

Motor										Driver			Power capacity (at rated load) (kVA)		Optional parts ▶ refer to P.306														
Motor series	Power supply	Output (W)	Part No. Note)1	Rating/ Spec. Dimensions (page)	A6SF series Multi function type (Pulse, analog, full-closed)	A6SG series RS485 communication A6SE series Basic (Pulse signal input) Note)2, Note)4	Frame	Encoder Cable Note)3		Motor Cable Note)3		Brake Cable Note)3			External Regenerative Resistor	Reactor (Single phase 3-phase	Noise Filter (Single phase 3-phase												
								23-bit Absolute		without Brake	with Brake																		
								Use in the absolute system (with battery box) Note)5	Use in the Incremental system (without battery box)																				
								Fixed cable		Movable cable		Movable cable																	
Low inertia	MSMF (Leadwire type) 3000 r/min IP65	Single phase 100 V	50	MSMF5AZL1 □ 2	63, 119	MADLT01SF	MADLN01S◇	A-frame ★	Approx. 0.4								DV0P4280	DV0P227	DV0P4170										
			100	MSMF011L1 □ 2	65, 120	MADLT11SF	MADLN11S◇																						
			200	MSMF021L1 □ 2	67, 121	MBDLT21SF	MBDLN21S◇	B-frame ★	Approx. 0.5										DV0P4283	DV0P228	DV0PM20042								
			400	MSMF041L1 □ 2	69, 123	MCDLT31SF	MCDLN31S◇															C-frame	Approx. 0.9						
		Single phase/ 3-phase 200 V	50	MSMF5AZL1 □ 2	64, 119	MADLT05SF	MADLN05S◇	A-frame ★	Approx. 0.5								MFECA 0 * * 0EAE (For fixed)	MFECA 0 * * 0EAD (For fixed)	MFMCA 0 * * 0EED	MFMCB 0 * * 0GET Note)6	DV0P4281	DV0P227 DV0P220	DV0P4170 DV0PM20042						
			100	MSMF012L1 □ 2	66, 120	MADLT05SF	MADLN05S◇																						
			200	MSMF022L1 □ 2	68, 121	MADLT15SF	MADLN15S◇	B-frame ★	Approx. 0.9												DV0P4283	DV0P228 DV0P220	DV0PM20042						
			400	MSMF042L1 □ 2	70, 123	MBDLT25SF	MBDLN25S◇																	C-frame	Approx. 1.8				
			750	MSMF082L1 □ 2	71, 124	MCDLT35SF	MCDLN35S◇	D-frame	Approx. 2.4												DV0P4284	DV0P228 DV0P222	DV0P4220						
			1000	MSMF092L1 □ 2	72, 125	MDDLT45SF	MDDLN45S◇																						
Middle inertia Flat type	MQMF (Leadwire type) 3000 r/min IP65	Single phase 100 V	100	MQMF011L1 □ 2 MQMF011L1 □ 4	79, 135	MADLT11SF	MADLN11S◇	A-frame ★	Approx. 0.4								DV0P4280	DV0P227	DV0P4170										
			200	MQMF021L1 □ 2 MQMF021L1 □ 4	81, 139	MBDLT21SF	MBDLN21S◇	B-frame ★	Approx. 0.5											DV0P4283	DV0P228	DV0PM20042							
			400	MQMF041L1 □ 2 MQMF041L1 □ 4	83, 143	MCDLT31SF	MCDLN31S◇	C-frame	Approx. 0.9																				
		Single phase/ 3-phase 200 V	100	MQMF012L1 □ 2 MQMF012L1 □ 4	80, 135	MADLT05SF	MADLN05S◇	A-frame ★	Approx. 0.5								MFECA 0 * * 0EAE (For fixed)	MFECA 0 * * 0EAD (For fixed)	MFMCA 0 * * 0EED	MFMCB 0 * * 0GET Note)6	DV0P4281	DV0P227 DV0P220	DV0P4170 DV0PM20042						
			200	MQMF022L1 □ 2 MQMF022L1 □ 4	82, 139	MADLT15SF	MADLN15S◇														B-frame ★	Approx. 0.9		DV0P4283	DV0P228 DV0P220				
			400	MQMF042L1 □ 2 MQMF042L1 □ 4	84, 143	MBDLT25SF	MBDLN25S◇																						
			High inertia	MHMF (Leadwire type) 3000 r/min IP65	Single phase 100 V	50	MHMF5AZL1 □ 2 MHMF5AZL1 □ 4	85, 147	MADLT01SF												MADLN01S◇	A-frame ★	Approx. 0.4						
		100				MHMF011L1 □ 2 MHMF011L1 □ 4	87, 151	MADLT11SF	MADLN11S◇																				
		200				MHMF021L1 □ 2 MHMF021L1 □ 4	89, 155	MBDLT21SF	MBDLN21S◇								B-frame ★	Approx. 0.5	DV0P4283	DV0P228	DV0PM20042								
		400				MHMF041L1 □ 2 MHMF041L1 □ 4	91, 159	MCDLT31SF	MCDLN31S◇													C-frame	Approx. 0.9						
Single phase/ 3-phase 200 V	50	MHMF5AZL1 □ 2 MHMF5AZL1 □ 4			86, 147	MADLT05SF	MADLN05S◇	A-frame ★	Approx. 0.5	MFECA 0 * * 0EAE (For fixed)	MFECA 0 * * 0EAD (For fixed)	MFMCA 0 * * 0EED	MFMCB 0 * * 0GET Note)6	DV0P4281	DV0P227 DV0P220	DV0P4170 DV0PM20042													
	100	MHMF012L1 □ 2 MHMF012L1 □ 4			88, 151	MADLT05SF	MADLN05S◇																						
	200	MHMF022L1 □ 2 MHMF022L1 □ 4			90, 155	MADLT15SF	MADLN15S◇	B-frame ★	Approx. 0.9					DV0P4283	DV0P228 DV0P220	DV0PM20042													
	400	MHMF042L1 □ 2 MHMF042L1 □ 4			92, 159	MBDLT25SF	MBDLN25S◇										C-frame	Approx. 1.8											
	750	MHMF082L1 □ 2 MHMF082L1 □ 4			93, 163	MCDLT35SF	MCDLN35S◇	D-frame	Approx. 2.4					DV0P4284	DV0P228 DV0P222	DV0P4220													
	1000	MHMF092L1 □ 2 MHMF092L1 □ 4			94, 167	MDDLT55SF	MDDLN55S◇																						

★ : Frame-A and B drivers are not equipped with regenerative resistors.When regeneration occurs, please prepare an optional external regenerative resistor.

Note)1 □ : Represents the motor specifications. (refer to "Model designation" P.22.)

Note)2 ◇ : Represents the driver specifications. (refer to "Model designation" P.22.)

Note)3 * * : Represents the cable length (03/3 m, 05/5 m, 10/10 m, 20/20 m). Example. 3 m/MFECA0030EAE

Note)4 Because A6SE series driver (dedicated for position control) does not support the absolute system specification, only incremental system can be used in combination.

Note)5 Please note that a battery is not supplied together with 23-bit absolute encoder cable (with battery box). Please buy the battery part number "DV0P2990" separately.

Note)6 Brake cable and motor cables are required for the motors with brake.

Motor										Driver			Power capacity (at rated load) (kVA)		Optional parts ▶ refer to P.306										
Motor series	Power supply	Output (W)	Part No. Note)1	Rating/ Spec. Dimensions (page)	A6SF series Multi function type (Pulse, analog, full-closed)	A6SG series RS485 communication A6SE series Basic (Pulse signal input) Note)2, Note)5	Frame	Encoder Cable Note)3		Motor Cable Note)3		Brake Cable Note)3			External Regenerative Resistor	Reactor (Single phase 3-phase)	Noise Filter (Single phase 3-phase)								
								23-bit Absolute		without Brake	with Brake														
								Use in the absolute system (with battery box) Note)6	Use in the Incremental system (without battery box)																
Low inertia	MSMF (Connector type) 3000 r/min IP67	Single phase 100 V	50	MSMF5AZL1 □ 1	63, 119	MADLT01SF	MADLN01S◇	A-frame ★	Approx. 0.4																
			100	MSMF011L1 □ 1	65, 121	MADLT11SF	MADLN11S◇																		
			200	MSMF021L1 □ 1	67, 122	MBDLT21SF	MBDLN21S◇	B-frame ★	Approx. 0.5										MFECA 0 * * 0MJJE (For movable, direction of motor shaft)	MFECA 0 * * 0MJJD (For movable, direction of motor shaft)	MFMCA 0 * * 0NJJD (For movable, direction of motor shaft)	MFMCB 0 * * 0PJJT (For movable, direction of motor shaft)	DV0P4280	DV0P227	DV0P4170
			400	MSMF041L1 □ 1	69, 123	MCDLT31SF	MCDLN31S◇	C-frame	Approx. 0.9														DV0P4283	DV0P228	
		Single phase/ 3-phase 200 V	50	MSMF5AZL1 □ 1	64, 119	MADLT05SF	MADLN05S◇	A-frame ★	Approx. 0.5										MFECA 0 * * 0MKE (For movable, opposite direction of motor shaft)	MFECA 0 * * 0MKD (For movable, opposite direction of motor shaft)	MFMCA 0 * * 0NKD (For movable, opposite direction of motor shaft)	MFMCB 0 * * 0PKT (For movable, opposite direction of motor shaft)	DV0P4281	DV0P227 DV0P220	DV0P4170 DV0PM20042
			100	MSMF012L1 □ 1	66, 121	MADLT05SF	MADLN05S◇																		
			200	MSMF022L1 □ 1	68, 122	MADLT15SF	MADLN15S◇																		
			400	MSMF042L1 □ 1	70, 123	MBDLT25SF	MBDLN25S◇	B-frame ★	Approx. 0.9										MFECA 0 * * 0TJE (For fixed, direction of motor shaft)	MFECA 0 * * 0TJD (For fixed, direction of motor shaft)	MFMCA 0 * * 0RJJD (For fixed, direction of motor shaft)	MFMCB 0 * * 0SJT (For fixed, direction of motor shaft)	DV0P4283	DV0P228 DV0P220	DV0PM20042
			750	MSMF082L1 □ 1	71, 125	MCDLT35SF	MCDLN35S◇	C-frame	Approx. 1.8																
			1000	MSMF092L1 □ 1	72, 126	MDDLT45SF	MDDLN45S◇	D-frame	Approx. 2.4										MFECA 0 * * 0TKE (For fixed, opposite direction of motor shaft)	MFECA 0 * * 0TKD (For fixed, opposite direction of motor shaft)	MFMCA 0 * * 0RKD (For fixed, opposite direction of motor shaft) Note)4	MFMCB 0 * * 0SKT (For fixed, opposite direction of motor shaft) Note)7	DV0P4284	DV0P228 DV0P222	DV0P4220
Middle inertia Flat type	MQMF (Connector type) 3000 r/min IP67	Single phase 100 V	100	MQMF011L1 □ 1 MQMF011L1 □ 3	79, 137	MADLT11SF	MADLN11S◇	A-frame ★	Approx. 0.4																
			200	MQMF021L1 □ 1 MQMF021L1 □ 3	81, 141	MBDLT21SF	MBDLN21S◇	B-frame ★	Approx. 0.5										MFECA 0 * * 0MJJE (For movable, direction of motor shaft)	MFECA 0 * * 0MJJD (For movable, direction of motor shaft)	MFMCA 0 * * 0UFD (For movable, direction of motor shaft)	MFMCA 0 * * 0VFD (For movable, direction of motor shaft)	DV0P4280	DV0P227	DV0P4170
			400	MQMF041L1 □ 1 MQMF041L1 □ 3	83, 145	MCDLT31SF	MCDLN31S◇	C-frame	Approx. 0.9														MFECA 0 * * 0MKE (For movable, opposite direction of motor shaft)	MFECA 0 * * 0MKD (For movable, opposite direction of motor shaft)	
		Single phase/ 3-phase 200 V	100	MQMF012L1 □ 1 MQMF012L1 □ 3	80, 137	MADLT05SF	MADLN05S◇	A-frame ★	Approx. 0.5										MFECA 0 * * 0TJE (For fixed, direction of motor shaft)	MFECA 0 * * 0TJD (For fixed, direction of motor shaft)	MFMCA 0 * * 0WFD (For fixed, direction of motor shaft)	MFMCA 0 * * 0XFD (For fixed, direction of motor shaft)	DV0P4281	DV0P227 DV0P220	DV0P4170 DV0PM20042
			200	MQMF022L1 □ 1 MQMF022L1 □ 3	82, 141	MADLT15SF	MADLN15S◇																		
			400	MQMF042L1 □ 1 MQMF042L1 □ 3	84, 145	MBDLT25SF	MBDLN25S◇	B-frame ★	Approx. 0.9										MFECA 0 * * 0TKE (For fixed, opposite direction of motor shaft)	MFECA 0 * * 0TKD (For fixed, opposite direction of motor shaft)	MFMCA 0 * * 0WGD (For fixed, opposite direction of motor shaft)	MFMCA 0 * * 0XGD (For fixed, opposite direction of motor shaft)	DV0P4283	DV0P228 DV0P220	

★ : Frame-A and B drivers are not equipped with regenerative resistors.When regeneration occurs, please prepare an optional external regenerative resistor.

Note)1 □ : Represents the motor specifications. (refer to “Model designation” P.22.)

Note)2 ◇ : Represents the driver specifications. (refer to “Model designation” P.22.)

Note)3 * * : Represents the cable length (03/3 m, 05/5 m, 10/10 m, 20/20 m). Example. 3 m/MFECA0030MJE

Note)4 Cables for opposite to output shaft cannot be used with 50 W or 100 W motor. (MSMF connector type only.)

Note)5 Because A6SE series driver (dedicated for position control) does not support the absolute system specification, only incremental system can be used in combination.

Note)6 Please note that a battery is not supplied together with 23-bit absolute encoder cable (with battery box).
Please buy the battery part number “DV0P2990” separately.

Note)7 Brake cable and motor cables are required for the motors with brake.

Movable : For application where the cable is movable.

Fixed : For application where the cable is fixed.

Direction of motor shaft/Opposite direction of motor shaft : Cable direction

Motor series		Power supply	Motor			Driver			Power capacity (at rated load) (kVA)		Optional parts ▶ refer to P.306											
			Output (W)	Part No. Note)1	Rating/ Spec. Dimensions (page)	A6SF series Multi function type (Pulse, analog, full-closed)	A6SG series RS485 communication A6SE series Basic (Pulse signal input) Note)2, Note)4	Frame			Encoder Cable Note)3		Motor Cable Note)3		Brake Cable Note)3	External Regenerative Resistor	Reactor (Single phase 3-phase)	Noise Filter (Single phase 3-phase)				
											23-bit Absolute		without Brake	with Brake								
											Use in the absolute system (with battery box) Note)5	Use in the Incremental system (without battery box)										
High inertia	MHMF (Connector type) 3000 r/min IP67	Single phase 100 V	50	MHMF5AZL1 □ 1 MHMF5AZL1 □ 3	85, 149	MADLT01SF	MADLN01S◇	A-frame ★	Approx. 0.4					—	DV0P4280	DV0P227	DV0P4170					
			100	MHMF011L1 □ 1 MHMF011L1 □ 3	87, 153	MADLT11SF	MADLN11S◇															
			200	MHMF021L1 □ 1 MHMF021L1 □ 3	89, 157	MBDLT21SF	MBDLN21S◇	B-frame ★	Approx. 0.5						DV0P4283	DV0P228						
			400	MHMF041L1 □ 1 MHMF041L1 □ 3	91, 161	MCDLT31SF	MCDLN31S◇								DV0P4282		DV0PM20042					
		Single phase/ 3-phase 200 V	50	MHMF5AZL1 □ 1 MHMF5AZL1 □ 3	86, 149	MADLT05SF	MADLN05S◇	A-frame ★	Approx. 0.5						DV0P4281	DV0P227 DV0P220	DV0P4170 DV0PM20042					
			100	MHMF012L1 □ 1 MHMF012L1 □ 3	88, 153	MADLT05SF	MADLN05S◇															
			200	MHMF022L1 □ 1 MHMF022L1 □ 3	90, 157	MADLT15SF	MADLN15S◇															
			400	MHMF042L1 □ 1 MHMF042L1 □ 3	92, 161	MBDLT25SF	MBDLN25S◇	B-frame ★	Approx. 0.9						DV0P4283	DV0P228 DV0P220	DV0PM20042					
			750	MHMF082L1 □ 1 MHMF082L1 □ 3	93, 165	MCDLT35SF	MCDLN35S◇															
			1000	MHMF092L1 □ 1 MHMF092L1 □ 3	94, 169	MDDLT55SF	MDDLN55S◇	D-frame	Approx. 2.4						DV0P4284	DV0P228 DV0P222	DV0P4220					

★ : Frame-A and B drivers are not equipped with regenerative resistors.When regeneration occurs, please prepare an optional external regenerative resistor.

Note)1 □ : Represents the motor specifications. (refer to “Model designation” P.22.)

Note)2 ◇ : Represents the driver specifications. (refer to “Model designation” P.22.)

Note)3 * * : Represents the cable length (03/3 m, 05/5 m, 10/10 m, 20/20 m). Example. 3 m/MFECA0030MJE

Note)4 Because A6SE series driver (dedicated for position control) does not support the absolute system specification, only incremental system can be used in combination.

Note)5 Please note that a battery is not supplied together with 23-bit absolute encoder cable (with battery box). Please buy the battery part number “DV0P2990” separately.

Movable : For application where the cable is movable.
Fixed : For application where the cable is fixed.
Direction of motor shaft/Opposite direction of motor shaft : Cable direction

Motor										Driver		Optional parts ▶ refer to P.306									
Motor series		Power supply	Output (W)	Part No. Note)1	Rating/ Spec. Dimensions (page)	A6SF series Multi function type (Pulse, analog,) full-closed)	A6SG series RS485 communication A6SE series Basic (Pulse signal input) Note)2, Note)4	Frame	Power capacity (at rated load) (kVA)					Encoder Cable Note)3,5		Motor Cable Note)3,5		External Regenerative Resistor	Reactor (Single phase / 3-phase)	Noise Filter	
														JL10 (Large size) (One-touch lock type) (N/MS screwed type)		JL10 (One-touch lock type) (JL04 screwed type)					
														23-bit Absolute							
										Use in the absolute system (with battery box) Note)7		Use in the Incremental system (without battery box)		without Brake		with Brake					
														Fixed cable		Movable cable					
Low inertia	MSMF Large size JL10 type 3000 r/min IP67	Single phase/ 3-phase 200 V	1000	MSMF102L1 □ 6 MSMF102L1 □ 8	73, 127	MDDLT55SF	MDDLN55S◇	D-frame	Approx. 2.4	MFECA 0 * * 0EPE MFECA 0 * * 0ESE	MFECA 0 * * 0EPD MFECA 0 * * 0ESD	MFMCD 0 * * 2EUD MFMCD 0 * * 2ECD	MFMCA 0 * * 2FUD MFMCA 0 * * 2FCD	DV0P4284	DV0P228 / DV0P222		DV0P4220				
			1500	MSMF152L1 □ 6 MSMF152L1 □ 8	74, 128	MDDLT55SF	MDDLN55S◇		DV0PM20047 / DV0P222												
		3-phase 200 V	2000	MSMF202L1 □ 6 MSMF202L1 □ 8	75, 129	MEDLT83SF	MEDLN83S◇	E-frame	Approx. 3.8			DV0P4285 Note)6	DV0P223		DV0PM20043						
			3000	MSMF302L1 □ 6 MSMF302L1 □ 8	76, 131	MFDLT A3SF	MFDLNA3S◇		F-frame				Approx. 5.2	DV0P224		DV0P3410					
			4000	MSMF402L1 □ 6 MSMF402L1 □ 8	77, 132	MFDLTB3SF	MFDLNB3S◇						DV0P225								
			5000	MSMF502L1 □ 6 MSMF502L1 □ 8	78, 133	MFDLTB3SF	MFDLNB3S◇														
Middle inertia	MDMF Large size JL10 type 2000 r/min IP67	Single phase/ 3-phase 200 V	1000	MDMF102L1 □ 6 MDMF102L1 □ 8	102, 180	MDDLT45SF	MDDLN45S◇	D-frame	Approx. 2.4	MFECA 0 * * 0EPE MFECA 0 * * 0ESE	MFECA 0 * * 0EPD MFECA 0 * * 0ESD	MFMCD 0 * * 2EUD MFMCD 0 * * 2ECD	MFMCA 0 * * 2FUD MFMCA 0 * * 2FCD	DV0P4284	DV0P228 / DV0P222		DV0P4220				
			1500	MDMF152L1 □ 6 MDMF152L1 □ 8	103, 181	MDDLT55SF	MDDLN55S◇		DV0PM20047 / DV0P222												
		3-phase 200 V	2000	MDMF202L1 □ 6 MDMF202L1 □ 8	104, 183	MEDLT83SF	MEDLN83S◇	E-frame	Approx. 3.8			DV0P4285 Note)6	DV0P223		DV0PM20043						
			3000	MDMF302L1 □ 6 MDMF302L1 □ 8	105, 184	MFDLT A3SF	MFDLNA3S◇		F-frame				Approx. 5.2	DV0P224		DV0P3410					
			4000	MDMF402L1 □ 6 MDMF402L1 □ 8	106, 185	MFDLTB3SF	MFDLNB3S◇						DV0P225								
			5000	MDMF502L1 □ 6 MDMF502L1 □ 8	107, 187	MFDLTB3SF	MFDLNB3S◇														
	MGMF Large size JL10 type (Low speed/ High torque type) 1500 r/min IP67	Single phase/ 3-phase 200 V	850	MGMF092L1 □ 6 MGMF092L1 □ 8	112, 193	MDDLT45SF	MDDLN45S◇	D-frame	Approx. 2.0	MFECA 0 * * 0EPE MFECA 0 * * 0ESE	MFECA 0 * * 0EPD MFECA 0 * * 0ESD	MFMCD 0 * * 2EUD MFMCD 0 * * 2ECD	MFMCA 0 * * 2FUD MFMCA 0 * * 2FCD	DV0P4284	DV0P228 / DV0P221		DV0P4220				
			1300	MGMF132L1 □ 6 MGMF132L1 □ 8	113, 195	MDDLT55SF	MDDLN55S◇		DV0PM20047 / DV0P222												
		3-phase 200 V	1800	MGMF182L1 □ 6 MGMF182L1 □ 8	114, 196	MEDLT83SF	MEDLN83S◇	E-frame	Approx. 3.4			DV0P4285 Note)6	DV0P223		DV0PM20043						
			2400	MGMF242L1 □ 6 MGMF242L1 □ 8	115, 197	MEDLT93SF	MEDLN93S◇		F-frame				Approx. 4.5	DV0P224		DV0P3410					
			2900	MGMF292L1 □ 6 MGMF292L1 □ 8	116, 199	MFDLTB3SF	MFDLNB3S◇						Approx. 5.0	DV0P4285 x2 in parallel							
			4400	MGMF442L1 □ 6 MGMF442L1 □ 8	117, 200	MFDLTB3SF	MFDLNB3S◇						Approx. 7.0	DV0P225							
High inertia	MHMF Large size JL10 type 2000 r/min IP67	Single phase/ 3-phase 200 V	1000	MHMF102L1 □ 6 MHMF102L1 □ 8	95, 171	MDDLT45SF	MDDLN45S◇	D-frame	Approx. 2.4	MFECA 0 * * 0EPE MFECA 0 * * 0ESE	MFECA 0 * * 0EPD MFECA 0 * * 0ESD	MFMCD 0 * * 2EUD MFMCD 0 * * 2ECD	MFMCA 0 * * 2FUD MFMCA 0 * * 2FCD	DV0P4284	DV0P228 / DV0P222		DV0P4220				
			1500	MHMF152L1 □ 6 MHMF152L1 □ 8	96, 172	MDDLT55SF	MDDLN55S◇		DV0PM20047 / DV0P222												
		3-phase 200 V	2000	MHMF202L1 □ 6 MHMF202L1 □ 8	97, 173	MEDLT83SF	MEDLN83S◇	E-frame	Approx. 3.8			DV0P4285 Note)6	DV0P223		DV0PM20043						
			3000	MHMF302L1 □ 6 MHMF302L1 □ 8	98, 175	MFDLT A3SF	MFDLNA3S◇		F-frame				Approx. 5.2	DV0P224		DV0P3410					
			4000	MHMF402L1 □ 6 MHMF402L1 □ 8	99, 176	MFDLTB3SF	MFDLNB3S◇						Approx. 7.8	DV0P225							
			5000	MHMF502L1 □ 6 MHMF502L1 □ 8	100, 177	MFDLTB3SF	MFDLNB3S◇														

Note)1 □ : Represents the motor specifications. (refer to “Model designation” P.22.)

Note)2 ◇ : Represents the driver specifications. (refer to “Model designation” P.22.)

Note)3 * * : Represents the cable length (03/3 m, 05/5 m, 10/10 m, 20/20 m). Example. 3 m/MFECA0030EPE

Note)4 Because A6SE series driver (dedicated for position control) does not support the absolute system specification, only incremental system can be used in combination.

Note)5 Use of JL10 type encoder cables and motor cables enable one-touch lock connections. Conventional screwed type N/MS and JL04V type cables can also be used.

Note)6 For other possible combinations, refer to P.343.

Note)7 Please note that a battery is not supplied together with 23-bit absolute encoder cable (with battery box). Please buy the battery part number “DV0P2990” separately.

Motor										Driver		Power capacity (at rated load) (kVA)		Optional parts ▶ refer to P.306					
Motor series	Power supply	Output (W)	Part No. Note)1	Rating/ Spec. Dimensions (page)	A6SF series Multi function type (Pulse, analog, full-closed)	A6SG series RS485 communication A6SE series Basic (Pulse signal input) Note)2, Note)4	Frame	Encoder Cable Note)3		Motor Cable Note)3,5				External Regenerative Resistor	Reactor (Single phase / 3-phase)	Noise Filter			
								JN2 (Small size) (One-touch lock type)		JL10 (One-touch lock type) (JL04 screwed type)									
								23-bit Absolute		without Brake	with Brake								
								Use in the absolute system (with battery box) Note)7	Use in the Incremental system (without battery box)										
								Fixed cable		Movable cable									
Low inertia	MSMF Small size JN2 type 3000 r/min IP67	Single phase/ 3-phase 200 V	1000	MSMF102L1 □ 5 MSMF102L1 □ 7	73, 127	MDDLTL55SF	MDDLNL55S◇	D-frame	Approx. 2.4	MFECA 0 * * 0ETE	MFECA 0 * * 0ETD	MFMCD 0 * * 2EUD MFMCD 0 * * 2ECD	MFMCA 0 * * 2FUD MFMCA 0 * * 2FCD	DV0P4284	DV0P228 / DV0P222	DV0P4220			
			1500	MSMF152L1 □ 5 MSMF152L1 □ 7	74, 129	MDDLTL55SF	MDDLNL55S◇		Approx. 2.9						DV0PM20047 / DV0P222				
		3-phase 200 V	2000	MSMF202L1 □ 5 MSMF202L1 □ 7	75, 130	MEDLTL83SF	MEDLNL83S◇	E-frame	Approx. 3.8			DV0P4285 Note)6	DV0P223	DV0PM20043					
			3000	MSMF302L1 □ 5 MSMF302L1 □ 7	76, 131	MFDLTLA3SF	MFDLNA3S◇	F-frame	Approx. 5.2				DV0P4285 ×2 in parallel	DV0P224	DV0P3410				
			4000	MSMF402L1 □ 5 MSMF402L1 □ 7	77, 133	MFDLTLB3SF	MFDLNLB3S◇		Approx. 7.8					MFMCA 0 * * 3EUT MFMCA 0 * * 3ECT		MFMCA 0 * * 3FUT MFMCA 0 * * 3FCT	DV0P225		
			5000	MSMF502L1 □ 5 MSMF502L1 □ 7	78, 134	MFDLTLB3SF	MFDLNLB3S◇												
Middle inertia	MDMF Small size JN2 type 2000 r/min IP67	Single phase/ 3-phase 200 V	1000	MDMF102L1 □ 5 MDMF102L1 □ 7	102, 181	MDDLTL45SF	MDDLNL45S◇	D-frame	Approx. 2.4	MFECA 0 * * 0ETE	MFECA 0 * * 0ETD	MFMCD 0 * * 2EUD MFMCD 0 * * 2ECD		MFMCA 0 * * 2FUD MFMCA 0 * * 2FCD		DV0P4284	DV0P228 / DV0P222	DV0P4220	
			1500	MDMF152L1 □ 5 MDMF152L1 □ 7	103, 182	MDDLTL55SF	MDDLNL55S◇		Approx. 2.9				DV0PM20047 / DV0P222						
		3-phase 200 V	2000	MDMF202L1 □ 5 MDMF202L1 □ 7	104, 183	MEDLTL83SF	MEDLNL83S◇	E-frame	Approx. 3.8			DV0P4285 Note)6	DV0P223	DV0PM20043					
			3000	MDMF302L1 □ 5 MDMF302L1 □ 7	105, 185	MFDLTLA3SF	MFDLNA3S◇	F-frame	Approx. 5.2				DV0P4285 ×2 in parallel	DV0P224	DV0P3410				
			4000	MDMF402L1 □ 5 MDMF402L1 □ 7	106, 186	MFDLTLB3SF	MFDLNLB3S◇		Approx. 7.8					MFMCA 0 * * 3EUT MFMCA 0 * * 3ECT		MFMCA 0 * * 3FUT MFMCA 0 * * 3FCT	DV0P225		
			5000	MDMF502L1 □ 5 MDMF502L1 □ 7	107, 187	MFDLTLB3SF	MFDLNLB3S◇												
	MGMF Small size JN2 type (Low speed/ High torque type) 1500 r/min IP67	Single phase/ 3-phase 200 V	850	MGMF092L1 □ 5 MGMF092L1 □ 7	112, 194	MDDLTL45SF	MDDLNL45S◇	D-frame	Approx. 2.0	MFECA 0 * * 0ETE	MFECA 0 * * 0ETD	MFMCD 0 * * 2EUD MFMCD 0 * * 2ECD		MFMCA 0 * * 2FUD MFMCA 0 * * 2FCD		DV0P4284	DV0P228 / DV0P221	DV0P4220	
			1300	MGMF132L1 □ 5 MGMF132L1 □ 7	113, 195	MDDLTL55SF	MDDLNL55S◇		Approx. 2.6				DV0PM20047 / DV0P222						
		3-phase 200 V	1800	MGMF182L1 □ 5 MGMF182L1 □ 7	114, 197	MEDLTL83SF	MEDLNL83S◇	E-frame	Approx. 3.4			DV0P4285 Note)6	DV0P223	DV0PM20043					
			2400	MGMF242 L1 □ 5 MGMF242 L1 □ 7	115, 198	MEDLTL93SF	MEDLNL93S◇		Approx. 4.5						MFMCE 0 * * 3EUT MFMCE 0 * * 3ECT	MFMCD 0 * * 3FUT MFMCD 0 * * 3FCT	DV0P224		
			2900	MGMF292L1 □ 5 MGMF292L1 □ 7	116, 199	MFDLTLB3SF	MFDLNLB3S◇	F-frame	Approx. 5.0									MFMCA 0 * * 3EUT MFMCA 0 * * 3ECT	MFMCA 0 * * 3FUT MFMCA 0 * * 3FCT
			4400	MGMF442L1 □ 5 MGMF442L1 □ 7	117, 201	MFDLTLB3SF	MFDLNLB3S◇		Approx. 7.0										
High inertia	MHMF Small size JN2 type 2000 r/min IP67	Single phase/ 3-phase 200 V	1000	MHMF102L1 □ 5 MHMF102L1 □ 7	95, 171	MDDLTL45SF	MDDLNL45S◇	D-frame	Approx. 2.4	MFECA 0 * * 0ETE	MFECA 0 * * 0ETD	MFMCD 0 * * 2EUD MFMCD 0 * * 2ECD	MFMCA 0 * * 2FUD MFMCA 0 * * 2FCD	DV0P4284	DV0P228 / DV0P222	DV0P4220			
			1500	MHMF152L1 □ 5 MHMF152L1 □ 7	96, 173	MDDLTL55SF	MDDLNL55S◇		Approx. 2.9						DV0PM20047 / DV0P222				
		3-phase 200 V	2000	MHMF202L1 □ 5 MHMF202L1 □ 7	97, 174	MEDLTL83SF	MEDLNL83S◇	E-frame	Approx. 3.8			DV0P4285 Note)6	DV0P223	DV0PM20043					
			3000	MHMF302L1 □ 5 MHMF302L1 □ 7	98, 175	MFDLTLA3SF	MFDLNA3S◇	F-frame	Approx. 5.2						DV0P224	DV0P3410			
			4000	MHMF402L1 □ 5 MHMF402L1 □ 7	99, 177	MFDLTLB3SF	MFDLNLB3S◇		Approx. 7.8				MFMCA 0 * * 3EUT MFMCA 0 * * 3ECT				MFMCA 0 * * 3FUT MFMCA 0 * * 3FCT	DV0P225	
			5000	MHMF502L1 □ 5 MHMF502L1 □ 7	100, 178	MFDLTLB3SF	MFDLNLB3S◇												

Note)1 □ : Represents the motor specifications. (refer to "Model designation" P.22.)

Note)2 ◇ : Represents the driver specifications. (refer to "Model designation" P.22.)

Note)3 * * : Represents the cable length (03/3 m, 05/5 m, 10/10 m, 20/20 m). Example. 3 m/MFECA0030ETE

Note)4 Because A6SE series driver (dedicated for position control) does not support the absolute system specification, only incremental system can be used in combination.

Note)5 Use of JL10 type motor cables enable one-touch lock connections. Conventional screwed type JL04V type cables can also be used.

Note)6 For other possible combinations, refer to P.343.

Note)7 Please note that a battery is not supplied together with 23-bit absolute encoder cable (with battery box). Please buy the battery part number "DV0P2990" separately.

Motor					Driver			Power capacity (at rated load) (kVA)		Optional parts ▶ refer to P.306									
Motor series	Power supply	Output (W)	Part No. Note)1	Rating/ Spec. Dimensions (page)	A6SF series Multi function type (Pulse, analog, full-closed)	A6SG series RS485 communication A6SE series Basic (Pulse signal input)	Frame			Encoder Cable Note)2,3		Motor Cable		External Regenerative Resistor	Reactor (Single phase / 3-phase)	Noise Filter			
										JL10 (Large size) (One-touch lock type) (N/MS screwed type)		Note)6							
										23-bit Absolute		without Brake	with Brake						
										Use in the absolute system (with battery box) Note)4	Use in the Incremental system (without battery box)								
										Fixed cable									
Middle inertia	MDMF Large size JL10 type 1500 r/min IP67 IP44 (22000 W)	3-phase 200 V	7500	MDMF752L1 □ 6	108 188	MGDLTC3SF	—	G-frame	Approx. 11		MFECA 0 * * 0EPE MFECA 0 * * 0ESE	MFECA 0 * * 0EPD MFECA 0 * * 0ESD	Note)6	Note)6	DV0P4285 ×3 in parallel	— Note)5	HF3080C-SZA (Recommended components) P.413		
			11000	MDMFC12L1 □ 6	109 189	MHDLTE3SF	—	H-frame	Approx. 20						Note)6		Note)6	DV0P4285 ×6 in parallel	HF3100C-SZA (Recommended components) P.413
			15000	MDMFC52L1 □ 6	110 191	MHDLTE3SF	—												
			22000	MDMFD22L1 □ 6	111 192	MHDLTF3SF	—						Note)6 (U, V, W, Ground) (: M8 terminal block)	Note)6 (U, V, W, Ground) (: M8 terminal block)					
		MGMF Large size JL10 type (Low speed/ High torque type) 1500 r/min IP67	3-phase 200 V	5500	MGMF552L1 □ 6	118 201	MGDLTC3SF	—	G-frame	Approx. 8.5		MFECA 0 * * 0EPE MFECA 0 * * 0ESE	MFECA 0 * * 0EPD MFECA 0 * * 0ESD	Note)6	Note)6	DV0P4285 ×3 in parallel	— Note)5	HF3080C-SZA (Recommended components) P.413	
High inertia	MHMF Large size JL10 type 1500 r/min IP67	3-phase 200 V	7500	MHMF752L1 □ 6	101 179	MGDLTC3SF	—	G-frame	Approx. 11		MFECA 0 * * 0EPE MFECA 0 * * 0ESE	MFECA 0 * * 0EPD MFECA 0 * * 0ESD	Note)6	Note)6	— Note)5				HF3080C-SZA (Recommended components) P.413

■ About dynamic brake

G frame is built-in / external, H frame is external

The indication of the internal / {external} dynamic brake resistance capacity is the maximum allowable inertia (load inertia moment ratio to rotor inertia moment is 10 times) up to three consecutive emergency stops at the rated speed. If used under conditions higher than that, the resistance may break and the dynamic brake may not operate.

Recommended resistance: 1.2 Ω 400 W or more × 3 pieces

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Note)1 □ : Represents the motor specifications. (refer to "Model designation" P.22.)

Note)2 * * : Represents the cable length (03/3 m, 05/5 m, 10/10 m, 20/20 m). Example. 3 m/MFECA0030ETE

Note)3 Use of JL10 type encoder cables and motor cables enable one-touch lock connections. Conventional screwed type N/MS and JL04V type cables can also be used.

Note)4 Please note that a battery is not supplied together with 23-bit absolute encoder cable (with battery box). Please buy the battery part number "DV0P2990" separately.

Note)5 The reactor has to be prepared by the customer.

Note)6 We recommend purchasing an optional connector kit.

■ Connector kit (option) components Note)6

Motor	Driver		Option No. Connector Kit for motor, encoder connection	Encoder Cable		Motor Cable		Brake Cable	
	Frame	Connection terminal		Motor side	Driver side	Motor side	Driver side	Motor side	Power supply for brake
MDMF 7.5 kW MGMF 5.5 kW MHMF 7.5 kW	G	M5	DV0PM20107	Large size connector	For Connector X6	Connector Screwed type	(to be supplied by customer) M5 Round terminal	not included	(to be supplied by customer)
			DV0PM20108	One-touch lock type				Connector Screwed type	
			DV0PM20111	Large size connector				not included	
			DV0PM20112	Screwed type				Connector Screwed type	
MDMF 11.0 kW MDMF 15.0 kW	H	M6	DV0PM20107	Large size connector	For Connector X6	Connector Screwed type	(to be supplied by customer) M6 Round terminal	not included	(to be supplied by customer)
			DV0PM20108	One-touch lock type				Connector Screwed type	
			DV0PM20111	Large size connector				not included	
			DV0PM20112	Screwed type				Connector Screwed type	
MDMF 22.0 kW	H	M6	DV0PM20109	Large size connector	For Connector X6	Terminal block (to be supplied by customer) M8 Round terminal	(to be supplied by customer) M6 Round terminal	not included	(to be supplied by customer)
			DV0PM20110	One-touch lock type				Connector Screwed type	
			DV0PM20113	Large size connector				not included	
			DV0PM20114	Screwed type				Connector Screwed type	

Motor					Driver			Power capacity （ at rated load ） (kVA)		Optional parts ▶ refer to P.306						
Motor series	Power supply	Output (W)	Part No. Note)1	Rating/ Spec. Dimensions (page)	A6SF series Multi fancement type （ Pulse, analog, full-closed ）	A6SG series RS485 communication A6SE series Basic (Pulse signal input)	Frame			Encoder Cable Note)2		Motor Cable		External Regenerative Resistor	Reactor (Single phase / 3-phase)	Noise Filter
										JN2 (Small size) (One-touch lock type)		Note)5				
										23-bit Absolute		without Brake	with Brake			
										Use in the absolute system (with battery box) Note)3	Use in the Incremental system (without battery box)					
										Fixed cable						
Middle inertia	MDMF Small size JN2 type 1500 r/min IP67 IP44 (22000 W)	3-phase 200 V	7500	MDMF752L1 □ 5	108 189	MGDLTC3SF	—	G-frame	Approx. 11	MFECA 0 * * 0ETE	MFECA 0 * * 0ETD	Note)5	Note)5	DV0P4285 ×3 in parallel	— Note)4	HF3080C-SZA (Recommended components) P.413
			11000	MDMFC12L1 □ 5	109 190	MHDLTE3SF	—	H-frame	Approx. 20					DV0P4285 ×6 in parallel		HF3100C-SZA (Recommended components) P.413
			15000	MDMFC52L1 □ 5	110 191	MHDLTE3SF	—									
			22000	MDMFD22L1 □ 5	111 193	MHDLTF3SF	—					Note)5 （ U, V, W, Ground ） : M8 terminal block	Note)5 （ U, V, W, Ground ） : M8 terminal block			
	MGMF Small size JN2 type （ Low speed/ High torque type ） 1500 r/min IP67	3-phase 200 V	5500	MGMF552L1 □ 5	118 202	MGDLTC3SF	—	G-frame	Approx. 8.5	MFECA 0 * * 0ETE	MFECA 0 * * 0ETD	Note)5	Note)5	DV0P4285 ×3 in parallel	— Note)4	HF3080C-SZA (Recommended components) P.413
High inertia	MHMF Small size JN2 type 1500 r/min IP67	3-phase 200 V	7500	MHMF752L1 □ 5	101 179	MGDLTC3SF	—	G-frame	Approx. 11	MFECA 0 * * 0ETE	MFECA 0 * * 0ETD	Note)5	Note)5		— Note)4	HF3080C-SZA (Recommended components) P.413

■ About dynamic brake

G frame is built-in / external, H frame is external

The indication of the internal / {external} dynamic brake resistance capacity is the maximum allowable inertia (load inertia moment ratio to rotor inertia moment is 10 times) up to three consecutive emergency stops at the rated speed. If used under conditions higher than that, the resistance may break and the dynamic brake may not operate.

Recommended resistance: 1.2 Ω 400 W or more × 3 pieces

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Note)1 □ : Represents the motor specifications. (refer to “Model designation” P.22.)

Note)2 * * : Represents the cable length (03/3 m, 05/5 m, 10/10 m, 20/20 m). Example. 3 m/MFECA0030ETE

Note)3 Please note that a battery is not supplied together with 23-bit absolute encoder cable (with battery box). Please buy the battery part number “DV0P2990” separately.

Note)4 The reactor has to be prepared by the customer.

Note)5 We recommend purchasing an optional connector kit.

■ Connector kit (option) components Note)5									
Motor	Driver		Option No. Connector Kit for motor, encoder connection	Encoder Cable		Motor Cable		Brake Cable	
	Frame	Connection terminal		Motor side	Driver side	Motor side	Driver side	Motor side	Power supply for brake
MDMF 7.5 kW MGMF 5.5 kW MHMF 7.5 kW	G	M5	DV0PM20056	Small size connector Screwed type	For Connector X6	Connector Screwed type	(to be supplied by customer) M5 Round terminal	not included	(to be supplied by customer)
			DV0PM20057				Connector Screwed type		
MDMF 11.0 kW MDMF 15.0 kW	H	M6	DV0PM20056	Small size connector Screwed type	For Connector X6	Connector Screwed type	(to be supplied by customer) M6 Round terminal	not included	(to be supplied by customer)
			DV0PM20057				Connector Screwed type		
MDMF 22.0 kW	H	M6	DV0PM20115	Small size connector Screwed type	For Connector X6	Terminal block (to be supplied by customer) M8 Round terminal	(to be supplied by customer) M6 Round terminal	not included	(to be supplied by customer)
			DV0PM20116				Connector Screwed type		

Motor						Driver			Power capacity <div><div></div><div>(at rated load) (kVA)</div></div>		Optional parts							
Motor series	Power supply	Output (W)	Part No. <div>Note)1</div>	Rating/ Spec. Dimensions (page)	A6SF series Multi fancement type <div>(Pulse, analog,) full-closed)</div>	A6 G series RS485 communication <div>A6 SE series Basic (Pulse signal input) Note)2, Note)4</div>	Frame	Encoder Cable <div>Note)3</div>			Motor Cable <div>Note)3</div>		Brake Cable <div>Note)3</div>	External Regenerative Resistor	Reactor <div>(Single phase 3-phase)</div>	Noise Filter <div>(Single phase 3-phase)</div>		
								23-bit Absolute			without Brake	with Brake						
								Use in the absolute system (with battery box) <div>Note)5</div>									Use in the Incremental system (without battery box)	
								Fixed cable			Movable cable		Movable cable					
Low inertia	MSMF <div>(Leadwire type)</div> 3000 r/min IP65	Single phase/ 3-phase 200 V	50	MSMF5AZL1 □ 2M	211 253	MADLT05SF	MADLN05S◇	A-frame ★	Approx. 0.5	MFECA 0 * * 0EAE (For fixed)	MFECA 0 * * 0EAD (For fixed)	MFMCA 0 * * 0EED	MFMCB 0 * * 0GET <div>Note)6</div>	DV0P4281	DV0P227 DV0P220	DV0P4170 DV0PM20042		
			100	MSMF012L1 □ 2M	212 253	MADLT05SF	MADLN05S◇							DV0P4283	DV0P228 DV0P220		DV0PM20042	
			200	MSMF022L1 □ 2M	213 254	MADLT15SF	MADLN15S◇											
			400	MSMF042L1 □ 2M	214 255	MBDLT25SF	MBDLN25S◇	B-frame ★	Approx. 0.9					DV0P4284	DV0P228 DV0P222	DV0P4220		
			750	MSMF082L1 □ 2M	215 255	MCDLT35SF	MCDLN35S◇	C-frame	Approx. 1.8									
			1000	MSMF092L1 □ 2M	216 256	MDDLT45SF	MDDLN45S◇	D-frame	Approx. 2.4									
Middle inertia Flat type	MQMF <div>(Leadwire type)</div> 3000 r/min IP65	Single phase/ 3-phase 200 V	100	MQMF012L1 □ 2M MQMF012L1 □ 4M	223 261	MADLT05SF	MADLN05S◇	A-frame ★	Approx. 0.5	MFECA 0 * * 0EAE (For fixed)	MFECA 0 * * 0EAD (For fixed)	MFMCA 0 * * 0EED	MFMCB 0 * * 0GET <div>Note)6</div>	DV0P4281	DV0P227 DV0P220	DV0P4170 DV0PM20042		
			200	MQMF022L1 □ 2M MQMF022L1 □ 4M	224 263	MADLT15SF	MADLN15S◇							DV0P4283	DV0P228 DV0P220			
			400	MQMF042L1 □ 2M MQMF042L1 □ 4M	225 265	MBDLT25SF	MBDLN25S◇	B-frame ★	Approx. 0.9									
High inertia	MHMF <div>(Leadwire type)</div> 3000 r/min IP65	Single phase/ 3-phase 200 V	50	MHMF5AZL1 □ 2M MHMF5AZL1 □ 4M	226 267	MADLT05SF	MADLN05S◇	A-frame ★	Approx. 0.5	MFECA 0 * * 0EAE (For fixed)	MFECA 0 * * 0EAD (For fixed)	MFMCA 0 * * 0EED	MFMCB 0 * * 0GET <div>Note)6</div>	DV0P4281	DV0P227 DV0P220	DV0P4170 DV0PM20042		
			100	MHMF012L1 □ 2M MHMF012L1 □ 4M	227 269	MADLT05SF	MADLN05S◇							DV0P4283	DV0P228 DV0P220		DV0PM20042	
			200	MHMF022L1 □ 2M MHMF022L1 □ 4M	228 271	MADLT15SF	MADLN15S◇											
			400	MHMF042L1 □ 2M MHMF042L1 □ 4M	229 273	MBDLT25SF	MBDLN25S◇	B-frame ★	Approx. 0.9					DV0P4284	DV0P228 DV0P222	DV0PM20042		
			750	MHMF082L1 □ 2M MHMF082L1 □ 4M	230 275	MCDLT35SF	MCDLN35S◇	C-frame	Approx. 1.8									
			1000	MHMF092L1 □ 2M MHMF092L1 □ 4M	231 277	MDDLT55SF	MDDLN55S◇	D-frame	Approx. 2.4									

★ : Frame-A and B drivers are not equipped with regenerative resistors.When regeneration occurs, please prepare an optional external regenerative resistor.

Note)1 □ : Represents the motor specifications. (refer to "Model designation" P204.)

Note)2 ◇ : Represents the driver specifications. (refer to "Model designation" P204.)

Note)3 * * : Represents the cable length (03/3 m, 05/5 m, 10/10 m, 20/20 m). Example. 3 m/MFECA0030EAE

Note)4 Because A6SE series driver (dedicated for position control) does not support the absolute system specification, only incremental system can be used in combination.

Note)5 Please note that a battery is not supplied together with 23-bit absolute encoder cable (with battery box). Please buy the battery part number "DV0P2990" separately.

Note)6 Brake cable and motor cable are required for the motor with brake.

Motor										Driver		Power capacity (at rated load) (kVA)		Optional parts ▶ refer to P.306						
Motor series	Power supply	Output (W)	Part No. Note)1	Rating/ Spec. Dimensions (page)	A6 SF series Multi function type (Pulse, analog,) full-closed)	A6 SG series RS485 communication A6 SE series Basic (Pulse signal input) Note)2, Note)4	Frame	Encoder Cable Note)3,5		Motor Cable Note)3,5				External Regenerative Resistor	Reactor (Single phase / 3-phase)	Noise Filter				
								JL10 (Large size) (One-touch lock type) (N/MS screwed type)		JL10 (One-touch lock type) (JL04 screwed type)										
								23-bit Absolute		without Brake	with Brake									
								Use in the absolute system (with battery box) Note)7	Use in the Incremental system (without battery box)											
								Fixed cable		Movable cable										
Low inertia	MSMF Large size JL10 type 3000 r/min IP67	Single phase/ 3-phase 200 V	1000	MSMF102L1 □ 6M MSMF102L1 □ 8M	217 257	MDDLT55SF	MDDLN55S◇	D-frame	Approx. 2.4	MFECA 0 * * 0EPE MFECA 0 * * 0ESE	MFECA 0 * * 0EPD MFECA 0 * * 0ESD	MFMCD 0 * * 2EUD	MFMCA 0 * * 2FUD	DV0P4284	DV0P228 / DV0P222	DV0P4220				
			1500	MSMF152L1 □ 6M MSMF152L1 □ 8M	218 257	MDDLT55SF	MDDLN55S◇		Approx. 2.9			MFMCD 0 * * 2ECD	MFMCA 0 * * 2FCD		DV0PM20047 / DV0P222					
		3-phase 200 V	2000	MSMF202L1 □ 6M MSMF202L1 □ 8M	219 258	MEDLT83SF	MEDLN83S◇	E-frame	Approx. 3.8			DV0P4285 Note)6	DV0P223	DV0PM20043						
			3000	MSMF302L1 □ 6M MSMF302L1 □ 8M	220 259	MFDLT A3SF	MFDLNA3S◇		F-frame				Approx. 5.2	DV0P224	DV0P3410					
			4000	MSMF402L1 □ 6M MSMF402L1 □ 8M	221 259	MFDLTB3SF	MFDLNB3S◇	Approx. 7.8					MFMCA 0 * * 3EUT	MFMCA 0 * * 3FUT		DV0P225				
			5000	MSMF502L1 □ 6M MSMF502L1 □ 8M	222 260	MFDLTB3SF	MFDLNB3S◇						MFMCA 0 * * 3ECT	MFMCA 0 * * 3FCT						
Middle inertia	MDMF Large size JL10 type 2000 r/min IP67	Single phase/ 3-phase 200 V	1000	MDMF102L1 □ 6M MDMF102L1 □ 8M	239 283	MDDLT45SF	MDDLN45S◇	D-frame	Approx. 2.4	MFECA 0 * * 0EPE MFECA 0 * * 0ESE	MFECA 0 * * 0EPD MFECA 0 * * 0ESD	MFMCD 0 * * 2EUD	MFMCA 0 * * 2FUD	DV0P4284	DV0P228 / DV0P222	DV0P4220				
			1500	MDMF152L1 □ 6M MDMF152L1 □ 8M	240 284	MDDLT55SF	MDDLN55S◇		Approx. 2.9			MFMCD 0 * * 2ECD	MFMCA 0 * * 2FCD		DV0PM20047 / DV0P222					
		3-phase 200 V	2000	MDMF202L1 □ 6M MDMF202L1 □ 8M	241 285	MEDLT83SF	MEDLN83S◇	E-frame	Approx. 3.8			DV0P4285 Note)6	DV0P223	DV0PM20043						
			3000	MDMF302L1 □ 6M MDMF302L1 □ 8M	242 285	MFDLT A3SF	MFDLNA3S◇		F-frame				Approx. 5.2	DV0P224	DV0P3410					
			4000	MDMF402L1 □ 6M MDMF402L1 □ 8M	243 286	MFDLTB3SF	MFDLNB3S◇	Approx. 7.8					MFMCA 0 * * 3EUT	MFMCA 0 * * 3FUT		DV0P225				
			5000	MDMF502L1 □ 6M MDMF502L1 □ 8M	245 287	MFDLTB3SF	MFDLNB3S◇						MFMCA 0 * * 3ECT	MFMCA 0 * * 3FCT						
	MGMF Large size JL10 type (Low speed/ High torque type) 1500 r/min IP67	Single phase/ 3-phase 200 V	850	MGMF092L1 □ 6M MGMF092L1 □ 8M	246 288	MDDLT45SF	MDDLN45S◇	D-frame	Approx. 2.0	MFECA 0 * * 0EPE MFECA 0 * * 0ESE	MFECA 0 * * 0EPD MFECA 0 * * 0ESD	MFMCD 0 * * 2EUD	MFMCA 0 * * 2FUD	DV0P4284	DV0P228 / DV0P221	DV0P4220				
			1300	MGMF132L1 □ 6M MGMF132L1 □ 8M	247 289	MDDLT55SF	MDDLN55S◇		Approx. 2.6			MFMCD 0 * * 2ECD	MFMCA 0 * * 2FCD		DV0PM20047 / DV0P222					
		3-phase 200 V	1800	MGMF182L1 □ 6M MGMF182L1 □ 8M	248 289	MEDLT83SF	MEDLN83S◇	E-frame	Approx. 3.4			DV0P4285	DV0P223	DV0PM20043						
			2400	MGMF242L1 □ 6M MGMF242L1 □ 8M	249 290	MEDLT93SF	MEDLN93S◇		F-frame				Approx. 4.5	MFMCE 0 * * 3EUT	MFMCD 0 * * 3FUT	DV0P224	DV0P3410			
			2900	MGMF292L1 □ 6M MGMF292L1 □ 8M	250 291	MFDLTB3SF	MFDLNB3S◇	Approx. 5.0					MFMCE 0 * * 3ECT	MFMCD 0 * * 3FCT						
			4400	MGMF442L1 □ 6M MGMF442L1 □ 8M	251 291	MFDLTB3SF	MFDLNB3S◇						Approx. 7.0	MFMCA 0 * * 3EUT	MFMCA 0 * * 3FUT			DV0P225		
High inertia	MHMF Large size JL10 type 2000 r/min IP67	Single phase/ 3-phase 200 V	1000	MHMF102L1 □ 6M MHMF102L1 □ 8M	232 279	MDDLT45SF	MDDLN45S◇	D-frame	Approx. 2.4	MFECA 0 * * 0EPE MFECA 0 * * 0ESE	MFECA 0 * * 0EPD MFECA 0 * * 0ESD	MFMCD 0 * * 2EUD	MFMCA 0 * * 2FUD	DV0P4284	DV0P228 / DV0P222	DV0P4220				
			1500	MHMF152L1 □ 6M MHMF152L1 □ 8M	233 279	MDDLT55SF	MDDLN55S◇		Approx. 2.9			MFMCD 0 * * 2ECD	MFMCA 0 * * 2FCD		DV0PM20047 / DV0P222					
		3-phase 200 V	2000	MHMF202L1 □ 6M MHMF202L1 □ 8M	234 280	MEDLT83SF	MEDLN83S◇	E-frame	Approx. 3.8			DV0P4285 Note)6	DV0P223	DV0PM20043						
			3000	MHMF302L1 □ 6M MHMF302L1 □ 8M	235 281	MFDLT A3SF	MFDLNA3S◇		F-frame				Approx. 5.2	DV0P224	DV0P3410					
			4000	MHMF402L1 □ 6M MHMF402L1 □ 8M	236 281	MFDLTB3SF	MFDLNB3S◇	Approx. 7.8					MFMCE 0 * * 2ECD	MFMCE 0 * * 2FCD						
			5000	MHMF502L1 □ 6M MHMF502L1 □ 8M	237 282	MFDLTB3SF	MFDLNB3S◇						MFMCA 0 * * 3EUT	MFMCA 0 * * 3FUT		DV0P225				

Note)1 □ : Represents the motor specifications. (refer to “Model designation” P.204.)

Note)2 ◇ : Represents the driver specifications. (refer to “Model designation” P.204.)

Note)3 * * : Represents the cable length (03/3 m, 05/5 m, 10/10 m, 20/20 m). Example. 3 m/MFECA0030EPE

Note)4 Because A6SE series driver (dedicated for position control) does not support the absolute system specification, only incremental system can be used in combination.

Note)5 Use of JL10 type encoder cables and motor cables enable one-touch lock connections. Conventional screwed type N/MS and JL04V type cables can also be used.

Note)6 For other possible combinations, refer to P.343.

Note)7 Please note that a battery is not supplied together with 23-bit absolute encoder cable (with battery box). Please buy the battery part number “DV0P2990” separately.

Motor					Driver			Power capacity <div><div>at rated load</div><div>(kVA)</div></div>		Optional parts ▶ refer to P.306							
Motor series	Power supply	Output (W)	Part No. <div>Note)1</div>	Rating/ Spec. Dimensions <div>(page)</div>	A6SF series Multi function type <div><div>Pulse, analog, full-closed</div></div>	A6SG series RS485 communication <div>A6SE series Basic (Pulse signal input)</div>	Frame			Encoder Cable <div>Note)2,3</div>		Motor Cable		External Regenerative Resistor	Reactor <div>(Single phase / 3-phase)</div>	Noise Filter	
										JL10 (Large size) <div><div>One-touch lock type</div><div>N/MS screwed type</div></div>		Note)6					
										23-bit Absolute		without Brake	with Brake				
										Use in the absolute system <div>(with battery box)</div> <div>Note)4</div>	Use in the Incremental system <div>(without battery box)</div>						
										Fixed cable							
Middle inertia	MDMF Large size JL10 type 1500 r/min IP67	3-phase 200 V	7500	MDMF752L1 □ 6M	245 287	MGDLTC3SF	—	G-frame	Approx. 11		<div>MFECA 0 * * 0EPE</div> <div>MFECA 0 * * 0ESE</div>	<div>MFECA 0 * * 0EPD</div> <div>MFECA 0 * * 0ESD</div>	Note)6	Note)6	DV0P4285 ×3 in parallel	— <div>Note)5</div>	HF3080C-SZA <div>(Recommended components)</div> <div>P.413</div>
	MGMF Large size JL10 type <div>(Low speed/ High torque type)</div> 1500 r/min IP67	3-phase 200 V	5500	MGMF552L1 □ 6M	252 292	MGDLTC3SF	—	G-frame	Approx. 8.5		<div>MFECA 0 * * 0EPE</div> <div>MFECA 0 * * 0ESE</div>	<div>MFECA 0 * * 0EPD</div> <div>MFECA 0 * * 0ESD</div>	Note)6	Note)6	DV0P4285 ×3 in parallel	— <div>Note)5</div>	HF3080C-SZA <div>(Recommended components)</div> <div>P.413</div>
High inertia	MHMF Large size JL10 type 1500 r/min IP67	3-phase 200 V	7500	MHMF752L1 □ 6M	238 283	MGDLTC3SF	—	G-frame	Approx. 11		<div>MFECA 0 * * 0EPE</div> <div>MFECA 0 * * 0ESE</div>	<div>MFECA 0 * * 0EPD</div> <div>MFECA 0 * * 0ESD</div>	Note)6	Note)6		— <div>Note)5</div>	HF3080C-SZA <div>(Recommended components)</div> <div>P.413</div>

■ About dynamic brake

G frame is built in / external, H frame is external

Built-in / {external} The standard of the dynamic brake resistance's capability is up to three consecutive emergency stops from the rated speed at the maximum allowable inertia (load inertia moment ratio 10 times the rotor inertia moment). If it is used under more conditions, the resistance may be broken and the dynamic brake may not operate.

Recommended resistance: 1.2 Ω 400 W or more × 3 pieces

For inquiries: Iwaki Musen Kenkyusho Co.,Ltd. Tel: +81-44-833-4311

■ Connector kit (option) Component parts Note)6												
Motor	Driver		Option No. Connector Kit for motor, encoder connection	Encoder Cable		Motor Cable		Brake Cable				
	Frame	Connection terminal		Motor side	Driver side	Motor side	Driver side	Motor side	Power supply for brake			
MDMF 7.5 kW MGMF 5.5 kW MHMF 7.5 kW	G	M5	DV0PM20107	Large size connector One-touch lock type	For Connector X6	Connector Screwed type	(to be supplied by customer) M5 Round terminal	not included	(to be supplied by customer)			
			DV0PM20108					Connector Screwed type				
			DV0PM20111	Large size connector Screwed type				not included				
			DV0PM20112					Connector Screwed type				

Note)1 □ : Represents the motor specifications. (refer to “Model designation” P.204.)

Note)2 * * : Represents the cable length (03/3 m, 05/5 m, 10/10 m, 20/20 m). Example. 3 m/MFECA0030ETE

Note)3 Use of JL10 type encoder cables and motor cables enable one-touch lock connections. Conventional screwed type N/MS and JL04V type cables can also be used.

Note)4 Please note that a battery is not supplied together with 23-bit absolute encoder cable (with battery box). Please buy the battery part number “DV0P2990” separately.

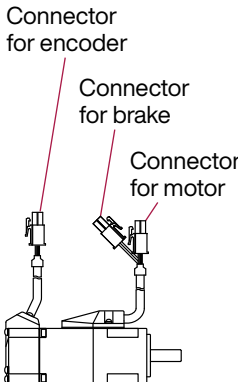
Note)5 Please prepare reactor for customer.

Note)6 We recommend purchasing an optional connector kit.

50 W to 1000 W 80 mm sq. or less

● When the motors of <MSMF, MQMF, MHMF (Leadwire type)> are used, they are connected as shown below.
Connector: Tyco Electronics Japan G.K. (The figures below show connectors for the motor.)

[Connector for encoder]



Connector for encoder
Connector for brake
Connector for motor

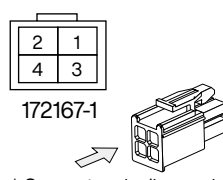
172169-1
23-bit Absolute

PIN No.	Application
1	BAT+*
2	BAT-*
3	FG(SHIELD)
4	PS
5	PS
6	NC
7	E5V
8	E0V
9	NC

<Remarks>
Do not connect anything to NC.

* When using the motor as an incremental system, BAT+ and BAT- can be left unconnected.

[Connector for motor]

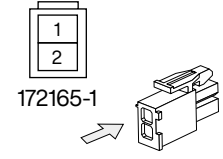


172167-1

* Connector pin diagram is viewed from the direction of the arrow.

PIN No.	Application
1	U-phase
2	V-phase
3	W-phase
4	Ground

[Connector for Brake]



172165-1

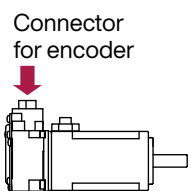
* Electromagnetic brake is a nonpolar device.

PIN No.	Application
1	Brake
2	Brake

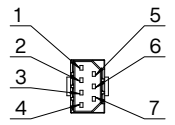
* Connector pin diagram is viewed from the direction of the arrow.

● When the motors of <MSMF, MQMF, MHMF (Connector type)> are used, they are connected as shown below.
Connector: Made by Japan Aviation Electronics Industry, Ltd. (The figures below show connectors for the motor.)

<MSMF>



Connector for encoder



1 2 3 4 5 6 7

JN6CR07PM2
JN6CR07PM4

* Top view of the motor.

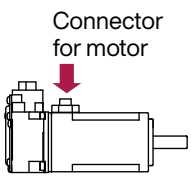
PIN No.	Application
1	FG(SHIELD)
2	BAT-*
3	E0V
4	PS
5	BAT+*
6	E5V
7	PS

Tightening torque of the screw (M2)
0.19 N·m to 0.21 N·m

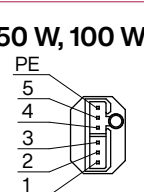
* Be sure to use only the screw supplied with the connector, to avoid damage.

* When using the motor as an incremental system, BAT+ and BAT- can be left unconnected.

<MHMF 50 W, 100 W>



Connector for motor



PE 5 4 3 2 1

JN11AH06NN2

* Top view of the motor.

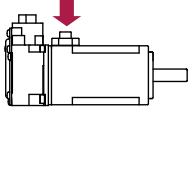
PIN No.	Application
1	U-phase
2	V-phase
3	W-phase
PE	Ground

Tightening torque of the screw (M2)
0.085 N·m to 0.095 N·m (screwed to plastic)

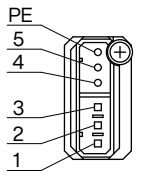
* Be sure to use only the screw supplied with the connector, to avoid damage.

* Secure the gasket in place without removing it from the connector.

<MQMF, MHMF 200 W to 1000 W>



Connector for motor



PE 5 4 3 2 1

JN11AH06NN1

* Top view of the motor.

PIN No.	Application
1	U-phase
2	V-phase
3	W-phase
PE	Ground

Tightening torque of the screw (M2)
0.085 N·m to 0.095 N·m

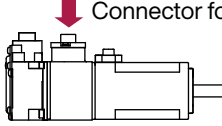
* Electromagnetic brake is a nonpolar device.

* Be sure to use only the screw supplied with the connector, to avoid damage.

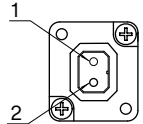
* Secure the gasket in place without removing it from the connector.

<Remarks> Do not connect anything to NC.

[Motor with brake] <MSMF>



Connector for brake



1 2

JN4AT02PJM-R

* Top view of the motor.

PIN No.	Application
1	Brake
2	Brake

Tightening torque of the screw (M2)
0.19 N·m to 0.21 N·m

* Electromagnetic brake is a nonpolar device.

* Be sure to use only the screw supplied with the connector, to avoid damage.

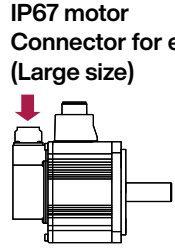
* Secure the gasket in place without removing it from the connector.

0.85 kW to 5.0 kW 100 mm sq. or more

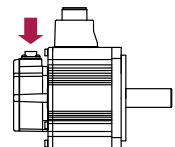
● When the motors of <MSMF, MDMF, MGMF, MHMF> are used, they are connected as shown below.
Connector: Made by Japan Aviation Electronics Industry, Ltd. (The figures below show connectors for the motor.)

▪ Connector for encoder

<Large size Encoder connector> <Small size Encoder connector>



IP67 motor
Connector for encoder
(Large size)



IP67 motor
Connector for encoder
(Small size)

JL10-2A20-29P
23-bit Absolute

PIN No.	Application
A	NC
B	NC
C	NC
D	NC
E	NC
F	NC
G	E0V
H	E5V
J	FG(SHIELD)

K PS
L PS
M NC
N NC
P NC
R NC
S BAT- *
T BAT+ *

JN2AS10ML3-R
23-bit Absolute

PIN No.	Application
1	E0V
2	NC
3	PS
4	E5V
5	BAT- *
6	BAT+ *
7	PS
8	NC
9	FG(SHIELD)
10	NC

<Remarks>
Do not connect anything to NC.

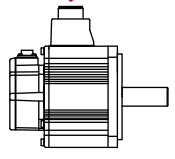
* When using the motor as an incremental system, BAT+ and BAT- can be left unconnected.

▪ Connector for motor/brake

Table for motor connector and brake connector

Motor part No.	Motor output	200 V	
		without Brake	with Brake
MSMF	1.0 kW to 2.0 kW	A	C
	3.0 kW to 5.0 kW	B	D
MDMF	1.0 kW to 2.0 kW	A	C
	3.0 kW to 5.0 kW	B	D
	7.5 kW to 15.0 kW	E	E, F
MGMF	22.0 kW	G	G, F
	0.85 kW to 1.8 kW	A	C
	2.4 kW to 4.4 kW	B	D
MHMF	5.5 kW	E	E, F
	1.0 kW to 1.5 kW	A	C
	2.0 kW to 5.0 kW	B	D
	7.5 kW	E	E, F

Connector for motor/brake



* Electromagnetic brake is a nonpolar device.

A JL10-2E20-4PE-B

B JL10-2E22-22PE-B

C JL10-2E20-18PE-B

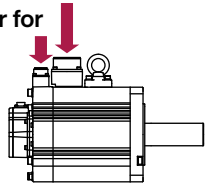
PIN No.	Application
G	with Brake: Brake without Brake: NC
H	with Brake: Brake without Brake: NC
A	NC
F	U-phase
I	V-phase
B	W-phase
E	Ground
D	Ground
C	NC

D JL10-2E24-11PE-B

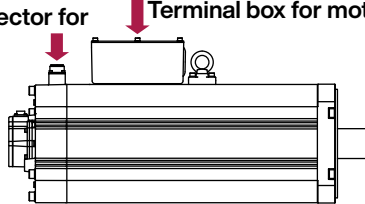
PIN No.	Application
A	with Brake: Brake without Brake: NC
B	with Brake: Brake without Brake: NC
C	NC
D	U-phase
E	V-phase
F	W-phase
G	Ground
H	Ground
I	NC

<Remarks> Do not connect anything to NC.

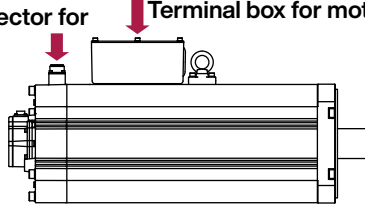
Connector for motor



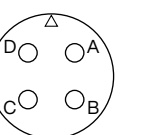
Connector for brake



Terminal box for motor



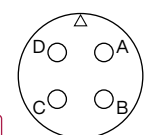
<Motor>



JL04V-2E32-17PE-B-R

PIN No.	Application
A	U-phase
B	V-phase
C	W-phase
D	Ground

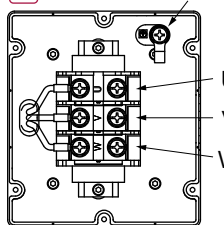
<Brake>



N/MS3102A 14S-2P

PIN No.	Application
A	Brake
B	Brake
C	NC
D	NC

<Terminal block>



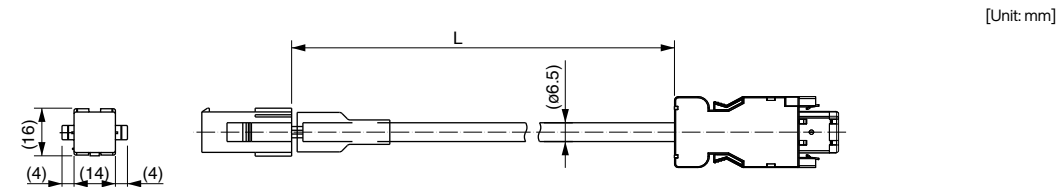
Ground U V W

Terminal	Application
U	U-phase
V	V-phase
W	W-phase
Ground	Ground

* U, V, W, Earth screw
Nominal: M8
Tightening torque:
12.0 N·m

* Electromagnetic brake is a nonpolar device.

Part No.	MFECA0 * * 0EAD	80 mm sq. or less Applicable model	MSMF 50 W to 1000 W, MHMF 50 W to 1000 W (Leadwire type)	MQMF 100 W to 400 W
Specifications	23-bit absolute encoder When used in incremental system (without battery box)			

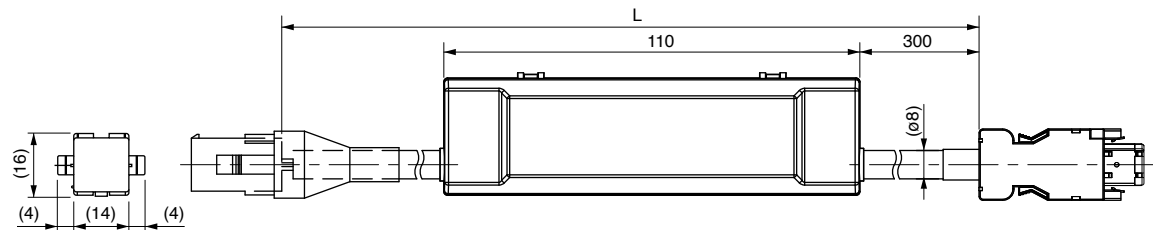


Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector (Driver side)	3E206-0100 KV	3M Japan (or equivalent)	3	MFECA0030EAD
Shell kit	3E306-3200-008		5	MFECA0050EAD
Connector (Motor side)	172161-1	Tyco Electronics Japan G.K.	10	MFECA0100EAD
Connector pin	170365-1		20	MFECA0200EAD
Cable	0.20 mm ² ×3P (6-wire)	Ok Electric Cable Co., Ltd.		

Part No.	MFECA0 * * 0EAE	80 mm sq. or less Applicable model	MSMF 50 W to 1000 W, MHMF 50 W to 1000 W (Leadwire type)	MQMF 100 W to 400 W
Specifications	23-bit absolute encoder When used in absolute system (with battery box) *			

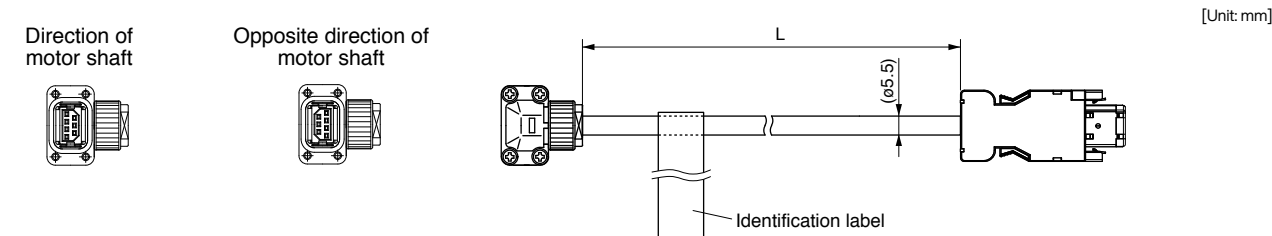
* Battery is not included. Please buy the absolute encoder battery "DV0P2990" separately.

[Unit: mm]



Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector (Driver side)	3E206-0100 KV	3M Japan (or equivalent)	3	MFECA0030EAE
Shell kit	3E306-3200-008		5	MFECA0050EAE
Connector (Motor side)	172161-1	Tyco Electronics Japan G.K.	10	MFECA0100EAE
Connector pin	170365-1		20	MFECA0200EAE
Cable	0.20 mm ² ×4P (8-wire)	Ok Electric Cable Co., Ltd.		

Part No.	MFECA0 * * 0MJD (Highly bendable type, Direction of motor shaft)	80 mm sq. or less Applicable model	MSMF 50 W to 1000 W
	MFECA0 * * 0MKD (Highly bendable type, Opposite direction of motor shaft)		MQMF 100 W to 400 W
	MFECA0 * * 0TJD (Standard bendable type, Direction of motor shaft)		MHMF 50 W to 1000 W
	MFECA0 * * 0TKD (Standard bendable type, Opposite direction of motor shaft)		(Connector type)
Specifications	23-bit absolute encoder When used in incremental system (without battery box)		

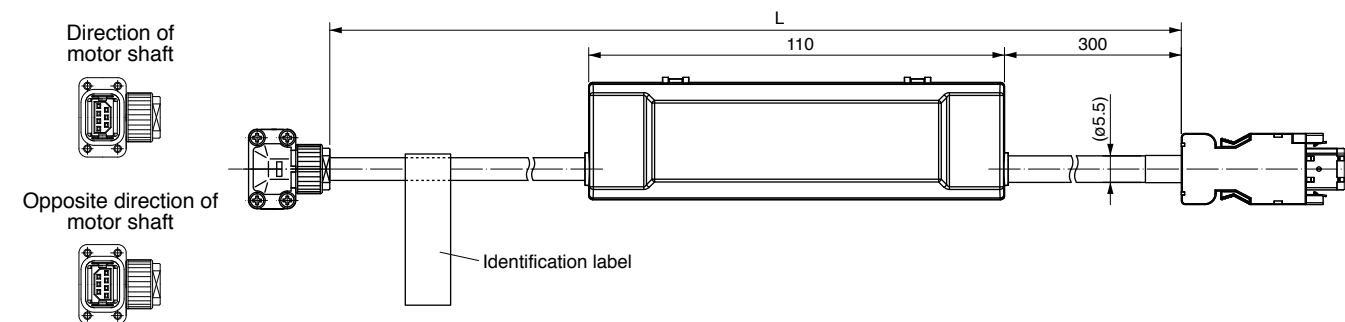


Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector (Driver side)	3E206-0100 KV	3M Japan (or equivalent)	3	MFECA0030MJD
Shell kit	3E306-3200-008		5	MFECA0050MJD
Connector (Motor side)	JN6FR07SM1	Japan Aviation Electronics Ind.	10	MFECA0100MJD
Connector pin	LY10-C1-A1-10000		20	MFECA0200MJD
Cable	AWG24 4-wire, AWG22 2-wire (ø5.5)	Proterial, Ltd.		

Part No.	MFECA0 * * OMJE (Highly bendable type, Direction of motor shaft)	80 mm sq. or less Applicable model	MSMF	50 W to 1000 W
	MFECA0 * * OMKE (Highly bendable type, Opposite direction of motor shaft)		MQMF	100 W to 400 W
	MFECA0 * * OTJE (Standard bendable type, Direction of motor shaft)		MHMF	50 W to 1000 W
	MFECA0 * * OTKE (Standard bendable type, Opposite direction of motor shaft)		(Connector type)	
Specifications	23-bit absolute encoder When used in absolute system (with battery box) *			

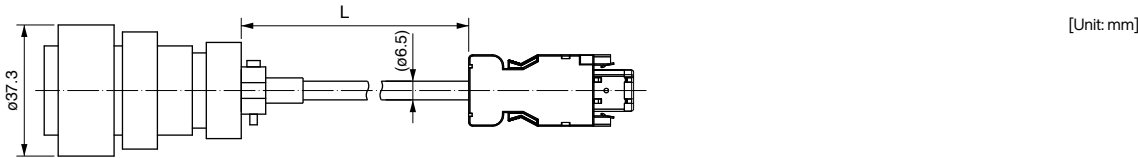
* Battery is not included. Please buy the absolute encoder battery "DV0P2990" separately.

[Unit: mm]



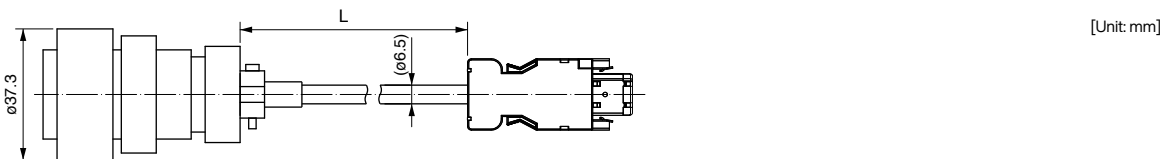
Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector (Driver side)	3E206-0100 KV	3M Japan (or equivalent)	3	MFECA0030MJE
Shell kit	3E306-3200-008		5	MFECA0050MJE
Connector (Motor side)	JN6FR07SM1	Japan Aviation Electronics Ind.	10	MFECA0100MJE
Connector pin	LY10-C1-A1-10000		20	MFECA0200MJE
Cable	AWG24 4-wire, AWG22 2-wire (ø5.5)	Proterial, Ltd.		

Part No.	MFECA0 * * 0EPD	100 mm sq. or more Applicable motor output	0.85 kW to 22.0 kW
Specifications	23-bit absolute encoder When used in incremental system (without battery box) <Large one-touch lock type>		



Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector (Driver side)	3E206-0100 KV	3M Japan	3	MFECA0030EPD
Shell kit	3E306-3200-008	(or equivalent)	5	MFECA0050EPD
Connector (Motor side)	JL10-6A20-29S-EB	Japan Aviation Electronics Ind.	10	MFECA0100EPD
Cable clamp	JL04-2022CK(09)-R		20	MFECA0200EPD
Cable	0.2 mm ² ×3P (6-wire)	Oki Electric Cable Co., Ltd.		

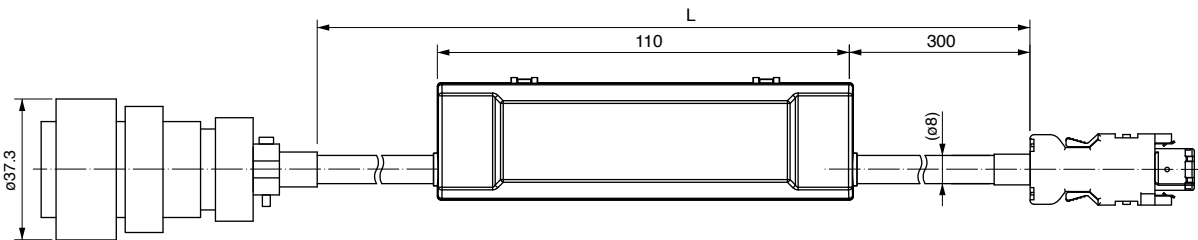
Part No.	MFECA0 * * 0ESD	100 mm sq. or more Applicable motor output	0.85 kW to 22.0 kW
Specifications	23-bit absolute encoder When used in incremental system (without battery box) <Large screwed type>		



Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector (Driver side)	3E206-0100 KV	3M Japan	3	MFECA0030ESD
Shell kit	3E306-3200-008	(or equivalent)	5	MFECA0050ESD
Connector (Motor side)	N/MS3106B20-29S	Japan Aviation Electronics Ind.	10	MFECA0100ESD
Cable clamp	N/MS3057-12A		20	MFECA0200ESD
Cable	0.2 mm ² ×3P (6-wire)	Oki Electric Cable Co., Ltd.		

Part No.	MFECA0 * * 0EPE	100 mm sq. or more Applicable motor output	0.85 kW to 22.0 kW (IP67 motor)
Specifications	23-bit absolute encoder When used in absolute system (with battery box) * <Large one-touch lock type>		

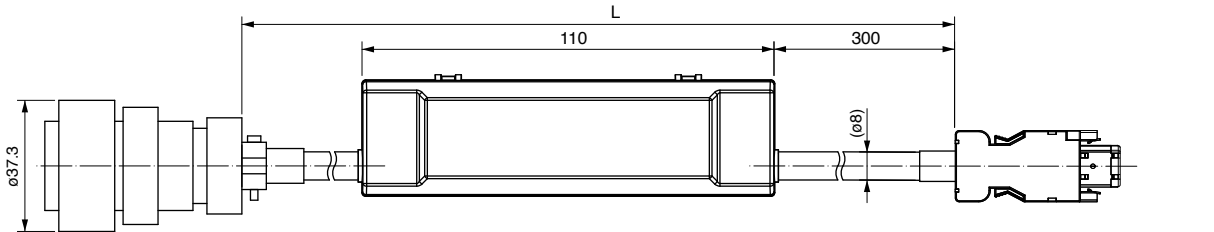
* Battery is not included. Please buy the absolute encoder battery "DV0P2990" separately.



Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector (Driver side)	3E206-0100 KV	3M Japan	3	MFECA0030EPE
Shell kit	3E306-3200-008	(or equivalent)	5	MFECA0050EPE
Connector (Motor side)	JL10-6A20-29S-EB	Japan Aviation Electronics Ind.	10	MFECA0100EPE
Cable clamp	JL04-2022CK(09)-R		20	MFECA0200EPE
Cable	0.2 mm ² ×3P (6-wire)	Oki Electric Cable Co., Ltd.		

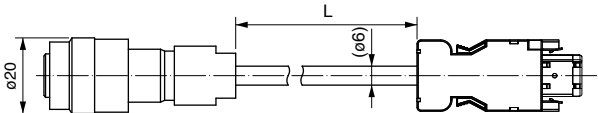
Part No.	MFECA0 * * 0ESE	100 mm sq. or more Applicable motor output	0.85 kW to 22.0 kW (IP67 motor)
Specifications	23-bit absolute encoder When used in absolute system (with battery box) * <Large screwed type>		

* Battery is not included. Please buy the absolute encoder battery "DV0P2990" separately.



Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector (Driver side)	3E206-0100 KV	3M Japan	3	MFECA0030ESE
Shell kit	3E306-3200-008	(or equivalent)	5	MFECA0050ESE
Connector (Motor side)	N/MS3106B20-29S	Japan Aviation Electronics Ind.	10	MFECA0100ESE
Cable clamp	N/MS3057-12A		20	MFECA0200ESE
Cable	0.2 mm ² ×4P (8-wire)	Oki Electric Cable Co., Ltd.		

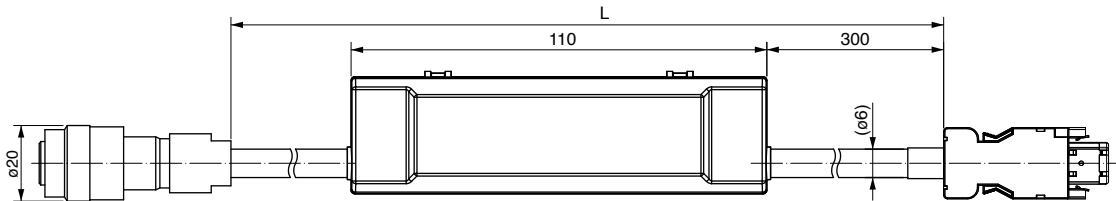
Part No.	MFECA0 * * 0ETD	100 mm sq. or more Applicable motor output	0.85 kW to 22.0 kW (IP67 motor)
Specifications	23-bit absolute encoder When used in incremental system (without battery box) <Small one-touch lock type>		



Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector (Driver side)	3E206-0100 KV	3M Japan	3	MFECA0030ETD
Shell kit	3E306-3200-008	(or equivalent)	5	MFECA0050ETD
Connector (Motor side)	JN2DS10SL1-R	Japan Aviation Electronics Ind.	10	MFECA0100ETD
Connector pin	JN1-22-22S-PKG100		20	MFECA0200ETD
Cable	0.2 mm ² ×3P (6-wire)	Oki Electric Cable Co., Ltd.		

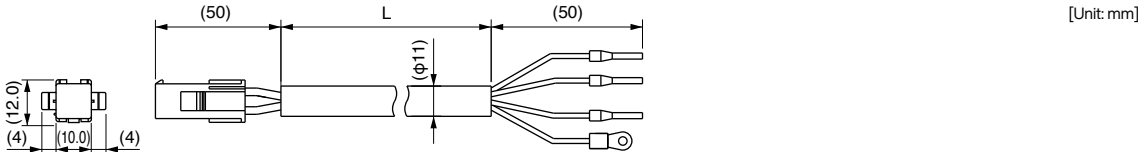
Part No.	MFECA0 * * 0ETE	100 mm sq. or more Applicable motor output	0.85 kW to 22.0 kW (IP67 motor)
Specifications	23-bit absolute encoder When used in absolute system (with battery box) * <Small one-touch lock type>		

* Battery is not included. Please buy the absolute encoder battery "DV0P2990" separately.



Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector (Driver side)	3E206-0100 KV	3M Japan	3	MFECA0030ETE
Shell kit	3E306-3200-008	(or equivalent)	5	MFECA0050ETE
Connector (Motor side)	JN2DS10SL1-R	Japan Aviation Electronics Ind.	10	MFECA0100ETE
Connector pin	JN1-22-22S-PKG100		20	MFECA0200ETE
Cable	0.2 mm ² ×3P (6-wire)	Oki Electric Cable Co., Ltd.		

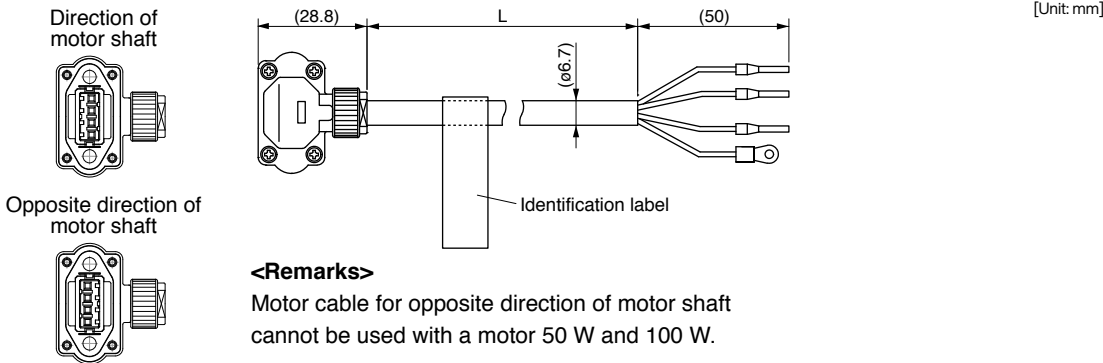
Part No.	MFMCA0 * * 0EED	80 mm sq. or less Applicable model	MSMF 50 W to 1000 W, MHMF 50 W to 1000 W (Leadwire type)	MQMF 100 W to 400 W
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[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	172159-1	Tyco Electronics Japan G.K.	3	MFMCA0030EED
Cable clamp	170366-1		5	MFMCA0050EED
Rod terminal	AI0.75-8GY	PHOENIX CONTACT	10	MFMCA0100EED
Nylon insulated round terminal	N1.25-M4	J.S.T Mfg. Co., Ltd.	20	MFMCA0200EED
Cable	ROBO-TOP 600V 0.75 mm ² 4-wire	DYDEN CORPORATION		

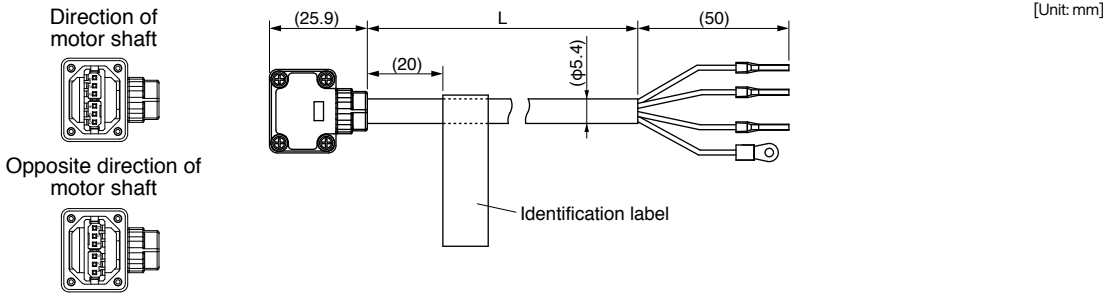
Part No.	MFMCA0 * * 0NJD (Highly bendable type, Direction of motor shaft)	80 mm sq. or less Applicable model	MSMF 50 W to 1000 W (Connector type)
	MFMCA0 * * 0RJD (Standard bendable type, Direction of motor shaft)		
	MFMCA0 * * 0NKD (Highly bendable type, Opposite direction of motor shaft)		MSMF 200 W to 1000 W (Connector type)
	MFMCA0 * * 0RKD (Standard bendable type, Opposite direction of motor shaft)		



[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JN8FT04SJ1	Japan Aviation Electronics Ind.	3	MFMCA0030NJD
Cable clamp	ST-TMH-S-C1B-3500		5	MFMCA0050NJD
Rod terminal	AI0.75-8GY	PHOENIX CONTACT	10	MFMCA0100NJD
Nylon insulated round terminal	N1.25-M4	J.S.T Mfg. Co., Ltd.	20	MFMCA0200NJD
Cable	AWG18 4-wire (φ6.7 mm)	Proterial, Ltd.		

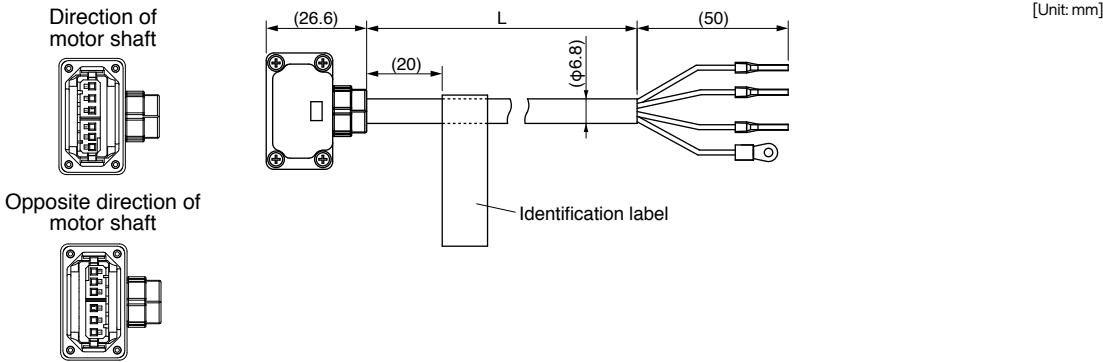
Part No.	MFMCA0 * * 7UFD (Movable/fixed common-use, direction of motor shaft)	80 mm sq. or less Applicable model	MHMF 50 W, 100 W (Connector type)
	MFMCA0 * * 7UGD (Movable/fixed common-use, opposite direction of motor shaft)		



[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JN11FH06SN2	Japan Aviation Electronics Ind.	3	MFMCA0037UFD
Cable clamp	JN11S10K4A1		5	MFMCA0057UFD
Rod terminal	AI0.34-8TQ	PHOENIX CONTACT	10	MFMCA0107UFD
Nylon insulated round terminal	N1.25-M4	J.S.T Mfg. Co., Ltd.	20	MFMCA0207UFD
Cable	AWG22 6-wire (φ5.4 mm)	NIKKO ELECTRIC WIRE CO.,LTD		

Part No.	MFMCA0 * * 0UFD (Highly bendable type, Direction of motor shaft)	80 mm sq. or less Applicable model	MQMF 100 W to 400 W MHMF 200 W to 1000 W (Connector type)
	MFMCA0 * * 0UGD (Highly bendable type, Opposite direction of motor shaft)		
	MFMCA0 * * 0WFD (Standard bendable type, Direction of motor shaft)		
	MFMCA0 * * 0WGD (Standard bendable type, Opposite direction of motor shaft)		

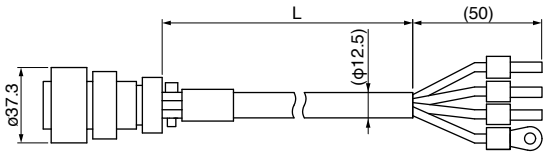


[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JN11FH06SN1	Japan Aviation Electronics Ind.	3	MFMCA0030UFD
Cable clamp	JN11S35H3A1		5	MFMCA0050UFD
Rod terminal	AI0.75-8GY	PHOENIX CONTACT	10	MFMCA0100UFD
Nylon insulated round terminal	N1.25-M4	J.S.T Mfg. Co., Ltd.	20	MFMCA0200UFD
Cable	AWG18 6-wire (φ6.8)	NIKKO ELECTRIC WIRE CO.,LTD		

Part No.	MFMCDO * * 2EUD	100 mm sq. or more Applicable model	MSMF 1.0 kW to 2.0 kW, MHMF 1.0 kW, 1.5 kW, <One-touch lock type>	MDMF 1.0 kW to 2.0 kW MGMF 0.85 kW to 1.8 kW
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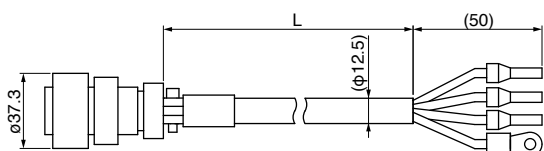
[Unit: mm]



Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL10-6A20-4SE-EB	Japan Aviation Electronics Ind.	3	MFMCD0032EUD
Cable clamp	JL04-2022CK(14)-R		5	MFMCD0052EUD
Rod terminal	NTUB-2	J.S.T Mfg. Co., Ltd.	10	MFMCD0102EUD
Nylon insulated round terminal	N2-M4	J.S.T Mfg. Co., Ltd.	20	MFMCD0202EUD
Cable	ROBO-TOP 600V 2.0mm ² 4-wire	DYDEN CORPORATION		

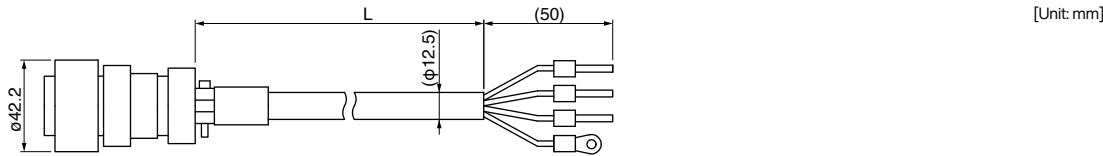
Part No.	MFMCDO * * 2ECD	100 mm sq. or more Applicable model	MSMF 1.0 kW to 2.0 kW, MHMF 1.0 kW, 1.5 kW, <Screw type>	MDMF 1.0 kW to 2.0 kW MGMF 0.85 kW to 1.8 kW
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[Unit: mm]



Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL04V-6A20-4SE-EB-RK	Japan Aviation Electronics Ind.	3	MFMCD0032ECD
Cable clamp	JL04-2022CK(14)-R		5	MFMCD0052ECD
Rod terminal	NTUB-2	J.S.T Mfg. Co., Ltd.	10	MFMCD0102ECD
Nylon insulated round terminal	N2-M4	J.S.T Mfg. Co., Ltd.	20	MFMCD0202ECD
Cable	ROBO-TOP 600V 2.0mm ² 4-wire	DYDEN CORPORATION		

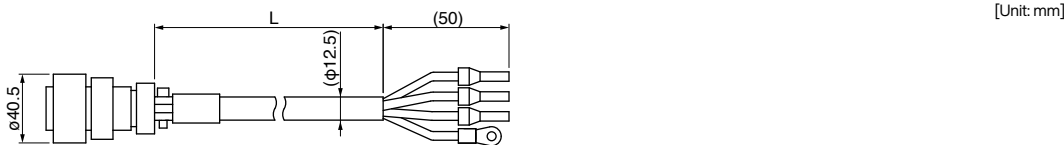
Part No.	MFMCEO * * 2EUD	100 mm sq. or more Applicable model	MHMF 2.0 kW <One-touch lock type>
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[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL10-6A22-22SE-EB	Japan Aviation Electronics Ind.	3	MFMCE0032EUD
Cable clamp	JL04-2022CK(14)-R	Japan Aviation Electronics Ind.	5	MFMCE0052EUD
Rod terminal	NTUB-2	J.S.T Mfg. Co., Ltd.	10	MFMCE0102EUD
Nylon insulated round terminal	N2-M4	J.S.T Mfg. Co., Ltd.	20	MFMCE0202EUD
Cable	ROBO-TOP DP6/2501 2.0 mm ² 4-wire	DYDEN CORPORATION		

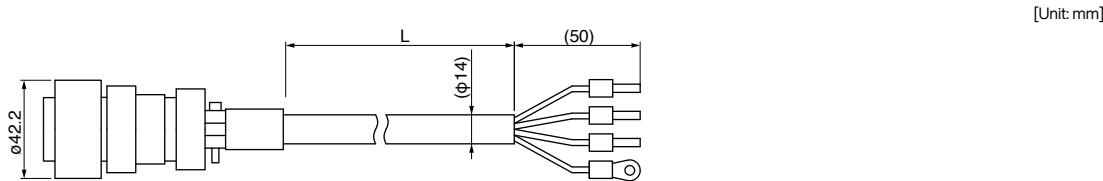
Part No.	MFMCEO * * 2ECD	100 mm sq. or more Applicable model	MHMF 2.0 kW <Screwed type>
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[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL04V-6A22-22SE-EB-R	Japan Aviation Electronics Ind.	3	MFMCE0032ECD
Cable clamp	JL04-2022CK(14)-R	Japan Aviation Electronics Ind.	5	MFMCE0052ECD
Rod terminal	NTUB-2	J.S.T Mfg. Co., Ltd.	10	MFMCE0102ECD
Nylon insulated round terminal	N2-M4	J.S.T Mfg. Co., Ltd.	20	MFMCE0202ECD
Cable	ROBO-TOP 600V 2.0 mm ² 4-wire	DYDEN CORPORATION		

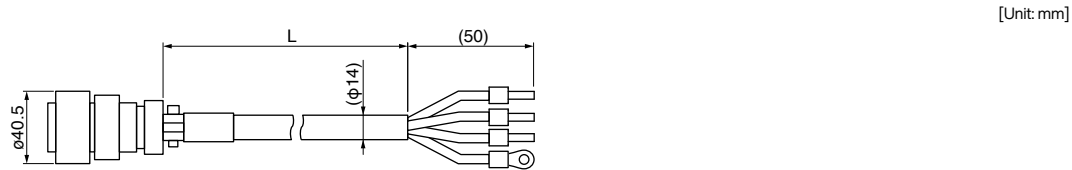
Part No.	MFMCEO * * 3EUT	100 mm sq. or more Applicable model	MGMF 2.4 kW <One-touch lock type>
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[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL10-6A22-22SE-EB	Japan Aviation Electronics Ind.	3	MFMCE0033EUT
Cable clamp	JL04-2022CK(14)-R	Japan Aviation Electronics Ind.	5	MFMCE0053EUT
Rod terminal	TMENTC3.5-11S	NICHIFU Co., Ltd.	10	MFMCE0103EUT
Nylon insulated round terminal	N5.5-5	J.S.T Mfg. Co., Ltd.	20	MFMCE0203EUT
Cable	ROBO-TOP DP6/2501 3.5 mm ² 4-wire	DYDEN CORPORATION		

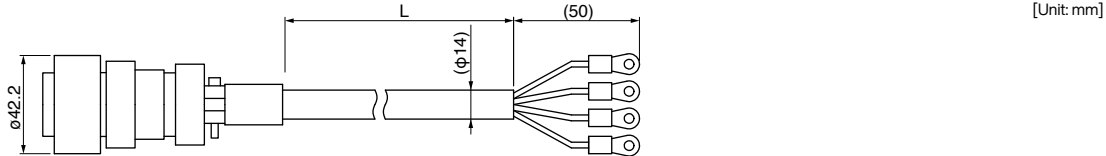
Part No.	MFMCEO * * 3ECT	100 mm sq. or more Applicable model	MGMF 2.4 kW <Screwed type>
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[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL04V-6A22-22SE-EB-R	Japan Aviation Electronics Ind.	3	MFMCE0033ECT
Cable clamp	JL04-2022CK(14)-R	Japan Aviation Electronics Ind.	5	MFMCE0053ECT
Rod terminal	TMENTC3.5-11S	NICHIFU Co., Ltd.	10	MFMCE0103ECT
Nylon insulated round terminal	N5.5-5	J.S.T Mfg. Co., Ltd.	20	MFMCE0203ECT
Cable	ROBO-TOP 600V 3.5 mm ² 4-wire	DYDEN CORPORATION		

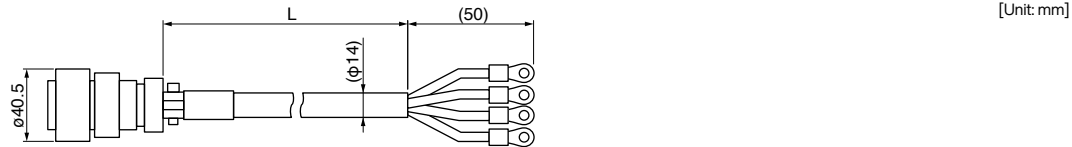
Part No.	MFMCAO * * 3EUT	100 mm sq. or more Applicable model	MSMF 3.0 kW to 5.0 kW, MHMF 3.0 kW to 5.0 kW, <One-touch lock type>	MDMF 3.0 kW to 5.0 kW MGMF 2.9 kW to 4.4 kW
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[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL10-6A22-22SE-EB	Japan Aviation Electronics Ind.	3	MFMCA0033EUT
Cable clamp	JL04-2022CK(14)-R	Japan Aviation Electronics Ind.	5	MFMCA0053EUT
Nylon insulated round terminal	N5.5-5	J.S.T Mfg. Co., Ltd.	10	MFMCA0103EUT
Cable	ROBO-TOP DP6/2501 3.5 mm ² 4-wire	DYDEN CORPORATION	20	MFMCA0203EUT

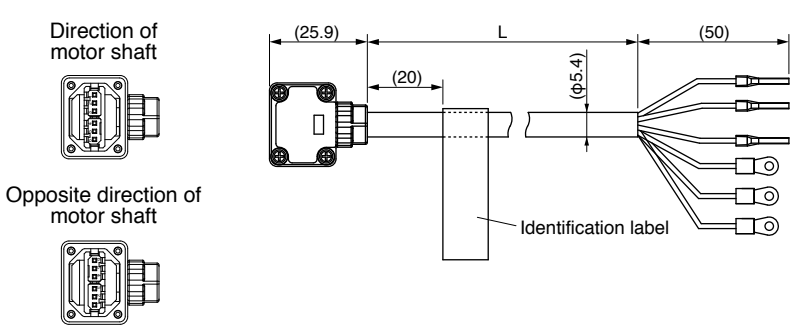
Part No.	MFMCAO * * 3ECT	100 mm sq. or more Applicable model	MSMF 3.0 kW to 5.0 kW, MHMF 3.0 kW to 5.0 kW, <Screwed type>	MDMF 3.0 kW to 5.0 kW MGMF 2.9 kW to 4.4 kW
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[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL04V-6A22-22SE-EB-R	Japan Aviation Electronics Ind.	3	MFMCA0033ECT
Cable clamp	JL04-2022CK(14)-R	Japan Aviation Electronics Ind.	5	MFMCA0053ECT
Nylon insulated round terminal	N5.5-5	J.S.T Mfg. Co., Ltd.	10	MFMCA0103ECT
Cable	ROBO-TOP 600V 3.5 mm ² 4-wire	DYDEN CORPORATION	20	MFMCA0203ECT

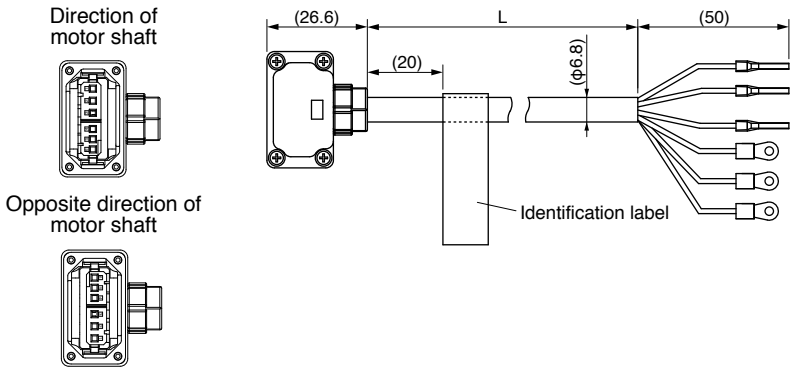
Part No.	MFMCA0 ** 7VFD	(Movable/fixed common-use, direction of motor shaft)	80 mm sq. or less Applicable model	MHMF 50 W, 100 W (Connector type)
	MFMCA0 ** 7VGD	(Movable/fixed common-use, opposite direction of motor shaft)		



[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JN11FH06SN2	Japan Aviation Electronics Ind.	3	MFMCA0037VFD
Cable clamp	JN11S10K4A1	Japan Aviation Electronics Ind.	5	MFMCA0057VFD
Rod terminal	AI0.34-8TQ	PHOENIX CONTACT	10	MFMCA0107VFD
Nylon insulated round terminal	N1.25-M4	J.S.T Mfg. Co., Ltd.	20	MFMCA0207VFD
Cable	AWG22 6-wire (φ5.4 mm)	NIKKO ELECTRIC WIRE CO.,LTD		

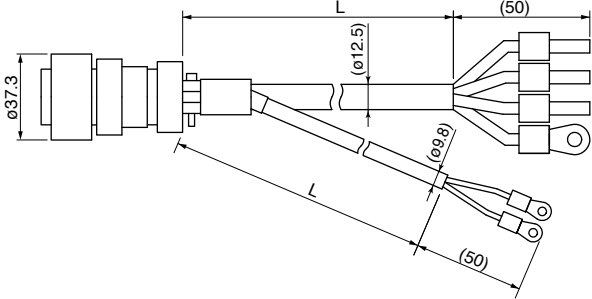
Part No.	MFMCA0 ** 0VFD	(Highly bendable type, Direction of motor shaft)	80 mm sq. or less Applicable model	MQMF 100 W to 400 W MHMF 200 W to 1000 W (Connector type)
	MFMCA0 ** 0VGD	(Highly bendable type, Opposite direction of motor shaft)		
	MFMCA0 ** 0XFD	(Standard bendable type, Direction of motor shaft)		
	MFMCA0 ** 0XGD	(Standard bendable type, Opposite direction of motor shaft)		



[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JN11FH06SN1	Japan Aviation Electronics Ind.	3	MFMCA0030VFD
Cable clamp	JN11S35H3A1	Japan Aviation Electronics Ind.	5	MFMCA0050VFD
Rod terminal	AI0.75-8GY	PHOENIX CONTACT	10	MFMCA0100VFD
Nylon insulated round terminal	N1.25-M4	J.S.T Mfg. Co., Ltd.	20	MFMCA0200VFD
Cable	AWG18 6-wire (φ6.8 mm)	NIKKO ELECTRIC WIRE CO.,LTD		

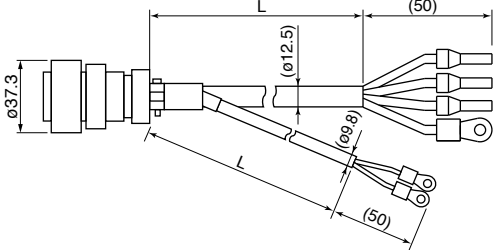
Part No.	MFMCA0 ** 2FUD	100 mm sq. or more Applicable model	MSMF 1.0 kW to 2.0 kW, MHMF 1.0 kW to 1.5 kW, <One-touch lock type>	MDMF 1.0 kW to 2.0 kW MGMF 0.85 kW to 1.8 kW
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[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL10-6A20-18SE-EB	Japan Aviation Electronics Ind.	3	MFMCA0032FUD
Cable clamp	JL042022CK(14)-R	Japan Aviation Electronics Ind.	5	MFMCA0052FUD
Rod terminal	NTUB-2	J.S.T Mfg. Co., Ltd.	10	MFMCA0102FUD
Nylon insulated round terminal	Earth Brake N2-M4 N1.25-M4	J.S.T Mfg. Co., Ltd.	20	MFMCA0202FUD
Cable	ROBO-TOP 600V 2.0 mm ² 4-wire ROBO-TOP 600V 0.75 mm ² 2-wire	DYDEN CORPORATION		

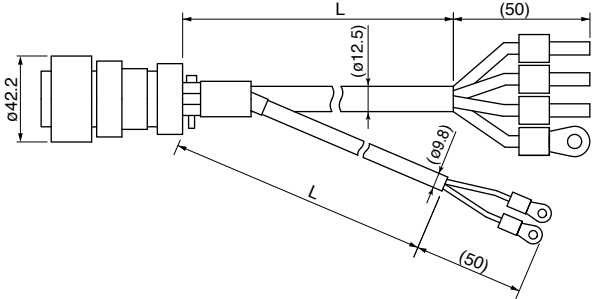
Part No.	MFMCA0 ** 2FCD	100 mm sq. or more Applicable model	MSMF 1.0 kW to 2.0 kW, MHMF 1.0 kW to 1.5 kW, <Screwed type>	MDMF 1.0 kW to 2.0 kW MGMF 0.85 kW to 1.8 kW
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[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL04V-6A20-18SE-EB-RK	Japan Aviation Electronics Ind.	3	MFMCA0032FCD
Cable clamp	JL04-2022CK(14)-R	Japan Aviation Electronics Ind.	5	MFMCA0052FCD
Rod terminal	NTUB-2	J.S.T Mfg. Co., Ltd.	10	MFMCA0102FCD
Nylon insulated round terminal	Earth Brake N2-M4 N1.25-M4	J.S.T Mfg. Co., Ltd.	20	MFMCA0202FCD
Cable	ROBO-TOP 600V 2.0 mm ² 4-wire ROBO-TOP 600V 0.75 mm ² 2-wire	DYDEN CORPORATION		

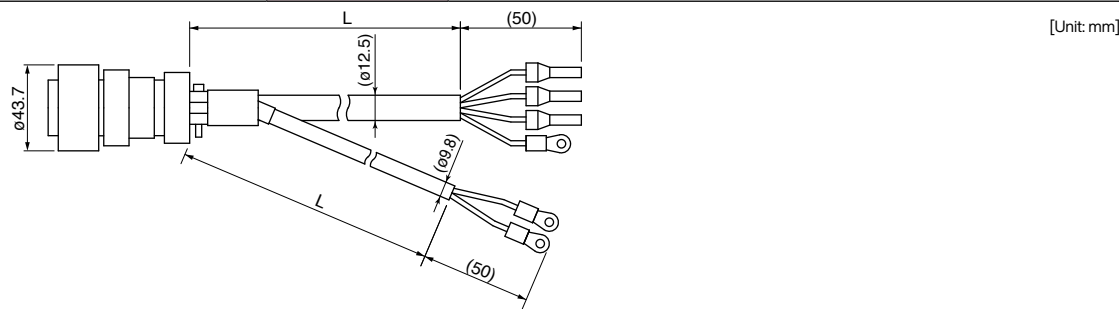
Part No.	MFMCE0 ** 2FUD	100 mm sq. or more Applicable model	MHMF 2.0 kW <One-touch lock type>
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[Unit: mm]

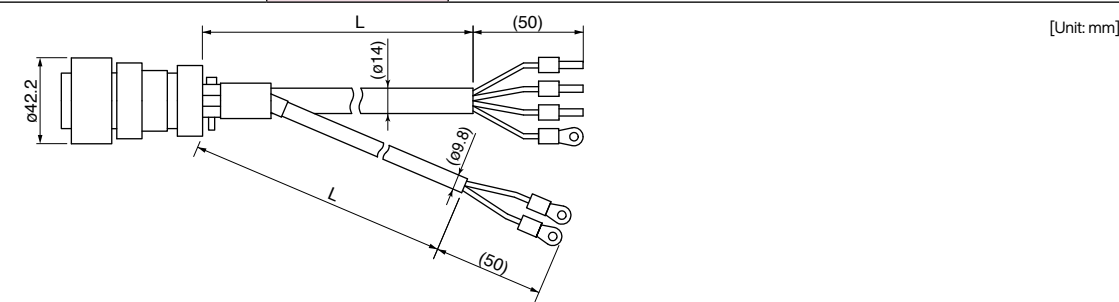
Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL10-6A24-11SE-EB	Japan Aviation Electronics Ind.	3	MFMCE0032FUD
Cable clamp	JL04-2428CK(17)-R	Japan Aviation Electronics Ind.	5	MFMCE0052FUD
Rod terminal	NTUB-2	J.S.T Mfg. Co., Ltd.	10	MFMCE0102FUD
Nylon insulated round terminal	Earth Brake N2-M4 N1.25-M4	J.S.T Mfg. Co., Ltd.	20	MFMCE0202FUD
Cable	ROBO-TOP DP6/2501 2.0 mm ² 4-wire ROBO-TOP DP6/2501 0.75 mm ² 2-wire	DYDEN CORPORATION		

Part No.	MFMCCE0 * * 2FCD	100 mm sq. or more Applicable model	MHMF 2.0 kW <Screwed type>
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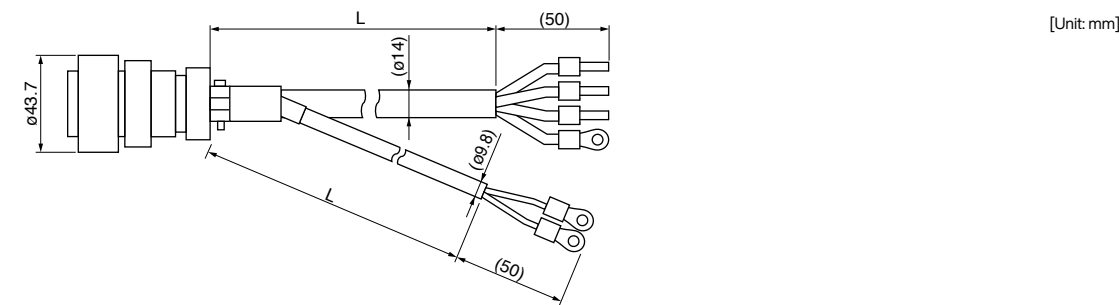
Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL04V-6A24-11SE-EB-R	Japan Aviation Electronics Ind.	3	MFMCCE0032FCD
Cable clamp	JL04-2428CK(17)-R		5	MFMCCE0052FCD
Rod terminal	NTUB-2	J.S.T Mfg. Co., Ltd.	10	MFMCCE0102FCD
Nylon insulated round terminal	Earth Brake	N2-M4 N1.25-M4	20	MFMCCE0202FCD
Cable	ROBO-TOP 600V 2.0 mm ² 4-wire ROBO-TOP 600V 0.75 mm ² 2-wire	DYDEN CORPORATION		

Part No.	MFMCDO * * 3FUT	100 mm sq. or more Applicable model	MGMF 2.4 kW <One-touch lock type>
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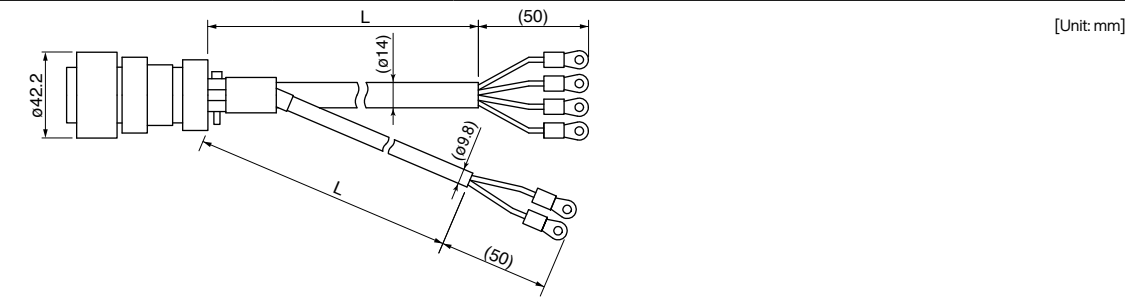
Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL10-6A24-11SE-EB	Japan Aviation Electronics Ind.	3	MFMCDO0033FUT
Cable clamp	JL04-2428CK(17)-R		5	MFMCDO0053FUT
Rod terminal	TMENTC3.5-11S	NICHIFU Co., Ltd.	10	MFMCDO103FUT
Nylon insulated round terminal	Earth Brake	N5.5-5 N1.25-M4	20	MFMCDO203FUT
Cable	ROBO-TOP DP6/2501 3.5 mm ² 4-wire ROBO-TOP DP6/2501 0.75 mm ² 2-wire	DYDEN CORPORATION		

Part No.	MFMCDO * * 3FCT	100 mm sq. or more Applicable model	MGMF 2.4 kW <Screwed type>
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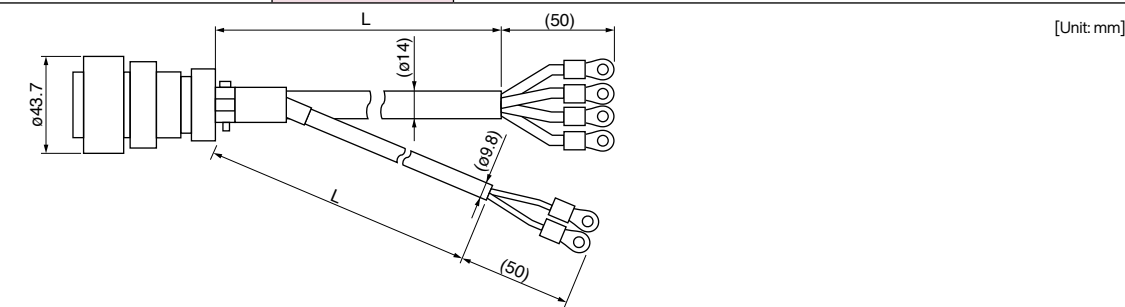
Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL04V-6A24-11SE-EB-R	Japan Aviation Electronics Ind.	3	MFMCDO0033FCT
Cable clamp	JL04-2428CK(17)-R		5	MFMCDO0053FCT
Rod terminal	TMENTC3.5-11S	NICHIFU Co., Ltd.	10	MFMCDO103FCT
Nylon insulated round terminal	Earth Brake	N5.5-5 N1.25-M4	20	MFMCDO203FCT
Cable	ROBO-TOP 600V 3.5 mm ² 4-wire ROBO-TOP 600V 0.75 mm ² 2-wire	DYDEN CORPORATION		

Part No.	MFMCA0 * * 3FUT	100 mm sq. or more Applicable model	MSMF 3.0 kW to 5.0 kW, MHMF 3.0 kW to 5.0 kW, <One-touch lock type>	MDMF 3.0 kW to 5.0 kW MGMF 2.9 kW, 4.4 kW
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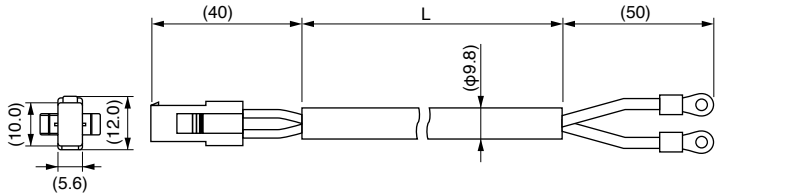
Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL10-6A24-11SE-EB	Japan Aviation Electronics Ind.	3	MFMCA0033FUT
Cable clamp	JL04-2428CK(17)-R		5	MFMCA0053FUT
Nylon insulated round terminal	Earth Brake	N5.5-5 N1.25-M4	10	MFMCA0103FUT
Cable	ROBO-TOP DP6/2501 3.5 mm ² 4-wire ROBO-TOP DP6/2501 0.75 mm ² 2-wire	DYDEN CORPORATION	20	MFMCA0203FUT

Part No.	MFMCA0 * * 3FCT	100 mm sq. or more Applicable model	MSMF 3.0 kW to 5.0 kW, MHMF 3.0 kW to 5.0 kW, <Screwed type>	MDMF 3.0 kW to 5.0 kW MGMF 2.9 kW, 4.4 kW
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Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JL04V-6A24-11SE-EB-R	Japan Aviation Electronics Ind.	3	MFMCA0033FCT
Cable clamp	JL04-2428CK(17)-R		5	MFMCA0053FCT
Nylon insulated round terminal	Earth Brake	N5.5-5 N1.25-M4	10	MFMCA0103FCT
Cable	ROBO-TOP 600V 3.5 mm ² 4-wire ROBO-TOP 600V 0.75 mm ² 2-wire	DYDEN CORPORATION	20	MFMCA0203FCT

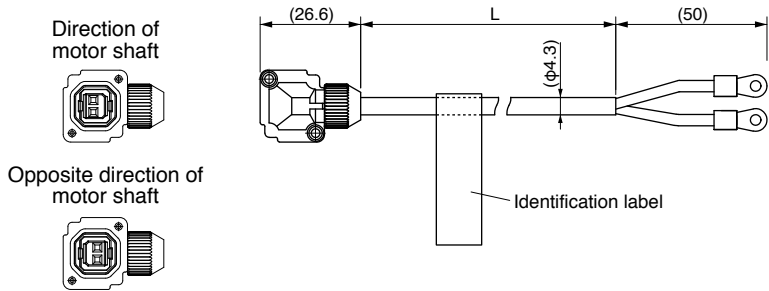
Part No.	MFMCB0 * * 0GET	80 mm sq. or less Applicable model	MSMF 50 W to 1000 W, MHMF 50 W to 1000 W (Leadwire type)	MQMF 100 W to 400 W
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[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	172157-1	Tyco Electronics Japan G.K.	3	MFMCB0030GET
Connector pin	170366-1, 170362-1		5	MFMCB0050GET
Nylon insulated round terminal	N1.25-M4	J.S.T Mfg. Co., Ltd.	10	MFMCB0100GET
Cable	ROBO-TOP 600V 0.75 mm ² 2-wire	DYDEN CORPORATION	20	MFMCB0200GET

Part No.	MFMCB0 * * 0PJT (Highly bendable type, Direction of motor shaft)	80 mm sq. or less Applicable model	MSMF 50 W to 1000 W (Connector type)
	MFMCB0 * * 0PKT (Highly bendable type, Opposite direction of motor shaft)		
	MFMCB0 * * 0SJT (Standard bendable type, Direction of motor shaft)		
	MFMCB0 * * 0SKT (Standard bendable type, Opposite direction of motor shaft)		

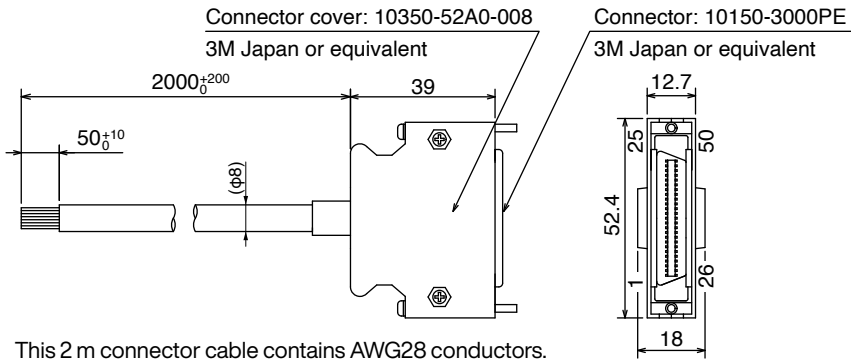


[Unit: mm]

Title	Part No.	Manufacturer	L (m)	Part No.(ex.)
Connector	JN4FT02SJMR	Japan Aviation Electronics Ind.	3	MFMCB0030PJT
Connector pin	ST-TMH-S-C1B-3500		5	MFMCB0050PJT
Nylon insulated round terminal	N1.25-M4	J.S.T Mfg. Co., Ltd.	10	MFMCB0100PJT
Cable	AWG22 2-wire (φ4.3)	Proterial, Ltd.	20	MFMCB0200PJT

Cable for Interface

Part No.	DV0P4360
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This 2 m connector cable contains AWG28 conductors.

[Unit: mm]

Table for wiring

Pin No.	color	Pin No.	color	Pin No.	color	Pin No.	color	Pin No.	color
1	Orange (Red1)	11	Orange (Black2)	21	Orange (Red3)	31	Orange (Red4)	41	Orange (Red5)
2	Orange (Black1)	12	Yellow (Black1)	22	Orange (Black3)	32	Orange (Black4)	42	Orange (Black5)
3	Gray (Red1)	13	Gray (Red2)	23	Gray (Red3)	33	Gray (Red4)	43	Gray (Red5)
4	Gray (Black1)	14	Gray (Black2)	24	Gray (Black3)	34	White (Red4)	44	White (Red5)
5	White (Red1)	15	White (Red2)	25	White (Red3)	35	White (Black4)	45	White (Black5)
6	White (Black1)	16	Yellow (Red2)	26	White (Black3)	36	Yellow (Red4)	46	Yellow (Red5)
7	Yellow (Red1)	17	Yel (Blk2)/Pink (Blk2)	27	Yellow (Red3)	37	Yellow (Black4)	47	Yellow (Black5)
8	Pink (Red1)	18	Pink (Red2)	28	Yellow (Black3)	38	Pink (Red4)	48	Pink (Red5)
9	Pink (Black1)	19	White (Black2)	29	Pink (Red3)	39	Pink (Black4)	49	Pink (Black5)
10	Orange (Red2)	20	—	30	Pink (Black3)	40	Gray (Black4)	50	Gray (Black5)

<Remarks>
Color designation of the cable
e.g.) Pin-1
Cable color : Orange
(Red1) : One red dot on the
cable

<Caution>

Cable pin No. 50 is not connected to the connector shell (housing) or shielded wire (net wire).
Pin No. 50 of the Driver is connected to the shell (housing) of the connector.
The shielded wire (net wire) of the cable is connected to the shell (housing) of the connector of the cable, and by connecting the connector of the optional cable to the Driver, pin No. 50 of the cable and the shielded wire (net wire) of the cable gets connected via the Driver.

Interface Conversion Cable

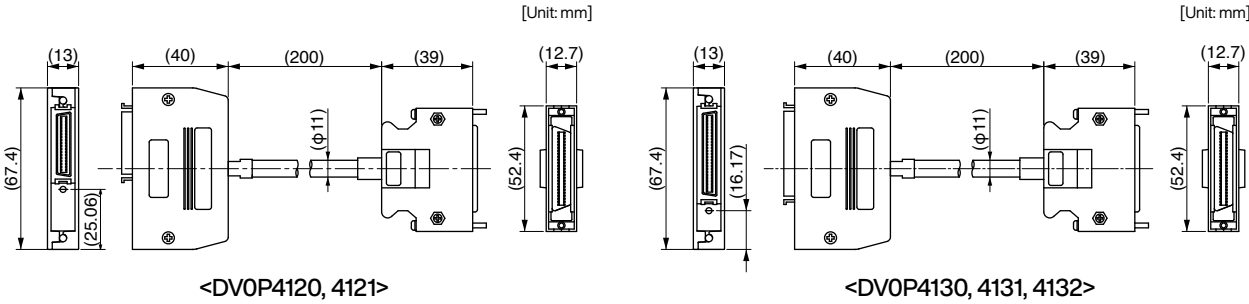
Part No.	DV0P4120, 4121, 4130, 4131, 4132
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Interface cables for old product (XX series or V series) can be connected to the current product by using the connector conversion cable shown below.

DV0P4120	MINAS XX → A6 series (A5II, A5, A4, A series) for position control/ velocity control
DV0P4121	MINAS XX → A6 series (A5II, A5, A4, A series) for torque control
DV0P4130	MINAS V → A6 series (A5II, A5, A4, A series) for position control
DV0P4131	MINAS V → A6 series (A5II, A5, A4, A series) for velocity control
DV0P4132	MINAS V → A6 series (A5II, A5, A4, A series) for torque control

* For details of wiring, contact our sales department.

Converts 36-pin configuration to 50-pin.



<DV0P4120, 4121>

<DV0P4130, 4131, 4132>

Connector Kit for Communication Cable (for RS485, RS232) (Excluding A6SE, A6NE, A6BE Series)

Part No.

DV0PM20102

• Components

Title	Part No.	Manufacturer	Note
Connector	CIF-PCNS08KK-072R	J.S.T Mfg. Co., Ltd.	For Connector X2 (8-pins)

• Pin disposition of connector, connector X2

485+

485+

485-

485-

8

6

4

2

7

5

3

1

RXD

NC

GND

TXD

Shell: FG

<Remarks>
Do not connect anything to NC.

• Dimensions

7.3

11

37

5.2

Recommended wire size:
ø6 mm
Recommended corewire size:
AWG 26 to AWG 30

Note:
No wires are supplied with the connector kit.

[Unit: mm]

Connector Kit for Safety (Excluding A6SE, A6SG, A6NE, A6BE Series)

Part No.

DV0PM20103

• Components

Title	Part No.	Manufacturer	Note
Connector	CIF-PCNS08KK-071R	J.S.T Mfg. Co., Ltd.	For Connector X3 (8-pins)

• Pin disposition of connector, connector X3

SF2+

EDM+

EDM-

SF2-

8

6

4

2

7

5

3

1

SF1+

NC

NC

SF1-

Shell: FG

<Remarks>
Do not connect anything to NC.

(Viewed from cable)

• Dimensions

7.3

11

37

5.2

Recommended wire size:
ø6 mm
Recommended corewire size:
AWG 26 to AWG 30

Note:
No wires are supplied with the connector kit.

[Unit: mm]

Safety bypass plug (Excluding A6SE, A6SG, A6NE, A6BE Series)

Part No.	DV0PM20094		
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• Components

Title	Part No.	Manufacturer	Note
Connector	CIF-PB08AK-GF1R	J.S.T Mfg. Co., Ltd.	For Connector X3

• Internal wiring

(Wiring of the following has been applied inside the plug.)

Pin No.

1

2

3

4

5

6

7

8

• Dimensions (Resin color : black)

[Unit: mm]

<Remarks>

- For the crimping tools required for cable production, please check the manufacturer's website or contact the manufacturer. For manufacturer inquiries, refer to P.347 "Peripheral Device Manufacturers List".

Connector Kit for Interface

Part No.

DV0P4350

• Components

Title	Part No.	Number	Manufacturer	Note
Connector	10150-3000PE	1	3M Japan (or equivalent)	For Connector X4 (50-pins)
Connector cover	10350-52A0-008	1		

• Pin disposition (50 pins) (viewed from the soldering side)

26	28	30	32	34	36	38	40	42	44	46	48	50
SI3	SI5	SI7	SI9	SO2-	SO3-	SO4-	SO6	IM	PULSH1	SIGNH1	OB+	FG
27	29	31	33	35	37	39	41	43	45	47	49	
SI4	SI6	SI8	SI10	SO2+	SO3+	SO4+	COM-	SP	PULSH2	SIGNH2	OB-	
1	OPC1	PULS1	SIGN1	COM+	SI2	SO1+	13	GND	15	GND	17	GND
3							19	CZ	21	OA+	23	OZ+
											25	GND
2	OPC2	PULS2	SIGN2	SI1	10	SO1-	12	SO5	14	SPR/SPL	16	P-ATL/TRQR
									18	N-ATL	20	NC
									22	OA-	24	OZ-

1) Check the stamped pin-No. on the connector body while making a wiring.

2) For the function of each signal title or its symbol, refer to the operating manual.

3) Do not connect anything to NC pins in the above table.

1

3

5

7

9

11

13

15

17

19

21

23

25

OPC1

PULS1

SIGN1

COM+

SI2

SO1+

GND

GND

CZ

OA+

OZ+

GND

2

4

6

8

10

12

14

16

18

20

22

24

OPC2

PULS2

SIGN2

SI1

SO1-

SO5

SPR/
SPL

P-ATL
/TRQR

N-ATL

NC

OA-

OZ-

1) Check the stamped pin-No. on the connector body while making a wiring.
2) For the function of each signal title or its symbol, refer to the operating manual.
3) Do not connect anything to NC pins in the above table.

Connector Kit for External Scale (Excluding A6SE, A6SG, A6NE, A6BE Series)

Part No.	DV0PM20026
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• Components

Title	Part No.	Manufacturer	Note
Connector	MUF-PK10K-X	J.S.T Mfg. Co., Ltd.	For Connector X5 (10-pins)

• Pin disposition of connector, connector X5

(Viewed from cable)

• Dimensions

[Unit: mm]

Recommended wire size:
ø6.8 mm (MAX)
Recommended corewire size:
AWG 26 to AWG 30

Note:
No wires are supplied with the connector kit.

Connector Kit for Encoder

Part No.	DV0PM20010
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• Components

Title	Part No.	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	3M Japan (or equivalent)	For Connector X6
Shell kit	3E306-3200-008		

• Pin disposition of connector, connector X6

(Viewed from cable)

Shell: FG

<Remarks>
Do not connect anything to NC.

• Dimensions

<Shell kit>

<Connector>

[Unit: mm]

<Remarks>

Connector X1: use with commercially available cable.

• Configuration of connector X1: USB mini-B

Connector Kit for Power Supply Input

Part No.	DV0PM20032 (For A-frame to D-frame: Single row type)
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• Components

● Please refer to the Dimensions of driver P.57 for connector XA.

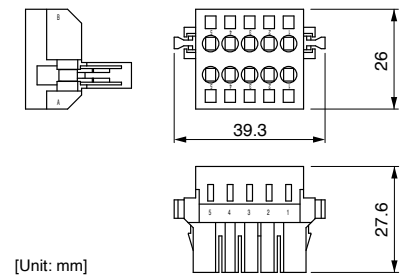
Title	Part No.	Number	Manufacturer	Note
Connector	05JFAT-SAXGGKK-A	1	J.S.T Mfg. Co., Ltd.	For Connector XA
Handle lever	J-FAT-OT	2		

Part No.	DV0PM20033 (For A-frame to D-frame: Double row type)
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector	05JFAT-SAXGSA-C	1	J.S.T Mfg. Co., Ltd.	For Connector XA
Handle lever	J-FAT-OT	2		

• Dimensions



[Unit: mm]

* When connection multiple axes in series, make sure the sum of the current value does not exceed the rated current (11.25 A) of DV0PM20033.

Remarks

When using drivers MDDL * 55 * * in single-phase power supply, do not use DV0PM20033.

Driver part No.	Power supply	Rated input current
MADL * 01 * *	Single phase 100 V	1.7 A
MADL * 11 * *	Single phase 100 V	2.0 A
MADL * 05 * *	Single phase/3-phase 200 V	1.6 A/0.9 A
MADL * 15 * *	Single phase/3-phase 200 V	2.0 A/1.1 A
MBDL * 21 * *	Single phase 100 V	4.5 A
MBDL * 25 * *	Single phase/3-phase 200 V	3.7 A/2.1 A
MCDL * 31 * *	Single phase 100 V	7.0 A
MCDL * 35 * *	Single phase/3-phase 200 V	6.4 A/3.4 A
MDDL * 45 * *	Single phase/3-phase 200 V	7.9 A/4.6 A
MDDL * 55 * *	Single phase/3-phase 200 V	13.6 A/7.2 A

Part No.	DV0PM20044 (For E-frame)
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector	05JFAT-SAXGSA-L	1	J.S.T Mfg. Co., Ltd.	For Connector XA
Handle lever	J-FAT-OT-L	2		

Connector Kit for Regenerative Resistor Connection

Part No.	DV0PM20045 (For E-frame)
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector	04JFAT-SAXGSA-L	1	J.S.T Mfg. Co., Ltd.	200 V: For Connector XC * Jumper wire is included.
Handle lever	J-FAT-OT-L	2		

<Remarks>

- For the crimping tools required for cable production, please check the manufacturer's website or contact the manufacturer. For manufacturer inquiries, refer to P.347 "Peripheral Device Manufacturers List".

Connector Kit for Motor Connection (Driver side)

Part No.	DV0PM20034 (For A-frame to D-frame)
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• Components

● Please refer to the Dimensions of driver P.57 for connector XB.

Title	Part No.	Number	Manufacturer	Note
Connector	06JFAT-SAXGGKK-A	1	J.S.T Mfg. Co., Ltd.	For Connector XB * Jumper wire is included.
Handle lever	J-FAT-OT	2		

Part No.	DV0PM20046 (For E-frame)
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• Components

● Please refer to the Dimensions of driver P.59 for connector XB.

Title	Part No.	Number	Manufacturer	Note
Connector	03JFAT-SAXGSA-L	1	J.S.T Mfg. Co., Ltd.	For Connector XB
Handle lever	J-FAT-OT-L	2		

Connector Kit for Motor/Encoder Connection

* When IP65 or IP67 are necessary, the customer must give appropriate processing.

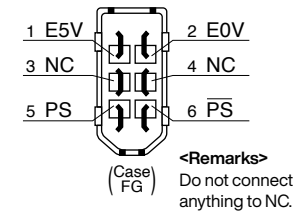
Part No.	DV0P4290	80 mm sq. or less Applicable model	MSMF 50 W to 1000 W *, MQMF 100 W to 400 W MHMF 50 W to 1000 W * (Leadwire type IP65)
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* MSMF092□1□2, MHMF092□1□□

• Components

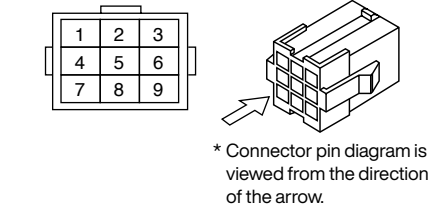
Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan (or equivalent)	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1		
Connector	172161-1	1	Tyco Electronics Japan G.K.	For Encoder cable (9-pins)
Connector pin	170365-1	9		
Connector	172159-1	1	Tyco Electronics Japan G.K.	For Motor cable (4-pins)
Connector pin	170366-1	4		

• Pin disposition of connector,
connector X6



(Viewed from cable)

• Pin disposition of connector
for encoder cable

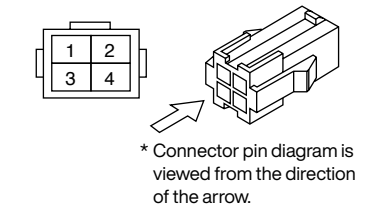


PIN No.	Application
1	BAT+*
2	BAT-*
3	FG(SHIELD)
4	PS
5	PS
6	NC
7	E5V
8	E0V
9	NC

* When using the motor as an incremental system, BAT+ and BAT- can be left unconnected.

<Remarks>
Do not connect anything to NC.

• Pin disposition of connector
for motor cable



PIN No.	Application
1	U-phase
2	V-phase
3	W-phase
4	Ground

* When you connect the battery for absolute encoder, refer to P.338, "When you make your own cable for 23-bit absolute encoder"

<Remarks>

- For the crimping tools required for cable production, please check the manufacturer's website or contact the manufacturer. For manufacturer inquiries, refer to P.347 "Peripheral Device Manufacturers List".

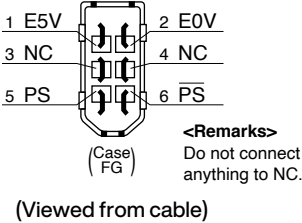
Part No.	DV0PM20035	80 mm sq. or less Applicable model	MSMF 50 W to 1000 W * (Connector type IP67)
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* MSMF092L1□1

• Components

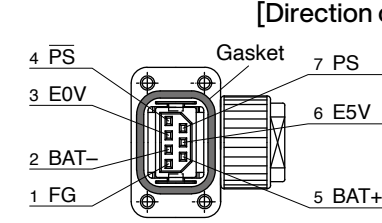
Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JN6FR07SM1	1	Japan Aviation	For Encoder cable (7-pins)
Socket contact	LY10-C1-A1-10000	7	Electronics Ind.	
Motor connector	JN8FT04SJ1	1	Japan Aviation	For Motor cable (4-pins)
Socket contact	ST-TMH-S-C1B-3500	4	Electronics Ind.	

• Pin disposition of connector
connector X6

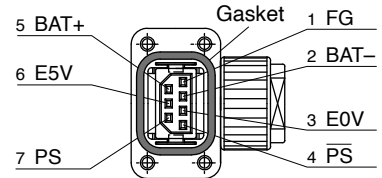


<Remarks>
Secure the gasket in place without removing it from the connector. Otherwise, the degree of protection of IP67 will not be guaranteed.

• Pin disposition of connector
for encoder cable

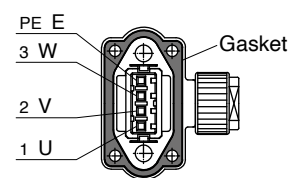
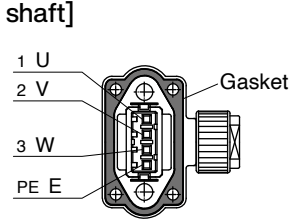


[Opposite direction of motor shaft]



* Pins 2 and 5 are left unused (NC) when used in incremental system.

• Pin disposition of connector
for motor cable



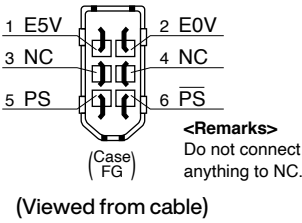
<Remarks>
• For the crimping tools required for cable production, please check the manufacturer's website or contact the manufacturer. For manufacturer inquiries, refer to P.347 "Peripheral Device Manufacturers List".

Part No.	DV0PM24581	80 mm sq. or less Applicable model	MHMF 50 W, 100 W (Connector type IP67)	with/without brake common use
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• Components

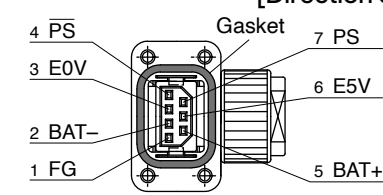
Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JN6FR07SM1	1	Japan Aviation	For Encoder cable (7-pins)
Socket contact	LY10-C1-A1-10000	7	Electronics Ind.	
Motor connector	JN11FH06SN2	1	Japan Aviation	For Motor cable (6-pins)
Socket contact	JN11S10K4A1	6	Electronics Ind.	

• Pin disposition of connector
connector X6

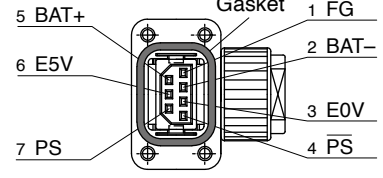


<Remarks>
Secure the gasket in place without removing it from the connector. Otherwise, the degree of protection of IP67 will not be guaranteed.

• Pin disposition of connector
for encoder cable

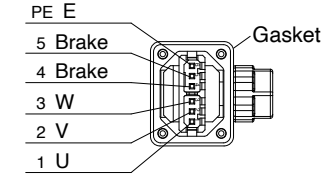
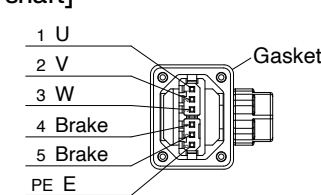


[Opposite direction of motor shaft]



* Pins 2 and 5 are left unused (NC) when used in incremental system.

• Pin disposition of connector
for motor cable



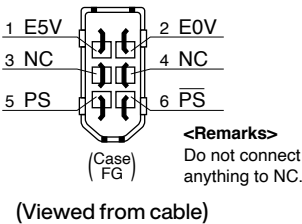
* 4-pin and 5-pin are not used in case of no brake.

Part No.	DV0PM24582	80 mm sq. or less Applicable model	MQMF 100 W to 400 W, MHMF 200 W to 1000 W (Connector type IP67)	with/without brake common use
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• Components

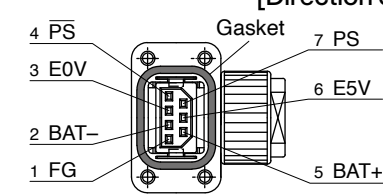
Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JN6FR07SM1	1	Japan Aviation	For Encoder cable (7-pins)
Socket contact	LY10-C1-A1-10000	7	Electronics Ind.	
Motor connector	JN11FH06SN1	1	Japan Aviation	For Motor cable (6-pins)
Socket contact	JN11S35H3A1	6	Electronics Ind.	

• Pin disposition of connector
connector X6

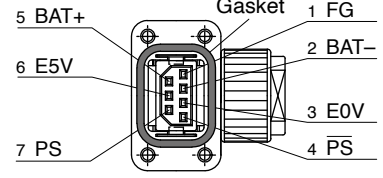


<Remarks>
Secure the gasket in place without removing it from the connector. Otherwise, the degree of protection of IP67 will not be guaranteed.

• Pin disposition of connector
for encoder cable

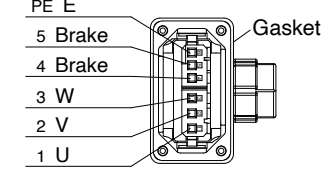
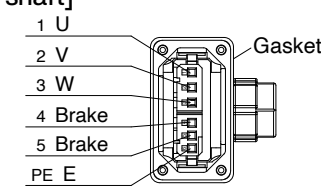


[Opposite direction of motor shaft]



* Pins 2 and 5 are left unused (NC) when used in incremental system.

• Pin disposition of connector
for motor cable



* 4-pin and 5-pin are not used in case of no brake.

Part No.	DV0PM24583	100 mm sq. or more Applicable model	(IP67 motor) Encoder JN2 <Small size connector> MSMF 1.0 kW * to 2.0 kW, MDMF 1.0 kW to 2.0 kW MHMF 1.0 kW *, 1.5 kW, MGMF 0.85 kW to 1.8 kW	Without brake
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* MSMF102□1□□, MHMF102□1□□

• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JN2DS10SL1-R	1	Japan Aviation Electronics Ind.	For Encoder cable
Connector pin	JN1-22-22S-PKG100	5		(One-touch lock type)
Motor connector	JL10-6A20-4SE-EB	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	JL04-2022CK(14)-R	1		(One-touch lock type)

Part No.	DV0PM24585	100 mm sq. or more Applicable model	(IP67 motor) Encoder JN2 <Small size connector> MSMF 1.0 kW * to 2.0 kW, MDMF 1.0 kW to 2.0 kW MHMF 1.0 kW *, 1.5 kW, MGMF 0.85 kW to 1.8 kW	With brake
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* MSMF102□1□□, MHMF102□1□□

• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JN2DS10SL1-R	1	Japan Aviation Electronics Ind.	For Encoder cable
Connector pin	JN1-22-22S-PKG100	5		(One-touch lock type)
Motor connector	JL10-6A20-18SE-EB	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	JL04-2022CK(14)-R	1		(One-touch lock type)

Part No.	DV0PM24587	100 mm sq. or more Applicable model	(IP67 motor) Encoder JL10 <Large size connector> MSMF 1.0 kW * to 2.0 kW, MDMF 1.0 kW to 2.0 kW MHMF 1.0 kW *, 1.5 kW, MGMF 0.85 kW to 1.8 kW	Without brake
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* MSMF102L1□□, MHMF102L1□□

• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JL10-6A20-29S-EB	1	Japan Aviation Electronics Ind.	For Encoder cable
Cable clamp	JL04-2022CK(09)-R	1		(One-touch lock type)
Motor connector	JL10-6A20-4SE-EB	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	JL04-2022CK(14)-R	1		(One-touch lock type)

Part No.	DV0PM24589	100 mm sq. or more Applicable model	(IP67 motor) Encoder JL10 <Large size connector> MSMF 1.0 kW * to 2.0 kW, MDMF 1.0 kW to 2.0 kW MHMF 1.0 kW *, 1.5 kW, MGMF 0.85 kW to 1.8 kW	With brake
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* MSMF102L1□□, MHMF102L1□□

• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JL10-6A20-29S-EB	1	Japan Aviation Electronics Ind.	For Encoder cable
Cable clamp	JL04-2022CK(09)-R	1		(One-touch lock type)
Motor connector	JL10-6A20-18SE-EB	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	JL04-2022CK(14)-R	1		(One-touch lock type)

<Remarks>

- For the crimping tools required for cable production, please check the manufacturer's website or contact the manufacturer. For manufacturer inquiries, refer to P.347 "Peripheral Device Manufacturers List".

Part No.	DV0PM24584	100 mm sq. or more Applicable model	(IP67 motor) Encoder JN2 <Small size connector> MSMF 3.0 kW to 5.0 kW, MDMF 3.0 kW to 5.0 kW MHMF 2.0 kW to 5.0 kW, MGMF 2.4 kW to 4.4 kW	Without brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JN2DS10SL1-R	1	Japan Aviation Electronics Ind.	For Encoder cable
Connector pin	JN1-22-22S-PKG100	5		(One-touch lock type)
Motor connector	JL10-6A22-22SE-EB	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	JL04-2022CK(14)-R	1		(One-touch lock type)

Part No.	DV0PM24586	100 mm sq. or more Applicable model	(IP67 motor) Encoder JN2 <Small size connector> MSMF 3.0 kW to 5.0 kW, MDMF 3.0 kW to 5.0 kW MHMF 2.0 kW to 5.0 kW, MGMF 2.4 kW to 4.4 kW	With brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JN2DS10SL1-R	1	Japan Aviation Electronics Ind.	For Encoder cable
Connector pin	JN1-22-22S-PKG100	5		(One-touch lock type)
Motor connector	JL10-6A24-11SE-EB	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	JL04-2428CK(17)-R	1		(One-touch lock type)

Part No.	DV0PM24588	100 mm sq. or more Applicable model	(IP67 motor) Encoder JL10 <Large size connector> MSMF 3.0 kW to 5.0 kW, MDMF 3.0 kW to 5.0 kW MHMF 2.0 kW to 5.0 kW, MGMF 2.4 kW to 4.4 kW	Without brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JL10-6A20-29S-EB	1	Japan Aviation Electronics Ind.	For Encoder cable
Cable clamp	JL04-2022CK(09)-R	1		(One-touch lock type)
Motor connector	JL10-6A22-22SE-EB	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	JL04-2022CK(14)-R	1		(One-touch lock type)

Part No.	DV0PM24590	100 mm sq. or more Applicable model	(IP67 motor) Encoder JL10 <Large size connector> MSMF 3.0 kW to 5.0 kW, MDMF 3.0 kW to 5.0 kW MHMF 2.0 kW to 5.0 kW, MGMF 2.4 kW to 4.4 kW	With brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JL10-6A20-29S-EB	1	Japan Aviation Electronics Ind.	For Encoder cable
Cable clamp	JL04-2022CK(09)-R	1		(One-touch lock type)
Motor connector	JL10-6A24-11SE-EB	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	JL04-2428CK(17)-R	1		(One-touch lock type)

<Remarks>

- For the crimping tools required for cable production, please check the manufacturer's website or contact the manufacturer. For manufacturer inquiries, refer to P.347 "Peripheral Device Manufacturers List".

Part No.	DV0PM20036	100 mm sq. or more Applicable model	(IP67 motor) Encoder JN2 <Small size connector> MSMF 1.0 kW * to 2.0 kW, MDMF 1.0 kW to 2.0 kW MHMF 1.0 kW *, 1.5 kW, MGMF 0.85 kW to 1.8 kW	Without brake
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* MSMF102□1□□, MHMF102□1□□

• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JN2DS10SL1-R	1	Japan Aviation Electronics Ind.	For Encoder cable
Connector pin	JN1-22-22S-PKG100	5		(One-touch lock type)
Motor connector	JL04V-6A20-4SE-EB-RK	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	JL04-2022CK(14)-R	1		(Screwed type)

Part No.	DV0PM20038	100 mm sq. or more Applicable model	(IP67 motor) Encoder JN2 <Small size connector> MSMF 1.0 kW * to 2.0 kW, MDMF 1.0 kW to 2.0 kW MHMF 1.0 kW *, 1.5 kW, MGMF 0.85 kW to 1.8 kW	With brake
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* MSMF102□1□□, MHMF102□1□□

• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JN2DS10SL1-R	1	Japan Aviation Electronics Ind.	For Encoder cable
Connector pin	JN1-22-22S-PKG100	5		(One-touch lock type)
Motor connector	JL04V-6A20-18SE-EB-RK	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	JL04-2022CK(14)-R	1		(Screwed type)

Part No.	DV0P4310	100 mm sq. or more Applicable model	(IP67 motor) Encoder JL10 <Large size connector> MSMF 1.0 kW * to 2.0 kW, MDMF 1.0 kW to 2.0 kW MHMF 1.0 kW *, 1.5 kW, MGMF 0.85 kW to 1.8 kW	Without brake
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* MSMF102L1□□, MHMF102L1□□

• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	N/MS3106B20-29S	1	Japan Aviation Electronics Ind.	For Encoder cable
Cable clamp	N/MS3057-12A	1		(Screwed type)
Motor connector	N/MS3106B20-4S	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	N/MS3057-12A	1		(Screwed type)

Part No.	DV0P4330	100 mm sq. or more Applicable model	(IP67 motor) Encoder JL10 <Large size connector> MSMF 1.0 kW * to 2.0 kW, MDMF 1.0 kW to 2.0 kW MHMF 1.0 kW *, 1.5 kW, MGMF 0.85 kW to 1.8 kW	With brake
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* MSMF102L1□□, MHMF102L1□□

• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	N/MS3106B20-29S	1	Japan Aviation Electronics Ind.	For Encoder cable
Cable clamp	N/MS3057-12A	1		(Screwed type)
Motor connector	N/MS3106B20-18S	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	N/MS3057-12A	1		(Screwed type)

<Remarks>

- For the crimping tools required for cable production, please check the manufacturer's website or contact the manufacturer. For manufacturer inquiries, refer to P.347 "Peripheral Device Manufacturers List".

Part No.	DV0PM20037	100 mm sq. or more Applicable model	(IP67 motor) Encoder JN2 <Small size connector> MSMF 3.0 kW to 5.0 kW, MDMF 3.0 kW to 5.0 kW MHMF 2.0 kW to 5.0 kW, MGMF 2.4 kW to 4.4 kW	Without brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JN2DS10SL1-R	1	Japan Aviation Electronics Ind.	For Encoder cable
Connector pin	JN1-22-22S-PKG100	5		(One-touch lock type)
Motor connector	JL04V-6A22-22SE-EB-R	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	JL04-2022CK(14)-R	1		(Screwed type)

Part No.	DV0PM20039	100 mm sq. or more Applicable model	(IP67 motor) Encoder JN2 <Small size connector> MSMF 3.0 kW to 5.0 kW, MDMF 3.0 kW to 5.0 kW MHMF 2.0 kW to 5.0 kW, MGMF 2.4 kW to 4.4 kW	With brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JN2DS10SL1-R	1	Japan Aviation Electronics Ind.	For Encoder cable
Connector pin	JN1-22-22S-PKG100	5		(One-touch lock type)
Motor connector	JL04V-6A24-11SE-EB-R	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	JL04-2428CK(17)-R	1		(Screwed type)

Part No.	DV0P4320	100 mm sq. or more Applicable model	(IP67 motor) Encoder JL10 <Large size connector> MSMF 3.0 kW to 5.0 kW, MDMF 3.0 kW to 5.0 kW MHMF 2.0 kW to 5.0 kW, MGMF 2.4 kW to 4.4 kW	Without brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	N/MS3106B20-29S	1	Japan Aviation Electronics Ind.	For Encoder cable
Cable clamp	N/MS3057-12A	1		(Screwed type)
Motor connector	N/MS3106B22-22S	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	N/MS3057-12A	1		(Screwed type)

Part No.	DV0P4340	100 mm sq. or more Applicable model	(IP67 motor) Encoder JL10 <Large size connector> MSMF 3.0 kW to 5.0 kW, MDMF 3.0 kW to 5.0 kW MHMF 2.0 kW to 5.0 kW, MGMF 2.4 kW to 4.4 kW	With brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100 KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	N/MS3106B20-29S	1	Japan Aviation Electronics Ind.	For Encoder cable
Cable clamp	N/MS3057-12A	1		(Screwed type)
Motor connector	N/MS3106B24-11S	1	Japan Aviation Electronics Ind.	For Motor cable
Cable clamp	N/MS3057-16A	1		(Screwed type)

<Remarks>

- For the crimping tools required for cable production, please check the manufacturer's website or contact the manufacturer. For manufacturer inquiries, refer to P.347 "Peripheral Device Manufacturers List".

Part No.	DV0PM20107	100 mm sq. or more Applicable model	(IP67 motor) Encoder JL10 <Large size connector> MDMF 7.5 kW to 15.0 kW MGMF 5.5 kW, MHMF 7.5 kW	Without brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JL10-6A20-29S-EB	1	Japan Aviation	For Encoder cable (One-touch lock type)
Cable clamp	JL04-2022CK(09)-R	1	Electronics Ind.	
Motor connector	JL04V-6A32-17SE-EB-RK	1	Japan Aviation	For Motor cable (Screwed type)
Cable clamp	JL04-32CK(24)-RK ^{*1}	1	Electronics Ind.	

*1 Casing size: φ 22 to φ 25. There is no specified cable wire material. Prepare a wire according to the connector used by the customer.

Part No.	DV0PM20108	100 mm sq. or more Applicable model	(IP67 motor) Encoder JL10 <Large size connector> MDMF 7.5 kW to 15.0 kW MGMF 5.5 kW, MHMF 7.5 kW	With brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JL10-6A20-29S-EB	1	Japan Aviation	For Encoder cable (One-touch lock type)
Cable clamp	JL04-2022CK(09)-R	1	Electronics Ind.	
Motor connector	JL04V-6A32-17SE-EB-RK	1	Japan Aviation	For Motor cable (Screwed type)
Cable clamp	JL04-32CK(24)-RK ^{*1}	1	Electronics Ind.	
Brake connector	N/MS3106B14S-2S	1	Japan Aviation	For Brake cable (Screwed type)
Cable clamp	N/MS3057-6A	1	Electronics Ind.	

*1 Casing size: φ 22 to φ 25. There is no specified cable wire material. Prepare a wire according to the connector used by the customer.

Part No.	DV0PM20111	100 mm sq. or more Applicable model	(IP67 motor) Encoder JL10 <Large size connector> MDMF 7.5 kW to 15.0 kW MGMF 5.5 kW, MHMF 7.5 kW	Without brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	N/MS3106B20-29S	1	Japan Aviation	For Encoder cable (Screwed type)
Cable clamp	N/MS3057-12A	1	Electronics Ind.	
Motor connector	JL04V-6A32-17SE-EB-RK	1	Japan Aviation	For Motor cable (Screwed type)
Cable clamp	JL04-32CK(24)-RK ^{*1}	1	Electronics Ind.	

*1 Casing size: φ 22 to φ 25. There is no specified cable wire material. Prepare a wire according to the connector used by the customer.

<Remarks>

- For the crimping tools required for cable production, please check the manufacturer's website or contact the manufacturer. For manufacturer inquiries, refer to P.347 "Peripheral Device Manufacturers List".

Part No.	DV0PM20112	100 mm sq. or more Applicable model	(IP67 motor) Encoder JL10 <Large size connector> MDMF 7.5 kW to 15.0 kW MGMF 5.5 kW, MHMF 7.5 kW	With brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	N/MS3106B20-29S	1	Japan Aviation	For Encoder cable (Screwed type)
Cable clamp	N/MS3057-12A	1	Electronics Ind.	
Motor connector	JL04V-6A32-17SE-EB-RK	1	Japan Aviation	For Motor cable (Screwed type)
Cable clamp	JL04-32CK(24)-RK ^{*1}	1	Electronics Ind.	
Brake connector	N/MS3106B14S-2S	1	Japan Aviation	For Brake cable (Screwed type)
Cable clamp	N/MS3057-6A	1	Electronics Ind.	

*1 Casing size: φ 22 to φ 25. There is no specified cable wire material. Prepare a wire according to the connector used by the customer.

Part No.	DV0PM20056	100 mm sq. or more Applicable model	(IP67 motor) Encoder JN2 <Small size connector> MDMF 7.5 kW to 15.0 kW MGMF 5.5 kW, MHMF 7.5 kW	Without brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JN2DS10SL1-R	1	Japan Aviation	For Encoder cable (One-touch lock type)
Connector pin	JN1-22-22S-PKG100	5	Electronics Ind.	
Motor connector	JL04V-6A32-17SE-EB-RK	1	Japan Aviation	For Motor cable (Screwed type)
Cable clamp	JL04-32CK(24)-RK ^{*1}	1	Electronics Ind.	

*1 Casing size: φ 22 to φ 25. There is no specified cable wire material. Prepare a wire according to the connector used by the customer.

Part No.	DV0PM20057	100 mm sq. or more Applicable model	(IP67 motor) Encoder JN2 <Small size connector> MDMF 7.5 kW to 15.0 kW MGMF 5.5 kW, MHMF 7.5 kW	With brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100KV	1	3M Japan	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1	(or equivalent)	
Encoder connector	JN2DS10SL1-R	1	Japan Aviation	For Encoder cable (One-touch lock type)
Connector pin	JN1-22-22S-PKG100	5	Electronics Ind.	
Motor connector	JL04V-6A32-17SE-EB-RK	1	Japan Aviation	For Motor cable (Screwed type)
Cable clamp	JL04-32CK(24)-RK ^{*1}	1	Electronics Ind.	
Brake connector	N/MS3106B14S-2S	1	Japan Aviation	For Brake cable (Screwed type)
Cable clamp	N/MS3057-6A	1	Electronics Ind.	

*1 Casing size: φ 22 to φ 25. There is no specified cable wire material. Prepare a wire according to the connector used by the customer.

<Remarks>

- For the crimping tools required for cable production, please check the manufacturer's website or contact the manufacturer. For manufacturer inquiries, refer to P.347 "Peripheral Device Manufacturers List".

Part No.	DV0PM20109	100 mm sq. or more Applicable model	(IP44 motor) Encoder JL10 <Large size connector> MDMF 22.0 kW	Without brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100KV	1	3M Japan (or equivalent)	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1		
Encoder connector	JL10-6A20-29S-EB	1	Japan Aviation Electronics Ind.	For Encoder cable (One-touch lock type)
Cable clamp	JL04-2022CK(09)-R	1		

Part No.	DV0PM20110	100 mm sq. or more Applicable model	(IP44 motor) Encoder JL10 <Large size connector> MDMF 22.0 kW	With brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100KV	1	3M Japan (or equivalent)	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1		
Encoder connector	JL10-6A20-29S-EB	1	Japan Aviation Electronics Ind.	For Encoder cable (One-touch lock type)
Cable clamp	JL04-2022CK(09)-R	1		
Brake connector	N/MS3106B14S-2S	1	Japan Aviation Electronics Ind.	For Brake cable (Screwed type)
Cable clamp	N/MS3057-6A	1		

Part No.	DV0PM20113	100 mm sq. or more Applicable model	(IP44 motor) Encoder JL10 <Large size connector> MDMF 22.0 kW	Without brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100KV	1	3M Japan (or equivalent)	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1		
Encoder connector	N/MS3106B20-29S	1	Japan Aviation Electronics Ind.	For Encoder cable (Screwed type)
Cable clamp	N/MS3057-12A	1		

<Remarks>

- For the crimping tools required for cable production, please check the manufacturer's website or contact the manufacturer. For manufacturer inquiries, refer to P.347 "Peripheral Device Manufacturers List".

Part No.	DV0PM20114	100 mm sq. or more Applicable model	(IP44 motor) Encoder JL10 <Large size connector> MDMF 22.0 kW	With brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100KV	1	3M Japan (or equivalent)	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1		
Encoder connector	N/MS3106B20-29S	1	Japan Aviation Electronics Ind.	For Encoder cable (Screwed type)
Cable clamp	N/MS3057-12A	1		
Brake connector	N/MS3106B14S-2S	1	Japan Aviation Electronics Ind.	For Brake cable (Screwed type)
Cable clamp	N/MS3057-6A	1		

Part No.	DV0PM20115	100 mm sq. or more Applicable model	(IP44 motor) Encoder JN2 <Small size connector> MDMF 22.0 kW	Without brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100KV	1	3M Japan (or equivalent)	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1		
Encoder connector	JN2DS10SL1-R	1	Japan Aviation Electronics Ind.	For Encoder cable (One-touch lock type)
Connector pin	JN1-22-22S-PKG100	5		

Part No.	DV0PM20116	100 mm sq. or more Applicable model	(IP44 motor) Encoder JN2 <Small size connector> MDMF 22.0 kW	With brake
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• Components

Title	Part No.	Number	Manufacturer	Note
Connector (Driver side)	3E206-0100KV	1	3M Japan (or equivalent)	For Connector X6 (6-pins)
Shell kit	3E306-3200-008	1		
Encoder connector	JN2DS10SL1-R	1	Japan Aviation Electronics Ind.	For Encoder cable (One-touch lock type)
Connector pin	JN1-22-22S-PKG100	5		
Brake connector	N/MS3106B14S-2S	1	Japan Aviation Electronics Ind.	For Brake cable (Screwed type)
Cable clamp	N/MS3057-6A	1		

* The motor / encoder connection connector kit for MDMF 22.0 kW does not include the connection parts for motor cable (terminal block). Please prepare a round terminal by yourself. (For details, see P.27)

<Remarks>

- For the crimping tools required for cable production, please check the manufacturer's website or contact the manufacturer. For manufacturer inquiries, refer to P.347 "Peripheral Device Manufacturers List".

Connector Kit for Motor/Brake Connection

Part No.	DV0PM20040	80 mm sq. or less Applicable model	MSMF 50 W to 1000 W * (Connector type IP67)
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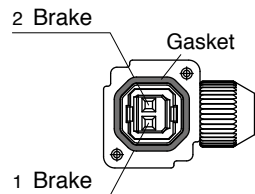
* MSMF092L1□1

• Components

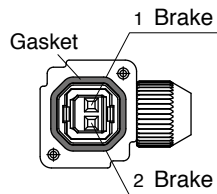
Title	Part No.	Number	Manufacturer	Note
Connector	JN4FT02SJM-R	1	Japan Aviation Electronics Ind.	For brake cable
Socket contact	ST-TMH-S-C1B-3500	2		

• Pin disposition of connector for brake cable

[Direction of motor shaft]



[Opposite direction of motor shaft]



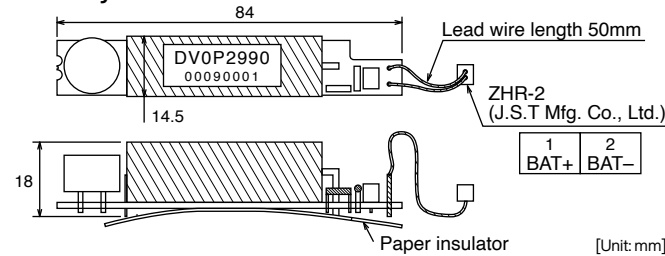
<Remarks>

Secure the gasket in place without removing it from the connector.
Otherwise, the degree of protection of IP67 will not be guaranteed.

Battery for Absolute Encoder

Part No.	DV0P2990
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• Lithium battery: 3.6 V 2000 mAh



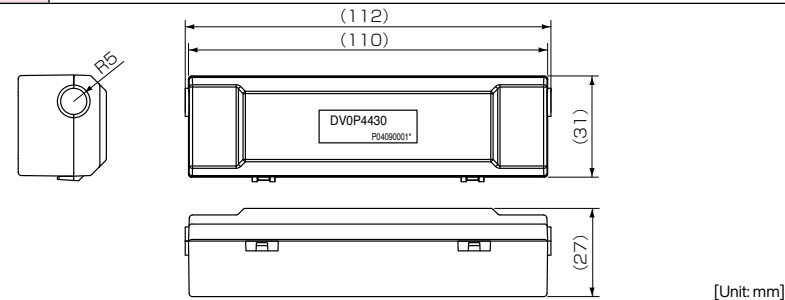
<Caution>

This battery is categorized as hazardous substance, and you may be required to present an application of hazardous substance when you transport by air (both passenger and cargo airlines).

Battery Box for Absolute Encoder *

* Battery is not included. Please buy the absolute encoder battery "DV0P2990" separately.

Part No.	DV0P4430
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When waking a cable for 23-bit absolute encoder by yourself

When you make your own cable for 23-bit absolute encoder, connect the optional battery for absolute encoder, DV0P2990 as per the wiring diagram below. Connector of the battery for absolute encoder shall be provided by customer as well.

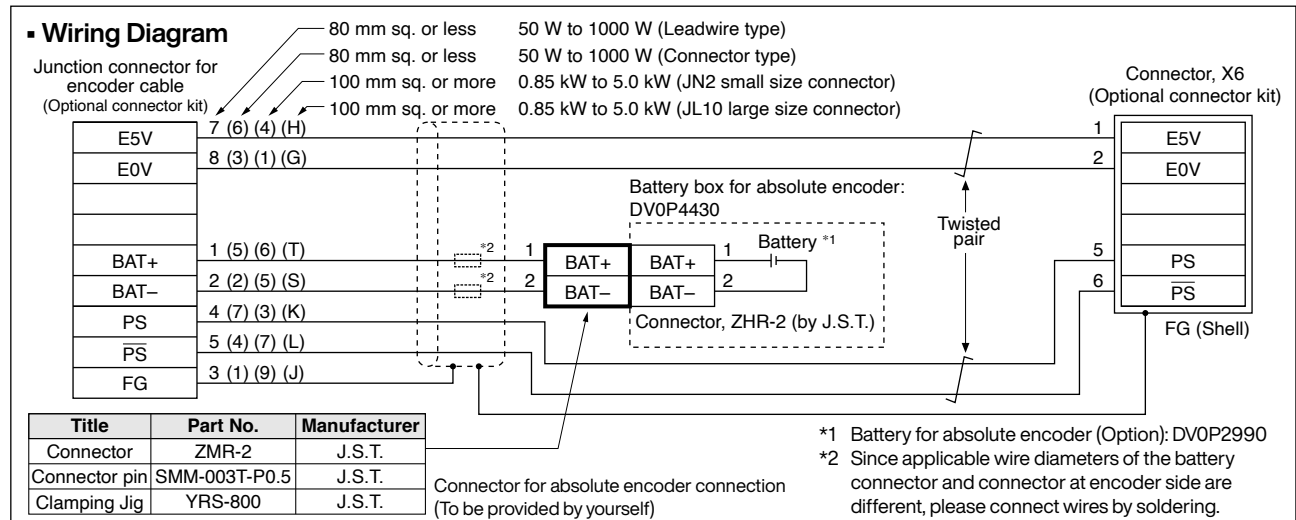
<Caution>

Install and fix the battery securely. If the installation and fixing of the battery is not appropriate, it may cause the wire breakdown or damage of the battery.

Refer to the instruction manual of the battery for handling the battery.

• Installation Place of Battery

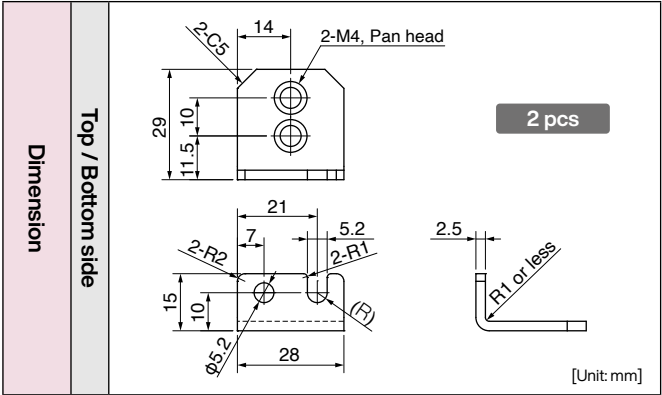
- 1) Indoors, where the products are not subjected to rain or direct sun beam.
- 2) Where the products are not subjected to corrosive atmospheres such as hydrogen sulfide, sulfurous acid, chlorine, ammonia, chloric gas, sulfuric gas, acid, alkaline and salt and so on, and are free from splash of inflammable gas, grinding oil, oil mist, iron powder or chips and etc.
- 3) Well-ventilated and humid and dust-free place.
- 4) Vibration-free place

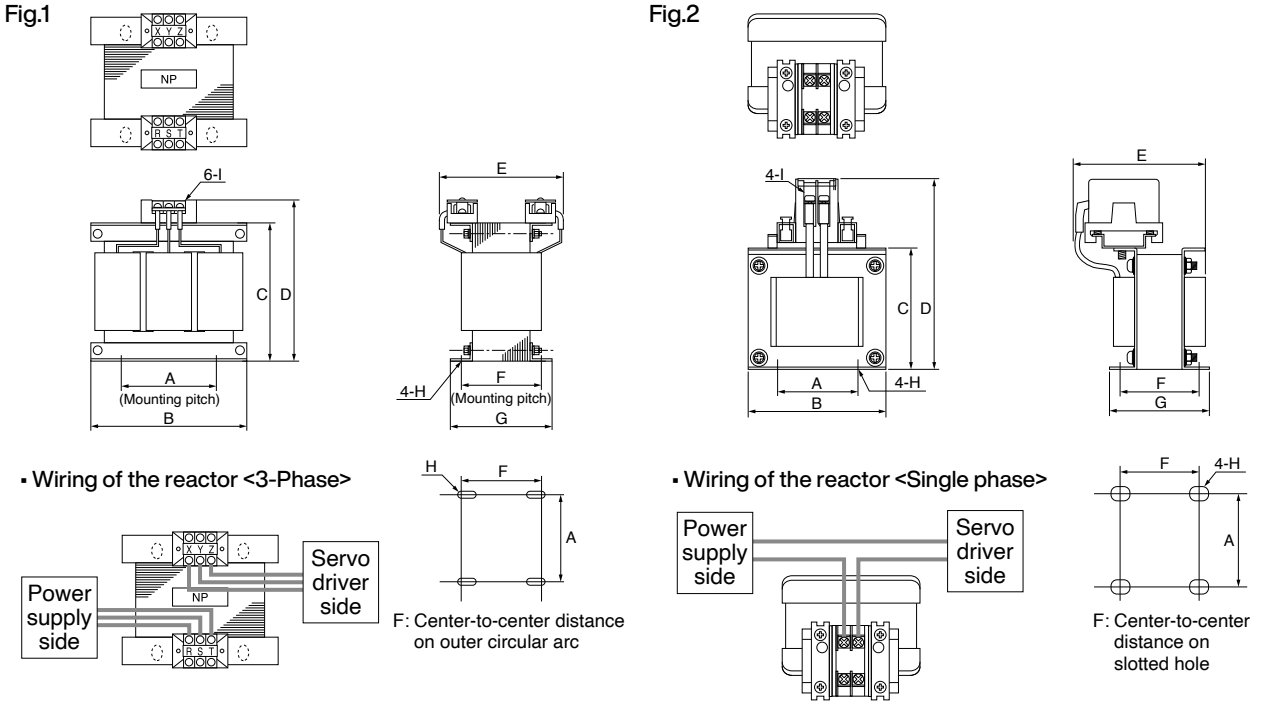
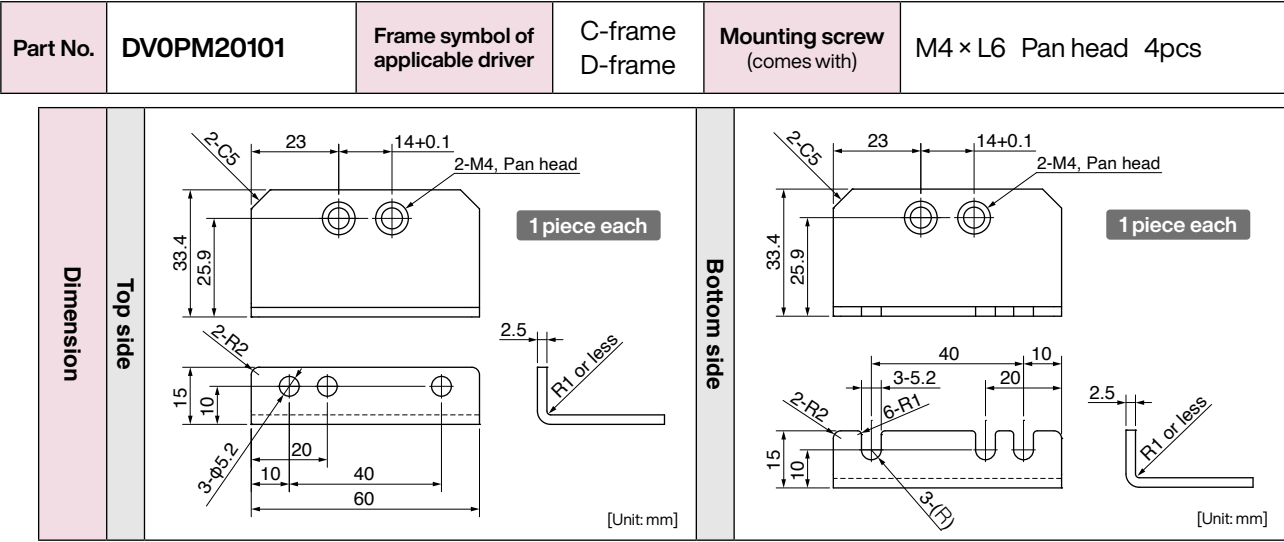


■ Recommended components

Motor		Part No.	Manufacturer
MSMF	50 W to 1000 W	TND14V-271K	NIPPON CHEMI-CON CORPORATION
	1.0 kW to 3.0 kW	Z15D151	SEMITEC Corporation
	4.0 kW, 5.0 kW	NVD07SCD082	KOA Corporation
MQMF	100W to 400 W	TND14V-271K	NIPPON CHEMI-CON CORPORATION
MHMF	50 W to 1000 W		
	1.0 kW, 1.5 kW		
	2.0 kW to 4.0 kW		
	5.0 kW, 7.5 kW	NVD07SCD082	KOA Corporation
MDMF	1.0 kW to 3.0 kW	NVD07SCD082	KOA Corporation
	4.0 kW	Z15D151	SEMITEC Corporation
	5.0 kW to 22.0 kW	NVD07SCD082	KOA Corporation
MGMF	0.85 kW to 1.8 kW	NVD07SCD082	KOA Corporation
	2.4 kW, 2.9 kW	Z15D151	SEMITEC Corporation
	4.4 kW, 5.5 kW	NVD07SCD082	KOA Corporation

Part No.	DVOPM20100	Frame symbol of applicable driver	A-frame B-frame	Mounting screw (comes with)	M4 × L6 Pan head 4pcs
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	Part No.	A	B	C	D	E (Max)	F	G	H	I	Inductance (mH)	Rated current (A)
Fig.1	DV0P220	65±1	125±1	(93)	136 _{Max}	155	70+3/-0	85±2	4-7φ×12	M4	6.81	3
	DV0P221	60±1	150±1	(113)	155 _{Max}	130	60+3/-0	75±2	4-7φ×12	M4	4.02	5
	DV0P222	60±1	150±1	(113)	155 _{Max}	140	70+3/-0	85±2	4-7φ×12	M4	2	8
	DV0P223	60±1	150±1	(113)	155 _{Max}	150	79+3/-0	95±2	4-7φ×12	M4	1.39	11
	DV0P224	60±1	150±1	(113)	160 _{Max}	155	84+3/-0	100±2	4-7φ×12	M5	0.848	16
	DV0P225	60±1	150±1	(113)	160 _{Max}	170	100+3/-0	115±2	4-7φ×12	M5	0.557	25
Fig.2	DV0P227	55±0.7	76.5±1	66.5±1	110 _{Max}	90	43.6±2	56±2	4-5φ×10	M3.5	4.02	5
	DV0P228	55±0.7	76.5±1	66.5±1	110 _{Max}	95	48.0±2	61±2	4-5φ×10	M3.5	2	8
	DV0PM20047	55±0.7	76.5±1	66.5±1	110 _{Max}	105	58.6±2	71±2	4-5φ×10	M4	1.39	11

* For application, refer to P.29 to P.42 and P.205 to P.210 “Table of Part Numbers and Options”.

Harmonic restraint

Harmonic restraint measures are not common to all countries. Therefore, prepare the measures that meet the requirements of the destination country.
When installing a product for Japan, refer to the instruction manual available on our website.

【Panasonic Industry Co., Ltd. web site】
industrial.panasonic.com/ac/e/

<Remarks>

When using a reactor, be sure to install one reactor to one servo driver.

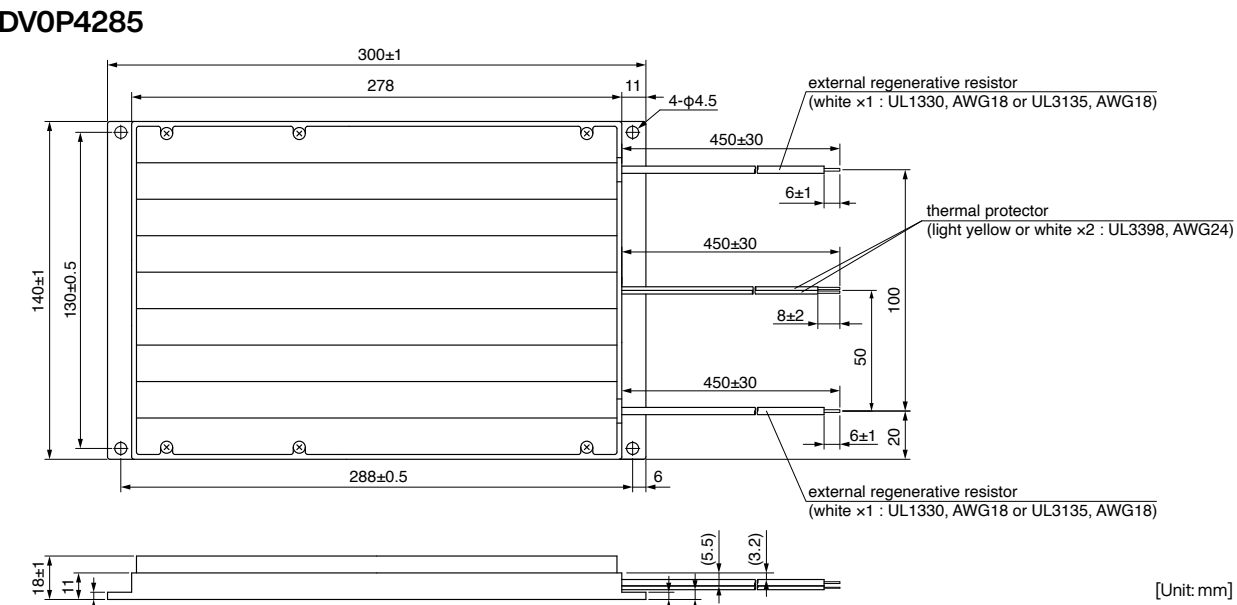
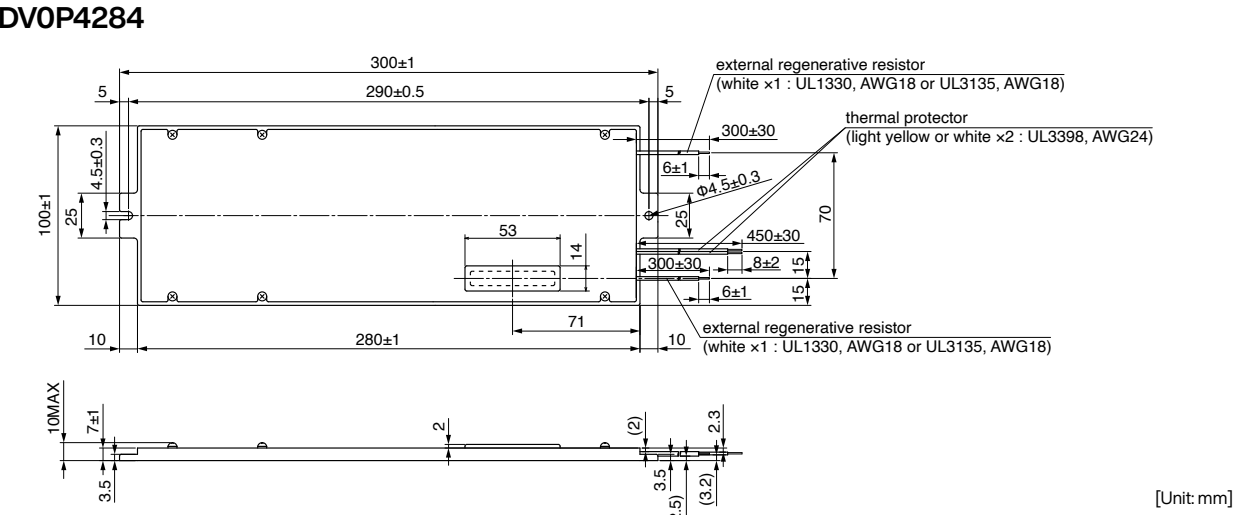
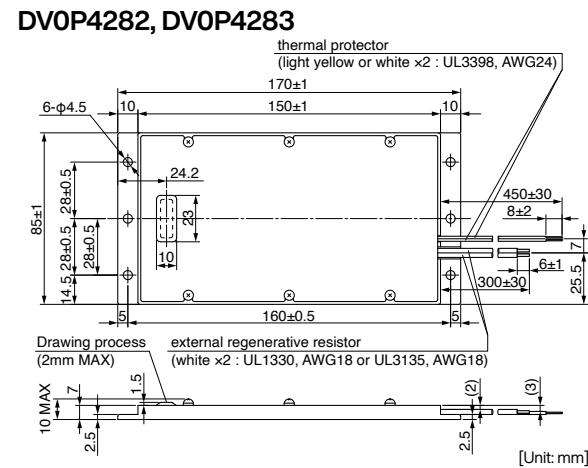
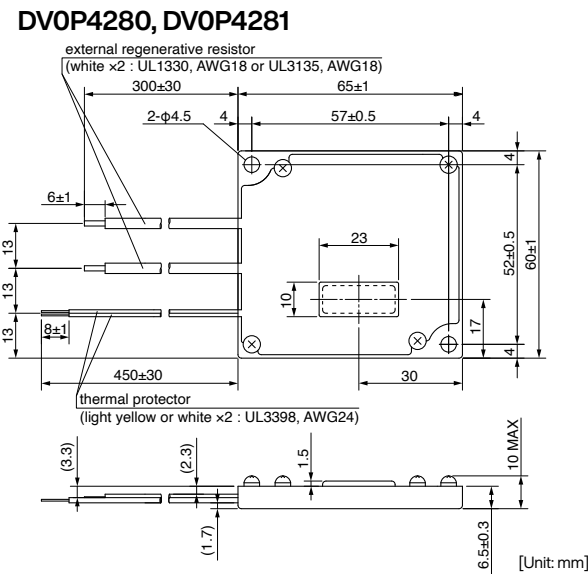
Part No.	Manufacturer's part No.	Specifications					Activation temperature of built-in thermal protector
		Resistance	cable core outside diameter	Weight	Rated power (reference) ^{*1}		
					Free air	with fan 1 m/s ^{*2}	
DV0P4280	RF70M	50	φ1.27 (AWG18 stranded wire)	0.1	10	25	140±5 °C B-contact Open/Close capacity (resistance load) 1 A 125 VAC 6000 times 0.5 A 250 VAC 10000 times
DV0P4281	RF70M	100		0.1	10	25	
DV0P4282	RF180B	25		0.4	17	50	
DV0P4283	RF180B	50		0.2	17	50	
DV0P4284	RF240	30		0.5	40	100	
DV0P4285	RH450F	20		1.2	52	130	

Manufacturer : Iwaki Musen Kenkyusho

*1 Power with which the driver can be used without activating the built-in thermal protector.
A built-in thermal fuse and a thermal protector are provided for safety.
The circuit should be so designed that the power supply will be turned off as the thermal protector operates.
The built-in thermal fuse blows depending on changes in heat dissipation condition, operating temperature limit, power supply voltage or load.
Mount the regenerative resistor on a machine operating under aggressive regenerating condition (high power supply voltage, large load inertia, shorter deceleration time, etc.) and make sure that the surface temperature will not exceed 100 °C.

*2 If the wind speed is 1m / s by the fan.

Frame	Power supply	
	Single phase, 100 V	Single phase, 200 V 3-phase, 200 V
A	DV0P4280	DV0P4281 (100 W or less) DV0P4283 (200 W)
B	DV0P4283	DV0P4283
C	DV0P4282	
D		DV0P4284
E		DV0P4284 × 2 in parallel or DV0P4285
F	—	DV0P4285 × 2 in parallel
G		DV0P4285 × 3 in parallel
H		DV0P4285 × 6 in parallel



<Caution when using external regenerative resistor>

Regenerative resistor gets very hot.

Configure a circuit so that a power supply shuts down when built-in thermal protector of the regenerative resistor works. Because it is automatic reset thermal protector, please apply a self-holding circuit to the outside in order to maintain safety in case of sudden activation. During the failure of the driver, the surface temperature of the regenerative resistor may exceed the operating temperature before thermal protector starts to work.
Built-in thermal fuse of regenerative resistor is intended to prevent from ignition during the failure of the driver and not intended to suppress the surface temperature of the resistor.

- Be attached the regenerative resistance to non-combustible material such as metal.
- Built-in thermal fuse of regenerative resistor is intended to prevent from ignition during the failure of the driver and not intended to suppress the surface temperature of the resistor.
- Do not install the regenerative resistor near flammable materials.

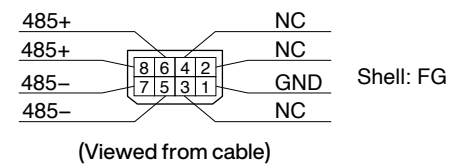
Daisy Chain (Excluding A6SE, A6NE, A6BE Series)

Part No.	DV0PM24610
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• Components

Title	Part No.	Manufacturer	Note
Connector	CIF-PCNS08KK-072R	J.S.T Mfg. Co., Ltd.	For Connector X2 (2-pins)
Cable	3-core cable with shield	—	Core diameter AWG24

• Pin disposition of connector, connector X2



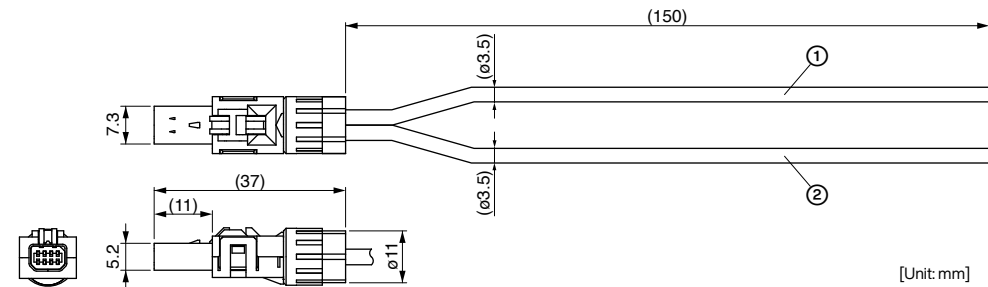
- <Remarks>
- Do not connect anything to NC.
 - The braided wire of the cable is connected to the shell (housing) of the connector.

• Table for wiring

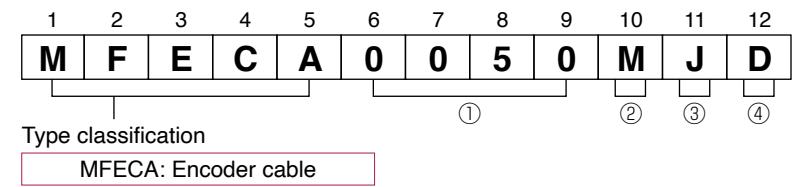
Pin No.	Signal name	Core color
8	485+	Red
7	485-	Yellow
1	GND	White

Pin No.	Signal name	Core color
6	485+	Red
5	485-	Yellow
1	GND	White

• Dimensions



Encoder Cable For available optional items, please refer to P.309 to P.312.



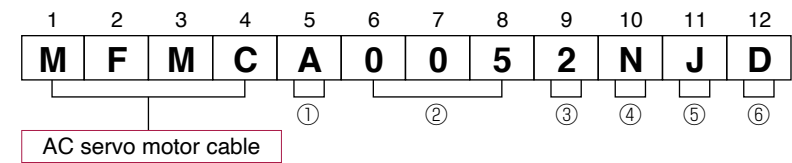
① Cable length	
0030	3 m
0050	5 m
0100	10 m
0200	20 m

② Cable type	
E	PVC cable with shield by Oki Electric Cable Co., 0.20 mm ² × 4P(8-wire), 3P(6-wire)
M	Proterial, Ltd. Highly bendable type
T	Proterial, Ltd. Standard bendable type

③ Cable end (Encoder side)	
A	Tyco Electronics Japan G.K. connector
J	Japan Aviation Electronics Industry, Ltd. connector (Direction of motor shaft)
K	Japan Aviation Electronics Industry, Ltd. connector (Opposite direction of motor shaft)
P	Japan Aviation Electronics Industry, Ltd. plug connector
S	“S” shaped cannonplug
T	Japan Aviation Electronics Industry, Ltd. plug connector

④ Cable end (Driver side)	
D	Connector (Without battery box)
E	Connector (With battery box)

Motor Cable, Brake Cable For available optional items, please refer to P.309 to P.312.



① Type classification	
A	Standard
B	Special
:	Design order

② Cable length	
003	3 m
005	5 m
010	10 m
020	20 m

③ Sectional area of cable core	
0	0.75 mm ²
1	1.25 mm ²
2	2.0 mm ²
3	3.5 mm ²
7	0.3 mm ²

④ Cable type	
E	ROBO-TOP® 4-wire by DYDEN CORPORATION
F	ROBO-TOP® 6-wire by DYDEN CORPORATION
G	ROBO-TOP® 2-wire by DYDEN CORPORATION
N	4-wire by Proterial, Ltd. (Highly bendable type)
P	4-wire by Proterial, Ltd. (Standard bendable type)
R	2-wire by Proterial, Ltd. (Highly bendable type)
S	2-wire by Proterial, Ltd. (Standard bendable type)
U	4-wire for A6 series small motor* (Highly bendable type)
V	6-wire for A6 series small motor* (Highly bendable type)
W	4-wire for A6 series small motor* (Standard bendable type)
X	6-wire for A6 series small motor* (Standard bendable type)

⑤ Cable end at motor side	
C	S type cannon plug
E	Tyco Electronics Japan G.K. connector
F	Japan Aviation Electronics Industry, Ltd. connector (Direction of motor shaft)
G	Japan Aviation Electronics Industry, Ltd. connector (Opposite direction of motor shaft)
J	Japan Aviation Electronics Industry, Ltd. connector (Direction of motor shaft)
K	Japan Aviation Electronics Industry, Ltd. connector (Opposite direction of motor shaft)
U	Japan Aviation Electronics Industry, Ltd. plug connector

⑥ Cable end at driver side	
D	Rod terminal
T	Clamp terminal

Manufacturer	Tel No. / Home Page	Peripheral components
Iwaki Musen Kenkyusho Co., Ltd.	+81-44-833-4311 http://www.iwakimusen.co.jp/	Regenerative resistor
KOA Corporation	+81-42-336-5300 http://www.koanet.co.jp/en/index.htm	Surge absorber for holding brake
NIPPON CHEMI-CON CORPORATION	+81-3-5436-7711 http://www.chemi-con.co.jp/e/index.html	
SEMITEC Corporation	+81-3-3621-2703 http://www.semitec.co.jp/english2/	
TDK Corporation	+81-3-5201-7229 http://www.global.tdk.com/	Ferrite core
NISSHIN ELECTRIC Co., LTD.	+81-4-2934-4151 http://www.nisshin-electric.com	
Konno Kogyosho Co., Ltd.	+81-184-53-2307	
Okaya Electric Industries Co. Ltd.	+81-3-4544-7040 http://www.okayaelec.co.jp/english/index.html	Surge absorber Noise filter
SOSHIN ELECTRIC Co., Ltd.	+81-3-5730-4500 http://www.soshin-ele.com/	Noise filter
Japan Aviation Electronics Industry, Ltd.	+81-3-3780-2717 http://www.jae.com/en/index.html	Connector
Molex Japan LLC	+81-462-65-2313 http://www.molex.co.jp	
J.S.T. Mfg. Co., Ltd.	+81-45-543-1271 http://www.jst-mfg.com/index_e.php	
3M Japan Limited	+81-3-5716-7290 http://solutions.3m.com/wps/portal/3M/ja_JP/WW2/Country/	
Tyco Electronics Japan G.K.	+81-44-844-8052 http://www.te.com/ja/home.html	
DYDEN CORPORATION	+81-3-5805-5880 http://www.dyden.co.jp/english/index.htm	Cable
DR. JOHANNES HEIDENHAIN GmbH	+81-3-3234-7781 http://www.heidenhain.de/de_EN/company/contact/	External scale
Fagor Automation S.Coop.	+34-943-719-200 http://www.fagorautomation.com	
Magnescale Co., Ltd.	+81-463-92-7971 http://www.mgscale.com/mgs/language/english/	
Mitutoyo Corporation	+81-44-813-8234 http://www.mitutoyo.co.jp/eng/	
Nidec Instruments Corporation	+81-3-5740-3006 https://www.nidec.com/en/nidec-instruments/	
Renishaw plc	+44 1453 524524 www.renishaw.com	




Manufacturer	Tel No. / Home Page	Peripheral components
Iwaki Musen Kenkyusho Co., Ltd.	+81-44-833-4311 http://www.iwakimusen.co.jp/	Regenerative resistor
KOA Corporation	+81-42-336-5300 http://www.koanet.co.jp/en/index.htm	Surge absorber for holding brake
NIPPON CHEMI-CON CORPORATION	+81-3-5436-7711 http://www.chemi-con.co.jp/e/index.html	
SEMITEC Corporation	+81-3-3621-2703 http://www.semitec.co.jp/english2/	
TDK Corporation	+81-3-5201-7229 http://www.global.tdk.com/	Ferrite core
NISSHIN ELECTRIC Co., LTD.	+81-4-2934-4151 http://www.nisshin-electric.com	
Konno Kogyosho Co., Ltd.	+81-184-53-2307	
Okaya Electric Industries Co. Ltd.	+81-3-4544-7040 http://www.okayaelec.co.jp/english/index.html	Surge absorber Noise filter
SOSHIN ELECTRIC Co., Ltd.	+81-3-5730-4500 http://www.soshin-ele.com/	Noise filter
Japan Aviation Electronics Industry, Ltd.	+81-3-3780-2717 http://www.jae.com/en/index.html	Connector
Molex Japan LLC	+81-462-65-2313 http://www.molex.co.jp	
J.S.T. Mfg. Co., Ltd.	+81-45-543-1271 http://www.jst-mfg.com/index_e.php	
3M Japan Limited	+81-3-5716-7290 http://solutions.3m.com/wps/portal/3M/ja_JP/WW2/Country/	
Tyco Electronics Japan G.K.	+81-44-844-8052 http://www.te.com/ja/home.html	
DYDEN CORPORATION	+81-3-5805-5880 http://www.dyden.co.jp/english/index.htm	Cable
DR. JOHANNES HEIDENHAIN GmbH	+81-3-3234-7781 http://www.heidenhain.de/de_EN/company/contact/	External scale
Fagor Automation S.Coop.	+34-943-719-200 http://www.fagorautomation.com	
Magnescale Co., Ltd.	+81-463-92-7971 http://www.mgscale.com/mgs/language/english/	
Mitutoyo Corporation	+81-44-813-8234 http://www.mitutoyo.co.jp/eng/	
Nidec Instruments Corporation	+81-3-5740-3006 https://www.nidec.com/en/nidec-instruments/	
Renishaw plc	+44 1453 524524 www.renishaw.com	

Manufacturer	Tel No. / Home Page	Peripheral components
Iwaki Musen Kenkyusho Co., Ltd.	+81-44-833-4311 http://www.iwakimusen.co.jp/	Regenerative resistor
KOA Corporation	+81-42-336-5300 http://www.koanet.co.jp/en/index.htm	Surge absorber for holding brake
NIPPON CHEMI-CON CORPORATION	+81-3-5436-7711 http://www.chemi-con.co.jp/e/index.html	
SEMITEC Corporation	+81-3-3621-2703 http://www.semitec.co.jp/english2/	
TDK Corporation	+81-3-5201-7229 http://www.global.tdk.com/	Ferrite core
NISSHIN ELECTRIC Co., LTD.	+81-4-2934-4151 http://www.nisshin-electric.com	
Konno Kogyosho Co., Ltd.	+81-184-53-2307	
Okaya Electric Industries Co. Ltd.	+81-3-4544-7040 http://www.okayaelec.co.jp/english/index.html	Surge absorber Noise filter
SOSHIN ELECTRIC Co., Ltd.	+81-3-5730-4500 http://www.soshin-ele.com/	Noise filter
Japan Aviation Electronics Industry, Ltd.	+81-3-3780-2717 http://www.jae.com/en/index.html	Connector
Molex Japan LLC	+81-462-65-2313 http://www.molex.co.jp	
J.S.T. Mfg. Co., Ltd.	+81-45-543-1271 http://www.jst-mfg.com/index_e.php	
3M Japan Limited	+81-3-5716-7290 http://solutions.3m.com/wps/portal/3M/ja_JP/WW2/Country/	
Tyco Electronics Japan G.K.	+81-44-844-8052 http://www.te.com/ja/home.html	
DYDEN CORPORATION	+81-3-5805-5880 http://www.dyden.co.jp/english/index.htm	Cable
DR. JOHANNES HEIDENHAIN GmbH	+81-3-3234-7781 http://www.heidenhain.de/de_EN/company/contact/	External scale
Fagor Automation S.Coop.	+34-943-719-200 http://www.fagorautomation.com	
Magnescale Co., Ltd.	+81-463-92-7971 http://www.mgscale.com/mgs/language/english/	
Mitutoyo Corporation	+81-44-813-8234 http://www.mitutoyo.co.jp/eng/	
Nidec Instruments Corporation	+81-3-5740-3006 https://www.nidec.com/en/nidec-instruments/	
Renishaw plc	+44 1453 524524 www.renishaw.com	

* The above list is for reference only. We may change the manufacturer without notice.




MEMO

80 mm sq. or less 50 W to 1000 W MSMF, MQMF, MHMF Leadwire type IP65

Motor				Driver		Power capacity (at rated load)	
Motor series		Power supply	Output (W)	Part No.	A6N series Part No.	Dimension Frame	
MSMF (Leadwire type) 3000 r/min Low inertia		Single phase 100 V	50	MSMF5AZL1 □ 2	MADL☆01N☆	A-frame	Approx. 0.4 kVA
			100	MSMF011L1 □ 2	MADL☆11N☆		
			200	MSMF021L1 □ 2	MBDL☆21N☆	B-frame	Approx. 0.5 kVA
			400	MSMF041L1 □ 2	MCDL☆31N☆	C-frame	Approx. 0.9 kVA
		Single phase/ 3-phase 200 V	50	MSMF5AZL1 □ 2 *	MADL☆05N☆	A-frame	Approx. 0.5 kVA
			100	MSMF012L1 □ 2 *			
			200	MSMF022L1 □ 2 *	MADL☆15N☆	B-frame	Approx. 0.9 kVA
			400	MSMF042L1 □ 2 *	MBDL☆25N☆		
			750	MSMF082L1 □ 2 *	MCDL☆35N☆	C-frame	Approx. 1.8 kVA
			1000	MSMF092L1 □ 2 *	MDDL☆45N☆	D-frame	Approx. 2.4 kVA
MQMF (Leadwire type) 3000 r/min Middle inertia Flat type		Single phase 100 V	100	MQMF011L1 □ □	MADL☆11N☆	A-frame	Approx. 0.4 kVA
			200	MQMF021L1 □ □	MBDL☆21N☆	B-frame	Approx. 0.5 kVA
			400	MQMF041L1 □ □	MCDL☆31N☆	C-frame	Approx. 0.9 kVA
		Single phase/ 3-phase 200 V	100	MQMF012L1 □ □ *	MADL☆05N☆	A-frame	Approx. 0.5 kVA
			200	MQMF022L1 □ □ *	MADL☆15N☆		
			400	MQMF042L1 □ □ *	MBDL☆25N☆	B-frame	Approx. 0.9 kVA
			MHMF (Leadwire type) 3000 r/min High inertia		Single phase 100 V	50	MHMF5AZL1 □ □
100	MHMF011L1 □ □	MADL☆11N☆					
200	MHMF021L1 □ □	MBDL☆21N☆				B-frame	Approx. 0.5 kVA
400	MHMF041L1 □ □	MCDL☆31N☆				C-frame	Approx. 0.9 kVA
Single phase/ 3-phase 200 V	50	MHMF5AZL1 □ □ *			MADL☆05N☆	A-frame	Approx. 0.5 kVA
	100	MHMF012L1 □ □ *					
	200	MHMF022L1 □ □ *			MADL☆15N☆	B-frame	Approx. 0.9 kVA
	400	MHMF042L1 □ □ *			MBDL☆25N☆		
	750	MHMF082L1 □ □ *			MCDL☆35N☆	C-frame	Approx. 1.8 kVA
	1000	MHMF092L1 □ □ *			MDDL☆55N☆	D-frame	Approx. 2.4 kVA

□ ☆ * : For more information, refer to “Model Designation” on P.353.

80 mm sq. or less 50 W to 1000 W MSMF, MQMF, MHMF Connector type IP67

Motor				Driver		Power capacity (at rated load)	
Motor series		Power supply	Output (W)	Part No.	A6N series Part No.	Dimension Frame	
MSMF (Connector type) 3000 r/min Low inertia		Single phase 100 V	50	MSMF5AZL1 □ 1	MADL☆01N☆	A-frame	Approx. 0.4 kVA
			100	MSMF011L1 □ 1	MADL☆11N☆		
			200	MSMF021L1 □ 1	MBDL☆21N☆	B-frame	Approx. 0.5 kVA
			400	MSMF041L1 □ 1	MCDL☆31N☆	C-frame	Approx. 0.9 kVA
		Single phase/ 3-phase 200 V	50	MSMF5AZL1 □ 1	MADL☆05N☆	A-frame	Approx. 0.5 kVA
			100	MSMF012L1 □ 1			
			200	MSMF022L1 □ 1	MADL☆15N☆	B-frame	Approx. 0.9 kVA
			400	MSMF042L1 □ 1	MBDL☆25N☆		
			750	MSMF082L1 □ 1	MCDL☆35N☆	C-frame	Approx. 1.8 kVA
			1000	MSMF092L1 □ 1	MDDL☆45N☆	D-frame	Approx. 2.4 kVA
MQMF (Connector type) 3000 r/min Middle inertia Flat type		Single phase 100 V	100	MQMF011L1 □ □	MADL☆11N☆	A-frame	Approx. 0.4 kVA
			200	MQMF021L1 □ □	MBDL☆21N☆	B-frame	Approx. 0.5 kVA
			400	MQMF041L1 □ □	MCDL☆31N☆	C-frame	Approx. 0.9 kVA
		Single phase/ 3-phase 200 V	100	MQMF012L1 □ □	MADL☆05N☆	A-frame	Approx. 0.5 kVA
			200	MQMF022L1 □ □	MADL☆15N☆		
			400	MQMF042L1 □ □	MBDL☆25N☆	B-frame	Approx. 0.9 kVA
MHMF (Connector type) 3000 r/min High inertia		Single phase 100 V	50	MHMF5AZL1 □ □	MADL☆01N☆	A-frame	Approx. 0.4 kVA
			100	MHMF011L1 □ □	MADL☆11N☆		
			200	MHMF021L1 □ □	MBDL☆21N☆	B-frame	Approx. 0.5 kVA
			400	MHMF041L1 □ □	MCDL☆31N☆	C-frame	Approx. 0.9 kVA
		Single phase/ 3-phase 200 V	50	MHMF5AZL1 □ □	MADL☆05N☆	A-frame	Approx. 0.5 kVA
			100	MHMF012L1 □ □			
			200	MHMF022L1 □ □	MADL☆15N☆	B-frame	Approx. 0.9 kVA
			400	MHMF042L1 □ □	MBDL☆25N☆		
			750	MHMF082L1 □ □	MCDL☆35N☆	C-frame	Approx. 1.8 kVA
			1000	MHMF092L1 □ □	MDDL☆55N☆	D-frame	Approx. 2.4 kVA

□ ☆ : For more information, refer to “Model Designation” on P.353.

● 100 mm sq. or more 0.85 kW to 5.0 kW MSMF, MDMF, MGMF, MHMF
Encoder connector (Large size JL10)^{*1} type IP67

Motor				Driver		Power capacity
Motor series	Power supply	Output (W)	Part No.	A6N series Part No.	Dimension Frame	(at rated load)
MSMF (Large size JL10 type) 3000 r/min Low inertia IP67	Single phase/ 3-phase 200 V	1000	MSMF102L1 □□ *	MDDL☆55N☆	D-frame	Approx. 2.9 kVA
		1500	MSMF152L1 □□ *			
	3-phase 200 V	2000	MSMF202L1 □□ *	MEDL☆83N☆	E-frame	Approx. 3.8 kVA
		3000	MSMF302L1 □□ *	MFDL☆A3N☆	F-frame	Approx. 5.2 kVA
		4000	MSMF402L1 □□ *	MFDL☆B3N☆		Approx. 7.8 kVA
		5000	MSMF502L1 □□ *			
MDMF (Large size JL10 type) 2000 r/min Middle inertia IP67	Single phase/ 3-phase 200 V	1000	MDMF102L1 □□ *	MDDL☆45N☆	D-frame	Approx. 2.4 kVA
		1500	MDMF152L1 □□ *	MDDL☆55N☆		Approx. 2.9 kVA
	3-phase 200 V	2000	MDMF202L1 □□ *	MEDL☆83N☆	E-frame	Approx. 3.8 kVA
		3000	MDMF302L1 □□ *	MFDL☆A3N☆	F-frame	Approx. 5.2 kVA
		4000	MDMF402L1 □□ *	MFDL☆B3N☆		Approx. 7.8 kVA
		5000	MDMF502L1 □□ *			
MGMF (Large size JL10 type) 〔 Low speed/ High torque type 〕 1500 r/min Middle inertia IP67	Single phase/ 3-phase 200 V	850	MGMF092L1 □□ *	MDDL☆45N☆	D-frame	Approx. 2.4 kVA
		1300	MGMF132L1 □□ *	MDDL☆55N☆		Approx. 2.9 kVA
	3-phase 200 V	1800	MGMF182L1 □□ *	MEDL☆83N☆	E-frame	Approx. 3.8 kVA
		2400	MGMF242L1 □□ *	MEDL☆93N☆		Approx. 4.5 kVA
		2900	MGMF292L1 □□ *	MFDL☆B3N☆	F-frame	Approx. 7.8 kVA
		4400	MGMF442L1 □□ *			
MHMF (Large size JL10 type) 2000 r/min High inertia IP67	Single phase/ 3-phase 200 V	1000	MHMF102L1 □□ *	MDDL☆45N☆	D-frame	Approx. 2.4 kVA
		1500	MHMF152L1 □□ *	MDDL☆55N☆		Approx. 2.9 kVA
	3-phase 200 V	2000	MHMF202L1 □□ *	MEDL☆83N☆	E-frame	Approx. 3.8 kVA
		3000	MHMF302L1 □□ *	MFDL☆A3N☆	F-frame	Approx. 5.2 kVA
		4000	MHMF402L1 □□ *	MFDL☆B3N☆		Approx. 7.8 kVA
		5000	MHMF502L1 □□ *			

□ ☆ * : For more information, refer to “Model Designation” on P.353.

● 100 mm sq. or more 0.85 kW to 5.0 kW MSMF, MDMF, MGMF, MHMF
Encoder connector (Small size JN2)^{*2} type IP67

Motor				Driver		Power capacity (at rated load)
Motor series	Power supply	Output (W)	Part No.	A6N series Part No.	Dimension Frame	
MSMF (Small size JN2 type) 3000 r/min Low inertia IP67	Single phase/ 3-phase 200 V	1000	MSMF102L1 □□	MDDL☆55N☆	D-frame	Approx. 2.9 kVA
		1500	MSMF152L1 □□			
	3-phase 200 V	2000	MSMF202L1 □□	MEDL☆83N☆	E-frame	Approx. 3.8 kVA
		3000	MSMF302L1 □□	MFDL☆A3N☆	F-frame	Approx. 5.2 kVA
		4000	MSMF402L1 □□	MFDL☆B3N☆		Approx. 7.8 kVA
		5000	MSMF502L1 □□			
MDMF (Small size JN2 type) 2000 r/min Middle inertia IP67	Single phase/ 3-phase 200 V	1000	MDMF102L1 □□	MDDL☆45N☆	D-frame	Approx. 2.4 kVA
		1500	MDMF152L1 □□	MDDL☆55N☆		Approx. 2.9 kVA
	3-phase 200 V	2000	MDMF202L1 □□	MEDL☆83N☆	E-frame	Approx. 3.8 kVA
		3000	MDMF302L1 □□	MFDL☆A3N☆	F-frame	Approx. 5.2 kVA
		4000	MDMF402L1 □□	MFDL☆B3N☆		Approx. 7.8 kVA
		5000	MDMF502L1 □□			
MGMF (Small size JN2 type) 〔 Low speed/ High torque type 〕 1500 r/min Middle inertia IP67	Single phase/ 3-phase 200 V	850	MGMF092L1 □□	MDDL☆45N☆	D-frame	Approx. 2.4 kVA
		1300	MGMF132L1 □□	MDDL☆55N☆		Approx. 2.9 kVA
	3-phase 200 V	1800	MGMF182L1 □□	MEDL☆83N☆	E-frame	Approx. 3.8 kVA
		2400	MGMF242L1 □□	MEDL☆93N☆		Approx. 4.5 kVA
		2900	MGMF292L1 □□	MFDL☆B3N☆	F-frame	Approx. 7.8 kVA
		4400	MGMF442L1 □□			
MHMF (Small size JN2 type) 2000 r/min High inertia IP67	Single phase/ 3-phase 200 V	1000	MHMF102L1 □□	MDDL☆45N☆	D-frame	Approx. 2.4 kVA
		1500	MHMF152L1 □□	MDDL☆55N☆		Approx. 2.9 kVA
	3-phase 200 V	2000	MHMF202L1 □□	MEDL☆83N☆	E-frame	Approx. 3.8 kVA
		3000	MHMF302L1 □□	MFDL☆A3N☆	F-frame	Approx. 5.2 kVA
		4000	MHMF402L1 □□	MFDL☆B3N☆		Approx. 7.8 kVA
		5000	MHMF502L1 □□			

□ ☆ * : For more information, refer to “Model Designation” on P.353.

● 176 mm sq. or more 5.5 kW or more MDMF, MGMF, MHMF
Encoder connector (Large size JL10)^{*1} type IP67

Motor				Driver		Power capacity (at rated load)
Motor series	Power supply	Output (W)	Part No.	A6N series Part No.	Dimension Frame	
MDMF (Large size JL10 type) 1500 r/min Middle inertia IP67 ^{*3}	3-phase 200 V	7500	MDMF752L1 □ 6 *	MGDLTC3NF	G-frame	Approx. 11 kVA
		11000	MDMFC12L1 □ 6	MHDLTE3NF	H-frame	Approx. 15 kVA
		15000	MDMFC52L1 □ 6	MHDLTE3NF		Approx. 20 kVA
		22000 ^{*3}	MDMFD22L1 □ 6	MHDLTF3NF		Approx. 28 kVA
MGMF (Large size JL10 type) 〔Low speed/ High torque type〕 1500 r/min Middle inertia IP67	3-phase 200 V	5500	MGMF552L1 □ 6 *	MGDLTC3NF	G-frame	Approx. 8.5 kVA
MHMF (Large size JL10 type) 1500 r/min High inertia IP67	3-phase 200 V	7500	MHMF752L1 □ 6 *	MGDLTC3NF	G-frame	Approx. 11 kVA

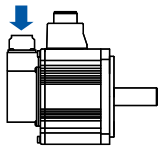
□ ☆ * : For more information, refer to “Model Designation” on P.353.

● 176 mm sq. or more 5.5 kW or more MDMF, MGMF, MHMF
Encoder connector (Small size JN2)^{*2} type IP67

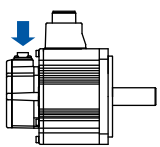
Motor				Driver		Power capacity (at rated load)
Motor series	Power supply	Output (W)	Part No.	A6N series Part No.	Dimension Frame	
MDMF (Small size JN2 type) 1500 r/min Middle inertia IP67 ^{*3}	3-phase 200 V	7500	MDMF752L1 □ 5	MGDLTC3NF	G-frame	Approx. 11 kVA
		11000	MDMFC12L1 □ 5	MHDLTE3NF	H-frame	Approx. 15 kVA
		15000	MDMFC52L1 □ 5	MHDLTE3NF		Approx. 20 kVA
		22000 ^{*3}	MDMFD22L1 □ 5	MHDLTF3NF		Approx. 28 kVA
MGMF (Small size JN2 type) 〔Low speed/ High torque type〕 1500 r/min Middle inertia IP67	3-phase 200 V	5500	MGMF552L1 □ 5	MGDLTC3NF	G-frame	Approx. 8.5 kVA
MHMF (Small size JN2 type) 1500 r/min High inertia IP67	3-phase 200 V	7500	MHMF752L1 □ 5	MGDLTC3NF	G-frame	Approx. 11 kVA

□ ☆ : For more information, refer to “Model Designation” on P.353.

*1: Encoder connector
(Large size JL10)



*2: Encoder connector
(Small size JN2)



*3: 22.0 kW motor is IP44.

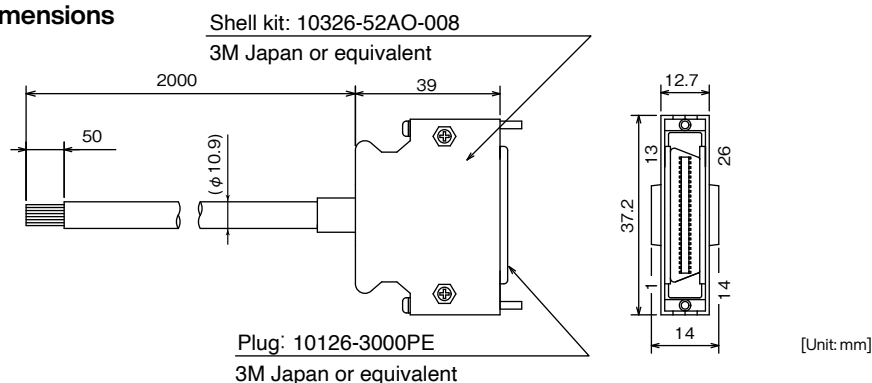
Refer to P.29 to P.42 for other options than the interface cable and interface connector kit.

Cable for Interface

Part No. **DV0P0800**

Cable length 2 m, core wire AWG 26 is connected.

• Dimensions



• Table for wiring

Pin No.	Signal name	color	Pin No.	Signal name	color	Pin No.	Signal name	color
1*	BRK-OFF+	Orange (Red1)	10*	HOME	Pink (Black1)	19	OB-/OCMP2-	Pink (Red2)
2*	BRK-OFF-	Orange (Black1)	11*	EXT2	Orange (Red2)	20	OB+/OCMP2+	Pink (Black2)
3*	ALM+	Gray (Red1)	12*	EXT3	Orange (Black2)	21	OCMP3+	Orange (Red3)
4*	ALM-	Gray (Black1)	13*	SI-MON4	Gray (Red2)	22	OCMP3-	Gray (Red3)
5*	SI-MON5	White (Red1)	14	BTP-I	Gray (Black2)	23	-	Gray (Black3)
6	I-COM	White (Black1)	15	BTN-I	White (Red2)	24	-	White (Red3)
7*	POT	Yellow (Red1)	16	GND	White (Black2)	25*	EX-OUT1+	White (Black3)
8*	NOT	Yellow (Black1)	17	OA+/OCMP1+	Yellow (Red2)	26*	EX-OUT1-	Orange (Black3)
9*	SI-MON1	Pink (Red1)	18	OA-/OCMP1-	Yellow (Black2)			

The signals allocated to the pin No. with "*" in the table are factory default.

<Remarks>

Color designation of the cable e.g.) Pin-1 Cable color : Orange (Red1) : One red dot on the cable

<Caution>

The shield of this cable is not connected to the terminal of the connector.

The shielded wire of the cable is connected to the connector shell of the cable, and is connected to the FG via the connector shell on the Driver side. When connecting the shielded wire of the cable to GND, use the connector kit DV0P0770 for the interface. At that time, please note that if you connect the shield and the connector shell on the cable side and process it, FG and GND will be connected.

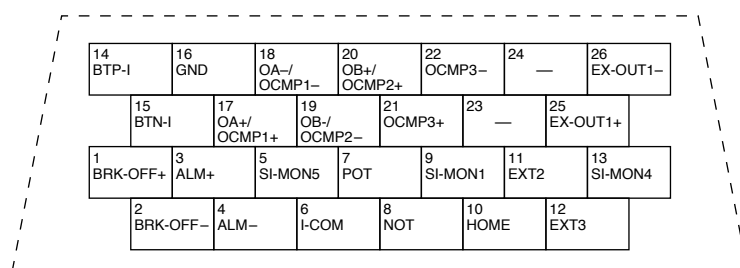
Connector Kit for Interface

Part No. **DV0P0770**

• Components

Title	Part No.	Number	Manufacturer	Note
Connector	10126-3000PE	1	3M Japan (or equivalent)	For CN X4 (26-pins)
Connector cover	10326-52AO-008	1		

• Pin disposition: Connector X4 (26 pins) (viewed from the soldering side)



<Remarks>

- Check the stamped pin-No. on the connector body while making a wiring.
- For the symbols representing the signal names or the functions of the signals in the figure above, refer to the operation manual.

Build an absolute system with no battery!

Reduced the battery for the absolute encoder by installing the power generating element in the motor. In addition to improving maintainability, we support the construction of ecological and economical industrial machines and systems.

Maintenance-free - there is no need to perform battery replacement.

The battery-less absolute encoder is an innovative encoder requiring no hassle inventory management or cost of battery replacement. It contributes to the construction of ecological and economical industrial machines and systems.

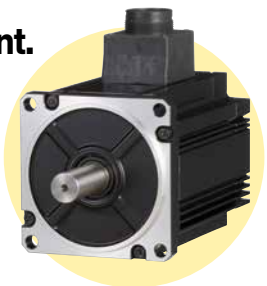


Table of Model Numbers ●Please refer to the end of this catalog for the software version of the applicable amplifier.

● 80 mm sq. or less 50 W to 1000 W MSMF, MQMF, MHMF Leadwire type IP65

Motor				Driver		Power capacity (at rated load)
Motor series	Power supply	Output (W)	Model No.	A6 series Model No.	Dimension Frame	
MSMF (Leadwire type) 3000 r/min Low inertia	Single phase 100 V	50	MSMF5AZA1□2	MADL☆01○★	A-frame	Approx. 0.4 kVA
		100	MSMF011A1□2	MADL☆11○★		
		200	MSMF021A1□2	MBDL☆21○★	B-frame	Approx. 0.5 kVA
		400	MSMF041A1□2	MCDL☆31○★	C-frame	Approx. 0.9 kVA
	Single phase/ 3-phase 200 V	50	MSMF5AZA1□2	MADL☆05○★	A-frame	Approx. 0.5 kVA
		100	MSMF012A1□2			
		200	MSMF022A1□2	MADL☆15○★	B-frame	Approx. 0.9 kVA
		400	MSMF042A1□2	MBDL☆25○★		
		750	MSMF082A1□2	MCDL☆35○★		
		1000	MSMF092A1□2	MDDL☆45○★		
MQMF (Leadwire type) 3000 r/min Middle inertia Flat type	Single phase 100 V	100	MQMF011A1□□	MADL☆11○★	A-frame	Approx. 0.4 kVA
		200	MQMF021A1□□	MBDL☆21○★	B-frame	Approx. 0.5 kVA
		400	MQMF041A1□□	MCDL☆31○★	C-frame	Approx. 0.9 kVA
	Single phase/ 3-phase 200 V	100	MQMF012A1□□	MADL☆05○★	A-frame	Approx. 0.5 kVA
		200	MQMF022A1□□	MADL☆15○★		
MHMF (Leadwire type) 3000 r/min High inertia	Single phase 100 V	400	MQMF042A1□□	MBDL☆25○★	B-frame	Approx. 0.9 kVA
		50	MHMF5AZA1□□	MADL☆01○★	A-frame	Approx. 0.4 kVA
		100	MHMF011A1□□			
		200	MHMF021A1□□	MBDL☆21○★	B-frame	Approx. 0.5 kVA
	Single phase/ 3-phase 200 V	400	MHMF041A1□□	MCDL☆31○★	C-frame	Approx. 0.9 kVA
		50	MHMF5AZA1□□	MADL☆05○★	A-frame	Approx. 0.5 kVA
		100	MHMF012A1□□			
		200	MHMF022A1□□	MADL☆15○★	B-frame	Approx. 0.9 kVA
		400	MHMF042A1□□	MBDL☆25○★		
		750	MHMF082A1□□	MCDL☆35○★		
		1000	MHMF092A1□□	MDDL☆55○★		
					D-frame	Approx. 2.4 kVA

[Motor] □ : For more information, Please refer to “[Motor] Model Designation” in P.3.
[Driver] ☆○★ : For more information, Please refer to “[Driver] Model Designation” in P.3.

Table of Model Numbers ●Please refer to the end of this catalog for the software version of the applicable amplifier.

● 100 mm sq. or more 0.85 kW to 5.0 kW MSMF, MDMF, MGMF, MHMF
IP67 motor encoder connector (small size JN2) type

Motor				Driver		Power capacity (at rated load)
Motor series	Power supply	Output (W)	Model No.	A6 series Model No.	Dimension Frame	
MSMF (Small size JN2 type) 3000 r/min Low inertia	Single phase/ 3-phase 200 V	1000	MSMF102A1□□	MDDL☆55○★	D-frame	Approx. 2.4 kVA
		1500	MSMF152A1□□	MDDL☆55○★		Approx. 2.9 kVA
	3-phase 200 V	2000	MSMF202A1□□	MEDL☆83○★	E-frame	Approx. 3.8 kVA
		3000	MSMF302A1□□	MFDL☆A3○★	F-frame	Approx. 5.2 kVA
		4000	MSMF402A1□□	MFDL☆B3○★		Approx. 6.5 kVA
MDMF (Small size JN2 type) 2000 r/min Middle inertia	Single phase/ 3-phase 200 V	5000	MSMF502A1□□	MFDL☆B3○★	D-frame	Approx. 7.8 kVA
		1000	MDMF102A1□□	MDDL☆45○★		Approx. 2.4 kVA
	3-phase 200 V	1500	MDMF152A1□□	MDDL☆55○★	E-frame	Approx. 2.9 kVA
		2000	MDMF202A1□□	MEDL☆83○★		Approx. 3.8 kVA
		3000	MDMF302A1□□	MFDL☆A3○★	F-frame	Approx. 5.2 kVA
MGMF (Small size JN2 type) 1500 r/min Middle inertia	Single phase/ 3-phase 200 V	4000	MDMF402A1□□	MFDL☆B3○★		Approx. 6.5 kVA
		5000	MDMF502A1□□	MFDL☆B3○★	D-frame	Approx. 7.8 kVA
	3-phase 200 V	850	MGMF092A1□□	MDDL☆45○★		Approx. 2.0 kVA
		1300	MGMF132A1□□	MDDL☆55○★	E-frame	Approx. 2.6 kVA
		1800	MGMF182A1□□	MEDL☆83○★		Approx. 3.4 kVA
MHMF (Small size JN2 type) 2000 r/min High inertia	Single phase/ 3-phase 200 V	2400	MGMF242A1□□	MEDL☆93○★	F-frame	Approx. 4.5 kVA
		2900	MGMF292A1□□	MFDL☆B3○★		Approx. 5.0 kVA
	3-phase 200 V	4400	MGMF442A1□□	MFDL☆B3○★	D-frame	Approx. 7.0 kVA
		1000	MHMF102A1□□	MDDL☆45○★		Approx. 2.4 kVA
		1500	MHMF152A1□□	MDDL☆55○★	E-frame	Approx. 2.9 kVA
MHMF (Small size JN2 type) 2000 r/min High inertia	Single phase/ 3-phase 200 V	2000	MHMF202A1□□	MEDL☆83○★		Approx. 3.8 kVA
		3000	MHMF302A1□□	MFDL☆A3○★	F-frame	Approx. 5.2 kVA
	3-phase 200 V	4000	MHMF402A1□□	MFDL☆B3○★		Approx. 6.5 kVA
		5000	MHMF502A1□□	MFDL☆B3○★	D-frame	Approx. 7.8 kVA

[Motor] □ : For more information, Please refer to “[Motor] Model Designation” in P.3.
[Driver] ☆○★ : For more information, Please refer to “[Driver] Model Designation” in P.3.

Encoder Cable (Option)

● 80 mm sq. or less 50 W to 1000 W
MSMF, MQMF, MHMF
Leadwire type IP65

Length (m)	Part No.(ex.)
3	MFECA0030EAD
5	MFECA0050EAD
10	MFECA0100EAD

Please contact us for 10 m to 20 m.

【About motor options】

Other optional products such as motor cables are the same as the A6 series options. Please refer to A6 Family catalog.

● 100 mm sq. or more 0.85 kW to 5.0 kW
MSMF, MDMF, MGMF, MHMF
IP67 motor encoder connector (small size JN2) type

Length (m)	Part No.(ex.)
3	MFECA0030ETD
5	MFECA0050ETD
10	MFECA0100ETD

Please contact us for 10 m to 20 m.


EU Directives/ UK Regulation

The EU Directives/ UK Regulation apply to all such electronic products as those having specific functions and have been exported to EU and directly sold to general consumers. Those products are required to conform to the EU unified standards and to furnish the CE marking on the products.
However, our AC servos meet the relevant EU Directives for EU Low Voltage Directives/UK Low Voltage Regulation Equipment so that the machine or equipment comprising our AC servos can meet EU Directives.

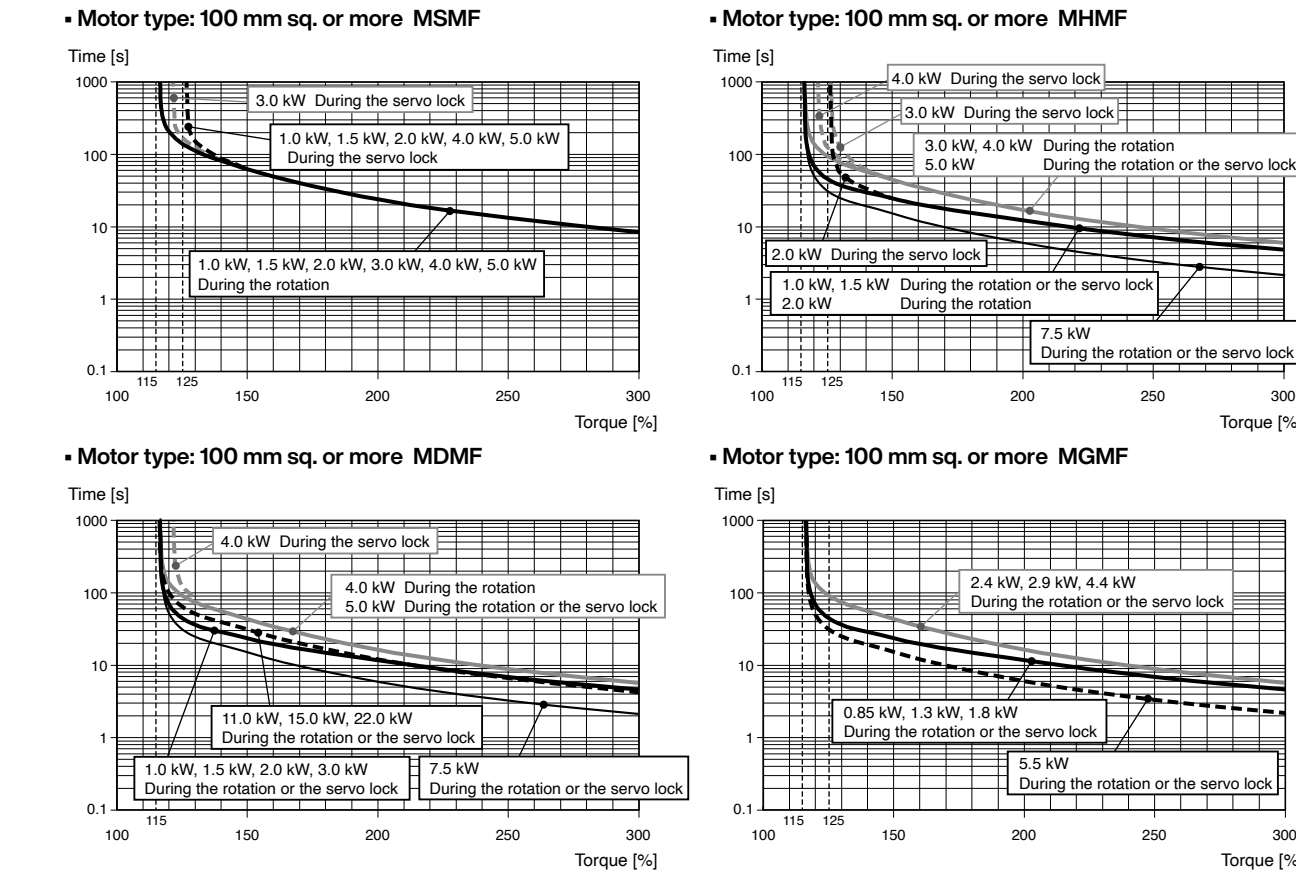
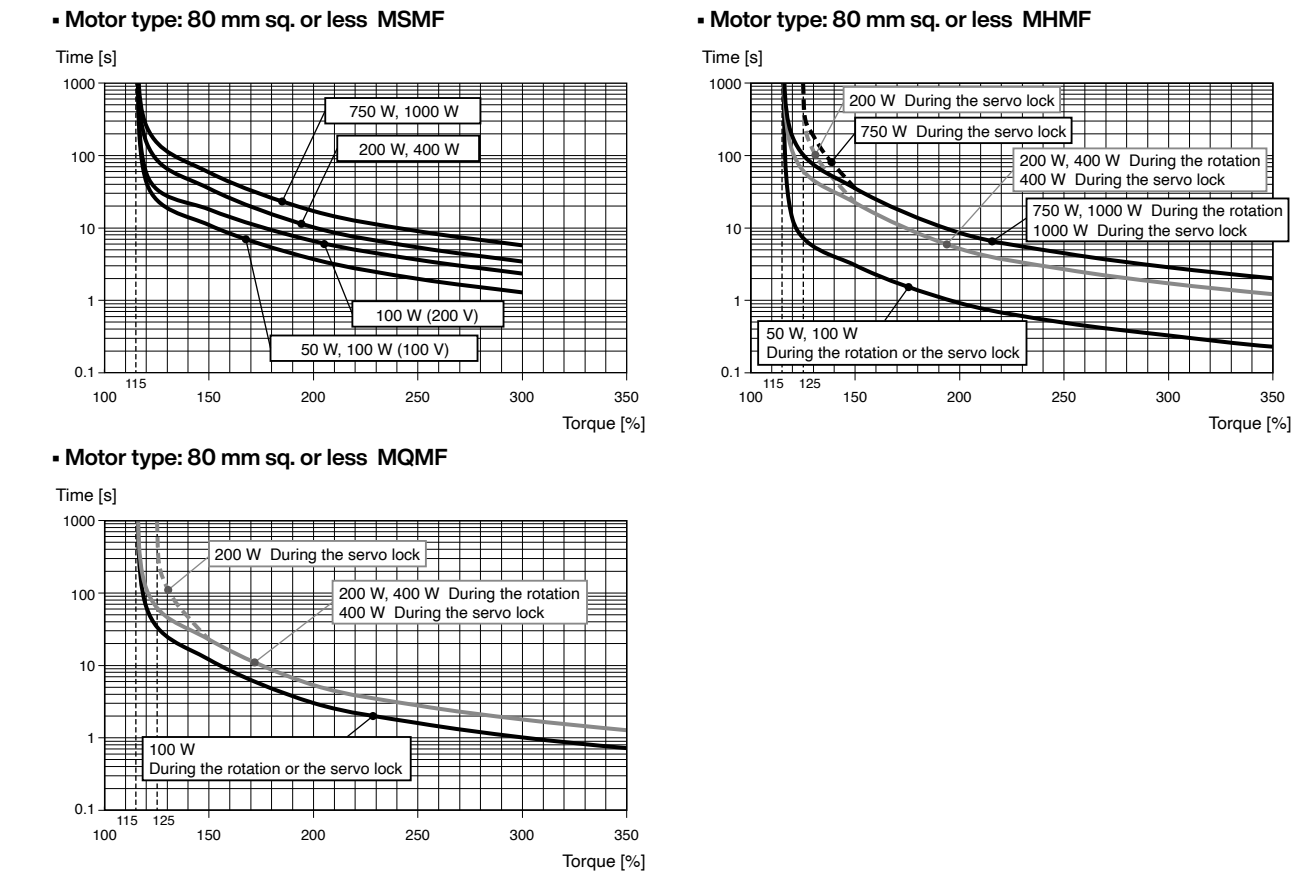
EU EMC Directives/UK EMC Regulation

MINAS Servo System conforms to relevant standard under EU EMC Directives/UK EMC Regulation setting up certain model (condition) with certain locating distance and wiring of the servo motor and the driver. And actual working condition often differs from this model condition especially in wiring and grounding. Therefore, in order for the machine to conform to the EU EMC Directives/UK EMC Regulation, especially for noise emission and noise terminal voltage, it is necessary to examine the machine incorporating our servos.

Conformity to UL Standards

- Observe the following conditions of (1) and (2) to make the system conform to UL508C (E164620).
- (1) Use the driver in an environment of Pollution Degree 2 or 1 prescribed in IEC60664-1.
(e.g. Install in the control box with IP54 enclosure.)
 - (2) Make sure to install a circuit breaker or fuse which are UL recognized (Listed  marked) between the power supply and the noise filter.
For rated current of circuit breaker and fuse, refer to P.27 “Driver and List of Applicable Peripheral Devices”.
Use a copper cable with temperature rating of 75 °C or higher.
- (3) Over-load protection level
Over-load protective function will be activated when the effective current exceeds 115 % or more than the rated current based on the time characteristics (see the graph). Confirm that the effective current of the driver does not exceed the rated current.
Set up the peak permissible current with Pr0.13 (Setup of 1st torque limit) and Pr5.22 (Setup 2nd torque limit).

Overload protection time characteristics



Conformed Standards

		Driver	Motor
EU/UK Standards	EU EMC Directives/ UK EMC Regulation	EN55011 EN61000-6-2 EN61000-6-4 EN61800-3	—
	EU Low Voltage Directives/ UK Low Voltage Regulation	EN61800-5-1	EN60034-1 EN60034-5
	Machinery (Functional safety *1)	ISO13849-1(PL e, Cat.3) EN61508(SIL3) EN62061(SILCL 3) EN61800-5-2(SIL3, STO)	—
UL Standards		UL61800-5-1 (E164620)	UL1004-1, UL1004-6 (E327868)
CSA Standards		C22.2 No.14	C22.2 No.100
Radio Waves Act (South Korea) (KC) *2		KN11 KN61000-4-2,3,4,5,6,8,11	—

IEC : International Electrotechnical Commission
EN : Europäischen Normen
EMC : Electromagnetic Compatibility
UL : Underwriters Laboratories
CSA : Canadian Standards Association

● When export this product, follow statutory provisions of the destination country.

*1 A6SE, A6SG, A6NE, A6BE series doesn't correspond to the functional safety standard.

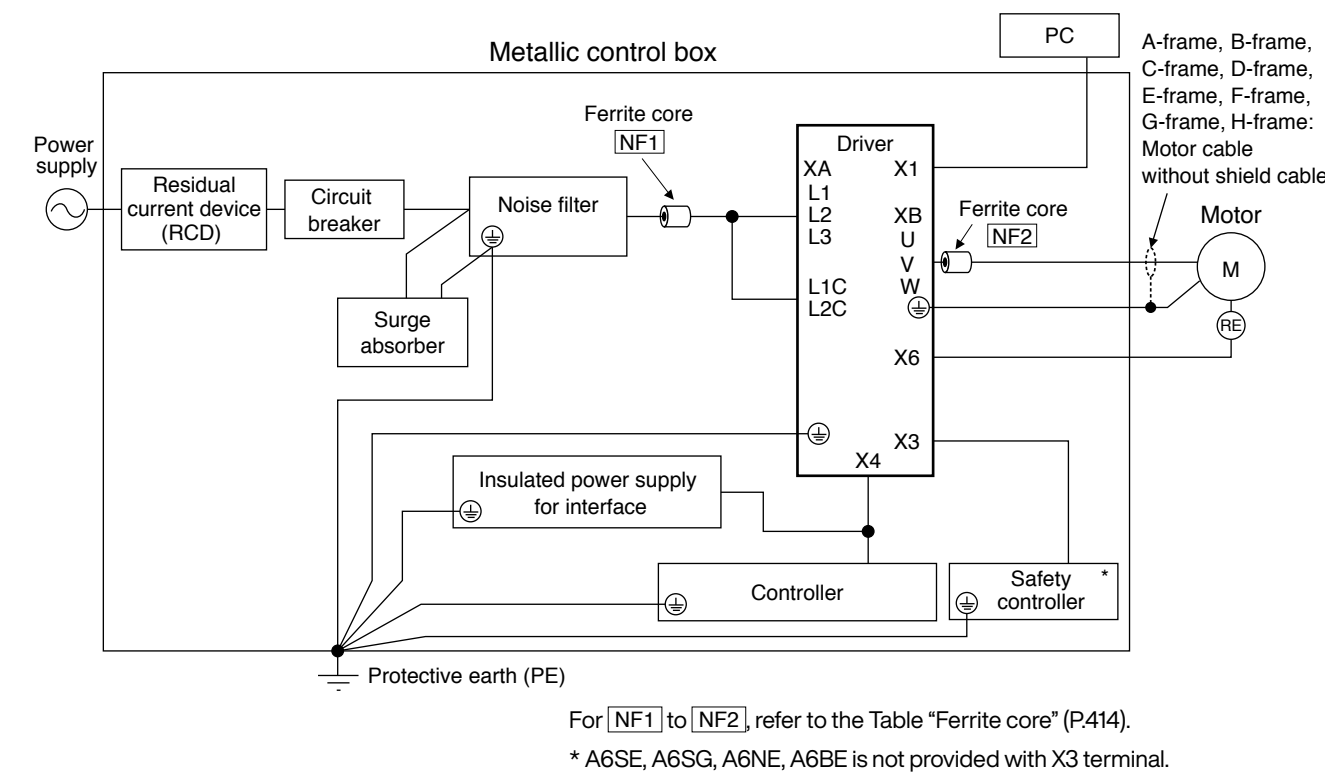
*2 Information related to the Korea Radio Law
This servo driver is a Class A commercial broadcasting radio wave generator not designed for home use. The user and dealer should be aware of this fact.

Pursuant to the directive 2004/108/EC, article 9(2)

A 급 기기 (업무용 방송통신기자재)
이 기기는 업무용(A 급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.
(대상기종 : Servo Driver)

Installation Environment

Use the servo driver in the environment of Pollution Degree 1 or 2 prescribed in IEC-60664-1 (e.g. Install the driver in control panel with IP54 protection structure.)



<Caution>

Use options correctly after reading Operating Instructions of the options to better understand the precautions.

Take care not to apply excessive stress to each optional part.

Power Supply

100 V type (A-frame to C-frame)	Single phase, 100 V	+10 % -15 %	to	120 V	+10 % -15 %	50 Hz/60 Hz
200 V type (A-frame to D-frame)	Single/3-phase, 200 V	+10 % -15 %	to	240 V	+10 % -15 %	50 Hz/60 Hz
200 V type (E-frame to H-frame)	3-phase, 200 V	+10 % -15 %	to	240 V	+10 % -15 %	50 Hz/60 Hz

- (1) This product is designed to be used in over-voltage category (installation category) III of EN 61800-5-1:2007.
- (2) Use an insulated power supply of DC12 V to 24 V which has CE marking or complies with EN60950.

Circuit Breaker

Install a circuit breaker which complies with IEC Standards and UL recognized (Listed and marked) between power supply and noise filter.

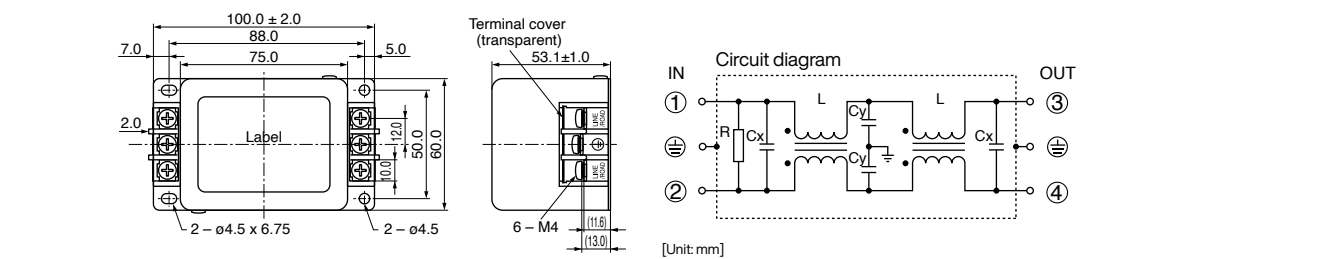
The short-circuit protection circuit on the product is not for protection of branch circuit.

The branch circuit should be protected in accordance with NEC and the applicable local regulations in your area.

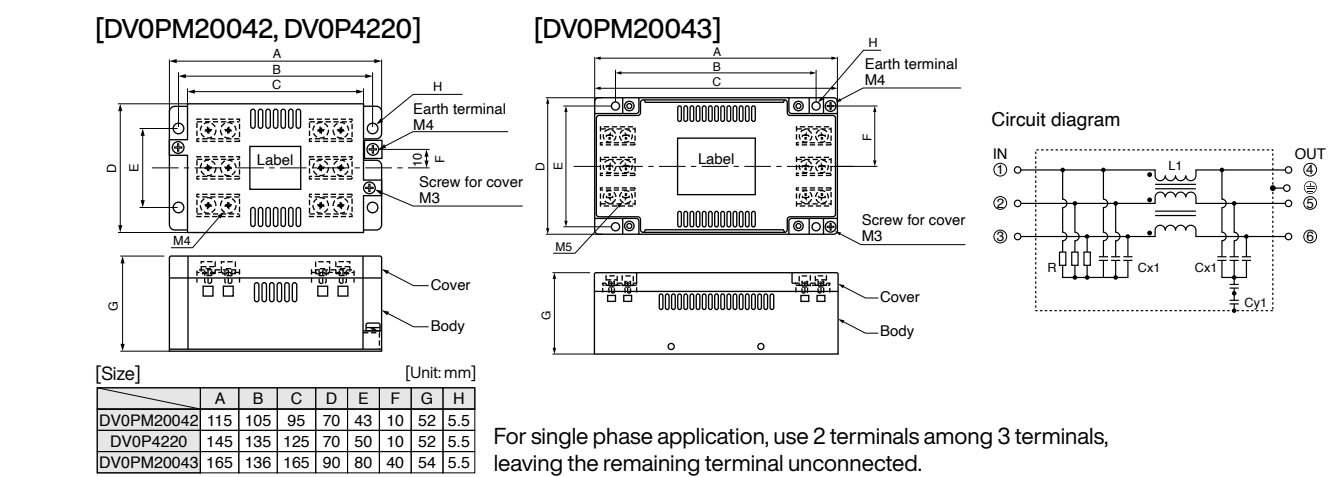
Noise Filter

When you install one noise filter at the power supply for multi-axes application, contact the manufacturer of the noise filter. If noise margin is required, connect 2 filters in series to emphasize effectiveness.

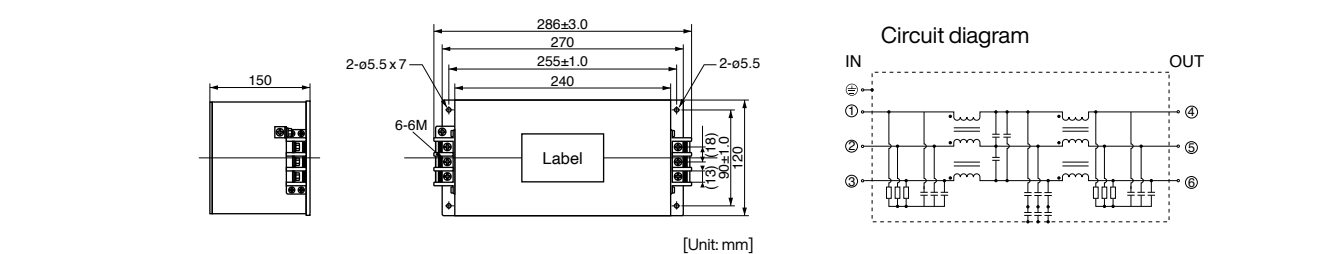
Option part No.	Voltage specifications for driver	Manufacturer's part No.	Applicable driver (frame)	Manufacturer
DV0P4170	Single phase 100 V, 200 V	SUP-EK5-ER-6	A-frame and B-frame	Okaya Electric Ind.



Option part No.	Voltage specifications for driver	Manufacturer's part No.	Applicable driver (frame)	Manufacturer
DV0PM20042	3-phase 200 V	3SUP-HU10-ER-6	A-frame and B-frame	Okaya Electric Ind.
DV0P4220	Single phase 100 V, 200 V		C-frame	
DV0PM20043	3-phase 200 V	3SUP-HU30-ER-6	D-frame	
		3SUP-HU50-ER-6	E-frame	



Option part No.	Voltage specifications for driver	Manufacturer's part No.	Applicable driver (frame)	Manufacturer
DV0P3410	3-phase 200 V	3SUP-HL50-ER-6B	F-frame	Okaya Electric Ind.



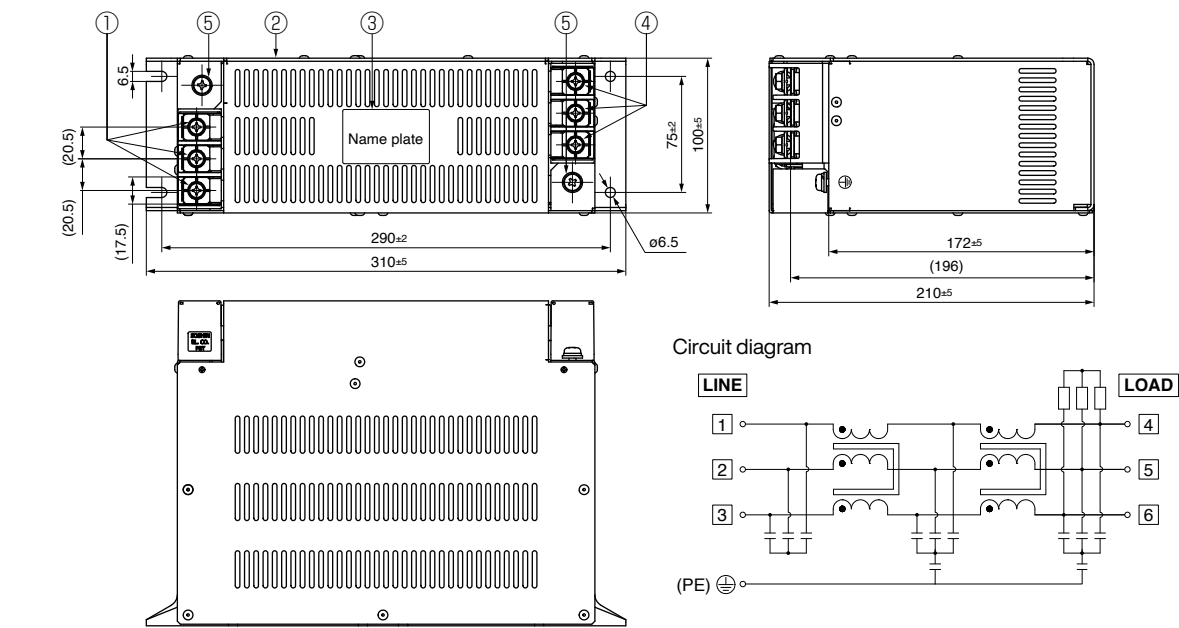
<Remarks>

- Select a noise filter of capacity that exceeds the capacity of the power source (also check for load condition).
- For detailed specification of the filter, contact the manufacturer.

Noise Filter

Recommended components

Part No.	Voltage specifications for driver	Rated current (A)	Applicable driver (frame)	Manufacturer
HF3080C-SZA	3-phase 200 V	80	G	SOSHIN ELECTRIC CO.,LTD.
HF3100C-SZA		100	H	

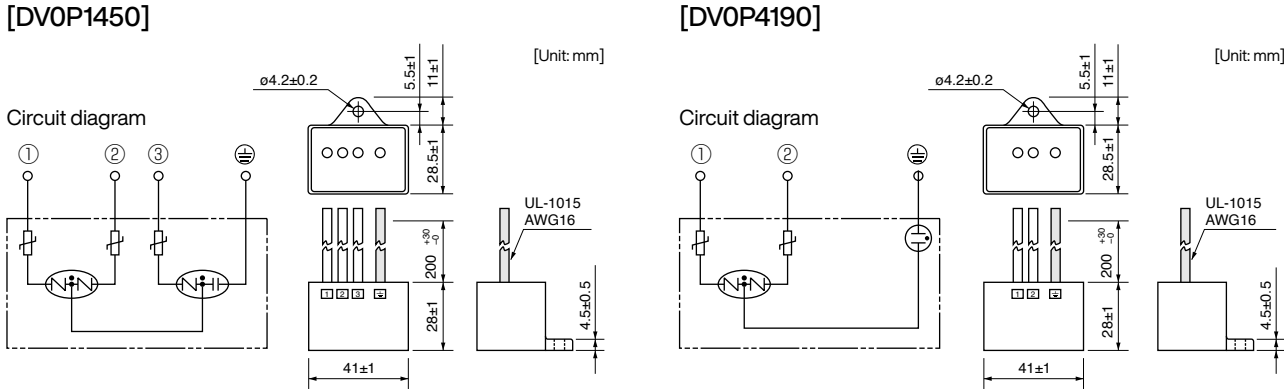


- <Remarks>**
- Select a noise filter of capacity that exceeds the capacity of the power source (also check for load condition).
 - For detailed specification of the filter, contact the manufacturer.
 - When you install one noise filter at the power supply for multi-axes application, contact the manufacturer of the noise filter.

Surge Absorber

Provide a surge absorber for the primary side of noise filter.

Option part No.	Voltage specifications for driver	Manufacturer's part No.	Manufacturer
DV0P1450	3-phase 200 V	R·A·V-781BXZ-4	Okaya Electric Ind.
DV0P4190	Single phase 100 V, 200 V	R·A·V-781BWZ-4	



- <Remarks>**
- Remove this surge absorber when you perform dielectric test on the machine, or surge absorber might be damaged.

Ferrite core

Install ferrite core to power cable and motor cable

Symbol ¹	Cable Name	Applicable driver (frame)	Option part No.	Manufacturer's part No.	Manufacturer	Required number
NF1	Power cable	A, B, E	DV0P1460	ZCAT3035-1330	TDK Corp.	1
		G, H	—	RJ8095	Konno Kogyosho Co.Ltd	3
NF2	Motor cable	A, B, C, D, E	DV0P1460	ZCAT3035-1330	TDK Corp.	1
		F				2
		G, H	—	T400-61D	MICROMETALS	3

- *1 For symbols, refer to the Block Diagram “Installation Environment” (P.411).
- The number of turns is all 1.
 - NF1 is not required for C frame, D frame, F frame.
- <Remarks>**
- To connect the ferrite core to the connector XB connection cable, adjust the sheath length at the tip of the cable, as required.
- <Caution>**
- Fix the ferrite core in order to prevent excessive stress to the cables.

Fig.1: DV0P1460 (Option) 4 pieces

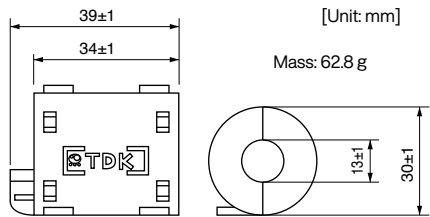


Fig.3: T400-61D (Recommended components) 1 pieces

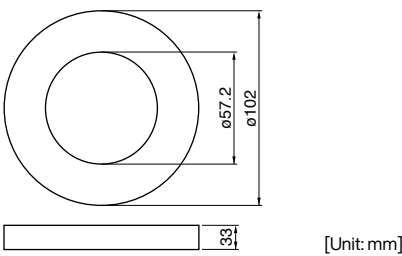
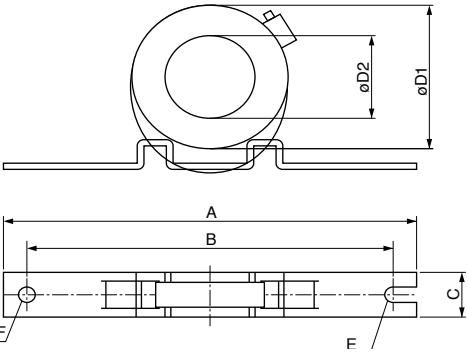


Fig.2: RJ8095 (Recommended components) 1 pieces



Manufacturer's part No.	Current value	100 kHz (μH)	Size [Unit: mm]						
			A	B	C	D1	D2	Core thickness	E
RJ8095	95 A	7.9±3	200	180	34	130	107	35	R3.5

Residual Current Device

- Install a type B Residual current device (RCD) at primary side of the power supply.
- Type B: Residual current device which detects a direct-current ingredient.

Grounding

- (1) Connect the protective earth terminal (⊕) of the driver and the protective earth terminal (PE) of the control box without fail to prevent electrical shocks.
- (2) Do not make a joint connection to the protective earth terminals (⊕). 2 terminals are provided for protective earth.

- <Note>**
- For driver and applicable peripheral devices, refer to P.27 “Driver and List of Applicable Peripheral Devices”.

Table of Part Numbers and Options

200 W to 5.0 kW 3-phase 400 V Series

Motor						Driver					Power capacity (at rated load) (kVA)
Motor series		Power supply	Output	Part No. Note)1	Rating/ Spec. (page)	A6SF series Multifunction type (Pulse, analog,) full-closed		A6NF series Realtime Express Network Multifunction type (full-closed)	A6BF series EtherCAT open network Multifunction type (full-closed)	Frame	
				Special Order Product					Special Order Product		
Low inertia	MSMF type 3000 r/min	3-phase 400 V	1.0 kW	MSMF104○1□△M	7	MDDLT64SF		MDDLT64NF	MDDLT64BF	D-frame	Approx. 2.4
			1.5 kW	MSMF154○1□△M	7						Approx. 2.9
			2.0 kW	MSMF204○1□△M	7	MEDLT84SF		MEDLT84NF	MEDLT84BF	E-frame	Approx. 3.8
			3.0 kW	MSMF304○1□△M	8	MFDLTA4SF		MFDLTA4NF	MFDLTA4BF	F-frame	Approx. 5.2
			4.0 kW	MSMF404○1□△M	8	MFDLTB4SF		MFDLTB4NF	MFDLTB4BF		Approx. 7.8
			5.0 kW	MSMF504○1□△M	8						
Middle inertia	MDMF type 2000 r/min	3-phase 400 V	1.0 kW	MDMF104○1□△M	9	MDDLT54SF		MDDLT54NF	MDDLT54BF	D-frame	Approx. 2.4
			1.5 kW	MDMF154○1□△M	9	MDDLT64SF		MDDLT64NF	MDDLT64BF		Approx. 2.9
			2.0 kW	MDMF204○1□△M	9	MEDLT84SF		MEDLT84NF	MEDLT84BF	E-frame	Approx. 3.8
			3.0 kW	MDMF304○1□△M	10	MFDLTA4SF		MFDLTA4NF	MFDLTA4BF	F-frame	Approx. 5.2
			4.0 kW	MDMF404○1□△M	10	MFDLTB4SF		MFDLTB4NF	MFDLTB4BF		Approx. 7.8
			5.0 kW	MDMF504○1□△M	10						
	MGMF type 1500 r/min	3-phase 400 V	0.85 kW	MGMF094○1□△M	11	MDDLT54SF		MDDLT54NF	MDDLT54BF	D-frame	Approx. 2.4
			1.3 kW	MGMF134○1□△M	11	MDDLT64SF		MDDLT64NF	MDDLT64BF		Approx. 2.9
			1.8 kW	MGMF184○1□△M	11	MEDLT84SF		MEDLT84NF	MEDLT84BF	E-frame	Approx. 3.8
			2.4 kW	MGMF244○1□△M	12	MFDLTA4SF		MFDLTA4NF	MFDLTA4BF	F-frame	Approx. 5.2
			2.9 kW	MGMF294○1□△M	12	MFDLTB4SF		MFDLTB4NF	MFDLTB4BF		Approx. 7.8
			4.4 kW	MGMF444○1□△M	12						
High inertia	MHMF type 2000 r/min	3-phase 400 V	200 W	MHMF024○1□△M	13	MDDLT44SF		MDDLT44NF	MDDLT44BF	D-frame	Approx. 1.8
			400 W	MHMF044○1□△M	13						Approx. 2.4
			750 W	MHMF084○1□△M	13	MDDLT54SF		MDDLT54NF	MDDLT54BF		Approx. 2.9
			1000 W	MHMF094○1□△M	14	MDDLT64SF		MDDLT64NF	MDDLT64BF	D-frame	Approx. 2.4
			1.0 kW	MHMF104○1□△M	14	MDDLT54SF		MDDLT54NF	MDDLT54BF		Approx. 2.9
			1.5 kW	MHMF154○1□△M	14	MDDLT64SF		MDDLT64NF	MDDLT64BF		E-frame
			2.0 kW	MHMF204○1□△M	15	MEDLT84SF		MEDLT84NF	MEDLT84BF	F-frame	Approx. 5.2
			3.0 kW	MHMF304○1□△M	15	MFDLTA4SF		MFDLTA4NF	MFDLTA4BF		Approx. 7.8
			4.0 kW	MHMF404○1□△M	15	MFDLTB4SF		MFDLTB4NF	MFDLTB4BF		
			5.0 kW	MHMF504○1□△M	16						

Note)1 ○□△ : Represents the motor specifications. (refer to “Model designation” P.4.)
● Please refer to the A6BF series specifications homepage.