# PLA600F

600







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
  (2) Single output
  (3) Output wattage
  (4) Universal input
  (5) Output voltage
  (6) Optional \*7
  C: with Coating
  G: Low leakage current
  V: External potentiometer for output voltage adjustment
  U: Low input voltage stop
  (Complies with SEMI F-47)
  W: Parallel operation,
  LV alarm Remote sensing
  R: Remote on/off
  (Required external power source)
  F4: Low speed fan

  - F4: Low speed fan
    T2: Horizontal terminal block (non-screw-hold type)

See 5.1 in Instruction Manual.

## **SPECIFICATIONS**

	MODEL		PLA600F-5	PLA600F-12	PLA600F-15	PLA600F-24	PLA600F-36	PLA600F-48
	VOLTAGE[V]				uired at AC85V - 115	V. See 1.1 and 3.2 in	n Instruction Manual	*4
			(DC input and AC265 - 277V input *4)					
		ACIN 100V	6.2typ (lo=90%)	6.7typ (Io=90%)				
	CURRENT[A]	ACIN 115V	6.0typ (lo=100%)	6.5typ (lo=100%)				
		ACIN 230V	3.0typ (lo=100%)	3.2typ (lo=100%)				
	FREQUENCY[Hz]		50 / 60 (47 - 63) (DC input and 440Hz *4)					
		ACIN 100V	74typ (lo=90%)	81typ (lo=90%)	81typ (Io=90%)	84typ (lo=90%)	85typ (lo=90%)	85typ (lo=90%)
NPUT	EFFICIENCY[%]	ACIN 115V	75typ (lo=100%)	81typ (Io=100%)	81typ (Io=100%)	84typ (lo=100%)	85typ (lo=100%)	85typ (lo=100%
INPUT		ACIN 230V	77typ (lo=100%)	84typ (Io=100%)	84typ (Io=100%)	88typ (lo=100%)	88typ (lo=100%)	88typ (lo=100%
	POWER FACTOR	ACIN 100V	0.98typ (lo=90%)					
		ACIN 115V	0.98typ (lo=100%)					
		ACIN 230V	0.95typ (lo=100%)					
		ACIN 100V	20/40typ (lo=90%) (Primary inrush current /Secondary inrush current) (More than 3sec to re-start)					
	INRUSH CURRENT[A]	ACIN 115V	20/40typ (lo=100%) (Primary inrush current /Secondary inrush current) (More than 3sec to re-start)					
	ACIN 230V		40/40typ (Io=100%) (Primary inrush current /Secondary inrush current) (More than 3sec to re-start)					
	LEAKAGE CURRENT[mA]		1.5max (ACIN 115)	V / 240V, 60Hz, Io=1	00%, According to IE	C60950-1 and DEN	I-AN)	
	VOLTAGE[V]		5	12	15	24	36	48
	CUDDENTIAL	ACIN 85-115V	Output derating is r	equired at ACIN 115	V or less (refer to in:	struction manual 3.2	)	
	CURRENT[A]	ACIN 115V-264V	100	50	40	25	16.7	12.5
	WATTAGE[W]	ACIN 85-115V	Output derating is r	equired at ACIN 115	V or less (refer to in:	struction manual 3.2	)	
		ACIN 115V-264V	500	600	600	600	601.2	600
	LINE REGULATION[mV] *8		20max	48max	60max	96max	144max	192max
	LOAD REGULATION[mV] *8		40max	100max	120max	150max	150max	300max
	RIPPLE[mVp-p]		80max	120max	120max	120max	150max	150max
	*1	-20 to 0°C	140max	160max	160max	160max	160max	400max
OUTPUT	RIPPLE NOISE[mVp-p]	0 to +50°C	120max	150max	150max	150max	200max	200max
		-20 to 0°C	160max	180max	180max	180max	240max	500max
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	120max	150max	240max	360max	480max
		-20 to +50°C	75max	180max	180max	290max	440max	600max
	DRIFT[mV] *2		20max	48max	60max	96max	144max	192max
	START-UP TIME[ms]		300typ (ACIN 115V, Io=100%)					
	HOLD-UP TIME[ms]		20typ (ACIN 115V, Io=100%)					
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]		4.50 to 5.50	10.80 to 13.20	13.50 to 16.50	21.60 to 26.40	32.40 to 39.60	43.20 to 52.80
	OUTPUT VOLTAGE SETTING[V]		5.00 to 5.15	12.00 to 12.48	15.00 to 15.60	24.00 to 24.96	36.00 to 37.44	48.00 to 49.92
	OVERCURRENT PROTECTION			of rating and recover			-	
PROTECTION CIRCUIT AND	OVERVOLTAGE PROTECTION[V]		5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60	41.40 to 50.40	55.20 to 67.20
	OPERATING INDICATION		LED (Green)	1	10 2 10 2 10 2			100.00
OTHERS	REMOTE SENSING		Optional (Option -W)					
	REMOTE ON/OFF		Optional (Required external power source. Option -R)					
ISOLATION	INPUT-OUTPUT • RC *3							
	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At room temperature)					
	OUTPUT • RC-FG *3							
	OUTPUT-RC *3							
	OPERATING TEMP., HUMID. AND ALTITUDE *5		-20 to +70°C (Output derating is required), 20 - 90%RH (Non condensing), 3,000m (10,000 feet) max					
	STORAGE TEMP., HUMID. AND ALTITUDE		-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000 feet) max					
NVIRONMENT	VIBRATION		10 - 55Hz, 19.6m/s² (2G), 3minutes period, 60minutes each along X, Y and Z axes					
	IMPACT		196.1m/s² (20G), 11ms, once each X, Y and Z axes					
	AGENCY APPROVALS		UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN					
ACCTV AND			OL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Compiles with DEN-AN  Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B					
SAFETY AND NOISE	CONDUCTED NOISE	5				·	•	





### **SPECIFICATIONS**

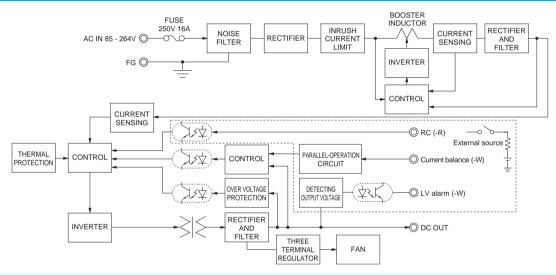
OTHERS	CASE SIZE/WEIGHT	120×61×215mm [4.72×2.40×8.46 inches] (Excluding terminal block and screw) (W×H×D) / 2.0kg max				
	COOLING METHOD *9	Forced cooling (internal fan)				
WARRANTY	WARRANTY *6	5 years (subject to the operating conditions)				

- This is the result of measurement of the testing board with capacitors of  $22\,\mu\,\text{F}$  and 0.1  $\mu\,\text{F}$  placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103
- See 1.6 of Instruction Manual for more details. Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25 °C.
- The RC terminal is added to option -R models. The RC terminal is isolated from input, output, and FG.
- Output power derating is required. Consult us if the power supply needs to be used for DC input, 440Hz input or AC265-277V input. Output power derating is required. See 3.2 in Instruction Manual.
- See 3.3 in Instruction Manual for more details
- \*7 Consult us about safety agency approvals for the models with optional functions.
- Consult us about dynamic load and input response
- The fan speed slows down at no load \*10 Consult us about other classes.
- Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged.
- Parallel operation is allowed for PLA600F models with the –W option only.
- Sound noise may be heard from the power supply when used for pulse load.

#### **Features**

- · Cost-effective
- · Longer life (see Instruction Manual)
- · Low profile (meets 1U height = 41 mm or 1.61 inches)
- · Wide operating temperature range (-20°C to +70°C see instruction manual)
- · Screw hold type terminal block
- · Slow fan speed at no load
- · Many optional functions
- · Complies with SEMI F-47 (-U option, see Instruction Manual for details)

## Block diagram



## **External view**

The external size of -V option, -W option, -R option, and -T2 option is different from the standard model. See "5. Options and Others" in Instruction Manual for more details.

