

**DRL60-1**

SPECIFICATIONS

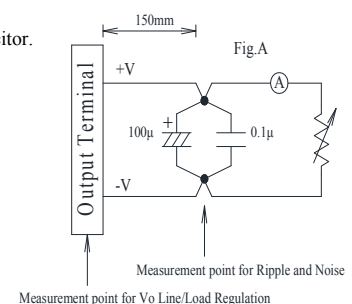
CA818-01-01C

ITEMS		MODEL	DRL60-12-1	DRL60-24-1
1	Nominal Output Voltage	V	12	24
2	Maximum Output Current	A	4.5	2.5
3	Maximum Output Power	W	54	60
4	No Load Input Power related to Erp	W	<0.5	<0.5
5	Efficiency (Typ) (115/230VAC) (* 1)	%	87 / 87	89 / 90
6	Active Average Efficiency related to Erp (115/230VAC)	%	≥87 (at 15V output)	≥87
7	Input Voltage Range (* 2)	-	85 - 264VAC (47-63Hz) or 120 - 373 VDC (Withstand 300VAC Surge for 5 seconds )	
8	Input Current (Typ) (115/230VAC) (* 1)	A	1.2/0.8	
9	Inrush Current (Typ) (230VAC) (* 3)	-	60A cold start	
10	PFHC	-	Compliant to IEC 61000-3-2, Class A	
11	Power Factor (Typ) (115/230VAC) (* 1)	-	0.5/0.43	
12	Output Voltage Range	V	12.0 - 15.0(Adjustable)	24.0 - 28.0 (Adjustable)
13	Ripple and Noise (* 1,4)	-	1% max	
14	Line Regulation (* 4, 5)	-	1% max	
15	Load Regulation (* 4, 6)	-	1% max	
16	Transient Response Deviation(25~75% load change )	mV	<750	<1200
17	Transient Response Recovery Time	ms	1, to within 2% of settled value, 25~75% load change	
18	Temperature Coefficient	-	Less than 0.02%/°C	
19	Over Current Protection (* 7)	-	105%~	
20	Over Voltage Protection (* 8)	V	16.0~19	29~35.0
21	Hold-Up Time (Typ) (* 1)	-	20ms @ 115VAC input voltage, full load, Ta=25°C	
22	Leakage Current (* 9)	-	-	
23	Indication	-	DC OK LED(green)	
24	Parallel Operation	-	-	
25	Series Operation	-	Possible	
26	Operating Temperature (*10)	-	-20 to +71°C (-25°C startup) Full load at +55°C; (derate linearly to 60% load at +71°C)	
27	Operating Humidity	-	20~ 90 % (No condensing)	
28	Operating Altitude	m	3000m, derating 5°C/1000m above 2000m	
29	Storage Temperature	-	- 40 ~ +85°C	
30	Storage Humidity	-	5 ~ 95 % (No condensing)	
31	Cooling	-	Convection	
32	Withstand Voltage	-	Input - Output : 3.0kVAC (20mA)	
33	Isolation Resistance	-	Input - Output: More than 100MΩ (500VDC) at 25°C and 70%RH	
34	Vibration	-	Operating, IEC 60068-2-6, Sine Wave, 10-500Hz, 19.6m/s <sup>2</sup> (2G peak); 10 min per cycle, 60min for all X, Y, Z directions	
35	Shock (In package)	-	Operating, IEC 60068-2-27, Half Sine Wave, 39.2m/s <sup>2</sup> (4G) for a duration of 22ms, 3 shocks for each 3 directions, 9 times in total	
36	Pollution	-	Degree 2, material group 3	
37	Ingress Protection	-	IP20	
38	Isolation Class / Class of Protection	-	Class II ( L , N only)	
39	Safety	-	Approved by UL60950-1, CSA22.2 No.60950-1-07(2nd edition), EN60950-1, UL508	Approved by UL1310 class2
40	Line Dip (200~240VAC)	-	SEMI F47	
41	EMI	-	CE: EN55022-B, CISPR22-B ; RE : EN55022-A, CISPR22-A	
42	Immunity	-	Designed to meet EN 61000-4-2 (Level 3) -3 (Level 3) -4 (Level 4), -5 (Level 3), -6 (Level 3), -8 (Level 4), -11 (Class 3)	
43	Weight (Typ)	-	200g	
44	Dimension (W x H x D) (*11)	mm	54 x 91 x 55.6	

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

= NOTES=

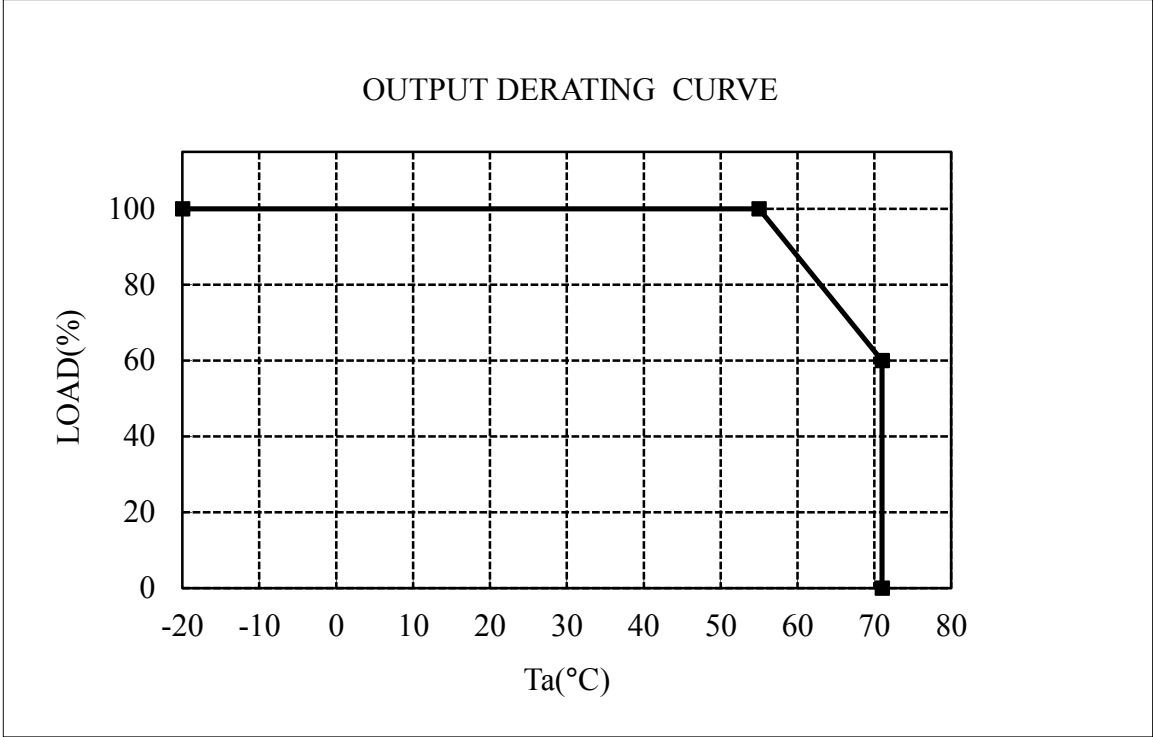
- \* 1 : At Maximum Output Power, nominal input voltage, Ta = 25°C.
- \* 2 : For cases where conformance to various safety specs ( UL, CSA, EN ) are required, to be described as 100 - 240VAC, 50 / 60Hz on name plate.  
DC input not approved by safety.
- \* 3 : Not applicable for the in-rush current to Noise Filter for less than 0.2ms.
- \* 4 : Please refer to Fig A for measurement of line & load regulation, ripple and noise voltage.  
Ripple & noise are measured at 20MHz by using a twisted pair of load wires terminated with a 0.1uF and 100uF capacitor.
- \* 5 : 85 - 264VAC, constant load.
- \* 6 : No load - Full load ( Maximum power ), constant input voltage.
- \* 7 : Output hiccup with automatic recovery.  
Avoid to operate at overload or dead short for more than 30 seconds.
- \* 8 : OVP circuit will shutdown output, manual reset (Re-power on).
- \* 9 : Measured by each measuring method of UL and EN(at 60Hz), Ta=25°C.
- \* 10 : Refer to Output Derating Curve(CA818-01-02\_) for details of output derating versus ambient temperature.  
- Load (%) is percent of Maximum Output Power and Maximum Output Current ( Item 2 and 3).  
Do not exceed derating of Maximum Output Power and Maximum Output Current.  
- 100% load start up at -25°C is possible, however, it may not fulfil all the specifications.
- \* 11 : Refer to outline drawing CA818-02-01\_.



OUTPUT DERATING

CA818-01-02A

Ta(°C)	LOAD(%)
-20	100%
55	100%
71	60%



Standard Mounting

