PH50A280

C273-01-01C

SPECIFICATIONS

	ITEMS / MODEL			PH50A280-5	PH50A280-12	PH50A280-24	PH50A280-48
1	Nominal Output Voltage		V	5	12	24	48
2	Maximum Output Current		A	10	4.2	2.1	1.1
3	Maximum Output Power		W	50	50.4	50.4	52.8
4	Efficiency (Typ.)	(*1)	%	86	89	89	89
5	Input Voltage Range		VDC	200 - 425			
6	Input Current	(*1)	A	0.21	0.20	0.20	0.21
7	Output Voltage Accuracy	(*1)	%	-/+ 2			
8	Output Voltage Range	(*8)	%	-20 / +20	-20 / +10	-20 / +10	-20 / +10
9	Maximum Ripple & Noise	(*8)	mV	100	150	240	400
10	Maximum Line Regulation	(*2)	mV	10	24	48	96
11	Maximum Load Regulation	(*3)	mV	10	24	48	96
12	Over Current Protection	(*4)	%	102 - 150			
13	Over Voltage Protection	(*5)(*7)	%	125 - 150	115 - 145	115 - 145	115 - 145
14	Remote Sensing	(*7)	-	Possible			
15	Remote ON/OFF Control	(*7)	-	Possible (SHORT : ON OPEN : OFF)			
16	Parallel Operation		-	-			
17	Series Operation	(*7)	-	Possible			
18	Operating Temperature	(*6)	-	-40°C - +100°C (Baseplate), -40°C - +85°C(Ambient)			
19	Operating Humidity		-	5 - 95%RH (No Dewdrop)			
20	Storage Temperature		-	-40°C - +100°C			
21	Storage Humidity		-	5 - 95%RH (No Dewdrop)			
22	Cooling		-	Conduction Cooled			
23	Temperature Coefficient		-	0.02%/℃			
24	Withstand Voltage	(*9)	-	Input-Baseplate : 2.5kVAC for 1min (20mA), Input-Output: 3.0kVAC for 1min (20mA). Output-Baseplate for 1min (20mA) : 500VAC			
25	Isolation Resistance		-	More than 100MΩ at 25℃ and 70%RH Output-Baseplate…500VDC			
26	Vibration		-	At No Operating, 10-55Hz (Sweep for 1min.) Amplitude 0.825mm Constant (Maximum 49.0m/s^2) X,Y,Z 1 hour each			
27	Shock		-	196.1m/s^2			
28	Safety		-	Approved by UL62368-1, CSA62368-1, EN62368-1, UL60950-1, CSA60950-1, EN60950-1 (Expire date of 60950-1 : 20/12/2020)			
29	Weight (Typ.)		g	55			
30	Size (W x H x D)		mm	37.2 x 12.7 x 58.3 (Refer to Outline Drawing)			

*Read instruction manual carefully, before using the power supply unit.

=NOTES=

*1. At 280VDC and maximum output current.
(Baseplate Temperature = +25°C)

*2. 200 - 425VDC, Constant load.

*3. No Load - Full Load, Constant input voltage.

*4. Constant current limiting.

*5. OVP reset : Line off or Control off.

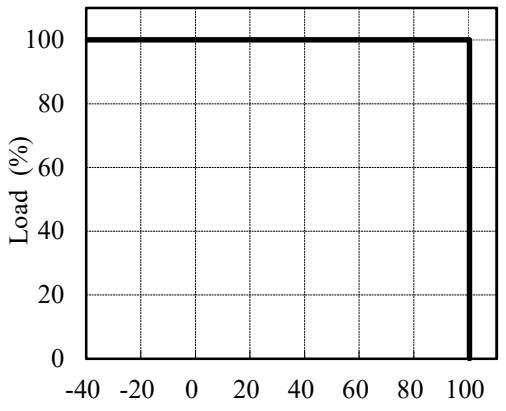
*6. Rating - Refer to Derating Curve on the right.
- Load(%) is percent of maximum output current.
- Refer to Instruction Manual.

*7. Refer to Instruction Manual.

*8. External components are necessary for operation.
(Refer to Basic Connection and Instruction Manual.)

*9. This specification applies to power supply module as stand-alone.

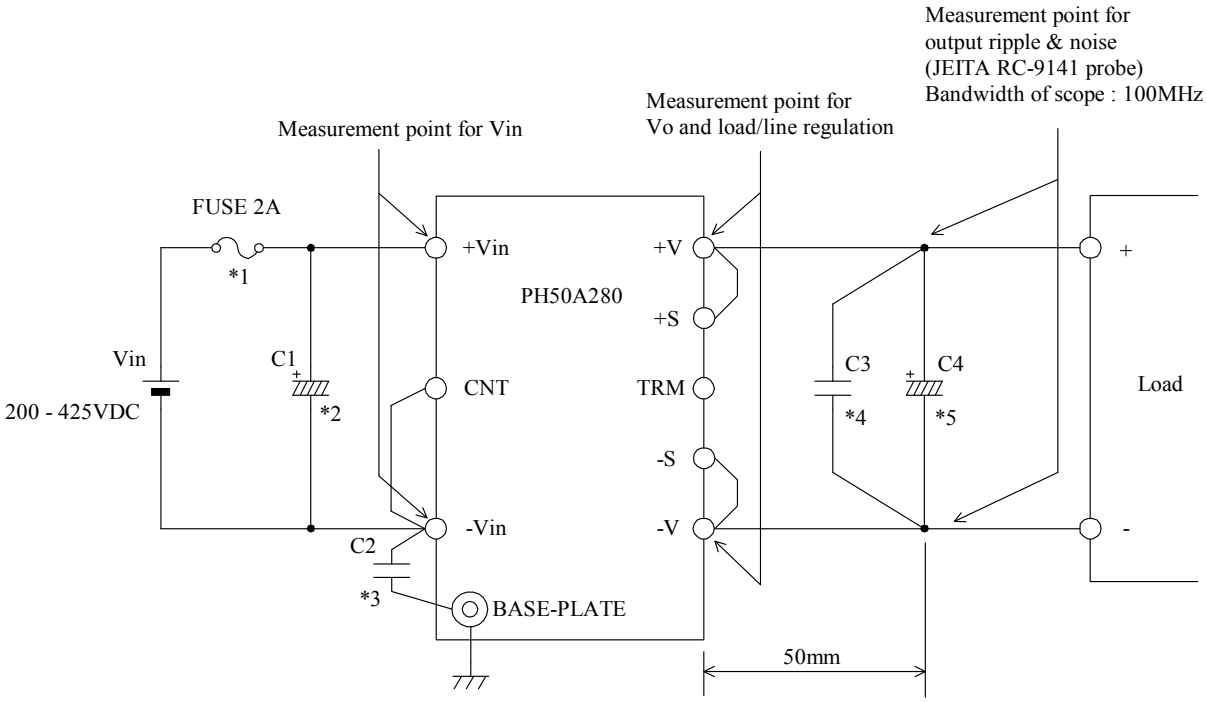
Derating Curve



PH50A280

C273-01-02A

BASIC CONNECTION



*Read instruction manual carefully, before using the power supply unit.

==NOTES==

*1. Use an external fuse (fast blow type or normal blow type) for each unit.

*2. Put input capacitor.
C1 : Electrolytic capacitor More than 450VDC, 22uF
1) Use low impedance electrolytic capacitor with excellent temperature characteristics.
2) Use two capacitors(450V, 22uF) in parallel when ambient temperature is -20°C or lower to reduce ESR.
3) If the impedance of input line is high, C1 capacitance must be more than above.

*3. Put FG capacitor.
C2 : Ceramic capacitor more than 2.5kVAC, 470pF

*4. Put output capacitor.
C3 : Ceramic capacitor 100VDC, 2.2uF

*5. Put output capacitor.
C4 : Electrolytic capacitor

C4	5V : 10VDC , 2200uF
	12V : 25VDC , 560uF
	24V : 50VDC , 220uF
	48V : 50VDC , 220uF x2series

1) Use low impedance electrolytic capacitor with excellent temperature characteristics.
2) Use more than three recommended capacitor above in parallel when ambient temperature is -20°C or lower to reduce ESR.