



SA3 Series



Factory Automation overseas sales division

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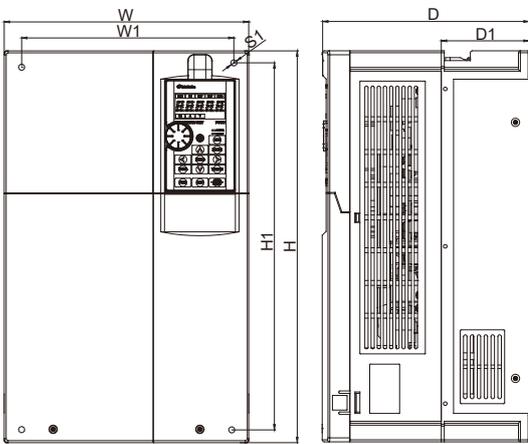
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Main features

- Optional LCD keypad(default is LED)
- Closed-loop vector control (FOC+PG), Torque control (TQC +PG)
- Able to add three expansion cards
- Dual RJ45 communication ports
- Output frequency can be controlled by PWM pulse input signal
- Asynchronous (IM) motor and PM motor (SPM & IPM) control
- Capable of performing position control, torque control with mode switch function
- 4-Quadrant Torque control and limits
- Built-in PLC function: free PLC ladder programming software for easy programming with 21 basic commands and 14 application commands
- Optional encoder PG cards (Open-Collector, Line-Driver, Resolver), communication cards (CANopen, DeviceNet, Profibus-DP, Ethernet, EtherCAT), IO cards(6 digital input 2 relay output/ 8 relay output)

Dimensions



Model	Frame	W	W1	H	H1	D	D1	S1
SA3-043-0.75K/1.5KF~5.5K/7.5KF	A	130.0	116.0	250.0	236.0	170.0	51.3	6.2
SA3-023-0.75K/1.5KF~3.7K/5.5KF								
SA3-043-7.5K/11KF~15K/18.5KF								
SA3-023-5.5K/7.5KF~11K/15KF	B	190.0	173.0	320.0	303.0	190.0	80.5	8.5
SA3-043-18.5K/22KF~30K/37KF								
SA3-023-15K/18.5KF~18.5K/22KF	C	250.0	231.0	400.0	381.0	210.0	89.5	8.5
SA3-043-37K/45KF~75K/90KF								
SA3-023-22K/30KF~37K/45KF	D	330.0	245.0	550.0	525.0	275.0	137.5	11.0
SA3-043-90K/110KF~110K/132KF								
SA3-023-45K/55KF~55K/75KF	E	370.0	295.0	589.0	560.0	300.0	137.5	11.0
SA3-043-132K/160KF								
SA3-023-75K/90KF	F	420.0	330.0	800.0	770.0	300.0	145.5	13.0
SA3-043-160K/185KF~250K/280KF								
SA3-023-90K/110KF~110K/132KF	G	500.0	180.0	870.0	850.0	360.0	150.0	13.0
SA3-043-280K/315K~315K/355KFF								

Common specifications

Control method	SVPWM control, V/F control, close-loop V/F control (VF+PG), general flux vector control, sensorless vector control (SVC), close-loop vector control (FOC+PG), torque control (TQC+PG).	
Output frequency range	0~599.00Hz	
Input terminal	Digital	10 terminals,1 with 100kHz input resolution, able to switch between sink/source.
	Analog	3 terminals, 2 with 4~20mA or 0~10V range, 1 with -10~+10V range.
Output terminal	Digital	2 programmable 1a1b relay, 2 programmable transistor, 1 high speed pulse output.
	Analog	2 with 0~10V/0~20mA/4~20mA range.
Brake transistor	Built-in in Frame A B C.	
Starting torque	150% 0.3Hz (SVC), 180% 0Hz (FOC+PG).	
Drive motor	Induction motor(IM), permanent magnet motor(SPM, IPM).	
Communication function	Built-in Shihlin/Modbus communication protocol, can select Modbus TCP/CANopen/Profibus/DeviceNet/EtherCAT card.	
Environment	Ambient temperature	Heavy load:-10~+50°C (non-freezing), Light load:-10~+40°C (non-freezing).
	Ambient humidity	Below 90%Rh (non-condensing).
	Storage temperature	-20~+65°C.
	Surrounding	Indoor, no corrosive gas, no flammable gas, no flammable powder.



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Electrical specifications

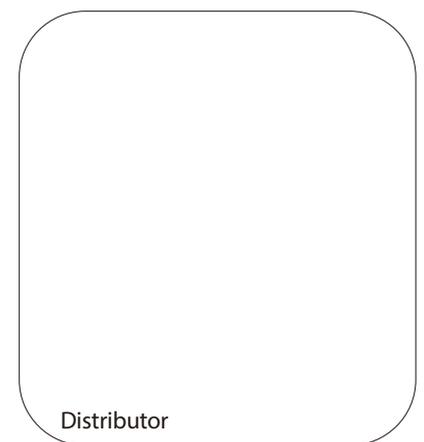
3 Phase 220V

Frame		A				B			C		D			E		F		G	
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	45K/55KF	55K/75KF	75K/90KF	90K/110KF	110K/132KF	
Inverter Output	HD	Rated output capacity (kVA)	2	3.2	4.2	6.7	9.5	12.5	18.3	24.7	28.6	34.3	45.7	55	65	82	110	132	165
		Rated output current (A)	5	8	11	17.5	25	33	49	65	75	90	120	145	170	215	288	346	432
		Applicable motor capacity (HP)	1	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	120	145
		Applicable motor capacity (kW)	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110
		Overload current rating	150% 60 seconds, 200% 3seconds																
	Carrier frequency (kHz)	1~15kHz									1~9kHz								
	ND	Rated output capacity (kVA)	3.2	4.2	6.7	9.5	12.5	18.3	24.7	28.6	34.3	45.7	55	65	82	110	132	165	193
		Rated output current (A)	8	11	17.5	25	33	49	65	75	90	120	145	170	215	288	346	432	506
		Applicable motor capacity (HP)	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	120	145	175
		Applicable motor capacity (kW)	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132
Overload current rating		120% 60seconds																	
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	79	100	110	132	165	
Cooling method	No fan		Fan cooling																
Inverter weight (kg)	3.15	3.15	3.15	3.15	6	6	6	10.6	10.6	33	33	33	42.7	42.7	56.5	89.2	90.2		

3 Phase 440V

Frame		A				B			C			D			E				
Model SA3-043-【】-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	45K/55KF	55K/75KF	75K/90KF	90K/110KF	110K/132KF	
Inverter Output	HD	Rated output capacity (kVA)	2	3	4.6	6.9	10	14	18	25	29	34	46	56	69	84	114	137	168
		Rated output current (A)	3.0	4.2	6	9	12	17	24	32	38	45	60	73	91	110	150	180	220
		Applicable motor capacity (HP)	1	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	120	150
		Applicable motor capacity (kW)	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110
		Overload current rating	150% 60 seconds, 200% 3seconds																
	Carrier frequency (kHz)	1~15kHz									1~9kHz								
	ND	Rated output capacity (kVA)	3	4.6	6.9	10	14	18	25	29	34	46	56	69	84	114	137	168	198
		Rated output current (A)	4.2	6	9	12	17	24	32	38	45	60	73	91	110	150	180	220	260
		Applicable motor capacity (HP)	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	120	150	175
		Applicable motor capacity (kW)	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132
Overload current rating		120% 60seconds																	
Carrier frequency (kHz)	1~15kHz									1~9kHz									
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	79	100	110	137	165	
Cooling method	No fan		Fan cooling																
Weight (kg)	3.15	3.15	3.15	3.15	3.15	6	6	6	9.8	9.8	9.8	33	33	33	33	42.7	42.7		

Frame		F		G				H	
Model SA3-043-【】-xy		132K/160KF	160K/185KF	185K/220KF	220K/250KF	250K/280KF	280K/315KF	315K/355KF	
Inverter Output	HD	Rated output capacity (kVA)	198	236	295	367	402	438	491
		Rated output current (A)	260	310	340	425	480	530	620
		Applicable motor capacity (HP)	175	215	250	300	335	375	420
		Applicable motor capacity (kW)	132	160	185	220	250	280	315
		Overload current rating	150% 60 seconds, 200% 3seconds						
	Carrier frequency (kHz)	1~9kHz				1~3kHz			
	ND	Rated output capacity (kVA)	236	295	367	402	438	491	544
		Rated output current (A)	310	340	425	480	530	620	683
		Applicable motor capacity (HP)	215	250	300	335	375	420	475
		Applicable motor capacity (kW)	160	185	220	250	280	315	355
Overload current rating		120% 60seconds							
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)	198	247	295	367	402	438	491	
Cooling method	Fan cooling								
Weight (kg)	56.5	84	84	84	84	123	123		



Distributor

DM210802-L-SA3