

SR110 Specifications

NEMIC-LAMBDA

* : For delivery, contact to our sales office.

A081-01-01B

MODEL		SR110	SR110	SR110	SR110	SR110	SR110	SR110	SR110	SR110	SR110	SR110		
ITEMS		-2	-5	-6	-9	-12	-15	-18	-20	-24	-28	-48		
1	Nominal Output Voltage	V	2	5	6	9	12	15	18	20	24	28	48	
2	Maximum Output Current	A	22	22	19	13	10	8	6.5	6	5	4.2	2.5	
3	Maximum Output Power	W	44	110	114	117	120	120	117	120	120	117.6	120	
4	Efficiency (Typ) (*1)	%	62	77	77	77	79	79	79	79	80	80	80	
5	Input Voltage Range (*2)	-	85 ~ 132VAC / 170 ~ 265VAC(47 ~ 440Hz) selectable or 230 ~ 330VDC Input Voltage Range shown on Front Panel : 100 - 120 / 200 - 240VAC (50 / 60Hz).											
6	Input Current (Typ) (*1)	A	100V:1.2A	100VAC : 2.5A										
			200V:0.6A	200VAC : 1.3A										
7	Inrush Current(Typ) (*3)	-	10A at 100VAC, 20A at 200VAC (260VDC)											
8	Output Voltage Range (Typ)	%	±10%											
9	Maximum Ripple & Noise (*4)	mV	50			60			80			100		
10	Maximum Line Regulation (*5)	mV	20	20	24	36	48	60	72	80	96	112	192	
11	Maximum Load Regulation (*6)	mV	20	20	24	36	48	60	72	80	96	112	192	
12	Over Current Protection (*7)	A	23.1 ~ 28.6	23.1 ~ 28.6	20.0 ~ 24.7	13.6 ~ 16.9	10.5 ~ 13.0	8.4 ~ 10.4	6.8 ~ 8.5	6.3 ~ 7.8	5.3 ~ 6.5	4.4 ~ 5.5	2.7 ~ 3.3	
13	Over Voltage Protection (*8)	V	2.7 ~ 2.9	6.0 ~ 6.5	7.2 ~ 7.8	10.8 ~ 11.7	14.4 ~ 15.6	18.0 ~ 19.5	21.6 ~ 23.4	24.0 ~ 26.0	28.8 ~ 31.2	33.6 ~ 36.4	57.6 ~ 62.4	
14	Hold-up Time (Typ) (*9)	ms	20ms											
15	Remote Sensing	-	Possible											
16	Remote ON/OFF Control	-	Possible											
17	Parallel Operation	-	Possible											
18	Series Operation	-	Possible											
19	Operating Temperature (*10)	-	-20 ~ +71°C											
20	Operating Humidity	-	30 ~ 95%RH (No dewdrop)											
21	Storage Temperature	-	-40 ~ +85°C											
22	Storage Humidity	-	10 ~ 95%RH (No dewdrop)											
23	Cooling	-	Convection Cooled											
24	Temperature Coefficient	-	Less than 0.03% / °C											
25	Withstand Voltage (*11)	-	Input - Chassis : 2.5kVAC 1 min, Input -Output : 3.75kVAC 1 min, Output - Chassis : 500VAC 1 min.											
26	Isolation Resistance	-	More than 100MΩ at 25°C and 70%RH Output - Chassis : 500VDC											
27	Vibration	-	At no operating, 10 ~ 55Hz Amplitude (sweep for 1min) 0.825mm constant (Maxmum 5G) X, Y, Z 1hour each											
28	Shock	-	Less than 20G											
29	Safety Standard	UL1950	Approved by UL											
		CSA950	Approved by C-UL											
		EN60950	Approved by TUV (Approved model:SR110-5,SR110-12,SR110-24)											
30	Conducted Emission	-	Built to meet VCCI - lass A, FCC - Class A, VDE - Class A											
31	Weight	g	1250											
32	Size (WxHxD)	mm	65 x 97 x 215 (Refer to Outline Drawing)											
33	Monitoring Signal	-	PF (Open Collector output)											

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

=NOTES=

- *1. At 100V/200VAC and maximum output power.
- *2. For cases where conformance to various safety specs (UL, CSA, etc) are required, input voltage range will be 100 - 120 / 200 - 240VAC (50 / 60Hz).
- *3. First in-rush current .
- *4. At 0 ~ +71°C : From No load ~ full load. At -20 ~ 0°C : From 10% load ~ full load.
- *5. From 85 ~ 132VAC or 170 ~ 265VAC, constant load.
- *6. From No load to Full load, constant input voltage.
- *7. Constant current limiting with automatic recovery. (The unit automatically shuts down the output when it is left for 5 seconds under the state that OCP is operating and the output voltage is less than PF detected level. The output recovers when the input voltage is turned on after brief turning off.)
- *8. Inverter shut-down method, manual reset. (OVP circuit will shut-down output)
- *9. At 100V/200VAC, nominal output voltage & maximum output current.
- *10. Ratings - For 5V model, refer to derating curve on the right.

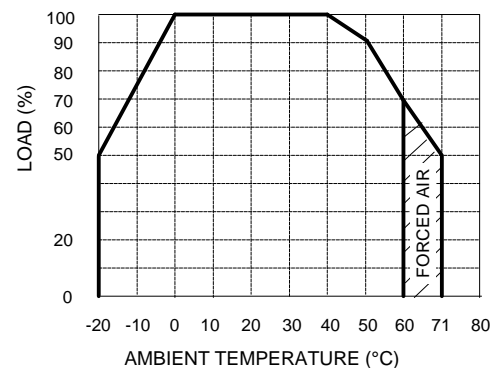
For other Voltage models, refer to attached Derating Table.

- Load (%) is percent of maximum output power or maximum output current, whichever is greater.

- +61 ~ +71°C : Forced air cooled by outer cooling method.

- *11. Leacage current range used : Input - Chassis greater than 20mA
Input - Output greater than 20mA (ACG - FG open)
Output - Chassis greater than 100mA

DERATING CURVE (5V TYPE)
MOUNTING A



SR 110 OUTPUT DERATING

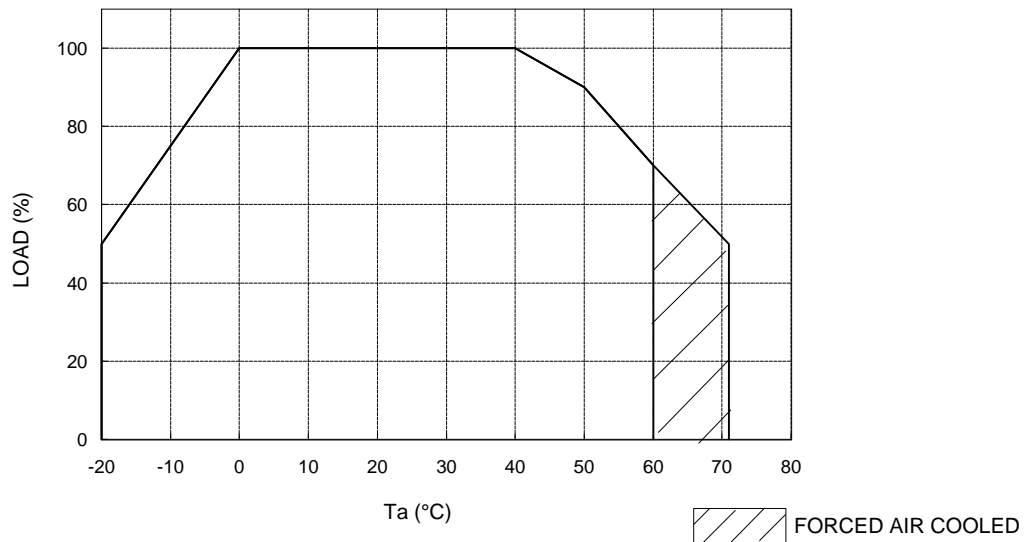
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MOUNTING (A)

MODEL \ Ta (°C)	Nominal Output Voltage	MAXIMUM OUTPUT CURRENT OR MAXIMUM OUTPUT POWER, WHICHEVER IS GREATER				
		-20°C	0 ~ 40°C	50°C	60°C	71°C (*)
SR110-2	2V	11A	22A	20A	15.4A	11A
		22W	44W	40W	30.8W	22W
SR110-5	5V	11A	22A	20A	15.4A	11A
		55W	110W	100W	77W	55W
SR110-6	6V	9.5A	19A	17A	13.3A	9.5A
		57W	114W	102W	79.8W	57W
SR110-9	9V	6.5A	13A	12A	9.1A	6.5A
		58.5W	117W	108W	81.9W	58.5W
SR110-12	12V	5A	10A	9A	7A	5A
		60W	120W	108W	84W	60W
SR110-15	15V	4A	8A	7.5A	5.6A	4A
		60W	120W	112.5W	84W	60W
SR110-18	18V	3.3A	6.5A	6A	4.6A	3.3A
		59.4W	117W	108W	82.8W	59.4W
SR110-20	20V	3A	6A	6A	4.2A	3A
		60W	120W	120W	84W	60W
SR110-24	24V	2.5A	5A	5A	3.5A	2.5A
		60W	120W	120W	84W	60W
SR110-28	28V	2.1A	4.2A	4.2A	2.9A	2.1A
		58.8W	117.6W	117.6W	81.2W	58.8W
SR110-48	48V	1.3A	2.5A	2.5A	1.8A	1.3A
		62.4W	120W	120W	86.4W	62.4W

* 61°C ~ 71°C Forced air cooling

OUTPUT DERATING CURVE
MOUNTING : A (5V)



MOUNTING : A

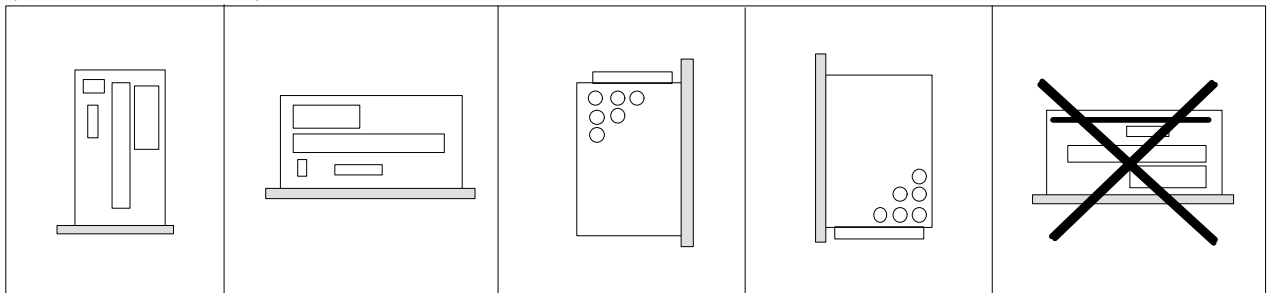
MOUNTING : B

MOUNTING : C

MOUNTING : D

DON'T USE

(STANDARD MOUNTING)



SR 110 OUTPUT DERATING

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MOUNTING (B)

MODEL \ Ta (°C)	Nominal Output Voltage	MAXIMUM OUTPUT CURRENT OR MAXIMUM OUTPUT POWER, WHICHEVER IS GREATER				
		-20°C	0 ~ 40°C	50°C	60°C	71°C (*)
SR110-2	2V	11.0	15.4	12.1	8.8	5.5
SR110-5	5V	11.0	15.4	12.1	8.8	5.5
SR110-6	6V	9.5	13.3	10.4	7.6	4.7
SR110-9	9V	6.5	9.1	7.1	5.2	3.2
SR110-12	12V	5.0	7.0	5.5	4.0	2.5
SR110-15	15V	4.0	5.6	4.4	3.2	2.0
SR110-18	18V	3.3	4.5	3.5	2.6	1.6
SR110-20	20V	3.0	4.2	3.3	2.4	1.5
SR110-24	24V	2.5	3.5	2.7	2.0	1.2
SR110-28	28V	2.1	2.9	2.3	1.6	1.0
SR110-48	48V	1.3	1.7	1.3	1.0	0.6

* 61°C ~ 71°C Forced air cooling

MOUNTING (C)

MODEL \ Ta (°C)	Nominal Output Voltage	MAXIMUM OUTPUT CURRENT OR MAXIMUM OUTPUT POWER, WHICHEVER IS GREATER				
		-20°C	0 ~ 40°C	50°C	60°C	71°C (*)
SR110-2	2V	11.0	17.6	14.3	11.0	7.7
SR110-5	5V	11.0	17.6	14.3	11.0	7.7
SR110-6	6V	9.5	15.2	12.3	9.5	6.6
SR110-9	9V	6.5	10.4	8.4	6.5	4.5
SR110-12	12V	5.0	8.0	6.5	5.0	3.5
SR110-15	15V	4.0	6.4	5.2	4.0	2.8
SR110-18	18V	3.3	5.2	4.2	3.3	2.2
SR110-20	20V	3.0	4.8	3.9	3.0	2.1
SR110-24	24V	2.5	4.0	3.2	2.5	1.7
SR110-28	28V	2.1	3.3	2.7	2.1	1.4
SR110-48	48V	1.3	2.0	1.6	1.3	0.8

* 61°C ~ 71°C Forced air cooling

MOUNTING (D)

MODEL \ Ta (°C)	Nominal Output Voltage	MAXIMUM OUTPUT CURRENT OR MAXIMUM OUTPUT POWER, WHICHEVER IS GREATER				
		-20°C	0 ~ 40°C	50°C	60°C	71°C (*)
SR110-2	2V	11.0	15.4	12.1	8.8	5.5
SR110-5	5V	11.0	15.4	12.1	8.8	5.5
SR110-6	6V	9.5	13.3	10.4	7.6	4.7
SR110-9	9V	6.5	9.1	7.1	5.2	3.2
SR110-12	12V	5.0	7.0	5.5	4.0	2.5
SR110-15	15V	4.0	5.6	4.4	3.2	2.0
SR110-18	18V	3.3	4.5	3.5	2.6	1.6
SR110-20	20V	3.0	4.2	3.3	2.4	1.5
SR110-24	24V	2.5	3.5	2.7	2.0	1.2
SR110-28	28V	2.1	2.9	2.3	1.6	1.0
SR110-48	48V	1.3	1.7	1.3	1.0	0.6

* 61°C ~ 71°C Forced air cooling