

**PAH50S48**

PA552-01-01D

**SPECIFICATIONS**

ITEMS		MODEL	PAH50S48							
			2.5	3.3	5	12	15	24	28	
1	NOMINAL OUTPUT VOLTAGE	V	2.5	3.3	5	12	15	24	28	
2	MINIMUM OUTPUT CURRENT	A	0	0	0	0	0	0	0	
3	MAXIMUM OUTPUT CURRENT	A	11.7	11.7	10.0	4.2	3.4	2.1	1.8	
4	MAXIMUM OUTPUT POWER	W	29.25	38.61	50.0	50.4	51.0	50.4	50.4	
5	EFFICIENCY (TYP) (*1)	%	76	79	83	85	85	86	87	
6	INPUT VOLTAGE RANGE	V	36 ~ 76 VDC							
7	INPUT CURRENT (TYP) (*1)	A	0.80	1.02	1.26	1.24	1.25	1.22	1.21	
8	OUTPUT VOLTAGE ACCURACY (*1)	%	±1.6							
9	OUTPUT VOLTAGE ADJUSTABLE RANGE (*2)	%	±10	±10	+15, -40	+10, -40				
10	MAXIMUM OUTPUT RIPPLE & NOISE (*3)	-20 ~ +100°C	mV	150	150	150	200	200	240	280
		-40 ~ -20°C	mV	300	300	300	250	250	300	350
11	MAXIMUM LINE REGULATION (*4,*12)	mV	10	10	10	24	30	48	56	
12	MAXIMUM LOAD REGULATION (*5,*12)	mV	10	10	10	24	30	48	56	
13	OVER CURRENT PROTECTION (OCP) (*6)	%	105 ~ 150							
14	OVER VOLTAGE PROTECTION (OVP) (*7)	%	120 ~ 160	120 ~ 140	125 ~ 145					
		INVERTER SHUTDOWN (OPTION AVAILABLE:REFER TO OPTION TABLE)								
15	OVER TEMPERATURE PROTECTION (OTP)	-	SHUTDOWN ; AUTO-RESTART WHEN UNIT COOL DOWN							
16	REMOTE SENSING (*10)	-	POSSIBLE (CONNECT +S AND -S TERMINALS TO LOAD)							
17	REMOTE ON/OFF CONTROL (*8)	-	NEGATIVE LOGIC (OPTION AVAILABLE:REFER TO OPTION TABLE)							
18	PARALLEL OPERATION	-	-----							
19	SERIES OPERATION	-	POSSIBLE							
20	OPERATING TEMPERATURE	°C	-40°C ~ +100°C (BASEPLATE) AMBIENT TEMPERATURE MIN = -40°C							
21	OPERATING HUMIDITY	%RH	30 ~ 95 (NO DEWDROP)							
22	STORAGE TEMPERATURE	°C	-40°C ~ +100°C (BASEPLATE) AMBIENT TEMPERATURE MIN = -40°C							
23	STORAGE HUMIDITY	%RH	30 ~ 95 (NO DEWDROP)							
24	COOLING (*9)	-	CONDUCTION COOLED							
25	TEMPERATURE COEFFICIENT (%)	%/°C	0.02							
26	WITHSTAND VOLTAGE	-	INPUT - OUTPUT : 1.5kVAC, INPUT - BASEPLATE : 1.5kVAC (20mA) FOR 1 MIN OUTPUT - BASEPLATE : .500VDC FOR 1 MIN							
27	ISOLATION RESISTANCE	-	MORE THAN 100MOHM AT 25°C AND 70 %RH, OUTPUT - BASEPLATE : 500 VDC							
28	VIBRATION	-	AT NO OPERATING, 10 ~ 55Hz AMPLITUDE (SWEEP 1 MIN) 0.825mm CONSTANT (MAXIMUM 49.0m/s <sup>2</sup> ) X,Y,Z 1 HR EACH							
29	SHOCK	m/s <sup>2</sup>	196.1							
30	WEIGHT	g	80							
31	SIZE (W x H x D)	mm	57.9 x 12.7 x 61 ( REFER TO OUTLINE DRAWING)							

**NOTES :**

- \*1 : AT 48 VDC, MAXIMUM OUTPUT POWER AND BASEPLATE TEMPERATURE = +25°C.
- \*2 : ADDITIONAL EXTERNAL COMPONENTS HAVE TO BE CONNECTED; REFER TO APPLICATION NOTES.
- \*3 : EXTERNAL COMPONENTS ARE NEEDED; REFER TO BASIC CONNECTION DRAWING.
- \*4 : 36 ~ 76 VDC, CONSTANT LOAD.
- \*5 : NO LOAD ~ FULL LOAD, CONSTANT INPUT VOLTAGE.
- \*6 : CURRENT LIMITING WITH AUTOMATIC RECOVERY.
- \*7 : CNT RESET OR MANUAL RESET.
- \*8 : REFER TO APPLICATION NOTES.
- \*9 : HEATSINK HAS TO BE CHOSEN ACCORDING TO APPLICATION NOTES.
- \*10 : IF REMOTE SENSING IS NOT REQUIRED, CONNECT +S AND -S TO +V AND -V RESPECTIVELY (REFER TO BASIC CONNECTION).
- \*12 : FOR -40°C ~ -20°C OPERATION,THE REGULATION FOR OUTPUT 2.5V,3.3V,5V,12V AND 15V IS 40 mV.

**OPTION TABLE:**

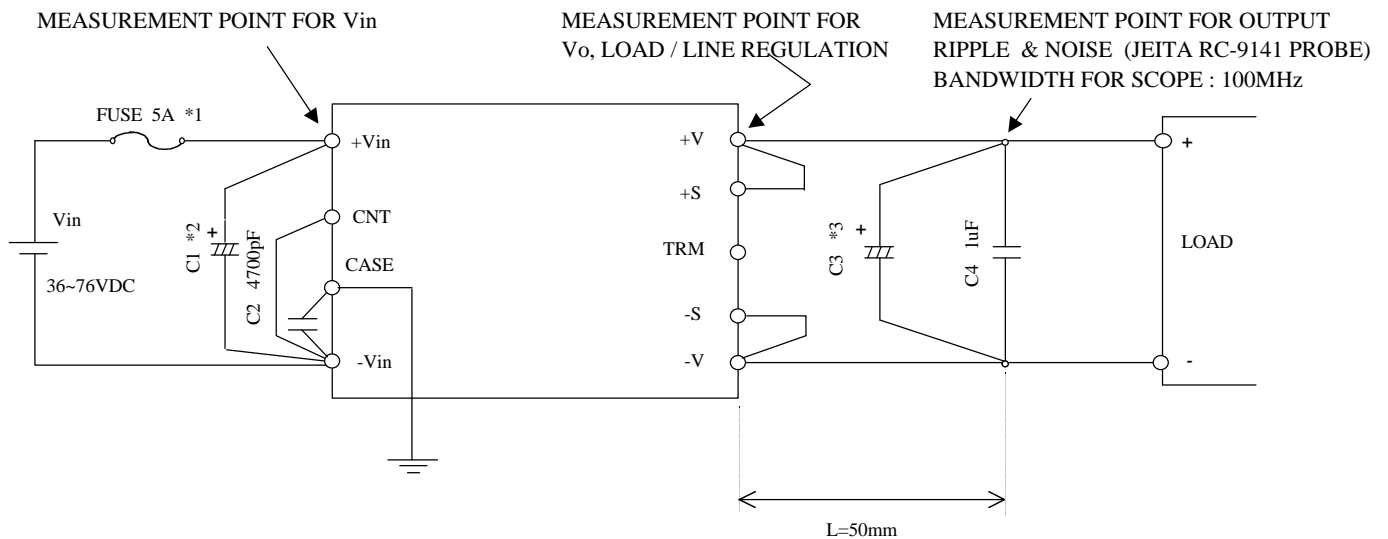
OPTION	ON/OFF LOGIC	OVP
STANDARD	NEGATIVE (H: OFF, L: ON)	SHUT-DOWN (ON/OFF CONTROL RESET OR MANUAL RESET)
/P	POSITIVE (H: ON, L: OFF)	
/V	NEGATIVE (H: OFF, L: ON)	AUTO RESTART
/PV	POSITIVE (H: ON, L: OFF)	

EXAMPLE: PAH50S48-5/P REPRESENT POSITIVE LOGIC & OVP SHUT-DOWN

## BASICAL CONNECTION

**PAH50S48**

PA522-01-02D

EX. NEGATIVE LOGIC BASIC CONNECTION**NOTES**

\*1 : USE AN EXTERNAL FUSE (FAST BLOW TYPE) FOR EACH UNIT.

\*2 : RECOMMENDED INPUT CAPACITOR C1

-20 °C ~ +100°C : 33uF ELECTROLYTIC OR CERAMIC TYPE CAPACITOR.

-40 °C ~ +100°C : 33uF CERAMIC TYPE CAPACITOR OR EQUIVALENT SUCH AS 5 PARALLEL 6.8uF CERAMIC TYPE CAPACITOR.

\*3 : RECOMMENDED OUTPUT CAPACITOR C3

-20 °C ~ +100°C : 2.5V, 3.3V & 5V - 2200uF (ELECTROLYTIC CAPACITOR)

12V & 15V - 470uF (ELECTROLYTIC CAPACITOR)

24V & 28V - 220uF (ELECTROLYTIC CAPACITOR)

-40 °C ~ +100°C : FOR THIS TEMPERATURE RANGE, USE TWO PIECES OF THE RECOMMENDED CAPACITOR ABOVE.

**OUTPUT DERATING CURVE:**