

9-3 460V Series

460V series_3-phase without built-in filter

Model VFD_____		ANSAA ENSAA	1A5MS43	2A7MS43	4A2MS43	5A5MS43	9A0MS43
Applicable Motor Output (kW)			0.4	0.75	1.5	2.2	3.7
Applicable Motor Output (hp)			0.5	1	2	3	5
Output	Heavy duty	Rated Output Capacity (kVA)	1.1	2.1	3.2	4.2	6.9
		Rated Output Current (A)	1.5	2.7	4.2	5.5	9
		Carrier Frequency (kHz)	2~15 (default 4)				
	Normal duty	Rate Output Capacity (kVA)	1.4	2.3	3.5	5	8
		Rated Output Current (A)	1.8	3	4.6	6.5	10.5
		Carrier Frequency (kHz)	2~15 (default 4)				
Input	Rated Input Current (A)	Heavy Duty	2.1	3.7	5.8	6.1	9.9
		Normal Duty	2.5	4.2	6.4	7.2	11.6
	Rated Voltage / Frequency		3-phase AC 380V~480VAC (-15% ~ +10%) / 50/60Hz				
	Mains Input Voltage Range (VAC)		342~528				
	Mains Frequency Range (Hz)		47~63				
Frame			A4	A5	B1	C1	
AC Drive Weight (kg)			0.76	0.81	1.05	1.24	
Cooling Method			Natural cooling without fan kit		Fan cooling with fan kit		
EMC Filter			Optional				
IP Rating			VFD_____ANSAA : IP20 VFD_____ENSAA : IP40*				

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Model VFD_____		AFSAA	1A5MS43	2A7MS43	4A2MS43	5A5MS43	9A0MS43
Applicable Motor Output (kW)			0.4	0.75	1.5	2.2	3.7
Applicable Motor Output (hp)			0.5	1	2	3	5
Output	Heavy duty	Rated Output Capacity (kVA)	1.1	2.1	3.2	4.2	6.9
		Rated Output Current (A)	1.5	2.7	4.2	5.5	9
		Carrier Frequency (kHz)	2~15 (default 4)				
	Normal duty	Rate Output Capacity (kVA)	1.4	2.3	3.5	5	8
		Rated Output Current (A)	1.8	3	4.6	6.5	10.5
		Carrier Frequency (kHz)	2~15 (default 4)				
Input	Rated Input Current (A)	Heavy Duty	2.1	3.7	5.8	6.1	9.9
		Normal Duty	2.5	4.2	6.4	7.2	11.6
	Rated Voltage / Frequency		3-phase AC 380V~480VAC (-15% ~ +10%) / 50/60Hz				
	Mains Input Voltage Range (VAC)		342~528				
	Mains Frequency Range (Hz)		47~63				
Frame			B3			C2	
AC Drive Weight (kg)			1.32			1.80	
Cooling Method			Fan cooling with fan kit				
EMC Filter			Built-in				
IP Rating			IP20				

NOTE

- IP40*: The IP rating of wiring area (main circuit terminals and control terminals, frame A/B/C/D/E/F) and the vent near capacitor (frame C/D/E/F) is IP20.
- The value of the carrier frequency is a factory setting. To increase the carrier frequency, the current needs to be decreased. See derating curve diagram of Pr. 06-55 for more information.
- When a load is a shock or impact load, use a higher level model.

460V series_3-phase without built-in filter

Model VFD_____		ANSAA ENSAA	13AMS43	17AMS43	25AMS43	32AMS43	38AMS43	45AMS43
Applicable Motor Output (kW)			5.5	7.5	11	15	18.5	22
Applicable Motor Output (hp)			7.5	10	15	20	25	30
Output	Heavy duty	Rated Output Capacity (kVA)	9.9	13	19.1	24.4	29	34.3
		Rated Output Current (A)	13	17	25	32	38	45
		Carrier Frequency (kHz)	2~15 (default 4)					
	Normal duty	Rate Output Capacity (kVA)	12	15.6	21.3	27.4	31.6	37.3
		Rated Output Current (A)	15.7	20.5	28	36	41.5	49
		Carrier Frequency (kHz)	2~15 (default 4)					
Input	Rated Input Current (A)	Heavy Duty	14.3	18.7	27.5	35.2	41.8	49.5
		Normal Duty	17.3	22.6	30.8	39.6	45.7	53.9
	Rated Voltage / Frequency		3-phase AC 380V~480VAC (-15% ~ +10%) / 50/60Hz					
	Mains Input Voltage Range (VAC)		342~528					
	Mains Frequency Range (Hz)		47~63					
Frame			D1		E1		F1	
AC Drive Weight (kg)			2.91		5.15		8.50	
Cooling Method		Fan cooling with fan kit						
EMC Filter		Optional						
IP Rating		VFD_____ANSAA : IP20 VFD_____ENSAA : IP40*						

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Model VFD_____		AFSAA	13AMS43	17AMS43	25AMS43	32AMS43	38AMS43	45AMS43
Applicable Motor Output (kW)			5.5	7.5	11	15	18.5	22
Applicable Motor Output (hp)			7.5	10	15	20	25	30
Output	Heavy duty	Rated Output Capacity (kVA)	9.9	13	19.1	24.4	29	34.3
		Rated Output Current (A)	13	17	25	32	38	45
		Carrier Frequency (kHz)	2~15 (default 4)					
	Normal duty	Rate Output Capacity (kVA)	12	15.6	21.3	27.4	31.6	37.3
		Rated Output Current (A)	15.7	20.5	28	36	41.5	49
		Carrier Frequency (kHz)	2~15 (default 4)					
Input	Rated Input Current (A)	Heavy Duty	14.3	18.7	27.5	35.2	41.8	49.5
		Normal Duty	17.3	22.6	30.8	39.6	45.7	53.9
	Rated Voltage / Frequency		3-phase AC 380V~480VAC (-15% ~ +10%) / 50/60Hz					
	Mains Input Voltage Range (VAC)		342~528					
Mains Frequency Range (Hz)		47~63						
Frame			D2		E2		F2	
AC Drive Weight (kg)			2.07		3.97		6.25	
Cooling Method		Fan cooling with fan kit						
EMC Filter		Built-in						
IP Rating		IP20						

 **NOTE**

- IP40*: The IP rating of wiring area (main circuit terminals and control terminals, frame A/B/C/D/E/F) and the vent near capacitor (frame C/D/E/F) is IP20.
- The value of the carrier frequency is a factory setting. To increase the carrier frequency, the current needs to be decreased. See derating curve diagram of Pr. 06-55 for more information.
- When a load is a shock or impact load, use a higher level model.

General Specifications

Control Characteristics	Control Method	V/F、SVC
	Applied Motor	IM (Induction Motor), Simple PM motor control (IPM and SPM)
	Starting Torque [Note 1]	150% / 3 Hz (V/f, SVC control for IM · Heavy duty) 100% / (1/20 of motor rated frequency) (SVC control for PM · Heavy duty)
	Speed Control Range [Note 1]	1 : 50 (V/f, SVC control for IM · Heavy duty) 1 : 20 (SVC control for PM · Heavy duty)
	Max. Output Frequency	0.00~599.00Hz
	Overload Capability	Normal duty: 120% 60s, 150% 3s Heavy duty: 150% 60s, 200% 3s
	Frequency Setting Signal	0~+10V / +10V~-10V 4~20 mA / 0~+10V 1 channel pulse input (33kHz), 1 channel pulse output (33 KHz)
	Main Function	Multi-motor switching (up to 4 independent motor parameters), Fast Run, DEB function, Wobble frequency function, Rapid deceleration function, Main and auxiliary frequency function, Momentary power loss ride thru, Speed search, Over-torque detection, 16-step speed (including main speed), Accel/decel time switch, S-curve accel/decal, 3-wire sequence, JOG frequency, Frequency upper/lower limit settings, DC injection braking at start/stop, PID control, Built-in PLC (2000 steps), Simple positioning function
	Application Macro	Built-in application parameter groups(selected by industry) and user-defined application parameter groups.
Protection Characteristics	Motor Protection	Over-current, Over-voltage, Over-temperature, Phase loss
	Stall Prevention	Stall prevention during acceleration, deceleration and running (independent settings)
Accessory	Communication Cards	DeviceNet、Ethernet/IP、Profibus DP、Modbus TCP、CANopen
	External DC Power Supply	EMM-BPS01 (DC 24V power supply card)
Certifications		UL, CE, C-Tick, TÜV (SIL 2), RoHS, REACH

[Note 1] Control accuracy may vary depending on the environment, application conditions, different motors or encoder. For details, please contact our company or your local distributor.