

DRJ120-24-1/E

SPECIFICATIONS

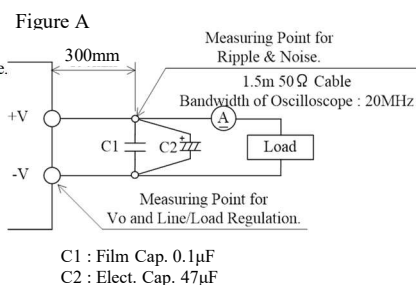
PA637-01-01/E-B

MODEL			DRJ120-24-1/E
ITEMS			
1	Nominal Output Voltage	V	24
2	Maximum Output Current	A	5
3	Peak Output Current (*12)	A	6
4	Maximum Output Power	W	120
5	Peak Output Power (*12)	W	144
6	Efficiency (Typ) (*1)	%	91/93
7	Input Voltage Range (*2)	-	85 - 264VAC (47-63Hz), OR 120 - 370VDC (Withstand 300VAC Surge for 5 seconds)
8	Input Current (Typ) (*1)	A	1.2/0.7
9	Inrush Current (Typ) (*3)	-	55A at 230VAC, Ta=25°C, Cold Start
10	PFHC	-	Designed To Meet IEC61000-3-2
11	Power Factor (Typ) (*1)	-	0.98/0.92
12	Output Voltage Range	V	24 - 28
13	Maximum Ripple & Noise (*1)(*4)(*5)	mV	240
14	Maximum Line Regulation (*5)(*6)	mV	24
15	Maximum Load Regulation (*5)(*7)	mV	240
16	Temperature Coefficient	-	Less than 0.02% / °C
17	Over Current Protection (*8)	-	> 101% of Peak Output Power
18	Over Voltage Protection (*9)	V	30 - 35
19	Hold-up Time (Typ) (*1)	ms	20
20	Leakage Current (*10)	-	< 1mA at 230VAC (60Hz)
21	Monitoring Signal	-	DC OK LED
22	Series Operation	-	Possible
23	Parallel Operation	-	No
24	Operating Temperature (*11)	-	-25 ~ +70°C (-25 ~ +55°C : 100%, +70°C : 50%)
25	Operating Humidity	-	5 - 95%RH (No dewdrop)
26	Storage Temperature	-	-40 ~ +85°C
27	Storage Humidity	-	5 - 95%RH (No dewdrop)
28	Cooling	-	Convection Cooling
29	Withstand Voltage	-	Input - Output : 3kVAC (20mA), Input - FG : 1.77kVAC (20mA) Output - FG : 500VAC (100mA) for 1min
30	Isolation Resistance	-	Output - FG More than 100MΩ (500VDC) at 25°C and 70%RH
31	Vibration	-	At no operating, 10 - 55Hz (sweep for 1min) 19.6m/s ² (2G) Constant, X,Y,Z 1hour each.
32	Shock (In package)	-	Less than 196m/s ² (20G)
33	Safety	-	Approved by UL60950-1, CSA22.2 No. 60950-1 IEC/EN60950-1, UL 62368-1, CSA C22.2 No. 62368-1, IEC/EN 62368-1, CSA C22.2 No.107.1, UL508, IEC/EN 62477-1 OVC III
34	EMI (*1)(*14)	-	Designed To Meet EN55011/EN55032-B
35	Immunity (*14)	-	Designed To Meet IEC61000-6-2, IEC61000-4-2, -3, -4, -5, -6, -8, -11
36	Weight (Typ)	g	500
37	Size (W x H x D)	mm	35 x 124 x 125 (Refer to Outline Drawing)

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

=NOTES=

- *1. At 115VAC/230VAC, Ta=25°C, nominal output voltage and maximum output power.
- *2. For cases where conformance to various safety specs (UL, CSA, EN) are required, to be described as 100-240VAC, 50/60Hz on name plate.
- *3. Not applicable for the in-rush current to Noise Filter for less than 0.2ms.
- *4. Ripple & noise are measured at 20MHz by using a 300mm twisted pair of load wires terminated with a 0.1μF Film Capacitor and a 47μF Electrolytic Capacitor.
- *5. Please refer to Figure A for measurement of Vo, line, and load regulation and ripple voltage.
- *6. 85 - 264VAC, constant load.
- *7. No load - Full load, constant input voltage.
- *8. Hiccup with automatic recovery. Avoid operating at over load or short circuit condition.
- *9. Output latched shut down. Manual reset by AC cycle.
- *10. Measured by each measuring method of UL and EN (at 60Hz), Ta = 25°C.
- *11. Refer to Output Derating Curve (PA637-01-02/E-) for details of output derating versus ambient temperature.
- Load (%) is percent of maximum output power or maximum output current, do not exceed its derating of maximum load.
- *12. Operating period at peak output current is D ≤ 35%, <10sec and 5Arms max. Refer to PA637-01-03/E-.
- *13. All parameters not specifically mentioned are measured at 230VAC input, rated load and Ta = 25°C.
- *14. The power supply is considered a component which will be installed into a final equipment.
The final equipment should be re-evaluated that it meets EMC directives.



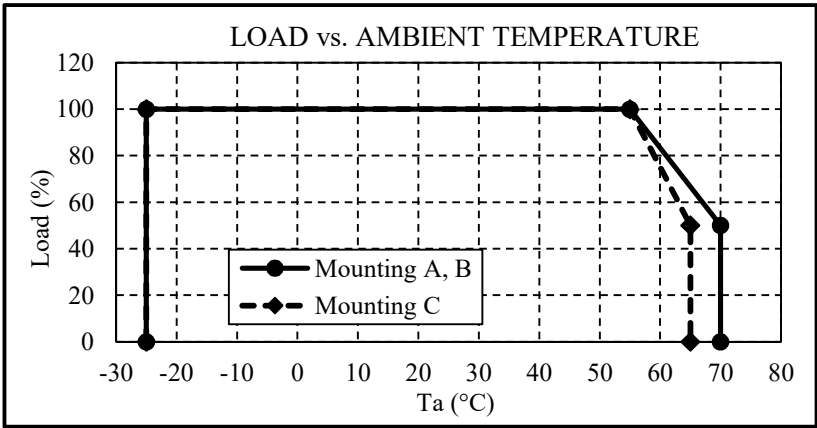
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PA637-01-02/E-A

OUTPUT DERATING

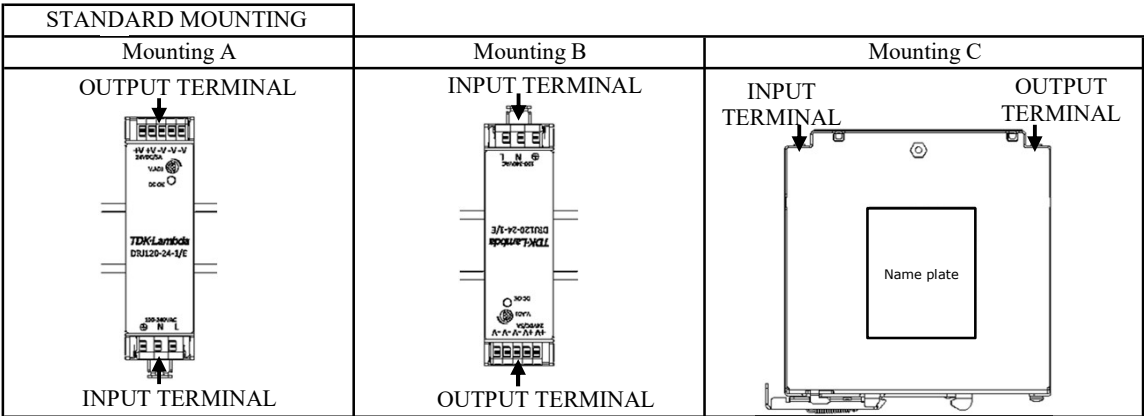
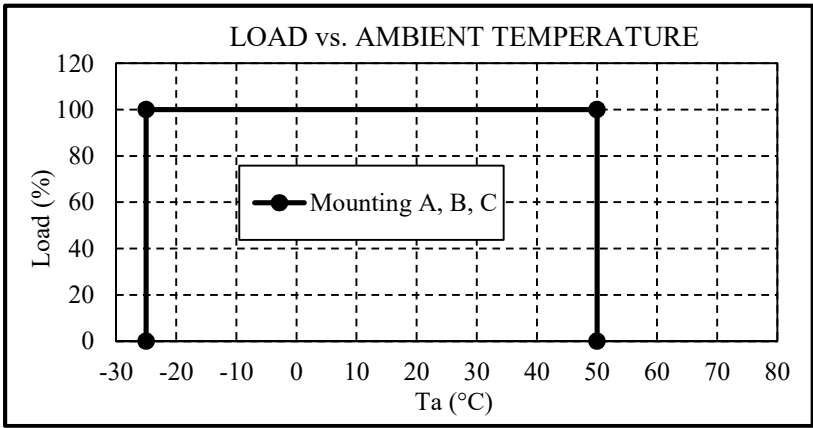
AC input and DC input 120V < Vin ≤300V dc

Ta (°C)	Load (%)		
	Mounting A	Mounting B	Mounting C
-25 ~ +55	100		
65	66		
70	50		



DC input 300V < Vin ≤370V dc

Ta (°C)	Load (%)		
	Mounting A	Mounting B	Mounting C
-25 ~ +50	100		



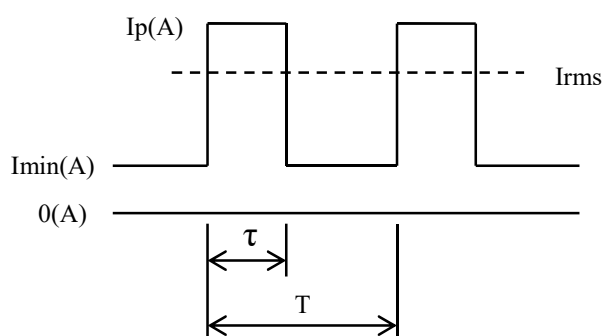
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PA637-01-03/E

Peak current

Use this product so that relationship among Duty, Rms output current (Irms) and peak output power (Ip) satisfy conditions defined by expression below.

Also Peak output current pulse width (τ) should be 10 sec or less, Duty should be 35% or less.



Ip : Peak output current (A)
 Irms : RMS output current (A)
 Imin : Minimum output current (A)
 τ : Peak output current pulse width(sec)
 (Operating time at peak output)
 T : Period (sec)
 Duty : The duty is pulse width of peak output current of one period (%)

$$5.0 \text{ (A)} \geq I_{rms} = \sqrt{I_p^2 \times \text{Duty} + I_{min}^2 \times (1 - \text{Duty})}$$

$$\text{Duty} = \frac{\tau}{T} \times 100 \text{ (\%)} \quad \tau \leq 10 \text{ (sec)}$$