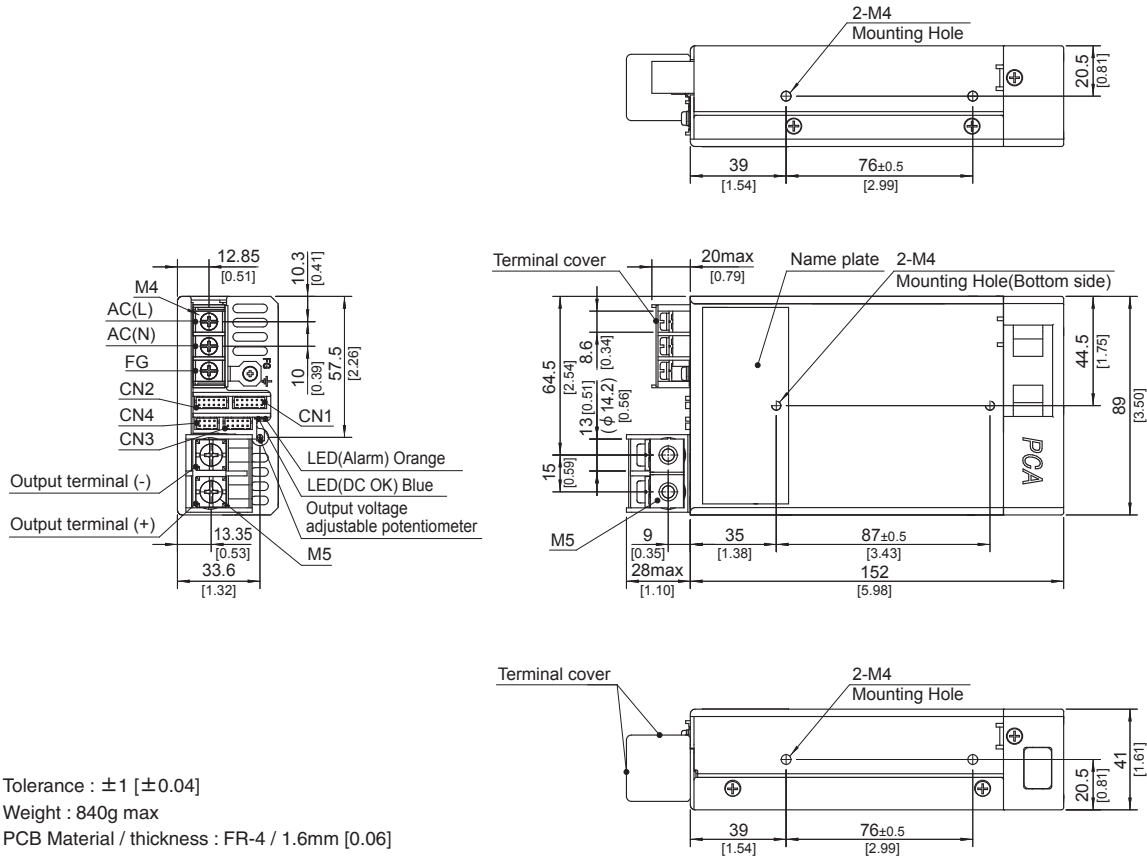
<PCA600F-□-P2 (Bus Bar Style) >



- ※ 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
- ※ Screw tightening torque : 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
- ※ Screw tightening torque : M4 1.6N·m max  
M5 2.5N·m max
- ※ Please connect safety ground to FG terminal on the unit.

