DRJ240-24-1/E

SPECIFICATIONS

PA638-01-01/E-A

	ITEMS / MODEL			DRJ240-24-1/E
1	Nominal Output Voltage		V	24
2	Maximum Output Current		A	10
3	Peak Output Current	(*12)	A	12
4	Maximum Output Power		W	240
5	Peak Output Power	(*12)	W	288
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	2.4/1.4
9	Inrush Current (Typ)	(*3)	-	55A at 230VAC, Ta=25°C
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	750
37	Size (W x H x D)		mm	41 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 0.1uF Film Capacitor and a 47uF 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.

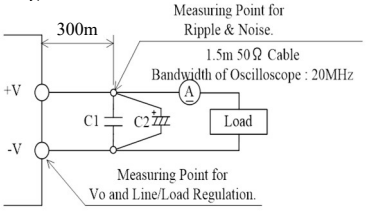
*11. Refer to Output Derating Curve (PA638-01-02/E-_) for details of output derating versus ambient temperature.
- Load (%) is percent of maximum output power or maximum output current,
Do not exceed its derating of maximum load.

*12. Operating period at peak output current is D ≤ 35%,<10sec and 7.5Arms max.Refer to PA638-01-03/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.

Figure A



C1 : Film Cap. 0.1μF
C2 : Elect. Cap. 47μF

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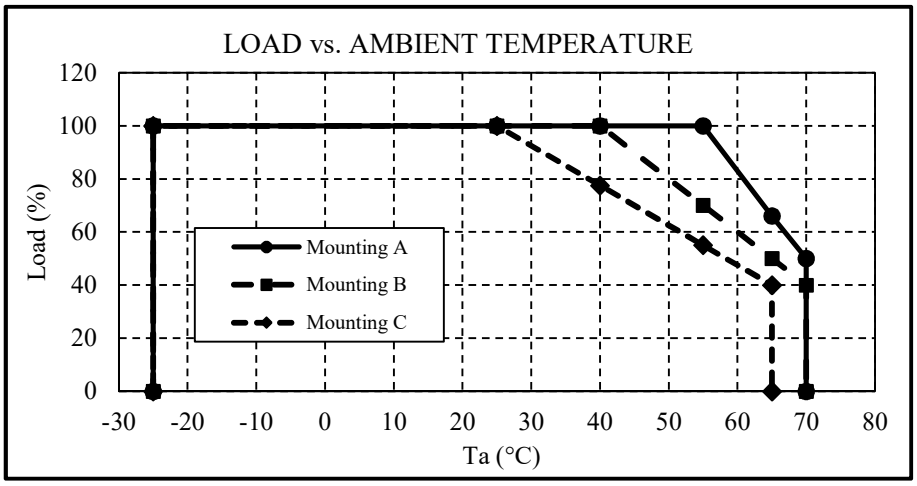
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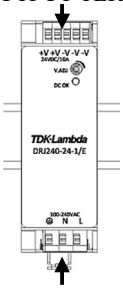
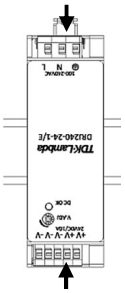
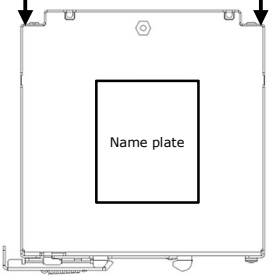
OUTPUT DERATING

AC input and DC input

Ta (°C)	Load (%)		
	Mounting A	Mounting B	Mounting C
-25 ~ +25	100	100	100
40	100	100	77.5
55	100	70	55
65	66	50	40
70	50	40	-



STANDARD MOUNTING

Mounting A	Mounting B	Mounting C
OUTPUT TERMINAL  INPUT TERMINAL	INPUT TERMINAL  OUTPUT TERMINAL	INPUT TERMINAL OUTPUT TERMINAL 

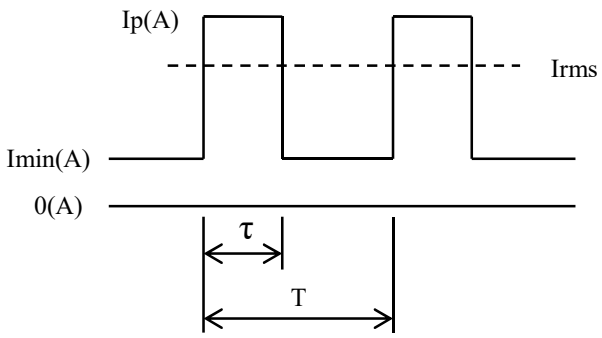
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Peak current

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 (%)

$$7.5\ (A) \geq Irms = \sqrt{Ip^2 \times Duty + Imin^2 \times (1 - Duty)}$$

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

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