

Description of adding rated input current on inverter specification

Thank you for choosing and supporting Shihlin electric products. To meet customer requirement, we added rated input current on the specification, as shown below :

A、Objective models:

SA3/SC3/SS2/SE3/SF3 series inverter

B、New added rated input current description:

1. The rated input current value of the inverter indicates the value at the rated output current, which is affected not only by the power transformer, the input side reactor, the wiring condition, but also with the impedance of the power supply side.
2. Specifications for SA3 / SC3 / SS2 / SE3 / SF3 series are added with rated input current, as shown in the annex.

C、Notification:

1. Customers in need should refer to this document first to select the peripheral equipment on the input side;
2. This will be added to manual one by one when the corresponding manual is upgraded.

Release Date	2019/8/10	Parts Name	Description of adding rated input current on inverter specification	Shihlin Electric Automation Group
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— SA3 specifications

1.1 440V series three-phase

Frame		A					B			C			D	
Model SA3-043-【 】-xy		0.75K/ 1.5KF	1.5K/ 2.2KF	2.2K/ 3.7KF	3.7 K / 5.5KF	5.5 K / 7.5KF	7.5 K / 11KF	11 K / 15KF	15 K / 18.5KF	18.5 K / 22KF	22 K / 30KF	30 K / 37 KF	37K/ 45KF	
Inverter Output	HD	Rated output capacity (kVA)	2	3	4.6	6.9	10	14	18	25	29	34	46	56
		Rated output current (A)	3.0	4.2	6	9	12	17	24	32	38	45	60	73
		Applicable motor capacity (HP)	1	2	3	5	7.5	10	15	20	25	30	40	50
		Applicable motor capacity (kW)	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37
		Overload current rating	150% 60 seconds, 200% 3seconds (inverse-time characteristics)											
		Carrier frequency (kHz)	1~15KHz											
	ND	Rated output capacity (kVA)	3	4.6	6.9	10	14	18	25	29	34	46	56	69
		Rated output current (A)	4.2	6	9	12	17	24	32	38	45	60	73	91
		Applicable motor capacity (HP)	2	3	5	7.5	10	15	20	25	30	40	50	60
		Applicable motor capacity (kW)	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45
		Overload current rating	120% 60seconds (inverse-time characteristics)											
		Carrier frequency (kHz)	1 ~ 15KHz											
Maximum output voltage		3 phase 380-480V												
Power Supply	Rated input AC voltage/ frequency		3 phase 380-480V 50Hz / 60Hz											
	Permissible AC voltage fluctuation		3 phase 323-528V 50Hz / 60Hz											
	Permissible frequency fluctuation		±5%											
	Power supply capacity (kVA)		2.5	4.5	6.9	10.4	11.5	16	20	27	32	41	52	65
	Rated input current (A) *Note 1	HD	4.0	5.9	8.7	14	17	20	26	35	40	47	63	74
ND		5.9	8.7	14	17	20	26	35	40	47	63	74	101	
Cooling method		Self cooling	Fan cooling											
Weight (kg)		3.15	3.15	3.15	3.15	3.15	6	6	6	9.8	9.8	9.8	33	

Note 1: The value indicates the current at rated output. The rated input current value is not only affected by power transformer, input side reactor, wiring condition, but also fluctuates with the impedance of the power supply side.

Frame		D			E		F	G				H		
Model SA3-043-【】-xy		45K/ 55KF	55K/ 75KF	75K/ 90KF	90K/ 110KF	110K/ 132KF	132K/ 160KF	160K/ 185KF	185K/ 220KF	220K/ 250KF	250K/ 280KF	280K/ 315KF	315K/ 355KF	
Inverter Output	HD	Rated output capacity (kVA)	69	84	114	137	168	198	236	295	367	402	438	491
		Rated output current (A)	91	110	150	180	220	260	310	340	425	480	530	620
		Applicable motor capacity (HP)	60	75	100	120	150	175	215	250	300	335	375	420
		Applicable motor capacity (kW)	45	55	75	90	110	132	160	185	220	250	280	315
		Overload current rating	150% 60 seconds, 200% 3seconds (inverse-time characteristics)											
		Carrier frequency (kHz)	1~9kHz										1~3kHz	
	ND	Rated output capacity (kVA)	84	114	137	168	198	236	295	367	402	438	491	544
		Rated output current (A)	110	150	180	220	260	310	340	425	480	530	620	683
		Applicable motor capacity (HP)	75	100	120	150	175	215	250	300	335	375	420	475
		Applicable motor capacity (kW)	55	75	90	110	132	160	185	220	250	280	315	355
		Overload current rating	120% 60seconds (inverse-time characteristics)											
		Carrier frequency (kHz)	1~9kHz										1~3kHz	
Maximum output voltage		3 phase 380-480V												
Power Supply	Rated input AC voltage/frequency		3 phase 380-480V 50Hz / 60Hz											
	Permissible AC voltage fluctuation		3 phase 323-528V 50Hz / 60Hz											
	Permissible frequency fluctuation		±5%											
	Power supply capacity (kVA)		79	100	110	137	165	198	247	295	367	402	438	491
	Rated input current (A) *Note 1	HD	101	114	157	167	207	240	300	380	400	500	550	650
ND		114	157	167	207	240	300	380	400	500	550	650	700	
Cooling method		Fan cooling												
Weight (kg)		33	33	33	42.7	42.7	56.5	84	84	84	84	123	123	

Note 1: The value indicates the current at rated output. The rated input current value is not only affected by power transformer, input side reactor, wiring condition, but also fluctuates with the impedance of the power supply side.

1.2 220V three phase

Frame		A				B			C		D				
Model SA3-023-【 】-xy		0.75K/ 1.5KF	1.5K/ 2.2KF	2.2K/ 3.7KF	3.7K/ 5.5KF	5.5K/ 7.5KF	7.5K/ 11KF	11K/ 15KF	15K/ 18.5KF	18.5K/ 22KF	22K/ 30KF	30K/ 37KF	37K/ 45KF		
Inverter Output	H	Rated output capacity (kVA)													
	Rated output current (A)		2	3.2	4.2	6.7	9.5	12.5	18.3	24.7	28.6	34.3	45.7	55	
	Applicable motor capacity (HP)		5	8	11	17.5	25	33	49	65	75	90	120	145	
	Applicable motor capacity (kW)		1	2	3	5	7.5	10	15	20	25	30	40	50	
	Overload current rating		150% 60 seconds, 200% 3seconds (inverse-time characteristics)												
	Carrier frequency (kHz)		1~15Hz									1~9kHz			
	N D	Rated output capacity (kVA)		0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37
		Rated output current (A)		120% 60seconds (inverse-time characteristics)											
		Applicable motor capacity (HP)		1~15KHz											
		Applicable motor capacity (kW)		1~9kHz											
Overload current rating		120% 60seconds (inverse-time characteristics)													
Carrier frequency (kHz)		1~15KHz									1~9kHz				
Maximum output voltage		3 phase 200-240V													
Power Supply	Rated input AC voltage/frequency		3 phase 200-240V 50Hz / 60Hz												
	Permissible AC voltage fluctuation		3 phase 170-264V 50Hz / 60Hz												
	Permissible frequency fluctuation		±5%												
	Power supply capacity (kVA)		2.5	4.5	6.4	10	12	17	20	28	34	41	52	65	
	Rated input current (A) *Note 1	HD	6	12	16	20	28	35	52	72	83	93	124	143	
ND		12	16	20	28	35	52	72	83	93	124	143	180		
Cooling method		Self cooling	Fan cooling												
Inverter weight (kg)		3.15	3.15	3.15	3.15	6	6	6	10.6	10.6	33	33	33		

Note 1: The value indicates the current at rated output. The rated input current value is not only affected by power transformer, input side reactor, wiring condition, but also fluctuates with the impedance of the power supply side.

Frame		E		F	G								
Model SA3-023-【】		45K/ 55KF	55K/ 75KF	75K/ 90KF	90K/ 110KF	110K/ 132KF							
Inverter Output	HD	Rated output capacity (kVA)	65	82	110	132	165						
		Rated output current (A)	170	215	288	346	432						
		Applicable motor capacity (HP)	60	75	100	120	145						
		Applicable motor capacity (kW)	45	55	75	90	110						
		Overload current rating	150% 60 seconds, 200% 3seconds (inverse-time characteristics)										
		Carrier frequency (kHz)	1~9kHz										
	ND	Rated output capacity (kVA)	82	110	132	165	193						
		Rated output current (A)	215	288	346	432	506						
		Applicable motor capacity (HP)	75	100	120	145	175						
		Applicable motor capacity (kW)	55	75	90	110	132						
		Overload current rating	120% 60seconds (inverse-time characteristics)										
		Carrier frequency (kHz)	1~9kHz										
Maximum output voltage		3 phase 200-240V											
Power Supply	Rated input AC voltage/ frequency		3 phase 200-240V 50Hz / 60Hz										
	Permissible AC voltage fluctuation		3 phase 170-264V 50Hz / 60Hz										
	Permissible frequency fluctuation		±5%										
	Power supply capacity (kVA)		79	100	110	132	165						
	Rated input current (A) *Note 1	HD	180	250	300	380	450						
ND		250	300	380	450	520							
Cooling method		Fan cooling											
Inverter weight (kg)		42.7	42.7	56.5	89.2	90.2							

Note 1: The value indicates the current at rated output. The rated input current value is not only affected by power transformer, input side reactor, wiring condition, but also fluctuates with the impedance of the power supply side.

SC3 specifications

2.1 440V series three-phase

Frame		A			B		
Model SC3-043-□□□K-xy		0.4	0.75	1.5	2.2	3.7	5.5
Inverter Output	Rated output capacity (kVA)	1	2	3	4.6	6.9	9.2
	Rated output current (A)	1.5	2.6	4.2	6	9	12
	Applicable motor capacity (HP)	0.5	1	2	3	5	7.5
	Applicable motor capacity (kW)	0.4	0.75	1.5	2.2	3.7	5.5
	Overload current rating	150% 60 seconds, 200% 1 seconds (inverse-time characteristics)					
	Carrier frequency (kHz)	1~15kHz					
	Maximum output voltage	3 phase 380-480V					
Power Supply	Rated input AC voltage/frequency	3 phase 380-480V			50Hz / 60Hz		
	Permissible AC voltage fluctuation	3 phase 323-528V			50Hz / 60Hz		
	Permissible frequency fluctuation	±5%					
	Power supply capacity (kVA)	1.5	2.5	4.5	6.9	10.4	11.5
	Rated input current (A) *Note 1	1.8	3.2	4.3	7.1	10	14
Cooling method	Self cooling	Fan cooling					
Weight (kg)	0.74	0.74	0.81	1.37	1.37	1.42	

Note 1: The value indicates the current at rated output. The rated input current value is not only affected by power transformer, input side reactor, wiring condition, but also fluctuates with the impedance of the power supply side.

2.2 440V 220V three phase

Frame		A				B	
Model SC3-023-□□□K-xy		0.2	0.4	0.75	1.5	2.2	3.7
Inverter Output	Rated output capacity (kVA)	0.6	1.2	2	3.2	4.2	6.7
	Rated output current (A)	1.8	3	5	8	11	17.5
	Applicable motor capacity (HP)	0.25	0.5	1	2	3	5
	Applicable motor capacity (kW)	0.2	0.4	0.75	1.5	2.2	3.7
	Overload current rating	150% 60 seconds, 200% 1 seconds (inverse-time characteristics)					
	Carrier frequency (kHz)	1~15kHz					
	Maximum output voltage	3 phase 200-240V					
Power Supply	Rated input AC voltage/ frequency	3 phase 200-240V				50Hz / 60Hz	
	Permissible AC voltage fluctuation	3 phase 170-264V				50Hz / 60Hz	
	Permissible frequency fluctuation	±5%					
	Power supply capacity (kVA)	0.75	1.5	2.5	4.5	6.4	10
	Rated input current (A) *Note 1	2.1	3.2	5.6	9.3	15	20.6
Cooling method	Self cooling	Fan cooling					
Weight (kg)	0.69	0.69	0.70	0.73	1.32	1.4	

Note 1: The value indicates the current at rated output. The rated input current value is not only affected by power transformer, input side reactor, wiring condition, but also fluctuates with the impedance of the power supply side.

2.3 220V single phase

Frame		A			B	
Model SC3-021-□□□K-xy		0.2	0.4	0.75	1.5	2.2
Inverter Output	Rated output capacity (kVA)	0.6	1	1.5	2.5	4.2
	Rated output current (A)	1.8	2.7	4.5	8	11
	Applicable motor capacity (HP)	0.25	0.5	1	2	3
	Applicable motor capacity (kW)	0.2	0.4	0.75	1.5	2.2
	Overload current rating	150% 60 seconds, 200% 1 seconds (inverse-time characteristics)				
	Carrier frequency (kHz)	1~15kHz				
	Maximum output voltage	3 phase 200-240V				
Power Supply	Rated input AC voltage/ frequency	1phase 200-240V			50Hz / 60Hz	
	Permissible AC voltage fluctuation	1phase 170-264V			50Hz / 60Hz	
	Permissible frequency fluctuation	±5%				
	Power supply capacity (kVA)	0.75	1.5	2.5	3.5	6.4
	Rated input current (A) *Note 1	5.4	6.5	9.3	15.7	24
Cooling method	Self cooling	Fan cooling				
Weight (kg)	0.66	0.68	0.73	1.38	1.4	

Note 1: The value indicates the current at rated output. The rated input current value is not only affected by power transformer, input side reactor, wiring condition, but also fluctuates with the impedance of the power supply side.

SS2 specifications

3.1 220V single phase

Model SS2-021-□□□K		0.4	0.75	1.5	2.2	
Motor capacity		HP	0.5	1	2	3
		KW	0.4	0.75	1.5	2.2
Inverter Output	Rated output capacity (kVA)		0.95	1.5	2.5	4.2
	Rated output current (A)		2.7	4.5	8	11
	Overload current rating		150% 60 seconds, 200% 1 seconds (inverse-time characteristics)			
	Maximum output voltage		3 phase 200~240V			
Power Supply	Rated input AC voltage/ frequency		Single phase 200~240V 50Hz / 60Hz			
	Permissible AC voltage fluctuation		Single phase 170~264V 50Hz / 60Hz			
	Permissible frequency fluctuation		±5%			
	Power supply capacity (kVA)		1.5	2.5	3.5	6.4
	Rated input current (A) *Note 1		6.5	9.3	15.7	24
Cooling method		Self cooling	Fan cooling			
Weight (kg)		1.1	1.2	1.6	1.7	

Note 1: The value indicates the current at rated output. The rated input current value is not only affected by power transformer, input side reactor, wiring condition, but also fluctuates with the impedance of the power supply side.

3.2 220V series three-phase

Model SS2-023-□□□K		0.4	0.75	1.5	2.2	3.7	
Motor capacity		HP	0.5	1	2	3	5
		KW	0.4	0.75	1.5	2.2	3.7
Inverter Output	Rated output capacity (kVA)		1.2	2	3.2	4.2	6.7
	Rated output current (A)		3	5	8	11	17.5
	Overload current rating		150% 60 seconds, 200% 1 seconds (inverse-time characteristics)				
	Maximum output voltage		3 phase 200~240V				
Power Supply	Rated input AC voltage/ frequency		3 phase 200~240V 50Hz / 60Hz				
	Permissible AC voltage fluctuation		3 phase 170~264V 50Hz / 60Hz				
	Permissible frequency fluctuation		±5%				
	Power supply capacity (kVA)		1.5	2.5	4.5	6.4	10
	Rated input current (A) *Note 1		3.2	5.6	9.3	15	20.6
Cooling method		Self cooling	Fan cooling				
Weight (kg)		1.1	1.2	1.2	1.6	1.7	

Note 1: The value indicates the current at rated output. The rated input current value is not only affected by power transformer, input side reactor, wiring condition, but also fluctuates with the impedance of the power supply side.

3.3 440V series three-phase

Model SS2-043-□□□K		0.4	0.75	1.5	2.2	3.7	5.5	
Motor capacity		HP	0.5	1	2	3	5	7.5
		KW	0.4	0.75	1.5	2.2	3.7	5.5
Inverter Output	Rated output capacity (kVA)		1	2	3	4.6	6.9	9.2
	Rated output current (A)		1.5	2.6	4.2	6	9	12
	Overload current rating		150% 60 seconds, 200% 1 seconds (inverse-time characteristics)					
	Maximum output voltage		3phase 380~480V					
Power Supply	Rated input AC voltage/ frequency		3 phase 380~480V 50Hz / 60Hz					
	Permissible AC voltage fluctuation		3 phase 323~528V 50Hz / 60Hz					
	Permissible frequency fluctuation		±5%					
	Power supply capacity (kVA)		1.5	2.5	4.5	6.9	10.4	13.8
	rated input current A (Note 1)		1.8	3.2	4.3	7.1	10	14
Cooling method		Self cooling			Fan cooling			
Weight (kg)		1.1	1.1	1.2	1.6	1.7	1.7	

Note 1: The value indicates the current at rated output. The rated input current value is not only affected by power transformer, input side reactor, wiring condition, but also fluctuates with the impedance of the power supply side.

Note: Test conditions for rated output current, rated output capacity, and inverter power consumption: carrier frequency (P.72) is set to default value, the inverter output voltage is 220V / 440V, the output frequency is 60Hz, and the ambient temperature is 50 °C.

SE3 specifications

4.1 440V series three-phase

frame		A			B		C			D			
Model SE3-043-【 】-xy		0.4K	0.75K	1.5K	2.2K	3.7 K	5.5 K	7.5 K	11 K	15K	18.5K	22K	
Inverter Output	HD	Rated output capacity (kVA)	1	2	3	4.6	6.9	10	14	18	25	29	34
		Rated output current (A)	1.5	2.7	4.2	6	9	12	17	24	32	38	45
		Applicable motor capacity (HP)	0.5	1	2	3	5	7.5	10	15	20	25	30
		Applicable motor capacity (kW)	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22
		Overload current rating	150% 60 seconds, 200% 3seconds (inverse-time characteristics)										
		Carrier frequency (kHz)	1~15KHz										
	ND	Rated output capacity (kVA)	1.4	2.3	3.5	5	8	12	15.6	21.3	27.4	31.6	37.3
		Rated output current (A)	1.8	3	4.6	6.5	10.5	15.7	20.5	28	36	41.5	49
		Applicable motor capacity (HP)	0.5	1	2	3	5	7.5	10	15	20	25	30
		Applicable motor capacity (kW)	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22
		Overload current rating	120% 60seconds (inverse-time characteristics)										
		Carrier frequency (kHz)	1 ~ 15KHz										
	Maximum output voltage		3 phase 380-480V										
	Power Supply	Rated input AC voltage/frequency		3 phase 380-480V 50Hz / 60Hz									
Permissible AC voltage fluctuation		3 phase 323-528V 50Hz / 60Hz											
Permissible frequency fluctuation		±5%											
Power supply capacity (kVA)		1.5	2.5	4.5	6.9	10.4	11.5	16	20	27	32	41	
Rated input current (A) *Note 1		HD	2.1	3.7	5.8	6.5	9.9	14.3	18.7	27.5	35.2	41.8	48.5
	ND	2.5	4.2	6.4	7.2	11.6	17.3	22.6	30.8	39.6	47.7	53.9	
Cooling method		Self cooling	Fan cooling										
Weight (kg)		1.0	1.0	1.0	1.5	1.5	3.9	4.0	4.0	5.7	5.8	5.8	

Note 1: The value indicates the current at rated output. The rated input current value is not only affected by power transformer, input side reactor, wiring condition, but also fluctuates with the impedance of the power supply side.

4.2 220V single phase

Frame		A		B		
Model SE3-021-【 】-xy		0.4K	0.75K	1.5K	2.2K	
Inverter Output	HD	Rated output capacity (kVA)	1	1.5	3.2	4.2
		Rated output current (A)	2.7	4.5	8	11
		Applicable motor capacity (HP)	0.5	1	2	3
		Applicable motor capacity (kW)	0.4	0.75	1.5	2.2
		Overload current rating	150% 60 seconds, 200% 3seconds (inverse-time characteristics)			
		Carrier frequency (kHz)	1~15KHz			
	ND	Rated output capacity (kVA)	1.2	2	3.4	4.8
		Rated output current (A)	3	5	8.5	12.5
		Applicable motor capacity (HP)	0.5	1	2	3
		Applicable motor capacity (kW)	0.4	0.75	1.5	2.2
		Overload current rating	120% 60seconds (inverse-time characteristics)			
		Carrier frequency (kHz)	1~15KHz			
	Maximum output voltage		3 phase 200-240V			
	Power Supply	Rated input AC voltage/ frequency		Single phase 200-240V 50Hz / 60Hz		
Permissible AC voltage fluctuation		Single phase 170-264V 50Hz / 60Hz				
Permissible frequency fluctuation		±5%				
Power supply capacity (kVA)		1.5	2.5	4.5	6.9	
Rated input current (A) *Note 1		HD	5.9	9.7	14.8	23.1
		ND	6.7	10.5	17.9	26.3
Cooling method		Self cooling		Fan cooling		
Weight (kg)		1.0	1.0	1.5	1.5	

Note 1: The value indicates the current at rated output. The rated input current value is not only affected by power transformer, input side reactor, wiring condition, but also fluctuates with the impedance of the power supply side.

4.3 220V three phase

Frame		A			B		C		D				
Model SE3-023-【】-xy		0.4K	0.75K	1.5K	2.2K	3.7K	5.5K	7.5K	11K	15K			
Inverter Output	HD	Rated output capacity (kVA)	1.2	2	3.2	4.2	6.7	9.5	12.5	18.3	24.7		
		Rated output current (A)	3	5	8	11	17.5	25	33	49	65		
		Applicable motor capacity (HP)	0.5	1	2	3	5	7.5	10	15	20		
		Applicable motor capacity (kW)	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15		
		Overload current rating	150% 60 seconds, 200% 3seconds (inverse-time characteristics)										
	Carrier frequency (kHz)	1~15kHz											
	ND	Rated output capacity (kVA)	1.3	2.1	3.4	4.8	7.4	10.3	13.7	19.4	26.3		
		Rated output current (A)	3.2	5.5	8.5	12.5	19.5	27	36	51	69		
		Applicable motor capacity (HP)	0.5	1	2	3	5	7.5	10	15	20		
		Applicable motor capacity (kW)	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15		
Overload current rating		120% 60seconds (inverse-time characteristics)											
Carrier frequency (kHz)	1~15kHz												
Maximum output voltage		3 phase 200-240V											
Power Supply	Rated input AC voltage/frequency		3 phase 200-240V 50Hz / 60Hz										
	Permissible AC voltage fluctuation		3 phase 170-264V 50Hz / 60Hz										
	Permissible frequency fluctuation		±5%										
	Power supply capacity (kVA)		1.5	2.5	4.5	6.4	10	12	17	20	28		
	Rated input current (A) *Note 1	HD	3.5	6.0	9.6	13.2	20.4	30	39.6	58.8	78		
ND		3.8	6.6	10.2	15	23.4	32.4	43.2	61.2	82.8			
Cooling method		Self cooling	Fan cooling										
Weight (kg)		1.0	1.0	1.0	1.5	1.5	4.0	4.1	5.7	5.8			

Note 1: The value indicates the current at rated output. The rated input current value is not only affected by power transformer, input side reactor, wiring condition, but also fluctuates with the impedance of the power supply side.