

# FSDrive-MV1S Standard Specifications

The specifications for each model and capacity are listed below.

All models from 3 kV class 200 kVA to 6 kV class 6000 kVA have the same electric specifications such as control specifications.

## ■ 3 kV Class Models

Table 9.1 3 kV Class FSDrive-MV1S Standard Specifications

Model CIMR-MV1S□A□□□□		132	200	315	450	630	900	13C	15C	18C	25C
Max. Applicable Motor Capacity (kW) <sup>*1</sup>		132	200	315	450	630	900	1250	1500	1800	2500
Nominal Capacity (KVA)		200	285	400	570	800	1150	1500	1900	2300	3000
Output Rating	Rated Output Current (A)	35 (30)	50 (45)	70 (60)	100 (85)	140 (120)	200 (170)	260 (230)	330 (290)	400 (350)	520 (440)
	Rated Output Voltage	Three-phase 3300 V (sine wave)									
Power Supply	Main Circuit (Input Voltage)	Three-phase 3000/3300 V ±10% 50/60 Hz ±5%									
	Control Circuit	Three-phase 200/220 V, 380 V, 400/440 V ±10% 50/60 Hz ±5%									
Inverter Efficiency		Approx. 97% (at motor rated speed and 100% load)									
Inverter Power Factor		0.95 min. (at motor rated speed and 100% load)									
Overload Capacity		110%/60 s, 120%/15 s									
Cooling Method		Forced air-cooling method									
Control Specifications	Control Method	Open-loop vector control, flux vector control, V/f control (for multiple motors)									
	Main Circuit	Voltage type series multiplex									
	Frequency Control Range	0.01 to 120 Hz									
	Frequency Control Accuracy	±0.5%									
	Analog Input Resolution	0.03 Hz									
	Acceleration/Deceleration Time	0.1 to 6,000 seconds									
Main Control Functions		Restart after momentary power loss <sup>*2</sup> , torque limit, coasting to stop, jump frequencies, S-curve acceleration/deceleration, multi-step speed control, KEB function, energy-saving control, excessive deceleration prevention									
Protection Functions		Overcurrent, overvoltage, undervoltage, output ground fault, output open-phase, overload, motor overheat, cooling fan fault etc.									
Communications Functions		MEMOBUS [CP-215 and CP-218 (Ethernet) are optional.]									
Maintainability	Digital Operator	Status display, fault display, commands, setting/reading of constants									
	Main Circuit	Module configuration									
Environmental Specifications	Enclosure	IP 40 (simple dust-proof type)									
	Ambient Temperature and Humidity	-5°C to +40°C, 85%RH max. (with no condensation)									
	Storage Temperature	0°C to +50°C									
	Atmosphere	General environmental conditions (free from dust or corrosive gas), altitude: 1,000 m max.									
General Specifications	Paint Color	Internal and external surfaces painted in Munsell 5Y7/1 semiglossy									
	Applicable Standards	JIS, JEC, JEM, Electric Facility Technical Reference									

\* 1. Maximum applicable capacity of Yaskawa's 4-pole standard motors

\* 2. An uninterruptible input power supply unit (optional) for the control power supply is required to use the restart function for momentary power loss.

Note FSDrive-MV1S does not have the regenerative braking function.

■ 6 kV Class Models

Table 9.2 6 kV Class FSDrive-MV1S Standard Specifications

Model CIMR-MV1S□□□□□□		250	400	630	900	13C	18C	25C	30C	36C	43C	50C
Max. Applicable Motor Capacity (kW)* <sup>1</sup>		250	400	630	900	1250	1800	2500	3000	3600	4300	5000
Nominal Capacity (kVA)		400	560	800	1200	1600	2300	3000	3800	4600	5300	6000
Output Rating	Rated Output Current (A)	35 (30)	50 (45)	70 (60)	100 (85)	140 (120)	200 (170)	260 (230)	330 (290)	400 (350)	460 (395)	520 (440)
	Rated Output Voltage	Three-phase 6600 V (sine wave)										
Power Supply	Main Circuit (Input Voltage)	Three-phase 6000/6600 V ±10% 50/60 Hz ±5%										
	Control Circuit	Three-phase 200/220 V, 380 V, 400/440 V ±10% 50/60 Hz ±5%										
Inverter Efficiency		Approx. 97% (at motor rated speed and 100% load)										
Inverter Power Factor		0.95 min. (at motor rated speed and 100% load)										
Overload Capacity		110%/60 s, 120%/15 s										
Cooling Method		Forced air-cooling method										
Control Specifications	Control Method	Open-loop vector control, flux vector control, V/f control (for multiple motors)										
	Main Circuit	Voltage type series multiplex										
	Frequency Control Range	0.01 to 120 Hz										
	Frequency Control Accuracy	±0.5%										
	Analog Input Resolution	0.03 Hz										
	Acceleration/Deceleration Time	0.1 to 6,000 seconds										
Main Control Functions		Restart after momentary power loss* <sup>2</sup> , torque limit, coasting to stop, jump frequencies, S-curve acceleration/deceleration, multi-step speed control, KEB function, energy-saving control, excessive deceleration prevention										
Protection Functions		Overcurrent, overvoltage, undervoltage, output ground fault, output open-phase, overload, motor overheat, cooling fan fault, etc.										
Communications Functions		MEMOBUS [CP-215 and CP-218 (Ethernet) are optional.]										
Maintainability	Digital Operator	Status display, fault display, commands, setting/reading of constants										
	Main Circuit	Module configuration										
Environmental Specifications	Enclosure	IP 40 (simple dust-proof type)										
	Ambient Temperature and Humidity	-5°C to +40°C, 85%RH max. (with no condensation)										
	Storage Temperature	0°C to +50°C										
	Atmosphere	General environmental conditions (free from dust or corrosive gas), altitude: 1,000 m max.										
General Specifications	Paint Color	Internal and external surface painted in Munsell 5Y7/1 semiglossy										
	Applicable Standards	JIS, JEC, JEM, Electric Facility Technical Reference										

\* 1. Maximum applicable capacity of Yaskawa's 4-pole standard motors

\* 2. An uninterruptible input power supply unit (optional) for the control power supply is required to use the restart function for momentary power loss.

Note FSDrive-MV1S does not have the regenerative braking function.