Digitized Automation for a Changing World

Delta Motor-Mounted Pump Drive MPD / MP300 Series

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Motor-Mounted Pump Drive MPD / MP300 Series

Pumps are widely used for domestic, gardening, aquaculture, catering and lodging, and even industrial environments. In the water supply and drainage systems of cities and factories, pumps also play an indispensable role. However, the traditional way of running a pump is likely to cause a waste of energy. Without a monitoring system to handle unexpected conditions such as dry-running and pipe bursts, it is possible to cause not only damage to the pumps, but also mishaps such as flooding or production delays.

The Delta MPD / MP300 Series boasts three benefits: high energy efficiency, intelligent water supply, and ease of operation. With the IE5 efficiency level motors and variable frequency controls, the energy efficiency of the system reaches the highest level, IES2. The smart multi-pump function can be integrated with the Real-Time Clock function for flexible planning of water supply according to the demand in different time periods. The LCD screen with a three-color display provides a user-friendly interface. The functions of pump protection, such as dry-running protection, burst pipe protection, high / low water pressure protection, and others, greatly improve the reliability of the pump system and effectively prevent potential possible crises in the production process.

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Highlights

Supports Delta App

Monitoring and commissioning via Bluetooth

Multi-color LCD

A clear display of operation status

Protection Class

IP55 waterproof and dust-proof

Delta MSI PMa Synchronous Reluctance Motor with IE5 Efficiency

Flange Dimensions According to IEC Standards

IM B5/V1
IM B14/V18

Built-in EMC Filter

The Class A (C1/C2) filter meets the EN61800 Standards

Motor Adapter Plate Installation

Pairs with motors available on the market

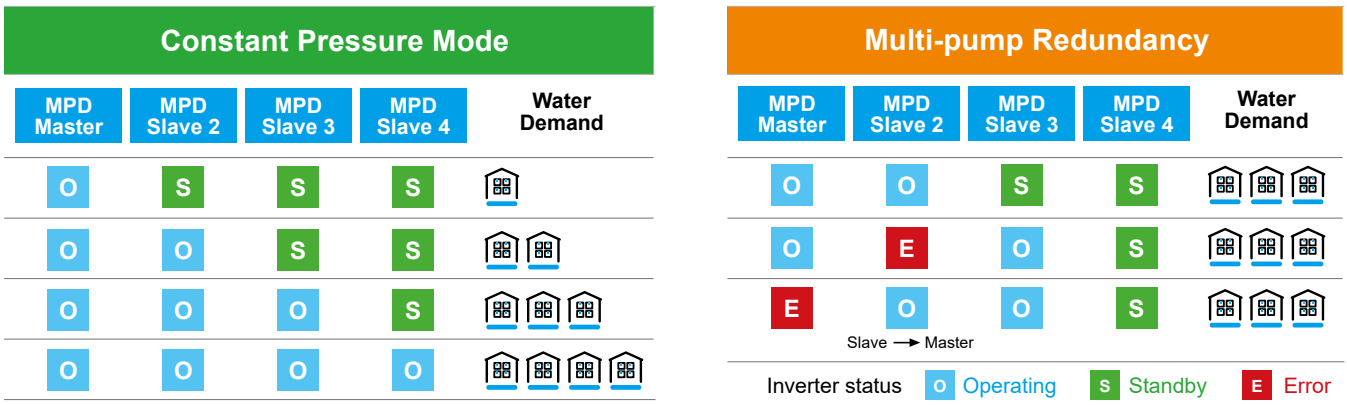
Features

Energy-efficient Product Specifically Designed for Water Pumps

- Equipped with Delta's MSI PMa synchronous reluctance motor with IE5 efficiency level
- Energy efficiency class IES2 complies with IEC 61800-9-2
- Built-in Delta PLC (14k Steps) for optimal scheduling and control of multiple pumps
- Supports Delta app for pump monitoring and commissioning via Bluetooth
- With motor adapter plates, MP300 can be installed on the IM/PM motor

Multi-pump Control

- Alternating operation: Multiple pumps operate alternately at regular intervals to facilitate maintenance and extend equipment life.
- Constant pressure mode: Provides consistent energy-efficient water supply by staging or destaging operating pump quantities based on real-time demands
- Multi-pump redundancy In case of sudden failure of the operating inverter, the backup inverter will automatically take over the operation to maintain water supply



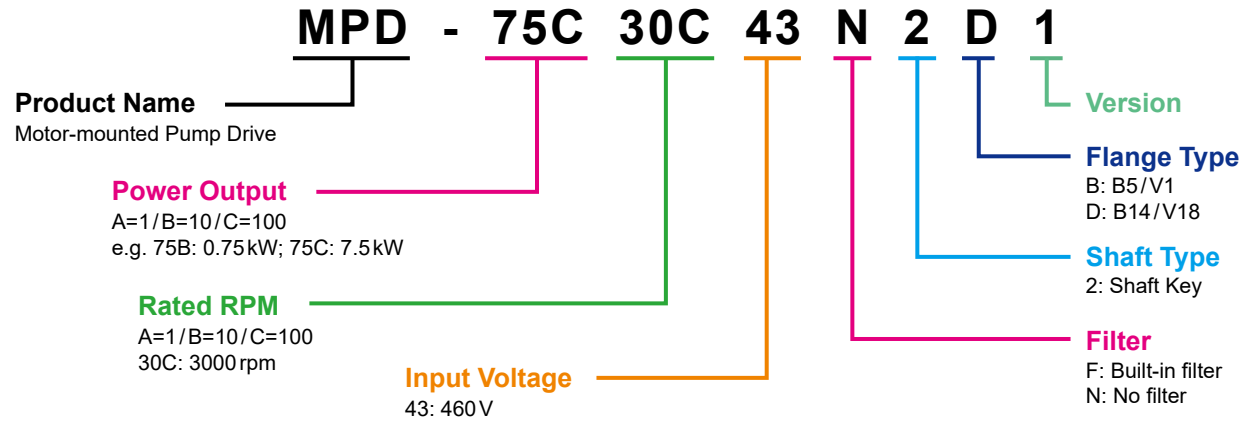
Extensive Functions

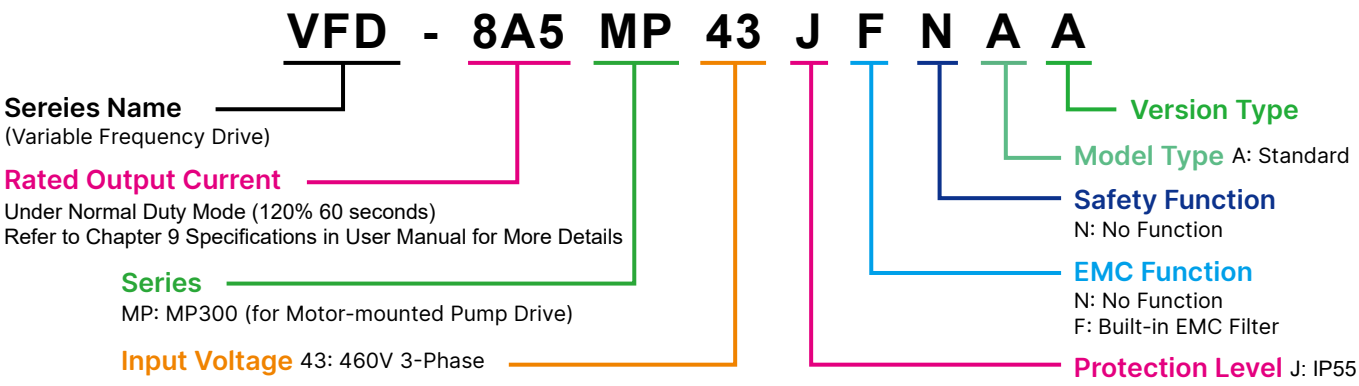
- Sleep mode: The system can automatically enter the hibernation state when it is under constant pressure, avoiding frequent switching on and off.
- Clean function: Removes foreign objects from the pump blades, sets the pump operation cycle, and avoids long periods of no operation
- Water leakage protection: Warns and stops the machine when the pipeline is ruptured due to unexpected conditions
- Dry-running protection: When the water supply is stopped or the water source is cut off, the pump will automatically slow down and stop to avoid damage to the pump
- High/low pressure protection: Monitors the water pressure and gives warning or stops for protection
- Flow rate estimation*: Sends the pump operation information back to the inverter, and with the pump characteristics curve, the flow rate can be estimated.
- Cavitation detection*: The inverter can give an immediate warning when cavitation occurs

* Please contact us for more information regarding the parameters.

Specifications

MPD / MP300 Model





MPD Specifications

460V 3-Phase

Model		Frame A			
MPDModel: MPD_ _ _ 30C43☐2B MPD_ _ _ 30C43☐2D		75B		15C	
		N	F	N	F
Motor Output (kW)		0.75		1.5	
Motor Output (HP)		1		2	
AC Drive Model		VFD1A6MP43JNNAA	VFD1A6MP43JFNAA	VFD3A3MP43JNNAA	VFD3A3MP43JFNAA
Motor Model		MSI75B-30CDXS2B1AP MSI75B-30CDXS2D1AP		MSI15C-30CDXS2B1AP MSI15C-30CDXS2D1AP	
Output	Rated Current of the Motor (A)	1.5		3.1	
	Rated Torque (N.m)	2.3		4.7	
	Rated Speed (rpm)	3,000			
	Inverter Carrier Frequency (kHz) *1	2~15			
Input	Rated Input Current (A)	1.9		3.8	
	Rated Voltage / Frequency	3-Phase AC 380V~480V (-15%~+10%), 50/60Hz			
	Operating Voltage Range (VAC)	323~528			
	Frequency Tolerance (Hz)	47~63			
Cooling Method		Fan Cooling			
EMC Filter		--	Built-in	--	Built-in
CE/RE Class		C1/C2			
IP Protection Level		IP55			
PDS Efficiency Level *2		IES2			

MPD Specifications

460V 3-Phase

Model		Frame A			
MPD Model: MPD_ _ _ 30C43□2B MPD_ _ _ 30C43□2D		22C		30C	
		N	F	N	F
Motor Output (kW)		2.2		3	
Motor Output (HP)		3		4	
AC Drive Model		VFD4A7MP43JNNAA	VFD4A7MP43JFNAA	VFD6A2MP43JNNAA	VFD6A2MP43JFNAA
Motor Model		MSI22C-30CDXS2B1AP, MSI22C-30CDXS2D1AP		MSI30C-30CDXS2B1AP, MSI30C-30CDXS2D1AP	
Output	Rated Current of the Motor (A)	4.4		5.8	
	Rated Torque (N.m)	7		9.5	
	Rated Speed (rpm)	3,000			
	Inverter Carrier Frequency (kHz) *1	2~15			
Input	Rated Input Current (A)	5.4		7.2	
	Rated Voltage / Frequency	3-phase AC 380V~480V (-15%~+10%) · 50/60Hz			
	Operating Voltage Range (VAC)	323~528			
	Frequency Tolerance (Hz)	47~63			
Cooling Method		Fan Cooling			
EMC Filter		--	Built-in	--	Built-in
CE / RE Class		C1/C2			
IP Protection Level		IP55			
PDS Efficiency Level *2		IES2			

Model		Frame A			Frame B
MPD Model: MPD_ _ _ 30C43□2B MPD_ _ _ 30C43□2D		40C		55C	
		N	F	N	F
Motor Output (kW)		4.0		5.5	
Motor Output (HP)		5.5		7.5	
AC Drive Model		VFD8A5MP43JNNAA	VFD8A5MP43JFNAA	VFD11AMP43JNNAA	VFD11AMP43JFNAA
Motor Model		MSI40C-30CDXS2B1AP MSI40C-30CDXS2D1AP		MSI55C-30CDXS2B1AP MSI55C-30CDXS2D1AP	MSI55C-30CDXS2BFAP MSI55C-30CDXS2DFAP
Output	Rated Current of the Motor (A)	8		11	
	Rated Torque (N.m)	12.7		17.5	
	Rated Speed (rpm)	3,000			
	Inverter Carrier Frequency (kHz) *1	2~15			
Input	Rated Input Current (A)	9.9		13.8	
	Rated Voltage / Frequency	3-phase AC 380V~480V (-15%~+10%) · 50/60Hz			
	Operating Voltage Range (VAC)	323~528			
	Frequency Tolerance (Hz)	47~63			
Cooling Method		Fan Cooling			
EMC Filter		--	Built-in	--	Built-in
CE / RE Class		C1/C2			
IP Protection Level		IP55			
PDS Efficiency Level *2		IES2			

Model		Frame B	
MPD Model: MPD_ _ _ 30C43□2B MPD_ _ _ 30C43□2D		75C	
		N	F
Motor Output (kW)		7.5	
Motor Output (HP)		10	
AC Drive Model		VFD15AMP43JNNAA	VFD15AMP43JFNAA
Motor Model		MSI75C-30CDXS2B1AP, MSI75C-30CDXS2D1AP	
Output	Rated Current of the Motor (A)	14.7	
	Rated Torque (N.m)	23.8	
	Rated Speed (rpm)	3,000	
	Inverter Carrier Frequency (kHz) *1	2~15	
Input	Rated Input Current (A)	18.5	
	Rated Voltage / Frequency	3-phase AC 380V~480V (-15%~+10%) · 50/60Hz	
	Operating Voltage Range (VAC)	323~528	
	Frequency Tolerance (Hz)	47~63	
Cooling Method		Fan Cooling	
EMC Filter		--	Built-in
CE / RE Class		C1/C2	
IP Protection Level		IP55	
PDS Efficiency Level *2		IES2	

*1: The carrier frequency is the default value. To increase the carrier frequency, the current should be lowered. Please refer to the manual chapter 9-4 for more information.

*2: Power Drive System according to IEC 61800-9-2

MP300 Specifications

460V 3-Phase

Model		Frame A			
MP300 Model: VFD_ _ _ MP43J☐NAA		1A6	4A7	3A3	6A2
		☐N / ☐F		☐N / ☐F	
Power (kW)		0.75	2.2	1.5	3
Power (HP)		1	3	2	4
Output	Rated Current (A)	1.6	4.7	3.3	6.2
	Inverter Carrier Frequency (kHz) *1	2~15			
Input	Rated Input Current (A)	1.9	5.4	3.8	7.2
	Rated Voltage / Frequency	3-phase AC 380V~480V (-15%~+10%) · 50/60Hz			
	Operating Voltage Range (VAC)	323~528			
	Frequency Tolerance (Hz)	47~63			
Cooling Method		Fan Cooling (Require Adapter Plate)			
EMC Filter (Optional)		-- / Built-in	-- / Built-in	-- / Built-in	-- / Built-in
IP Protection Level		IP55 (Require Adapter Plate and Motor)			
CDM Efficiency Level *2		IE2			

Model		Frame A		Frame B
MP300 Model: VFD_ _ _ MP43J☐NAA		8A5	11A	
		☐N / ☐F	☐N / ☐F	
Power (kW)		4.0	5.5	
Power (HP)		5.5	7.5	
Output	Rated Current (A)	8.5	11	
	Inverter Carrier Frequency (kHz) *1	2~15		
Input	Rated Current (A)	9.9	13.8	
	Rated Voltage / Frequency	3-phase AC 380V~480V (-15%~+10%) · 50/60Hz		
	Operating Voltage Range (VAC)	323~528		
	Frequency Tolerance (Hz)	47~63		
Cooling Method		Fan Cooling (Require Adapter Plate)		
EMC Filter (Optional)		-- / Built-in	-- / Built-in	
IP Protection Level		IP55 (Require Adapter Plate and Motor)		
CDM Efficiency Level *2		IE2		

Model		Frame B	
MP300 Model: VFD_ _ _ MP43J☐NAA		15A	
		☐N	☐F
Power (kW)		7.5	
Power (HP)		10	
Output	Rated Current (A)	14.7	
	Inverter Carrier Frequency (kHz) *1	2~15	
Input	Rated Current (A)	18.5	
	Rated Voltage / Frequency	3-phase AC 380V~480V (-15%~+10%) · 50/60Hz	
	Operating Voltage Range (VAC)	323~528	
	Frequency Tolerance (Hz)	47~63	
Cooling Method		Fan Cooling (Require Adapter Plate)	
EMC Filter (Optional)		--	Built-in
IP Protection Level		IP55 (Require Adapter Plate and Motor)	
CDM Efficiency Level *2		IE2	

*1: The AC motor drive requires derating when the carrier frequency is higher than default. Refer to Section 9-4 for derating curve
*2: Complete Drive Module (CDM) defined by IEC 61800-9-2

General Specifications

Control	Control Method	MP300 : V/F、PMSVC MPD : PMSVC (00-11 = 2)
	Applicable Motor	IM (induction motor), PM control (IPM, SPM), MSI motor
	Output frequency (Hz)	MPD: 0.00~the maximum frequency which depends on the motor specification MP300: 0.00~599 Hz
	Starting Torque*1	120% / 3 Hz (Conditions: V/F and IM control, with rated current) 100% / (rated frequency of motor / 20) (Conditions: PMSVC and PM control, with rated current)
	Speed Control Range*1	1:50 (Conditions: V/F and IM control) 1:20 (Conditions: PMSVC and PM control)
	Overload Capacity	120% of rated current can endure for 1 minute; 150% of rated current can endure for 3 seconds
	Frequency Setting Signal	0~ +10V/4 (0)~20 mA
	Main Functions	PID constant pressure control, multi-pump control, multi-master function, schedule function, sleep function, DC preheating, flow estimation function, cleaning function
	Application Macro	Built-in user-defined application parameter groups
Motor	Rotation Direction	It's clockwise as viewed on the shaft end of the motor
	Motor Duty Cycles	Continuous duty (S1)
	Motor Temperature Protection	KTY84-130/PTC-130
	Insulation Class	Class F
	Temperature Rise Classes	Class B
Protection	Protection	Over-current, Over-voltage, Over-heating of AC motor drive, Overheating of motor, Phase loss, Speed loss
	Pump Protection	Dry pump, High / Low water pressure, Pipe burst, Cavitaion
Certifications		MP300: CE, RoHS, UL, KC MPD: CE, RoHS

*1: Control accuracy may vary depending on the environment, application conditions. For more information, contact Delta or your local distributors

*2: These specifications are applicable for MPD

Operating Environment

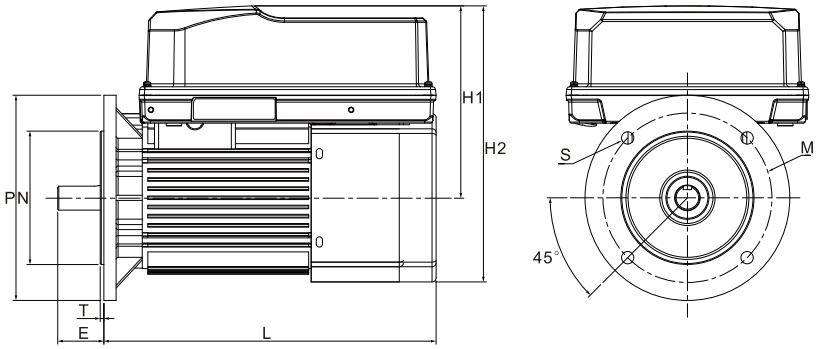
DO NOT expose the AC motor drive to harsh environments, such as dust, direct sunlight, corrosive / inflammable gasses, humidity, liquid or vibrations. The salts in the air must be less than 0.01 mg / cm^2 per year.

Operating Environment	Installation Location	IEC 60364-1/IEC 60664-1 Pollution degree 2, indoor use only	
	Ambient Temperature	Operation	-20~40°C -20~50°C (needs derating)
		Storage	-40~85°C
		Transportation	-20~70°C
		Non-condensation, non-frozen	
	Rated Humidity	Operation	Max. 90%
		Storage/Transportation	Max. 95%
		No water condensation	
	Air Pressure	Operation	86~106 kPa
		Storage/Transportation	70~106 kPa
	Altitude	<1000 m (For altitudes > 1000 m, derate to use it.)	
Package Drop	Storage	ISTA procedure 1A (according to weight) IEC60068-2-31	
	Transportation		
Vibration	Operation / Non-operation	EC 60721 3M6 (2-9Hz: 7mm, 9-200Hz: 2G)	
Impact	Operation / Non-operation	IEC 60721 3M6 (25g / 6ms)	

Dimensions

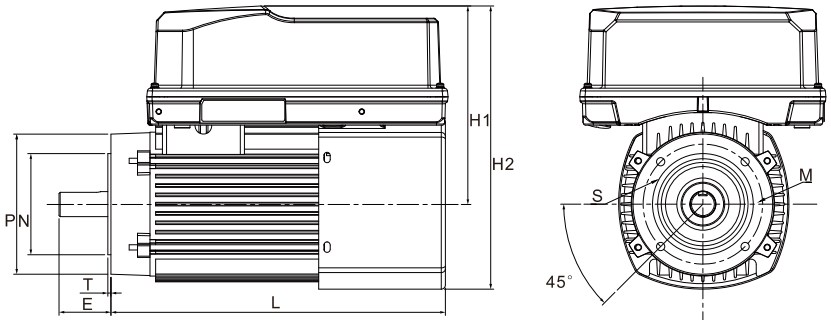
MPD

IM B5/V1



Model	Power (kW)	Frame Size	Installation Dimensions (mm)												Bearing Type	
			P	N	T	E	L	H1	H2	S	M	C	F	G	Front Bearing	Rear Bearing
MPD75B30C43N2B MPD75B30C43F2B	0.75	80-1	200	130	3.5	40	363	182.1	263.3	12	165	19	6	15.5	6305 ZZ/C3	6204 ZZ/C3
MPD15C30C43N2B MPD15C30C43F2B	1.5	80-2				50	373					24	8	20		
MPD22C30C43N2B MPD22C30C43F2B	2.2															
MPD30C30C43N2B MPD30C30C43F2B	3.0	90	250	180	4	60	396	192.9	282.5	14.5	215	28		24	6306 ZZ/C3	6205 ZZ/C3
MPD40C30C43N2B MPD40C30C43F2B1	4.0															
MPD55C30C43N2B MPD55C30C43F2B	5.5	100-1	300	230		80	420	202.3	299.1		265	38	10	33	6308 ZZ/C3	6206 ZZ/C3
MPD75C30C43N2B MPD75C30C43F2B1	7.5	100-2					451									

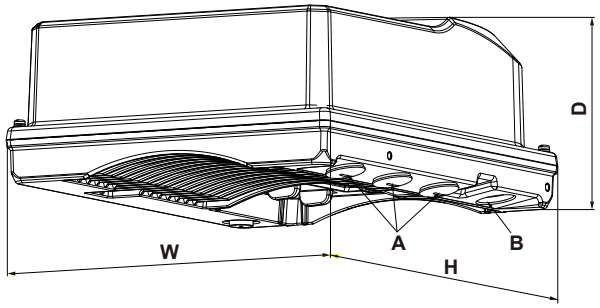
IM B14/V18



Model	Power (kW)	Frame Size	Installation Dimensions (mm)												Bearing Type	
			P	N	T	E	L	H1	H2	S	M	C	F	G	Front Bearing	Rear Bearing
MPD75B30C43N2D MPD75B30C43F2D	0.75	80-1	129	80	3	40	363	182.1	263.3	M6	100	19	6	15.5	6305 ZZ/C3	6204 ZZ/C3
MPD15C30C43N2D MPD15C30C43F2D	1.5	80-2	134	95		50	373			M8	115	24	8	20		
MPD22C30C43N2D MPD22C30C43F2D	2.2															
MPD30C30C43N2D MPD30C30C43F2D1	3.0	90	148	110	3.5	60	396	192.9	282.5		130	28		24	6306 ZZ/C3	6205 ZZ/C3
MPD40C30C43N2D MPD40C30C43F2D	4.0															
MPD55C30C43N2D MPD55C30C43F2D	5.5	100-1	184	130	4	80	420	202.3	299.1	M10	165	38	10	33	6308 ZZ/C3	6206 ZZ/C3
MPD75C30C43N2D MPD75C30C43F2D	7.5	100-2					451									

Dimensions

MP300



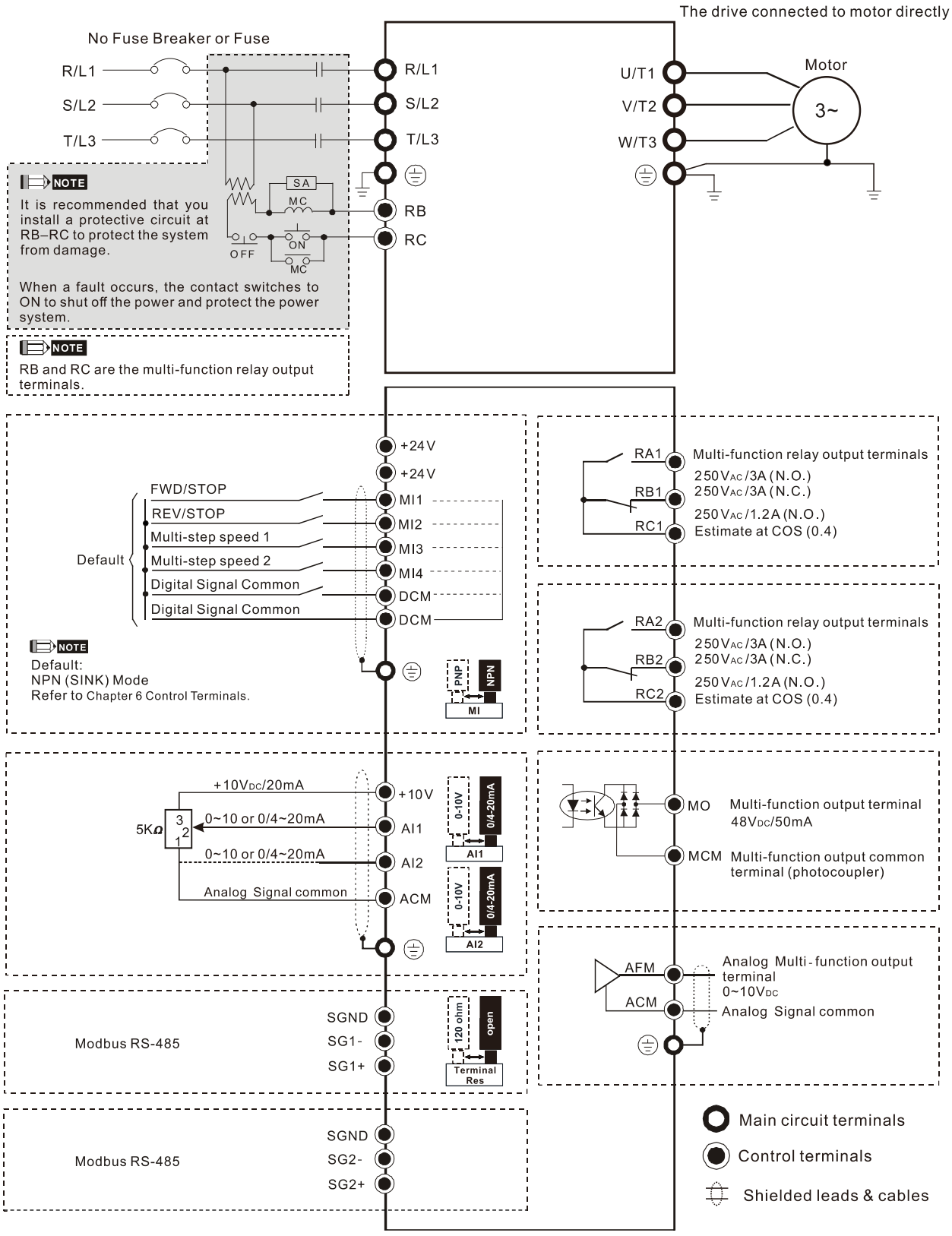
Model	Frame	Power (kW)	Dimensions mm (inch)			Waterproof Connector	
			Length (H)	Width (W)	Height (D)	A	B
VFD1A6MP43JNNAA	A	0.75	290 (11.42)	237 (9.33)	115 (4.53)	M20	M25
VFD1A6MP43JFNAA							
VFD3A3MP43JNNAA		1.5					
VFD3A3MP43JFNAA							
VFD4A7MP43JNNAA		2.2					
VFD4A7MP43JFNAA							
VFD6A2MP43JNNAA		3					
VFD6A2MP43JFNAA							
VFD8A5MP43JNNAA		4					
VFD8A5MP43JFNAA							
VFD11AMP43JNNAA		5.5					
VFD11AMP43JFNAA	B		322 (12.68)	277 (10.91)			
VFD15AMP43JNNAA		7.5					
VFD15AMP43JFNAA							

Noise specification

Model	Noise (db)
MPD75B30C43*2*	58
MPD15C30C43*2*	58
MPD22C30C43*2*	61
MPD30C30C43*2*	61
MPD40C30C43*2*	63
MPD55C30C43*2*	63
MPD75C30C43*2*	65

Wiring

Input: 3-Phase Power



Ordering Information

460V 3-Phase

Rated			Model	Inverter	Motor	Flange Type	Built-in EMC Filter
Power		Speed					
[HP]	[kW]	rpm					
1	0.75	3,000	MPD75B30C43N2B	VFD1A6MP43JNNAA	MSI75B-30CDXS2B1AP	B5/V1	
1	0.75	3,000	MPD75B30C43N2D	VFD1A6MP43JNNAA	MSI75B-30CDXS2D1AP	B14/V18	
1	0.75	3,000	MPD75B30C43F2B	VFD1A6MP43JFNAA	MSI75B-30CDXS2B1AP	B5/V1	✓
1	0.75	3,000	MPD75B30C43F2D	VFD1A6MP43JFNAA	MSI75B-30CDXS2D1AP	B14/V18	✓
2	1.5	3,000	MPD15C30C43N2B	VFD3A3MP43JNNAA	MSI15C-30CDXS2B1AP	B5/V1	
2	1.5	3,000	MPD15C30C43N2D	VFD3A3MP43JNNAA	MSI15C-30CDXS2D1AP	B14/V18	
2	1.5	3,000	MPD15C30C43F2B	VFD3A3MP43JFNAA	MSI15C-30CDXS2B1AP	B5/V1	✓
2	1.5	3,000	MPD15C30C43F2D	VFD3A3MP43JFNAA	MSI15C-30CDXS2D1AP	B14/V18	✓
3	2.2	3,000	MPD22C30C43N2B	VFD4A7MP43JNNAA	MSI22C-30CDXS2B1AP	B5/V1	
3	2.2	3,000	MPD22C30C43N2D	VFD4A7MP43JNNAA	MSI22C-30CDXS2D1AP	B14/V18	
3	2.2	3,000	MPD22C30C43F2B	VFD4A7MP43JFNAA	MSI22C-30CDXS2B1AP	B5/V1	✓
3	2.2	3,000	MPD22C30C43F2D	VFD4A7MP43JFNAA	MSI22C-30CDXS2D1AP	B14/V18	✓
4	3.0	3,000	MPD30C30C43N2B	VFD6A2MP43JNNAA	MSI30C-30CDXS2B1AP	B5/V1	
4	3.0	3,000	MPD30C30C43N2D	VFD6A2MP43JNNAA	MSI30C-30CDXS2D1AP	B14/V18	
4	3.0	3,000	MPD30C30C43F2B	VFD6A2MP43JFNAA	MSI30C-30CDXS2B1AP	B5/V1	✓
4	3.0	3,000	MPD30C30C43F2D1	VFD6A2MP43JFNAA	MSI30C-30CDXS2D1AP	B14/V18	✓
5	4.0	3,000	MPD40C30C43N2B	VFD8A5MP43JNNAA	MSI40C-30CDXS2B1AP	B5/V1	
5	4.0	3,000	MPD40C30C43N2D	VFD8A5MP43JNNAA	MSI40C-30CDXS2D1AP	B14/V18	
5	4.0	3,000	MPD40C30C43F2B1	VFD8A5MP43JFNAA	MSI40C-30CDXS2B1AP	B5/V1	✓
5	4.0	3,000	MPD40C30C43F2D	VFD8A5MP43JFNAA	MSI40C-30CDXS2D1AP	B14/V18	✓
7.5	5.5	3,000	MPD55C30C43N2B	VFD11AMP43JNNAA	MSI55C-30CDXS2B1AP	B5/V1	
7.5	5.5	3,000	MPD55C30C43N2D	VFD11AMP43JNNAA	MSI55C-30CDXS2D1AP	B14/V18	
7.5	5.5	3,000	MPD55C30C43F2B	VFD11AMP43JFNAA	MSI55C-30CDXS2B1AP	B5/V1	✓
7.5	5.5	3,000	MPD55C30C43F2D	VFD11AMP43JFNAA	MSI55C-30CDXS2D1AP	B14/V18	✓
10	7.5	3,000	MPD75C30C43N2B	VFD15AMP43JNNAA	MSI75C-30CDXS2B1AP	B5/V1	
10	7.5	3,000	MPD75C30C43N2D	VFD15AMP43JNNAA	MSI75C-30CDXS2D1AP	B14/V18	
10	7.5	3,000	MPD75C30C43F2B1	VFD15AMP43JFNAA	MSI75C-30CDXS2B1AP	B5/V1	✓
10	7.5	3,000	MPD75C30C43F2D	VFD15AMP43JFNAA	MSI75C-30CDXS2D1AP	B14/V18	✓

Note : MPD30C30C43F2D1, MPD40C30C43F2B1, MPD75C30C43F2B1 In order to comply with the customs policy, only the model name is adjusted

Ordering Information

460V 3-Phase

Rated			Model	Inverter	Built-in EMC Filter	Adapter Plate*1	
Power		Speed				MKMP-MAPA1	MKMP-MAPB1
[HP]	[kW]	rpm					
1	0.75	3,000	A	VFD1A6MP43JNNAA		✓	
1	0.75	3,000	A	VFD1A6MP43JFNAA	✓	✓	
2	1.5	3,000	A	VFD3A3MP43JNNAA		✓	
2	1.5	3,000	A	VFD3A3MP43JFNAA	✓	✓	
3	2.2	3,000	A	VFD4A7MP43JNNAA		✓	
3	2.2	3,000	A	VFD4A7MP43JFNAA	✓	✓	
4	3.0	3,000	A	VFD6A2MP43JNNAA		✓	
4	3.0	3,000	A	VFD6A2MP43JFNAA	✓	✓	
5.5	4.0	3,000	A	VFD8A5MP43JNNAA		✓	
5.5	4.0	3,000	A	VFD8A5MP43JFNAA	✓	✓	
7.5	5.5	3,000	A	VFD11AMP43JNNAA		✓	
7.5	5.5	3,000	B	VFD11AMP43JFNAA	✓		✓
10	7.5	3,000	B	VFD15AMP43JNNAA			✓
10	7.5	3,000	B	VFD15AMP43JFNAA	✓		✓

*1: For the dimension and installation of the adapter plate, please refer to the MKMP installation manual.

Accessories

Communication Interface Cards

▪ Bluetooth Option Card

CMMP-BT01

Features

- Supports communication with handheld devices via Bluetooth
- Communication and power supply are fully isolated, with strong anti-noise capability

Network Interface

Interface	Bluetooth	**Transmission protocol**	GATT
Transmission speed	1 Mbps / 2Mbps	**Transmission distance**	50m (No obstacle and no interference environment)

▪ EtherNet/IP Option Card

CMM-EIP02 / CMM-EIP03

Features

- Supports max. 32 words input and 32 words output for I/O connection
- User-defined parameter mapping
- IP Filter, basic firewall function
- Supports DLR ring node

Network Interface

Network protocol	DHCP, BOOTP, EtherNet/IP, Modbus TCP	**Transmission distance**	100 m, extension is allowed via switch
		Interface	RJ-45
Transmission speed	10 / 100Mbps	**Number of ports**	1 (CMM-EIP02) / 2 (CMM-EIP03)
Transmission method	I/O connection / Explicit message	**Transmission cable**	Category 5e shielding

▪ DeviceNet Option Card

CMM-DN02

Features

- Supports Group 2 only connection method and cyclic I/O data exchange
- Provides EDS file to identify DeviceNet equipment information
- Supports max. 32 words input and 32 words output of parameter mapping and remote I/O funtion
- Node address and Baud rate can be set in the AC motor drive

Network Interface

Network protocol	DeviceNet	**Transmission distance**	25m / 1Mbps
Transmission speed	500k / 250k / 125k / 100k / 50 kbps and extended baud rate mode of 1M	**Interface**	Terminal block
		Number of ports	1
Transmission method	Explicit message / Implicit message	**Transmission cable**	Delta standard

▪ PROFIBUS DP Option Card

CMM-PD02

Features

- Supports PZD cyclic data exchange
- Supports PKW read/ write to AC motor drive parameters
- Supports remote I/O function
- Supports user diagnosis function
- Auto-detects baud rates; supports Max. 12 Mbps

Network Interface

Network protocol	PROFIBUS DP	**Interface**	DB9
Transmission speed	9.6 Kbps / 19.2 Kbps / 93.75 Kbps / 187.5 Kbps / 500 Kbps / 1.5 Mbps / 3 Mbps / 6 Mbps / 12 Mbps	**Number of ports**	1
Transmission method	Cyclic / non-cyclic data exchange	**Transmission cable**	Delta standard
Transmission distance	100 m / 12 Mbps		

▪ Delta Standard Fieldbus cables

Delta Cables	Part Number	Description	Length
DeviceNet Cable	UC-DN01Z-01A	DeviceNet cable	305 m
	UC-DN01Z-02A		
Ethernet / EtherCAT Cable	UC-EMC003-02A	Ethernet / EtherCATcable · Shielding	0.3 m
	UC-EMC005-02A		0.5 m
	UC-EMC010-02A		1 m
	UC-EMC020-02A		2 m
	UC-EMC050-02A		5 m
	UC-EMC100-02A		10 m
	UC-EMC200-02A		20 m
PROFIBUS Cable	UC-PF01Z-01A	PROFIBUS DPcable	305 m

▪ Waterproof Connector

Model	Screw Thread	Applicable Wire Diameter mm [inch]		Size mm [inch]	
		1	2	a	b
MKMP-CG20	M20	5.5 [0.22]-9.0 [0.35]	9.0 [0.35]-14.4 [0.57]	30.5 [1.20]	49.3 [1.94]
MKMP-CG25	M25	10.5 [0.41]-14.1 [0.56]	14.1 [0.56]-18.8 [0.74]	37.0 [1.46]	55.0 [2.17]

▪ EMC Plate

Optional EMC iron plate is available to fix the shielding cables, please refer to Chapter 7 of the manual for more information.

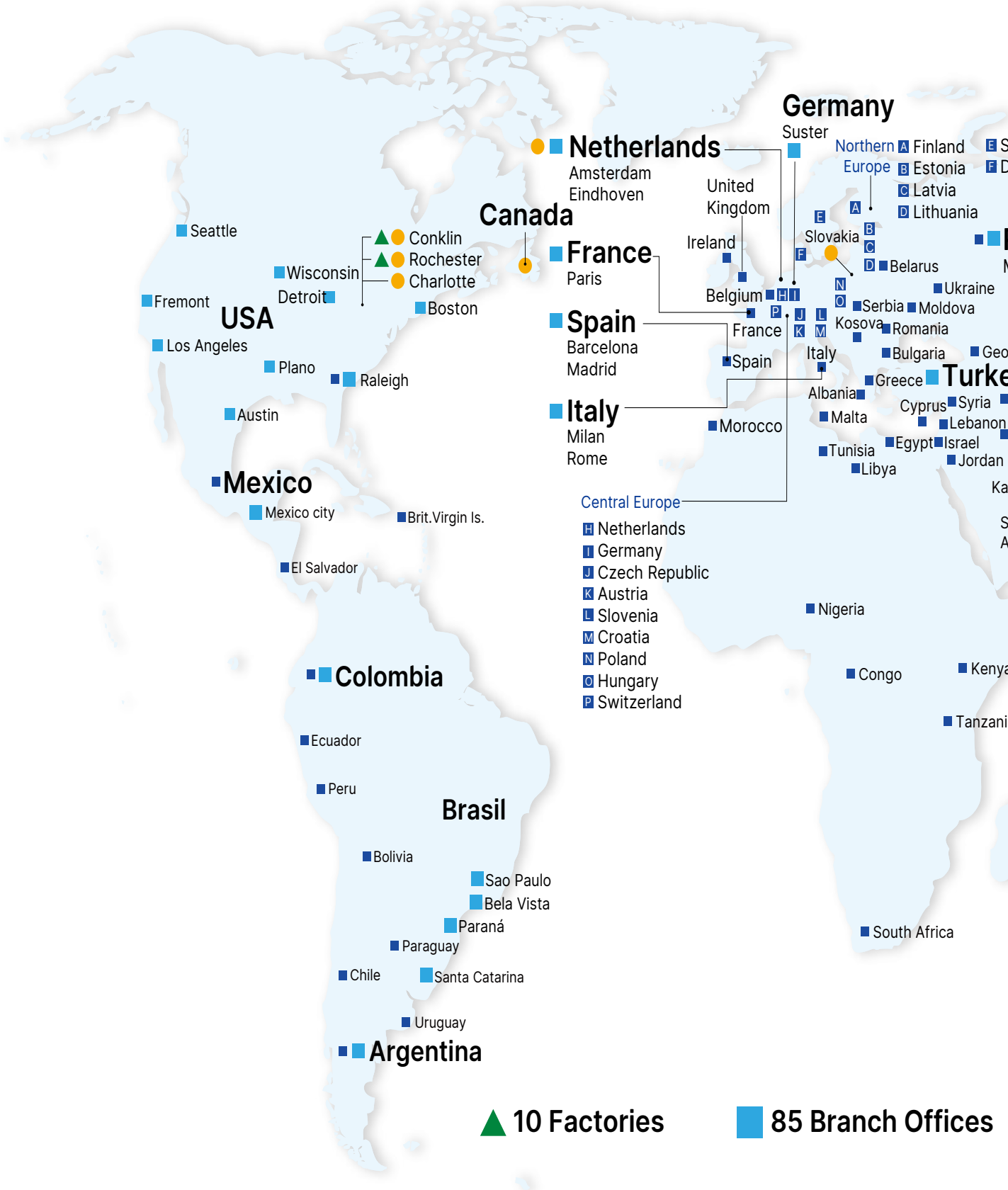
Model	Applicable Inverter Frame
MKMP-EPB	A、B

▪ Adapter Plate

MP300 can be equipped with an adapter plate to be compatible with motors (IM/ PM). Please refer to Chapter 4 of the manual for installation instructions.

Model	Applicable Inverter Frame
MKMP-MAPA1	A
MKMP-MAPB1	B

Global Operations



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