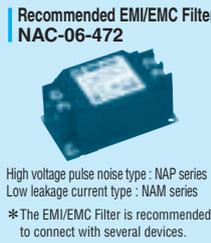
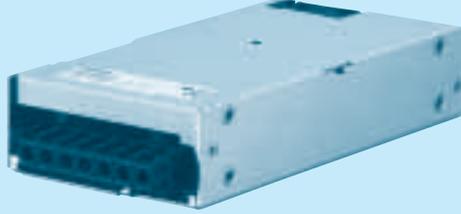


PLA300F

PL A 300 F -□ -□
 ① ② ③ ④ ⑤ ⑥

PLA



- 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)

SPECIFICATIONS

Refer to instruction manual 5.1 about optional.

	MODEL	PLA300F-5	PLA300F-12	PLA300F-15	PLA300F-24	PLA300F-36	PLA300F-48	
INPUT	VOLTAGE[V]	AC85 - 264 1 φ (Output derating is required at AC85V - 115V. Refer to instruction manual 1.1 and 3.2) *3 (DC input and AC265 - 277V input *3)						
	CURRENT[A]	ACIN 100V	3.1typ (Io=90%)	3.4typ (Io=90%)				
		ACIN 115V	3.0typ (Io=100%)	3.3typ (Io=100%)				
		ACIN 230V	1.5typ (Io=100%)	1.7typ (Io=100%)				
	FREQUENCY[Hz]	50 / 60 (47 - 63) (DC input and 440Hz *3)						
	EFFICIENCY[%]	ACIN 100V	73typ (Io=90%)	78typ (Io=90%)	80typ (Io=90%)	84typ (Io=90%)	84typ (Io=90%)	84typ (Io=90%)
		ACIN 115V	74typ (Io=100%)	78typ (Io=100%)	80typ (Io=100%)	84typ (Io=100%)	84typ (Io=100%)	84typ (Io=100%)
ACIN 230V		77typ (Io=100%)	81typ (Io=100%)	83typ (Io=100%)	87typ (Io=100%)	87typ (Io=100%)	87typ (Io=100%)	
POWER FACTOR	ACIN 100V	0.98typ (Io=90%)						
	ACIN 115V	0.98typ (Io=100%)						
	ACIN 230V	0.95typ (Io=100%)						
INRUSH CURRENT[A]	ACIN 100V	20typ (Io=90%) Ta=25°C at cold start						
	ACIN 115V	20typ (Io=100%) Ta=25°C at cold start						
	ACIN 230V	40typ (Io=100%) Ta=25°C at cold start						
LEAKAGE CURRENT[ma]	0.75max (ACIN 115V / 240V, 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)							
OUTPUT	VOLTAGE[V]	5	12	15	24	36	48	
	CURRENT[A]	ACIN 85-115V	Output derating is required at ACIN 115V or less (refer to instruction manual 3.2)					
		ACIN 115V-264V	50	25	20	12.5	8.4	6.3
	WATTAGE[W]	ACIN 85-115V	Output derating is required at ACIN 115V or less (refer to instruction manual 3.2)					
		ACIN 115V-264V	250	300	300	300	302.4	302.4
	LINE REGULATION[mV]	*4	20max	48max	60max	96max	144max	192max
	LOAD REGULATION[mV]	*4	40max	100max	120max	150max	150max	300max
	RIPPLE[mVp-p]	0 to +50°C	80max	120max	120max	120max	150max	150max
		*1 -10 to 0°C	140max	160max	160max	160max	160max	400max
	RIPPLE NOISE[mVp-p]	0 to +50°C	120max	150max	150max	150max	200max	200max
		*1 -10 to 0°C	160max	180max	180max	180max	240max	500max
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	120max	150max	240max	360max	480max
		*1 -10 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							
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically						
	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)						
	REMOTE SENSING	Not provided						
ISOLATION	REMOTE ON/OFF	Not provided						
	INPUT-OUTPUT	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At room temperature)						
	INPUT-FG	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At room temperature)						
ENVIRONMENT	OUTPUT-FG	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At room temperature)						
	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						
	VIBRATION	10 - 55Hz, 19.6m/s ² (2G), 3minutes period, 60minutes each along X, Y and Z axes						
SAFETY AND NOISE REGULATIONS	IMPACT	196.1m/s ² (20G), 11ms, once each X, Y and Z axes						
	AGENCY APPROVALS	UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN						
	CONDUCTED NOISE	Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B						
OTHERS	HARMONIC ATTENUATOR *9	Complies with IEC61000-3-2 class A						
	CASE SIZE/WEIGHT	102×41×190mm [4.02×1.61×7.48 inches] (W×H×D) / 1.0kg max						
WARRANTY	COOLING METHOD *8	Forced cooling (internal fan)						
	WARRANTY *6	5-year (Depends on the used condition)						

*1 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 1.6.

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

*3 Derating is required. As for DC input, 440Hz input and AC265 to 277V input, please contact us.

*4 Please contact us about dynamic load and input response.

*5 Derating is required. Please refer to instruction manual 3.2.

*6 As for detail condition, please refer to instruction manual 3.3.

*7 Please contact us about safety approvals for the model with option.

*8 Fan speed is changed by load factor.

*9 Please contact us about other class.

* To meet the specifications. Do not operate over-loaded condition.

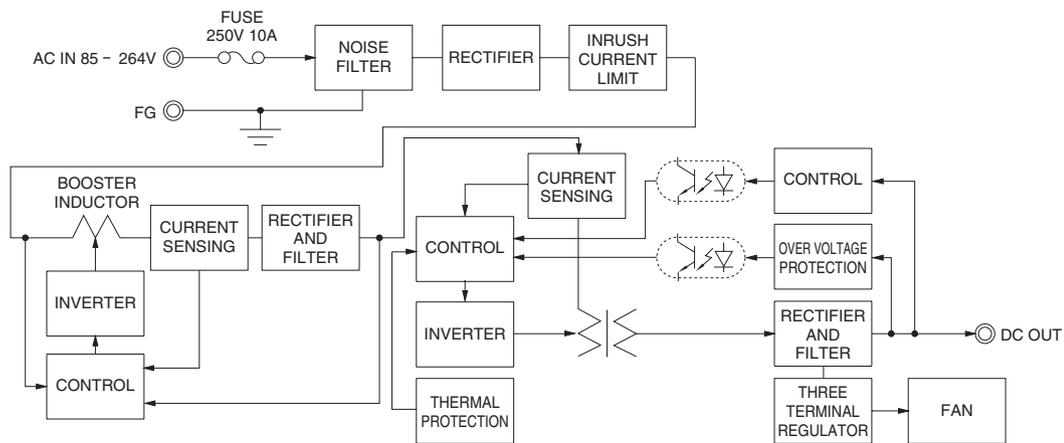
* Parallel operation is not possible.

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

Features

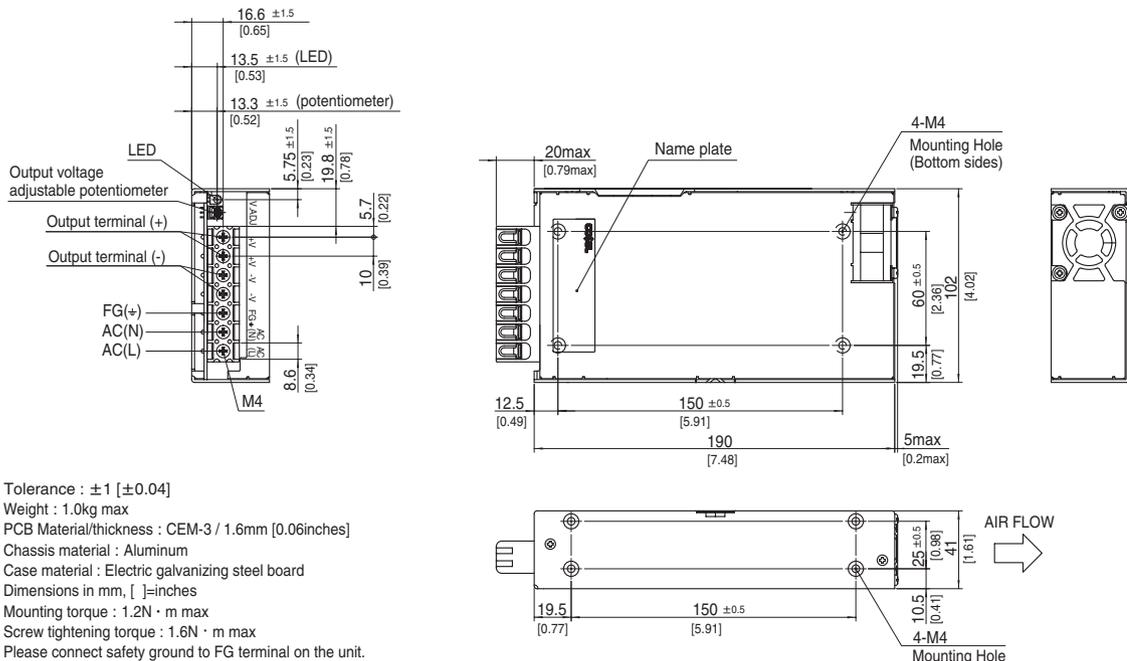
- Economical model
- Long lifetime (Refer to instruction manual)
- Low profile (41mm, 1.61 inch = meet to 1U height)
- Wide temperature range (-20°C to +70°C Refer to instruction manual)
- Screw hold type terminal block
- Fan speed control (At no load condition)
- Various option
- Complies with SEMI F-47 (Option-U: Refer to instruction manual)

Block diagram



External view

External size of option V is different from standard model, and refer to "5. Option and Others" of instruction manual for detail.



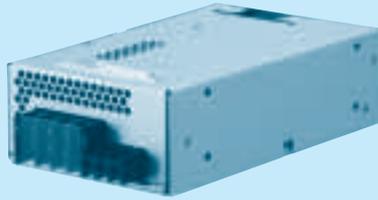
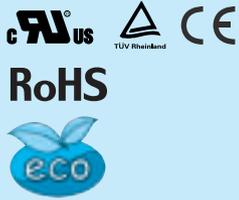
- ※ Tolerance : ±1 [±0.04]
- ※ Weight : 1.0kg max
- ※ PCB Material/thickness : CEM-3 / 1.6mm [0.06inches]
- ※ Chassis material : Aluminum
- ※ Case material : Electric galvanizing steel board
- ※ Dimensions in mm, []=inches
- ※ Mounting torque : 1.2N · m max
- ※ Screw tightening torque : 1.6N · m max
- ※ Please connect safety ground to FG terminal on the unit.

PLA600F

PL A 600 F - □ - □

① ② ③ ④ ⑤ ⑥

PLA



Recommended EMI/EMC Filter
NAC-16-472



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)

SPECIFICATIONS

Refer to instruction manual 5.1 about optional.

	MODEL	PLA600F-5	PLA600F-12	PLA600F-15	PLA600F-24	PLA600F-36	PLA600F-48	
INPUT	VOLTAGE[V]	AC85 - 264 1 φ (Output derating is required at AC85V - 115V. Refer to instruction manual 1.1 and 3.2) *4 (DC input and AC265 - 277V input *4)						
	CURRENT[A]	ACIN 100V	6.2typ (Io=90%)	6.7typ (Io=90%)				
		ACIN 115V	6.0typ (Io=100%)	6.5typ (Io=100%)				
		ACIN 230V	3.0typ (Io=100%)	3.2typ (Io=100%)				
	FREQUENCY[Hz]	50 / 60 (47 - 63) (DC input and 440Hz *4)						
	EFFICIENCY[%]	ACIN 100V	74typ (Io=90%)	81typ (Io=90%)	81typ (Io=90%)	84typ (Io=90%)	85typ (Io=90%)	85typ (Io=90%)
		ACIN 115V	75typ (Io=100%)	81typ (Io=100%)	81typ (Io=100%)	84typ (Io=100%)	85typ (Io=100%)	85typ (Io=100%)
ACIN 230V		77typ (Io=100%)	84typ (Io=100%)	84typ (Io=100%)	88typ (Io=100%)	88typ (Io=100%)	88typ (Io=100%)	
POWER FACTOR	ACIN 100V	0.98typ (Io=90%)						
	ACIN 115V	0.98typ (Io=100%)						
	ACIN 230V	0.95typ (Io=100%)						
INRUSH CURRENT[A]	ACIN 100V	20/40typ (Io=90%) (Primary inrush current /Secondary inrush current) (More than 3sec to re-start)						
	ACIN 115V	20/40typ (Io=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 115V / 240V, 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)							
OUTPUT	VOLTAGE[V]	5	12	15	24	36	48	
	CURRENT[A]	ACIN 85-115V	Output derating is required at ACIN 115V or less (refer to instruction manual 3.2)					
		ACIN 115V-264V	100	50	40	25	16.7	12.5
	WATTAGE[W]	ACIN 85-115V	Output derating is required at ACIN 115V or less (refer to instruction 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]	0 to +50°C	80max	120max	120max	120max	150max	150max
		*1 -20 to 0°C	140max	160max	160max	160max	160max	400max
	RIPPLE NOISE[mVp-p]	0 to +50°C	120max	150max	150max	150max	200max	200max
		*1 -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							
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically						
	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)						
	REMOTE SENSING	Optional (Option -W)						
ISOLATION	REMOTE ON/OFF	Optional (Required external power source. Option -R)						
	INPUT-OUTPUT-RC	*3	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At room temperature)					
	INPUT-FG	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At room temperature)						
	OUTPUT-RC-FG	*3	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At room temperature)					
	OUTPUT-RC	*3	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At room temperature)					
ENVIRONMENT	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						
	VIBRATION	10 - 55Hz, 19.6m/s ² (2G), 3minutes period, 60minutes each along X, Y and Z axes						
	IMPACT	196.1m/s ² (20G), 11ms, once each X, Y and Z axes						
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178 Complies with DEN-AN						
	CONDUCTED NOISE	Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B						
	HARMONIC ATTENUATOR *10	Complies with IEC61000-3-2 class A						
OTHERS	CASE SIZE/WEIGHT	120×61×215mm [4.72×2.40×8.46 inches] (W×H×D) / 2.0kg max						
	COOLING METHOD	*9	Forced cooling (internal fan)					
WARRANTY	WARRANTY	*6	5-year (Depends on the used condition)					

*1 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 1.6.

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

*3 RC terminal is applied at option -R. And RC terminal is isolated from input, output and FG.
*4 Derating is required. As for DC input, 440Hz input and AC265 to 277V input, please contact us.
*5 Derating is required. Please refer to instruction manual 3.2.
*6 As for detail condition, please refer to instruction manual 3.3.
*7 Please contact us about safety approvals for the model with option.

*8 Please contact us about dynamic load and input response.

*9 Fan speed is changed by load factor.

*10 Please contact us about other class.

* To meet the specifications. Do not operate over-loaded condition.

* Parallel operation with other model is not possible. In case of parallel operation with same model, please use option -W.

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

