

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	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
			(Io=100%)	89typ	90typ	90typ	91typ	91typ
		ACIN 230V	(Io=50%)	92typ	92typ	92typ	93typ	93typ
			(Io=100%)	91typ	92typ	92typ	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°C *2*3	160max	240max	240max	240max	320max	480max
		-20 to 0°C *2	280max	320max	320max	320max	420max	640max
	RIPPLE NOISE[mVp-p]	0 to +50°C *2*3	240max	300max	300max	300max	400max	600max
		-20 to 0°C *2	320max	360max	360max	360max	480max	720max
	TEMPERATURE REGULATION[mV]	0 to +50°C *3	50max	120max	150max	240max	320max	480max
		-20 to +50°C *3	75max	180max	180max	290max	400max	600max
	DRIFT[mV]	*4	20max	48max	60max	96max	128max	192max
	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°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 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	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

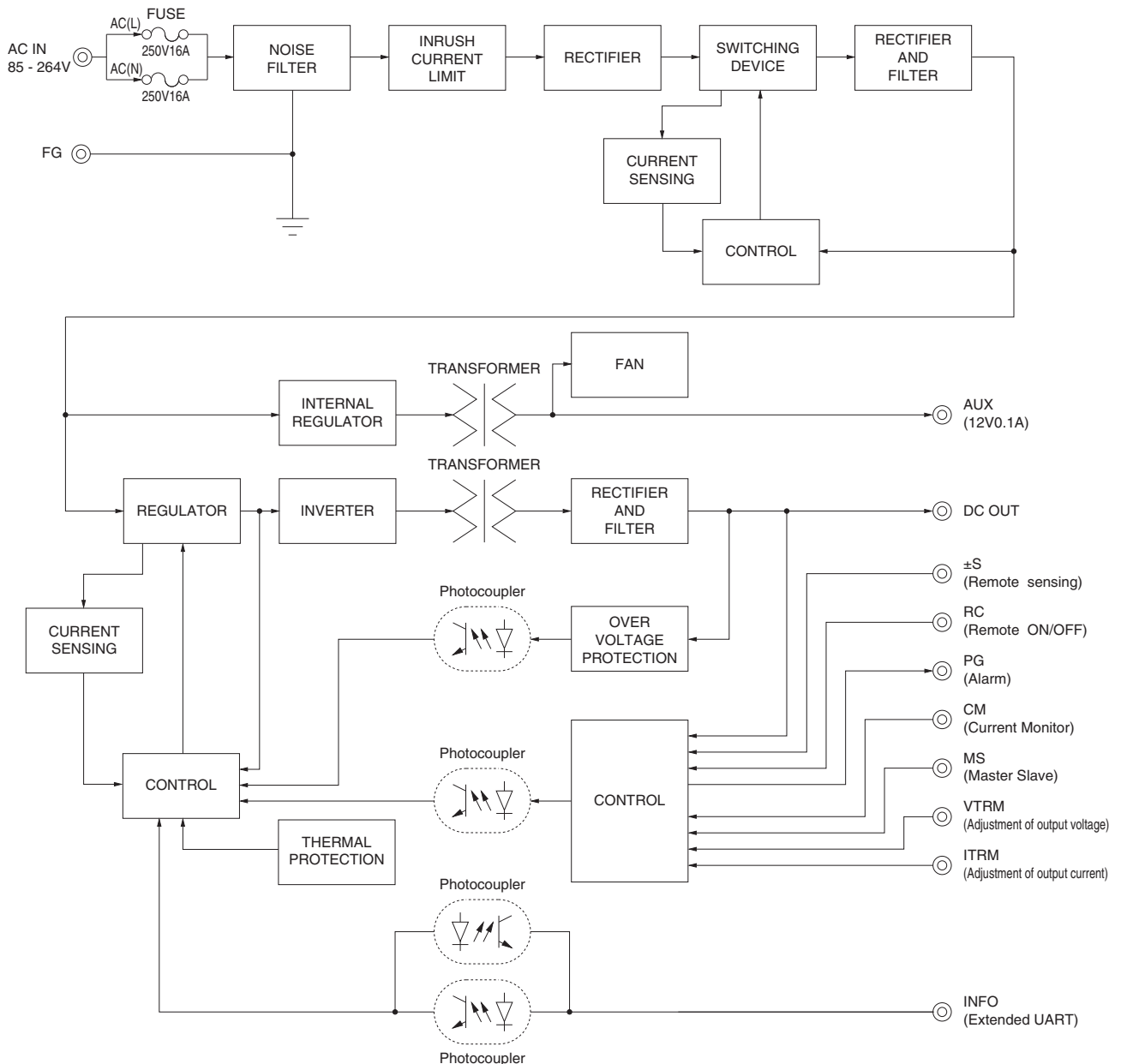
OTHERS	CASE SIZE/WEIGHT	89 X 41 X 152mm [3.50 X 1.61 X 5.98 inches] (without terminal block and screw) (W X H X D) / 840g max
	COOLING METHOD	Forced cooling (internal fan)

- *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

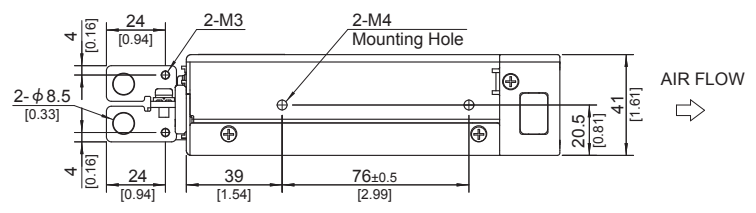
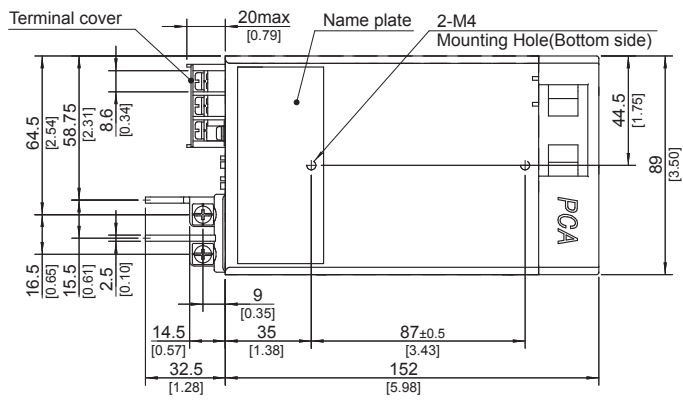
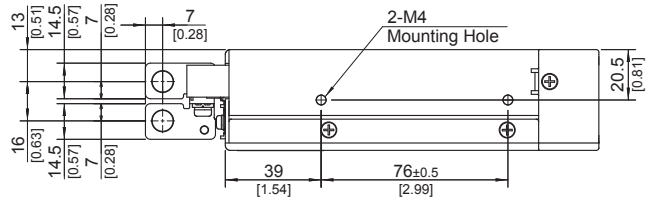
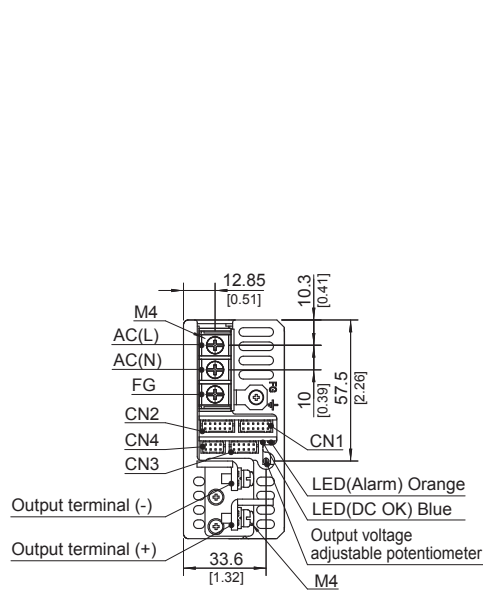
- Low profile (41mm, 1.61 inch = meet to 1U height)
- Universal input 85 - 264VAC (Refer to item 5.2, in case of using at 85 - 90VAC)
- For medical electric equipment (ANSI/AAMI ES60601-1, EN60601-1 3rd, IEC60601-1-2 4th Ed.)
- With AUX output
- Constant current regulation
- Output voltage can be varied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

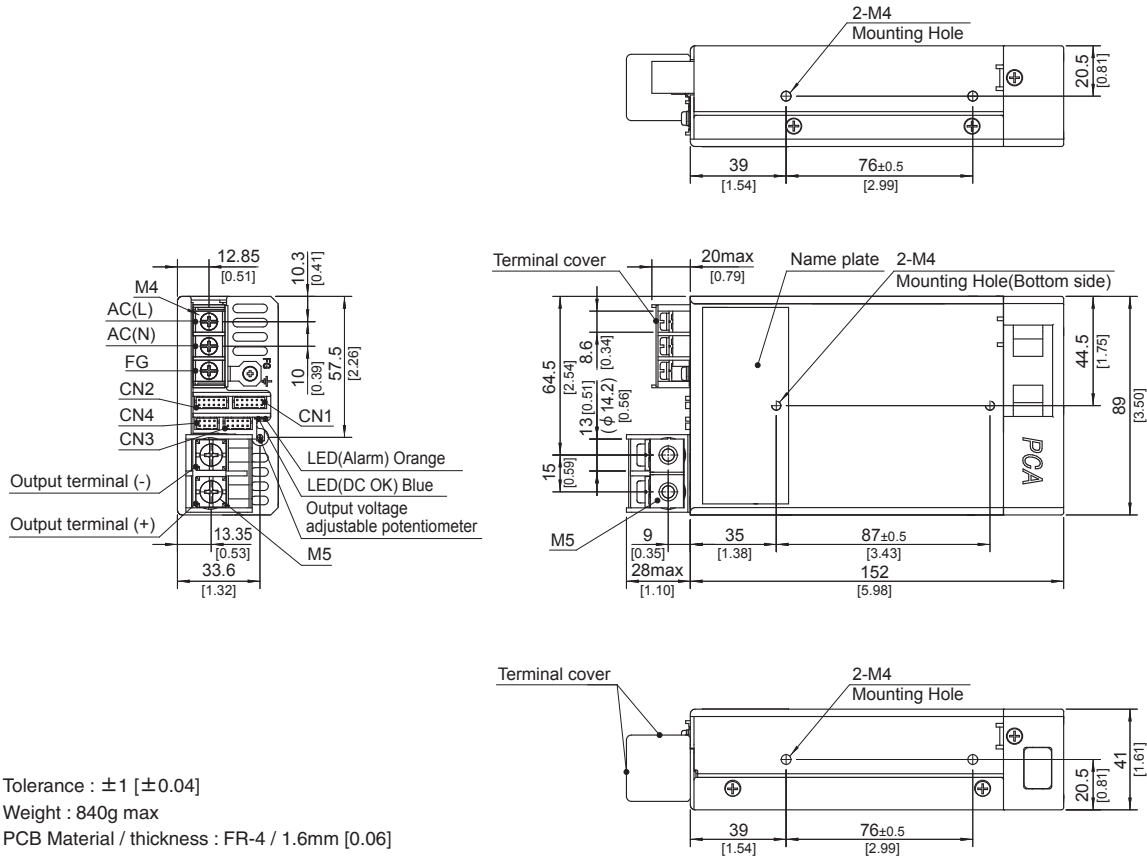
<PCA600F-□-P2 (Bus Bar Style) >



- ※ 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.