



Recommended Noise Filter
NAC-10-472



High voltage pulse noise type : NAP series
Low leakage current type : NAM series
* The Noise Filter is recommended to connect with several devices.

- ① Series name
- ② Output wattage
- ③ Universal input
- ④ Output voltage
- ⑤ Optional
- C : with Coating
- G : Low leakage current
- R : Positive logic control
- W : with Alarm signal

MODEL	PAA300F-3	PAA300F-5	PAA300F-12	PAA300F-15	PAA300F-24	PAA300F-48
MAX OUTPUT WATTAGE[W]	180	300	324	330	336	336
DC OUTPUT	3V 60A	5V 60A	12V 27A	15V 22A	24V 14A	48V 7A

SPECIFICATIONS

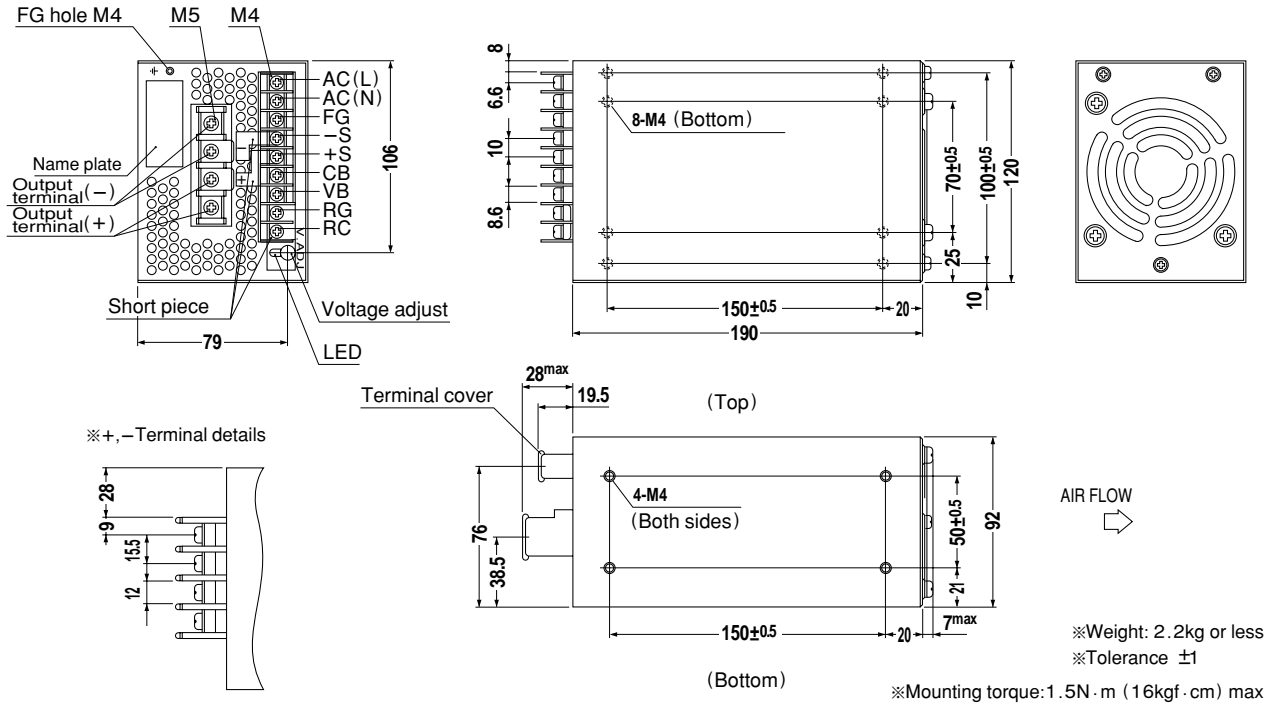
	MODEL	PAA300F-3	PAA300F-5	PAA300F-12	PAA300F-15	PAA300F-24	PAA300F-48	
INPUT	VOLTAGE[V]	AC85 - 264 1 φ or DC120 - 340						
	CURRENT[A]	ACIN 100V	2.6typ	4.4typ				
		ACIN 200V	1.3typ	2.2typ				
	FREQUENCY[Hz]	50/60 (47 - 63)						
	EFFICIENCY[%]	68typ	74typ	78typ	80typ	81typ	81typ	
	POWER FACTOR	ACIN 100V	0.99typ (Io=100%)					
		ACIN 200V	0.95typ (Io=100%)					
	INRUSH CURRENT[A]	ACIN 100V	20typ (Io=100%)					
ACIN 200V		40typ (Io=100%)						
LEAKAGE CURRENT[ma]	0.75max (60Hz, According to UL, CSA, VDE and DEN-AN)							
OUTPUT	VOLTAGE[V]	3	5	12	15	24	48	
	CURRENT[A]	60	60	27	22	14	7	
	LINE REGULATION[mV]	20max	20max	48max	60max	96max	192max	
	LOAD REGULATION[mV]	40max	40max	100max	120max	150max	300max	
	RIPPLE[mVp-p]	0 to +50°C *1	80max	80max	120max	120max	120max	150max
		-10 - 0°C *1	140max	140max	160max	160max	160max	200max
	RIPPLE NOISE[mVp-p]	0 to +50°C *1	120max	120max	150max	150max	150max	200max
		-10 - 0°C *1	160max	160max	180max	180max	180max	300max
	TEMPERATURE REGULATION[mV]	0 to +50°C	40max	50max	120max	150max	240max	480max
		-10 to +50°C	50max	60max	150max	180max	290max	580max
	DRIFT[mV]	*2	12max	20max	48max	60max	96max	192max
	START-UP TIME[ms]	500max (ACIN 85V, Io=100%)						
HOLD-UP TIME[ms]	20typ (Io=100%)							
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	2.85 - 3.45	±10%						
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically						
	OVERVOLTAGE PROTECTION	4.00 - 5.25V	Works at 115 - 140% of rating					
	OPERATING INDICATION	LED (Green)						
	REMOTE SENSING	Provided						
REMOTE ON/OFF	Provided							
ISOLATION	INPUT-OUTPUT · RC	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	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)						
	OUTPUT-RC	AC100V 1minute, Cutoff current = 100mA, DC100V 50MΩ min (At Room Temperature)						
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-10 to +65°C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max						
	STORAGE TEMP.,HUMID.AND ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max						
	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, EN60950-1, EN50178, CSA C22.2 No.234 Complies with DEN-AN and IEC60950-1						
	CONDUCTED NOISE	Complies with FCC-B, CISPR22-B, EN55022-B, VCCI-B						
	HARMONIC ATTENUATOR	Complies with IEC61000-3-2						
OTHERS	CASE SIZE/WEIGHT	120×92×190mm (without terminal block and screw) (W×H×D) /2.2kg max						
	COOLING METHOD	Forced cooling (internal fan)						

*1 According to 20MHz oscilloscope or Ripple-Noise meter (equivalent to KEISOKU-GIKEN : RM101).

*2 Drift is change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

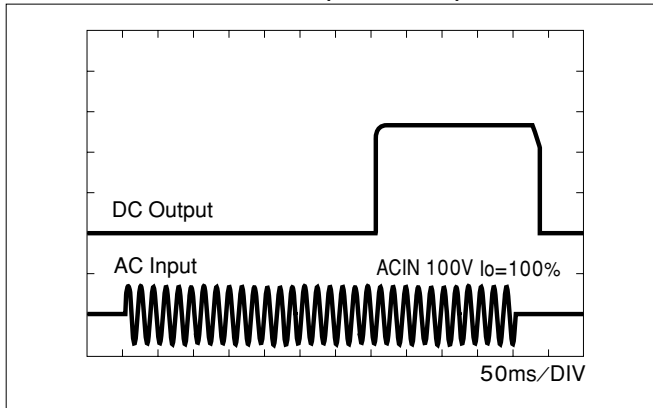
* Avoid prolonged use under over-load.

External view

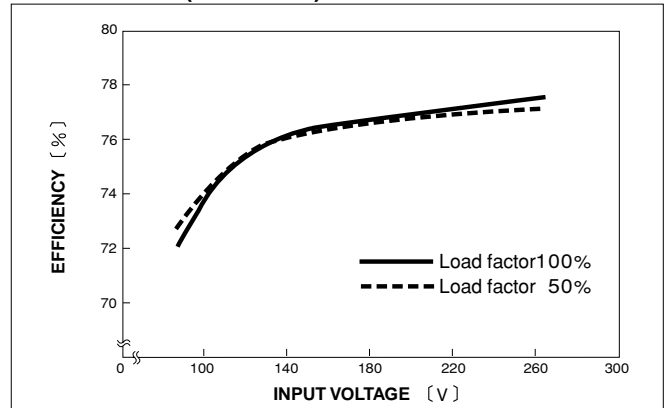


Performance data

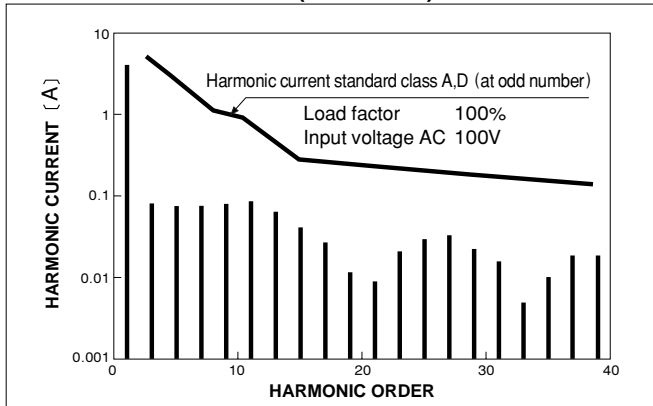
RISE TIME & FALL TIME (PAA300F-5)



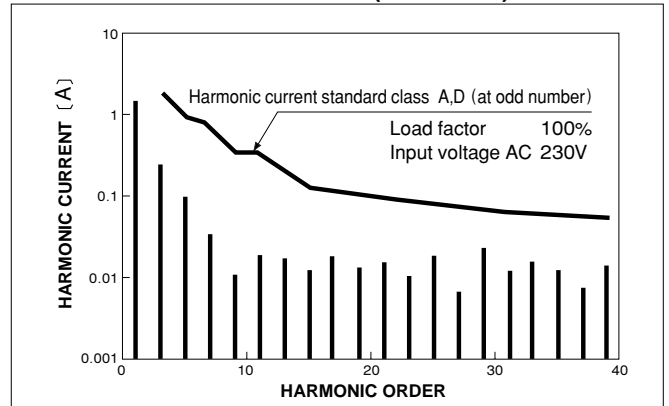
EFFICIENCY (PAA300F-5)



HARMONIC CURRENT (PAA300F-5)



INPUT HARMONIC CURRENT (PAA300F-5)



Basic Characteristics Data

Model	Circuit method	Switching frequency [kHz]	Input current [A]	Rated input fuse	Inrush current protection	PCB/Pattern			Series/Parallel operation availability	
						Material	Single sided	Double sided	Series operation	Parallel operation
PAA50F	Forward converter one converter*2	90 - 250	0.8	250V 2A	Combination of inverter	CEM-3	Yes		Yes	*1
PAA75F	Forward converter one converter*2	90 - 250	1.2	250V 3A	Combination of inverter	CEM-3	Yes		Yes	*1
PAA100F	Active filter	90	1.4	250V 3A	Thermistor	CEM-3	Yes		Yes	*1
	Forward converter	140								
PAA150F	Active filter	90	2.0	250V 5A	Thermistor	CEM-3	Yes		Yes	*1
	Forward converter	140								
PAA300F	Active filter	110	4.4	250V 10A	SCR	FR-4		Yes	Yes	Yes
	Forward converter	220								
PAA600F	Active filter	110	8.2	250V 20A	SCR	FR-4		Yes	Yes	Yes
	Forward converter	220								

*1 Refer to Instruction Manual.

*2 The switching frequency of forward converter/one converter changes according to input voltage and load factor.

* The value of input current is at ACIN 100V and rated load.