



# PAA150F

**PAA 150 F -5 -□**

① ② ③ ④ ⑤



Recommended EM/EMC Filter  
NAC-06-472



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

- ① Series name
- ② Output wattage
- ③ Universal input
- ④ Output voltage
- ⑤ Optional \*4
- C :with Coating
- G :Low leakage current
- N :with Cover
- R :with Remote ON/OFF

MODEL	PAA150F-3	PAA150F-5	PAA150F-12	PAA150F-15	PAA150F-24	PAA150F-48
MAX OUTPUT WATTAGE[W]	90	150	156	150	156	158.4
DC OUTPUT	3V 30A	5V 30A	12V 13A	15V 10A	24V 6.5A	48V 3.3A

## SPECIFICATIONS

	MODEL	PAA150F-3	PAA150F-5	PAA150F-12	PAA150F-15	PAA150F-24	PAA150F-48	
INPUT	VOLTAGE[V]	AC85 - 264 1 φ or DC120 - 340						
	CURRENT[A]	ACIN 100V	1.4typ	2.0typ				
		ACIN 200V	0.7typ	1.0typ				
	FREQUENCY[Hz]	50/60 (47 - 63)						
	EFFICIENCY[%]	67typ	75typ	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%) (At cold start)					
ACIN 200V		40typ (Io=100%) (At cold start)						
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]	30	30	13	10	6.5	3.3	
	LINE REGULATION[mV]	20max	20max	48max	60max	96max	192max	
	LOAD REGULATION[mV]	40max	40max	100max	120max	150max	240max	
	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	400max
		-10 - 0°C *1	160max	160max	180max	180max	180max	600max
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	50max	120max	150max	240max	480max
		-10 to +50°C	60max	60max	150max	180max	290max	600max
	DRIFT[mV]	*2	20max	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 - 3.6	±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	Optional (Refer to Instruction Manual)							
ISOLATION	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	AC100V 1minute, Cutoff current = 100mA, DC100V 10MΩ min (At Room Temperature)					
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-10 to +65°C, 10 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max						
	STORAGE TEMP., HUMID. AND ALTITUDE	-20 to +75°C, 10 - 90%RH (Non condensing), 9,000m (30,000feet) max						
	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, EN60950-1, EN50178, CSA C22.2 No.60950-1 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	65 X 93 X 199mm (without terminal block) (W X H X D) /900g max (without cover)						
	COOLING METHOD	Convection						

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

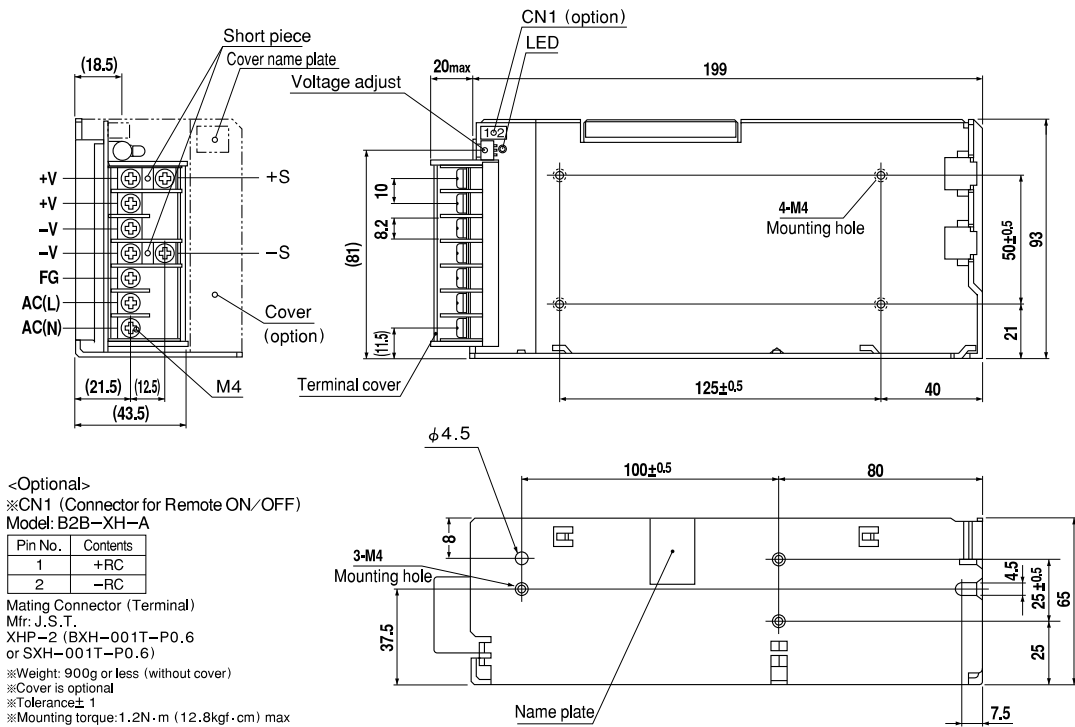
\*2 Drift is change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

\*3 Applicable when Remote ON/OFF (optional) is added.

\*4 Please contact us about safety approvals for the model with option.

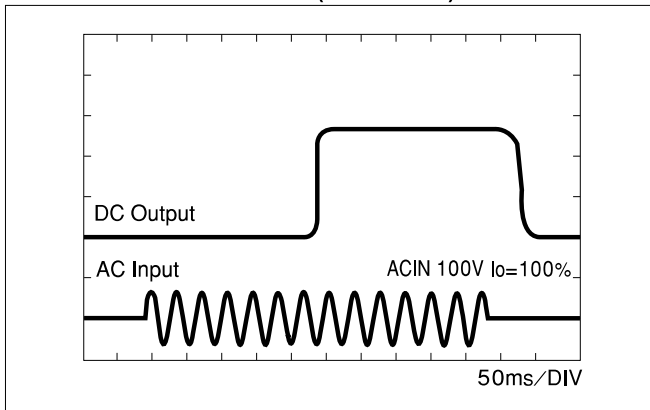
\* Derating is required when operated with cover.

## External view

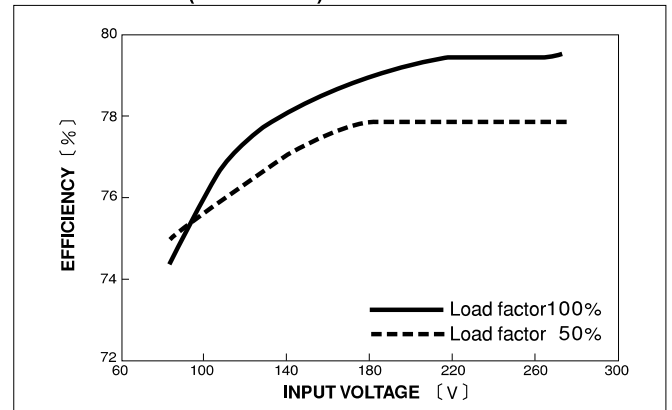


## Performance data

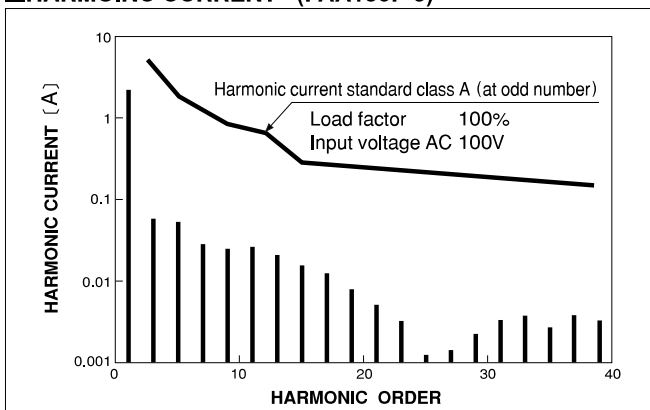
### RISE TIME & FALL TIME (PAA150F-5)



### EFFICIENCY (PAA150F-5)



### HARMONIC CURRENT (PAA150F-5)



### INPUT HARMONIC CURRENT (PAA150F-5)

