

SR20 Specifications

NEMIC-LAMBDA

* : For delivery, contact to our sales office.

A078-01-01B

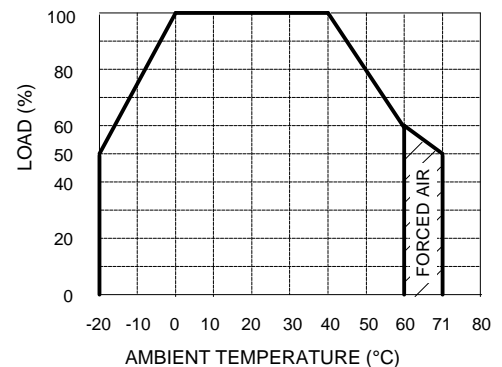
ITEMS	MODEL	* * *												
		SR20 -2	SR20 -5	SR20 -6	SR20 -9	SR20 -12	SR20 -15	SR20 -18	SR20 -20	SR20 -24	SR20 -28	SR20 -48		
1	Nominal Output Voltage	V	2	5	6	9	12	15	18	20	24	28	48	
2	Maximum Output Current	A	4.0	4.0	3.3	2.2	1.7	1.4	1.2	1.0	0.9	0.7	0.4	
3	Maximum Output Power	W	8.0	20.0	19.8	19.8	20.4	21.0	21.6	20.0	21.6	19.6	19.2	
4	Efficiency (Typ) (*1)	%	53	65	65	66	66	66	66	68	70	70	70	
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:0.3A 200V:0.15A	100VAC : 0.6A 200VAC : 0.3A										
7	Inrush Current(Typ) (*3)	-	4.5A at 100VAC, 9A 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	4.2 ~ 5.2	4.2 ~ 5.2	3.5 ~ 4.3	2.3 ~ 2.9	1.8 ~ 2.2	1.5 ~ 1.8	1.3 ~ 1.5	1.1 ~ 1.3	0.94 ~ 1.15	0.72 ~ 0.9	0.42 ~ 0.52	
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 (Maximum 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:SR20-5,SR20-12,SR20-15,SR20-24)											
30	Conducted Emission	-	Built to meet VCCI-Class A, FCC-Class A, VDE-Class A											
31	Weight	g	720											
32	Size (WxHxD)	mm	38 x 97 x 170 (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. Leakage 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 20 OUTPUT DERATING

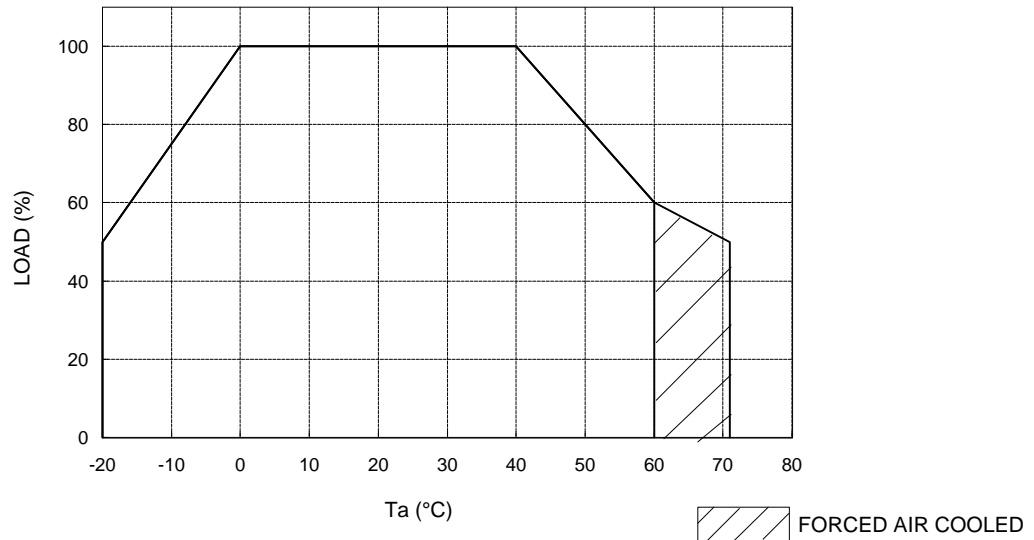
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MOUNTING (A)

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 (*)
SR20-2		2V	2A	4A	3.2A	2.4A	2A
			4W	8W	6.4W	4.8W	4W
SR20-5		5V	2A	4A	3.2A	2.4A	2A
			10W	20W	16W	12W	10W
SR20-6		6V	1.6A	3.3A	2.6A	1.9A	1.6A
			9.6W	19.8W	15.6W	11.4W	9.6W
SR20-9		9V	1.1A	2.2A	1.7A	1.3A	1.1A
			9.9W	19.8W	15.3W	11.7W	9.9W
SR20-12		12V	0.85A	1.7A	1.3A	1.0A	0.85A
			10.2W	20.4W	15.6W	12W	10.2W
SR20-15		15V	0.7A	1.4A	1.1A	0.8A	0.7A
			10.5W	21W	16.5W	12W	10.5W
SR20-18		18V	0.6A	1.2A	0.95A	0.7A	0.6A
			10.8W	21.6W	17.1W	12W	10.8W
SR20-20		20V	0.5A	1.0A	0.8A	0.6A	0.5A
			10W	20W	16W	12W	10W
SR20-24		24V	0.45A	0.9A	0.7A	0.5A	0.45A
			10.8W	21.6W	16.8W	12W	10.8W
SR20-28		28V	0.35A	0.7A	0.55A	0.4A	0.35A
			9.8W	19.6W	15.4W	11.2W	9.8W
SR20-48		48V	0.2A	0.4A	0.3A	0.25A	0.2A
			9.6W	19.2W	14.4W	12W	9.6W

* 61°C ~ 71°C Forced air cooling

OUTPUT DERATING CURVE
MOUNTING : A (5V)



MOUNTING : A

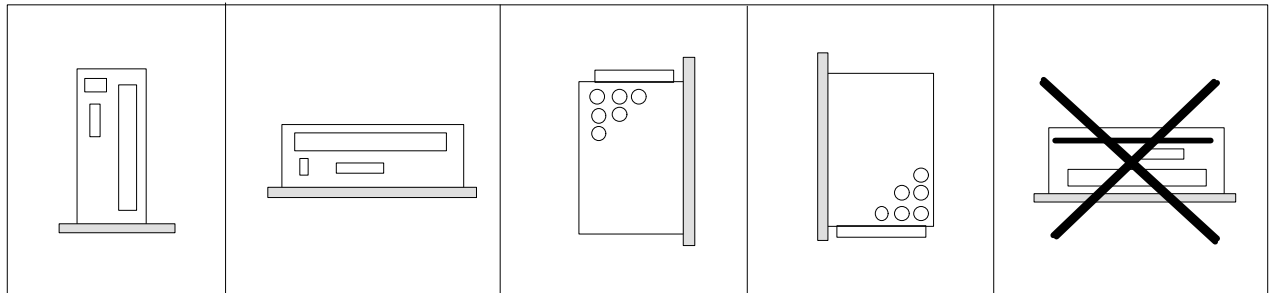
MOUNTING : B

MOUNTING : C

MOUNTING : D

DON'T USE

(STANDARD MOUNTING)



SR 20 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 (*)
SR20-2	2V	2.0	3.2	2.6	2.0	1.6
SR20-5	5V	2.0	3.2	2.6	2.0	1.6
SR20-6	6V	1.6	2.6	2.1	1.6	1.3
SR20-9	9V	1.1	1.7	1.4	1.1	0.85
SR20-12	12V	0.85	1.3	1.1	0.85	0.65
SR20-15	15V	0.7	1.1	0.9	0.7	0.55
SR20-18	18V	0.6	0.95	0.75	0.6	0.45
SR20-20	20V	0.5	0.8	0.65	0.5	0.4
SR20-24	24V	0.45	0.7	0.55	0.45	0.35
SR20-28	28V	0.35	0.55	0.45	0.35	0.28
SR20-48	48V	0.2	0.3	0.25	0.2	0.15

* 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 (*)
SR20-2	2V	2.0	3.2	2.6	2.0	1.6
SR20-5	5V	2.0	3.2	2.6	2.0	1.6
SR20-6	6V	1.6	2.6	2.1	1.6	1.3
SR20-9	9V	1.1	1.7	1.4	1.1	0.85
SR20-12	12V	0.85	1.3	1.1	0.85	0.65
SR20-15	15V	0.7	1.1	0.9	0.7	0.55
SR20-18	18V	0.6	0.95	0.75	0.6	0.45
SR20-20	20V	0.5	0.8	0.65	0.5	0.4
SR20-24	24V	0.45	0.7	0.55	0.45	0.35
SR20-28	28V	0.35	0.55	0.45	0.35	0.28
SR20-48	48V	0.2	0.3	0.25	0.2	0.15

* 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 (*)
SR20-2	2V	2.0	3.2	2.6	2.0	1.6
SR20-5	5V	2.0	3.2	2.6	2.0	1.6
SR20-6	6V	1.6	2.6	2.1	1.6	1.3
SR20-9	9V	1.1	1.7	1.4	1.1	0.85
SR20-12	12V	0.85	1.3	1.1	0.85	0.65
SR20-15	15V	0.7	1.1	0.9	0.7	0.55
SR20-18	18V	0.6	0.95	0.75	0.6	0.45
SR20-20	20V	0.5	0.8	0.65	0.5	0.4
SR20-24	24V	0.45	0.7	0.55	0.45	0.35
SR20-28	28V	0.35	0.55	0.45	0.35	0.28
SR20-48	48V	0.2	0.3	0.25	0.2	0.15

* 61°C ~ 71°C Forced air cooling