

SS2 Series AC Drives Energy Efficiency Report

(Release date: 20230223 Version: Ver1.00)

According to GB/T 12668.902-2021/IEC 61800-9-2:2017

1. Production rated specification

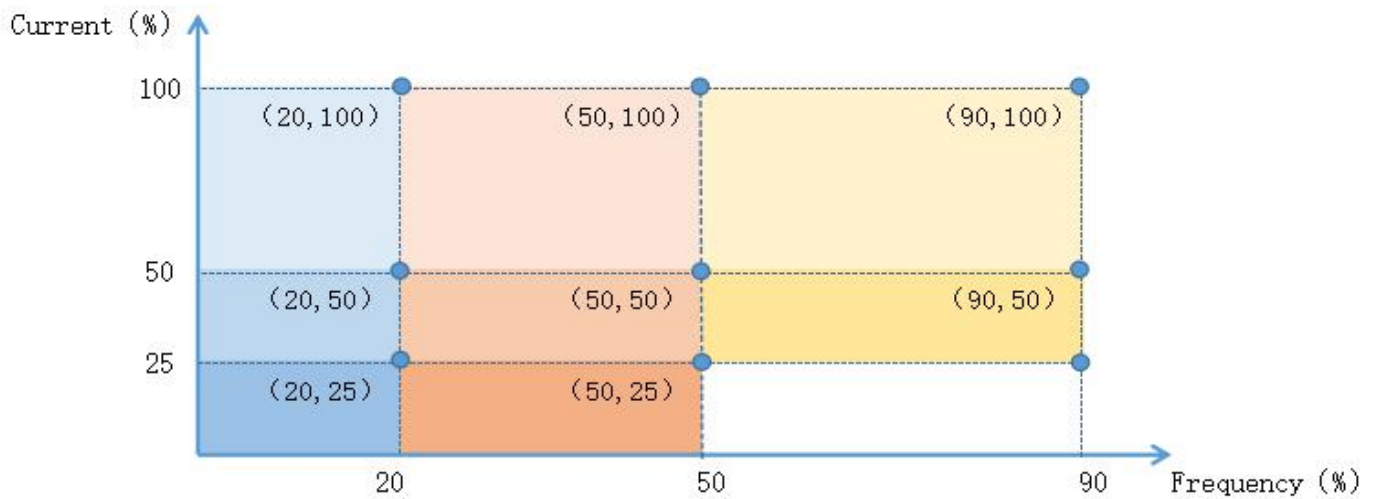
Model name	Input voltage (V)	Apparent output power (kVA)	Output power (kW)	Output current (A)	Standby loss (W)	Relative power loss (%)
SS2-021-0.4K	1PH 220V	0.95	0.4	2.7	4	0.30%
SS2-021-0.75K	1PH 220V	1.5	0.75	4.5	4	0.21%
SS2-023-0.4K	3PH 220V	1.2	0.4	3	4	0.31%
SS2-023-0.75K	3PH 220V	2	0.75	5	4	0.19%
SS2-023-1.5K	3PH 220V	3.2	1.5	8	4	0.11%
SS2-043-0.4K	3PH 440V	1	0.4	1.5	6	0.57%
SS2-043-0.75K	3PH 440V	2	0.75	2.6	6	0.29%
SS2-043-1.5K	3PH 440V	3	1.5	4.2	6	0.19%
SS2-021-1.5K	1PH 220V	2.5	1.5	8	4	0.13%
SS2-021-2.2K	1PH 220V	4.2	2.2	11	7	0.08%
SS2-023-2.2K	3PH 220V	4.2	2.2	11	7	0.08%
SS2-023-3.7K	3PH 220V	6.7	3.7	17.5	7	0.05%
SS2-043-2.2K	3PH 440V	4.6	2.2	6	7	0.14%
SS2-043-3.7K	3PH 440V	6.9	3.7	9	7	0.09%
SS2-043-5.5K	3PH 440V	9.2	5.5	12	7	0.07%

Note 1.The input power frequency of all the above models are 50/60HZ.

Note 2.The ambient temperature should be within 50°C

2. Reference operation points

Below are the 8 reference operation points by using 60HZ as 100% frequency and rated current as 100% current :



3. Power loss

Model name	Reference operation points							
	(90, 100)	(90, 50)	(50, 100)	(50, 50)	(50, 25)	(20, 100)	(20, 50)	(20, 25)
SS2-021-0.4K	34	17	29	15	12	24	14	11
SS2-021-0.75K	57	28	47	27	17	36	18	14
SS2-023-0.4K	33	18	30	20	12	24	14	10
SS2-023-0.75K	58	32	53	28	17	43	22	14
SS2-023-1.5K	107	52	86	45	25	61	36	21
SS2-043-0.4K	29	22	27	20	17	23	16	14
SS2-043-0.75K	55	34	55	29	20	42	28	17
SS2-043-1.5K	88	53	80	50	26	61	30	24
SS2-021-1.5K	98	45	77	40	22	63	33	20
SS2-021-2.2K	146	68	114	59	34	88	50	28
SS2-023-2.2K	127	59	106	57	29	86	44	23
SS2-023-3.7K	197	96	171	91	48	142	77	37
SS2-043-2.2K	110	63	105	58	40	82	46	34
SS2-043-3.7K	161	87	141	86	49	104	65	37
SS2-043-5.5K	214	110	212	102	76	148	83	60

4. Power loss rate and efficiency level

loss rate Model name	Power loss rate with reference operation points(%)								IE class
	(90, 100)	(90, 50)	(50, 100)	(50, 50)	(50, 25)	(20, 100)	(20, 50)	(20, 25)	
SS2-021-0.4K	3.40%	1.69%	2.90%	1.52%	1.17%	2.40%	1.39%	1.05%	IE2
SS2-021-0.75K	3.80%	1.87%	3.13%	1.80%	1.13%	2.40%	1.20%	0.93%	IE2
SS2-023-0.4K	2.75%	1.50%	2.50%	1.65%	1.00%	2.00%	1.17%	0.83%	IE2
SS2-023-0.75K	2.90%	1.58%	2.65%	1.42%	0.87%	2.15%	1.12%	0.71%	IE2
SS2-023-1.5K	3.34%	1.63%	2.69%	1.41%	0.78%	1.92%	1.13%	0.65%	IE2
SS2-043-0.4K	2.86%	2.16%	2.70%	2.02%	1.73%	2.31%	1.61%	1.44%	IE2
SS2-043-0.75K	2.75%	1.70%	2.75%	1.44%	1.00%	2.10%	1.40%	0.85%	IE2
SS2-043-1.5K	2.93%	1.77%	2.67%	1.67%	0.88%	2.05%	1.00%	0.79%	IE2
SS2-021-1.5K	3.06%	1.41%	2.41%	1.25%	0.69%	1.96%	1.03%	0.63%	IE2
SS2-021-2.2K	3.48%	1.62%	2.71%	1.40%	0.81%	2.10%	1.19%	0.67%	IE2
SS2-023-2.2K	3.02%	1.40%	2.52%	1.36%	0.70%	2.05%	1.05%	0.55%	IE2
SS2-023-3.7K	2.94%	1.43%	2.55%	1.36%	0.71%	2.12%	1.15%	0.55%	IE2
SS2-043-2.2K	2.39%	1.37%	2.28%	1.26%	0.87%	1.78%	1.00%	0.74%	IE2
SS2-043-3.7K	2.33%	1.26%	2.04%	1.25%	0.72%	1.51%	0.94%	0.53%	IE2
SS2-043-5.5K	2.14%	1.10%	2.12%	1.02%	0.76%	1.48%	0.83%	0.60%	IE2

Note 1. All of the above inverter loss data are tested by adopting the " Input-output loss determination method for complete drive modules (CDM) "and are under a typical factory laboratory environment.

Note 2. The loss value of the inverter will be affected by the following factors: the inverter parameter settings (such as carrier frequency setting, torque boost, etc.), factory power voltage fluctuations, voltage harmonics, the type of motor used, the actual wiring, etc.