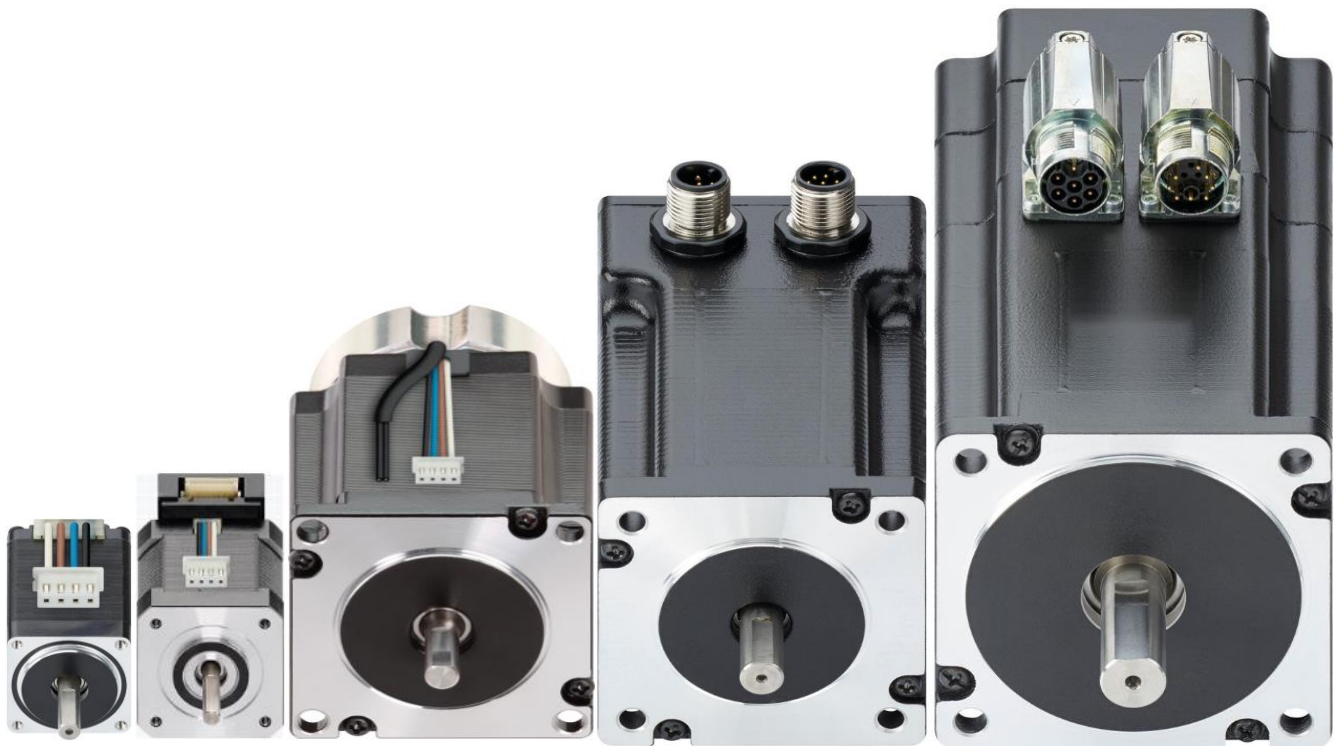


stepper motor



- 2-phase hybrid stepper motor (bipolar)
- high protection class
- with plug or stranded wires
- optional with encoder / brake

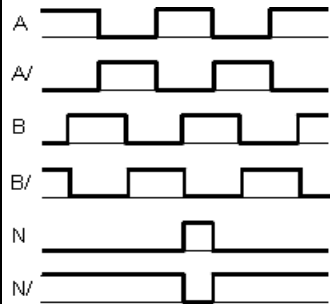
part number (not configurable, only for illustration)

MOT	AN	S	060	020	056	M	A	AAAA	
									specifics
									AAAA standard
									AAAB Double shaft
									AAAC incremental encoder
									AAAD incremental encoder & brake
									AAAO short size
									AAAS incremental encoder & IP65
									options
									A without
									B brake
									C encoder
									D encoder and brake
									motor connection
									M metric plug
									L stranded wire
									flange dimension
									020 20mm (NEMA8)
									028 28mm (NEMA11)
									035 35mm (NEMA14)
									042 42mm (NEMA17)
									056 56mm (NEMA23)
									060 60mm (NEMA24)
									086 86mm (NEMA34)
									holding torque
									001 0,1Nm
									002 0,2Nm
									005 0,5Nm
									010 1,0Nm
									017 1,7Nm
									020 2,0Nm
									035 3,5Nm
									036 3,6Nm
									059 5,9Nm
									112 12Nm
									max voltage
									060 60VDC
									motor type
									S stepper motor
									type
									AN version
									product group
									MOT motor

stepper motor MOT-AN-S-...-AAAA/B/C/D/S

technical data						
flange dimension		20(NEMA8)	28(NEMA11)	35(NEMA14)	42(NEMA17)	56(NEMA23)
motor						
max voltage	[VDC]	60	60	60	60	60
nominal voltage	[VDC]	24-48	24-48	24-48	24-48	24-48
intermittent operation	[A] at 25°C	0,6	1,0	1,2	1,8	4,2
continuous operation	[A] at 25°C	0,4	0,6	0,7	1,1	3,15
holding torque	[Nm]	0,026	0,12	0,2	0,5	2,0
detent torque	[Nm]	0,002	0,004	0,010	0,022	0,068
step angle	[°]	1,8 ±5%	1,8 ±5%	1,8 ±5%	1,8 ±5%	1,8 ±5%
resistance / phase	[Ω]	5,8 ±10%	2,30 ±10%	2,5 ±10%	1,75 ±10%	0,50 ±10%
inductance / phase	[mH]	2 ±20%	1,80 ±20%	3 ±20%	3,30 ±20%	2,20 ±20%
dielectric strength	[VAC]	500	500	500	500	500
moment of inertia / rotor	[kgcm ²]	0,0032	0,018	0,022	0,082	0,48
max. shaft load axial	[N]	4	7	7	7	15
max. shaft load radial	[N]	10	20	20	20	52

technical data						
flange dimension		60(NEMA24)	86(NEMA34)	86(NEMA34)		
motor						
max voltage	[VDC]	60	60	60		
nominal voltage	[VDC]	24-48	24-48	24-48		
intermittent operation	[A] at 25°C	4,2	6,4	7,0		
continuous operation	[A] at 25°C	3,15	4,8	5,25		
holding torque	[Nm]	3,5	5,9	12,0		
detent torque	[Nm]	0,075	0,210	0,360		
step angle	[°]	1,8 ±5%	1,8 ±5%	1,8 ±5%		
resistance / phase	[Ω]	0,65 ±10%	0,33 ±10%	0,45 ±10%		
inductance / phase	[mH]	3,20 ±20%	3,00 ±20%	5,2 ±20%		
dielectric strength	[VAC]	500	500	500		
moment of inertia / rotor	[kgcm ²]	0,84	2,70	4,00		
max. shaft load axial	[N]	15	65	60		
max. shaft load radial	[N]	63	200	220		

encoder (incremental)		
operating voltage	[VDC]	5
impulse / turn		500
zero impulse / index		yes
line-driver		RS422 protocol
signal sequence (motor rotation clockwise)	CW	 <p>The diagram shows six digital signals over time. A and B are square waves in phase. A' and B' are square waves inverted relative to A and B. N is a single pulse. N' is a square wave that is high during the pulse of N.</p>

brake		20(NEMA8)	28(NEMA11)	35(NEMA14)	42(NEMA17)	56(NEMA23)
operating voltage	[VDC]	-	-	24 ±10%	24 ±10%	24 ±10%
wattage	[W]	-	-	6	8	10
holding torque (metric connector)	[Nm]	-	-	-	0,4	1,0
holding torque (stranded wire)	[Nm]	-	-	0,3	0,5	1,0
backlash (stranded wire)	[°]	-	-	1,5	1,5	1,5
A brake-grinding-process is necessary for the initial start-up or if the brake was inactive for a long time.		Let the motor run at 200 rpm with the brake open, then apply the brake five times for 0.5 s.				
moment of inertia	[kgcm ²]	-	-	0,02	0,01	0,02
operating condition		The brake may closed not till then the motor idleness.				

brake		60(NEMA24)	86(NEMA34)	86(NEMA34)		
operating voltage	[VDC]	24 ±10%	24 ±10%	24 ±10%	-	-
wattage	[W]	10	11	12	-	-
holding torque (metric connector)	[Nm]	1,0	2,0	-	-	-
holding torque (stranded wire)	[Nm]	1,0	2,0	4,0	-	-
backlash (stranded wire)	[°]	1,5	1,5	1,5	-	-
A brake-grinding-process is necessary for the initial start-up or if the brake was inactive for a long time.		Let the motor run at 200 rpm with the brake open, then apply the brake five times for 0.5 s.				
moment of inertia	[kgcm ²]	0,02	0,07	0,07	-	-
operating condition		The brake may closed not till then the motor idleness.				

weight		20(NEMA8)	28(NEMA11)	35(NEMA14)	42(NEMA17)	56(NEMA23)
stranded wires (JST)	[kg]	0,082	0,20	0,20	0,38	1,04
plug (M12)	[kg]	-	0,22	-	0,43	1,12
encoder (JST)	[kg]	0,092	0,27	0,28	0,40	1,05
encoder (M12)	[kg]	-	-	-	0,45	1,14
stranded wires (JST) and brake	[kg]	-	-	0,38	0,50	1,30
encoder and brake	[kg]	-	-	-	0,58	1,36

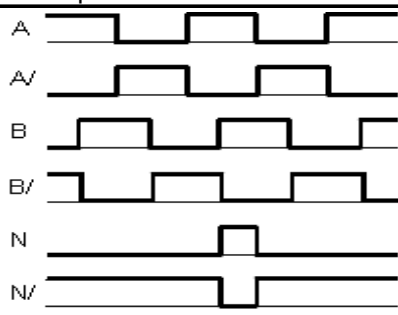
weight		60(NEMA24)	86(NEMA34)	86(NEMA34)		
stranded wires (JST)	[kg]	1,45	2,90	5,00		
plug (M12)	[kg]	1,56	3,20	-		
encoder (JST)	[kg]	1,35	2,95	5,05		
encoder (M12)	[kg]	1,58	3,30	-		
stranded wires (JST) and brake	[kg]	1,70	3,30	5,50		
encoder and brake	[kg]	1,82	3,60	-		

operating data		
ambient temperature	[°C]	-10 ...+50
max temperature rise	[°C]	80
insulation class	[°C]	B 130
humidity (not condensing)	[%]	85
protection class engine case		IP65 shaft sealing, IP65 (shaft seal IP52), stranded wires IP40
CE		EMC guideline

stepper motor MOT-AN-S-...-AAAO

technical data						
flange dimension		28(NEMA11)	35(NEMA14)	42(NEMA17)	56(NEMA23)	60(NEMA24)
motor						
max voltage	[VDC]	60	60	60	60	60
nominal voltage	[VDC]	24-48	24-48	24-48	24-48	24-48
intermittent operation	[A] at 25°C	0,7	1,2	1,4	2,8	4,3
continuous operation	[A] at 25°C	0,42	0,72	0,84	2,1	3,23
holding torque	[Nm]	0,061	0,1	0,2	1,0	1,7
detent torque	[Nm]	0,003	0,008	0,012	0,03	0,05
step angle	[°]	1,8 ±5%	1,8 ±5%	1,8 ±5%	1,8 ±5%	1,8 ±5%
resistance / phase	[Ω]	5,6 ±10%	1,7 ±10%	1,7 ±10%	0,7 ±10%	0,45 ±10%
inductance / phase	[mH]	4,0 ±20%	1,6 ±20%	2,0 ±20%	2,0 ±20%	1,4 ±20%
dielectric strength	[VAC]	500	500	500	500	500
moment of inertia / rotor	[kgcm ²]	0,009	0,011	0,038	0,230	0,350
max. shaft load axial	[N]	15	15	25	40	40
max. shaft load radial	[N]	30	30	30	70	70

technical data						
flange dimension		86(NEMA34)				
motor						
max voltage	[VDC]	60				
nominal voltage	[VDC]	24-48				
intermittent operation	[A] at 25°C	6,4				
continuous operation	[A] at 25°C	4,8				
holding torque	[Nm]	3,6				
detent torque	[Nm]	0,15				
step angle	[°]	1,8 ±5%				
resistance / phase	[Ω]	0,3 ±10%				
inductance / phase	[mH]	1,9 ±20%				
dielectric strength	[VAC]	500				
moment of inertia / rotor	[kgcm ²]	0,850				
max. shaft load axial	[N]	65				
max. shaft load radial	[N]	220				

encoder (incremental)		
operating voltage	[VDC]	5
impulse / turn		500
zero impulse / index		yes
line-driver		RS422 protocol
signal sequence (motor rotation clockwise)	CW	 <p>The diagram shows six digital signals over time. A and B are square waves in phase. A' and B' are square waves inverted relative to A and B. N is a single pulse. N' is a single negative pulse.</p>

stepper motor MOT-AN-S-...-AAAO

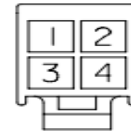
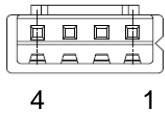


weight		28(NEMA11)	35(NEMA14)	42(NEMA17)	56(NEMA23)	60(NEMA24)
stranded wires (JST)	[kg]	0,11	0,12	0,17	0,61	0,75
stranded wires (JST) and encoder	[kg]	0,125	0,20	0,18	0,63	0,80

weight		86(NEMA34)				
stranded wires (JST)	[kg]	1,80	-	-	-	-
stranded wires (JST) and encoder	[kg]	1,85	-	-	-	-

operating data		
ambient temperature	[°C]	-10 ... +50
max temperature rise	[°C]	80
insulation class	[°C]	B 130
humidity (not condensing)	[%]	85
protection class engine case		IP65 shaft sealing, IP65 (shaft seal IP52), stranded wires IP40
CE		EMC guideline

pin assignment wire motor flange dimension 20,28,35,42,56,60(NEMA8,11,14,17,23,24) **pin assignment wire motor** flange dimension 86(NEMA34)



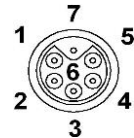
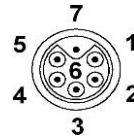
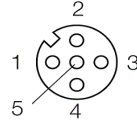
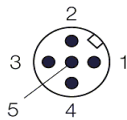
motor bipolar			motor wires
JST XHP-4			wires*/ cable
pin	signal	coil	color
1	A	1	white
2	A/		brown
3	B	2	blue
4	B/		black

* wire length 250mm

Motor bipolar			motor wires
Molex 469920410			wires*
pin	signal	coil	color
1	A	1	1
2	A/		2
3	B	2	3
4	B/		4

* wire length 300mm

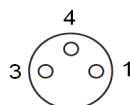
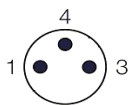
pin assignment M12 motor flange dimension 28,42,56,60(NEMA11,17,23,24) **pin assignment M17 motor (swivels ± 90°)** flange dimension 86(NEMA34)



motor bipolar			motor cable
M12 5-pole			M12 5-pole
pin	signal	coil	color
1	A/	1	brown
2	A		white
3	B	2	blue
4	B/		black
5	PE		green/yellow
housing	shielding		-

motor bipolar			motor cable
M17 7-pole			M17 7-pole
pin	signal	coil	number
1	A/	1	1
2	A		2
3	B	2	3
4	B/		4
5	brake 24V		5
6	brake 0V		6
7	PE		green/yellow
housing	shielding		shielding

pin assignmen brake flange dimension 42,56,60(NEMA17,23,24) **pin assignmen wire brake (swivels ± 90°)** flange dimension 35,42,56,60,86(NEMA14,17,23,24,34)

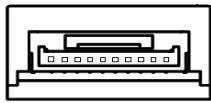


brake		brake cable
M8 3-pole		M8 3-pole
pin	signal	color
1	brake (24V)	brown
3	0V	blue
4	-	black

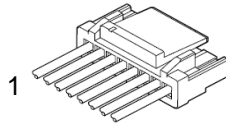
brake		
wire 2-pole Molex 46992-0410		
pin	signal	color
1	brake	black
2	brake	black

* 24V (Polarity does not have to be taken into account)

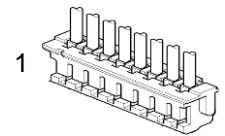
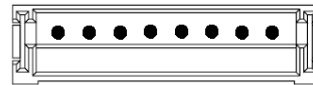
pin assignment wire encoder flange dimension 20,28(NEMA8,11)	pin assignment wire encoder flange dimension 35,42,56,60,86(NEMA14,17,23,24,34)
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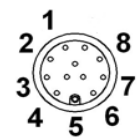
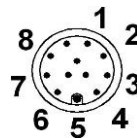
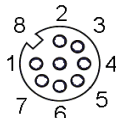
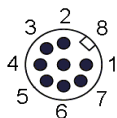


1

encoder connector		encoder cable	
JST / SM10B-GHS-TB		JST / GHR-10V-S	
pin	signal	color	
1	shielding	shielding	
2	A	white	
3	A/	brown	
4	B/	green	
5	B	yellow	
6	N/	grey	
7	N	pink	
8	0V	blue	
9	5V DC	red	
10	shielding	shielding	

encoder connector		encoder cable	
JST / B8B-ZR-SM4-TF		JST / ZHR-8	
pin	signal	color	
1	0V	blue	
2	5V DC	red	
3	A	white	
4	A/	brown	
5	B/	green	
6	B	yellow	
7	N/	grey	
8	N	pink	

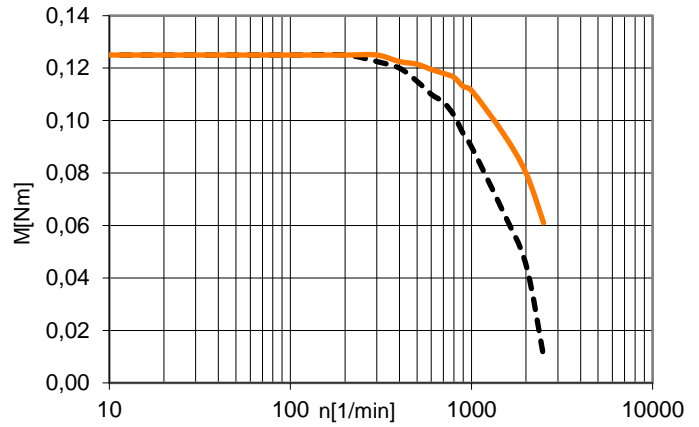
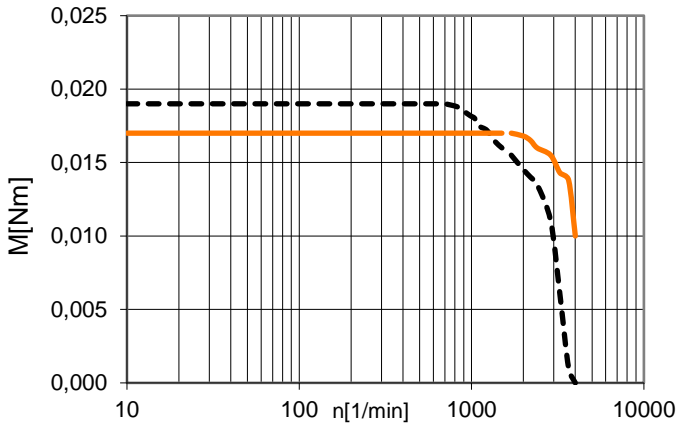
pin assignment M12 encoder flange dimension 42,56,60(NEMA17,23,24)	pin assignment M17 encoder (swivels ± 90°) flange dimension 86(NEMA34)
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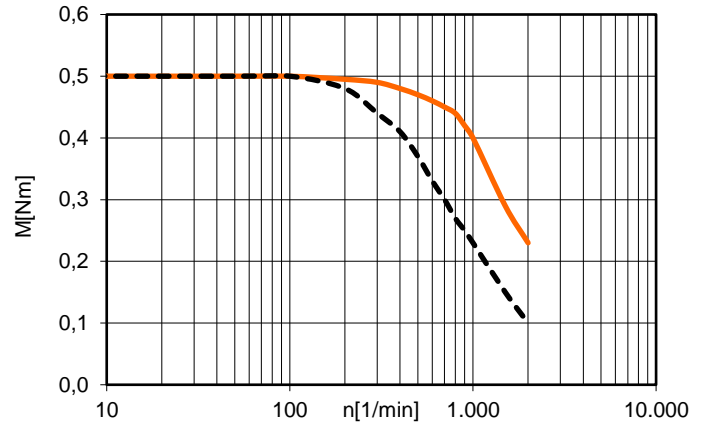
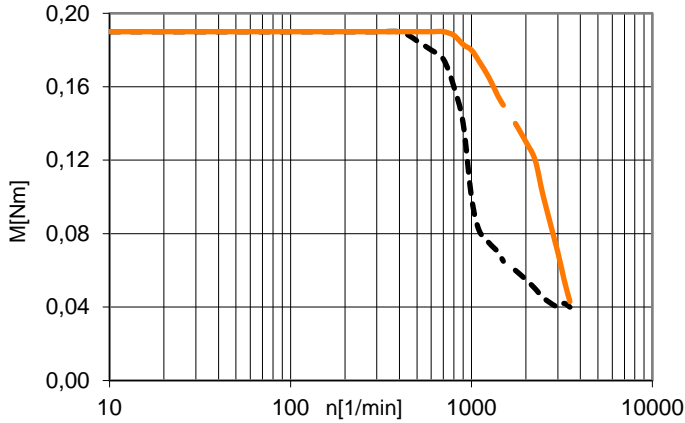
encoder		encoder cable	
M12 8-pole		M12 8-pole	
pin	signal	color	
1	A	white	
2	A/	brown	
3	B	green	
4	B/	yellow	
5	0V	grey	
6	N/	pink	
7	N	blue	
8	5V DC	red	
housing	shielding	shielding	

encoder		encoder cable	
M17 12-pole		M17 12-pole	
pin	signal	color	
1	A	brown	
2	A/	green	
3	B	blue	
4	B/	violet	
5	0V	white 0,5 ²	
6	N/	grey	
7	N	pink	
8	5V DC	brown 0,5 ²	
9	-	-	
10	-	-	
11	-	-	
12	-	-	
housing	shielding	shielding	

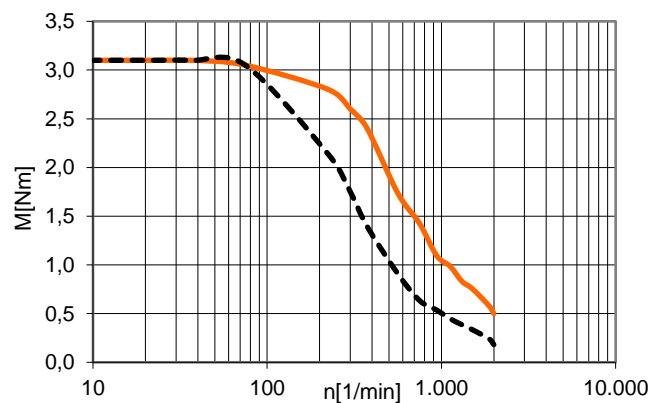
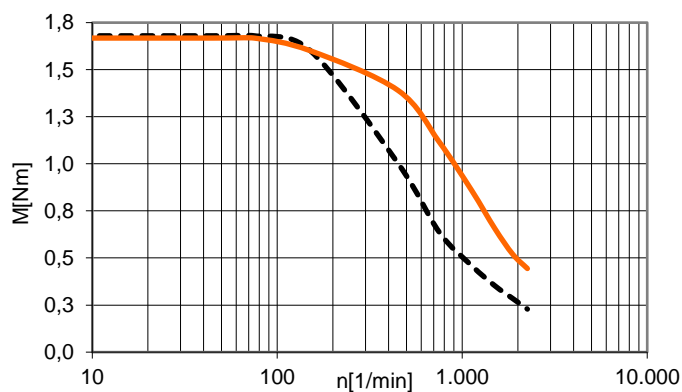
characteristic
flange dimension 20 (NEMA8) MOT-AN-S-060-001-020-...
flange dimension 28 (NEMA11) MOT-AN-S-060-001-028-...



flange dimension 35 (NEMA14) MOT-AN-S-060-002-035-...
flange dimension 42 (NEMA17) MOT-AN-S-060-005-042-...

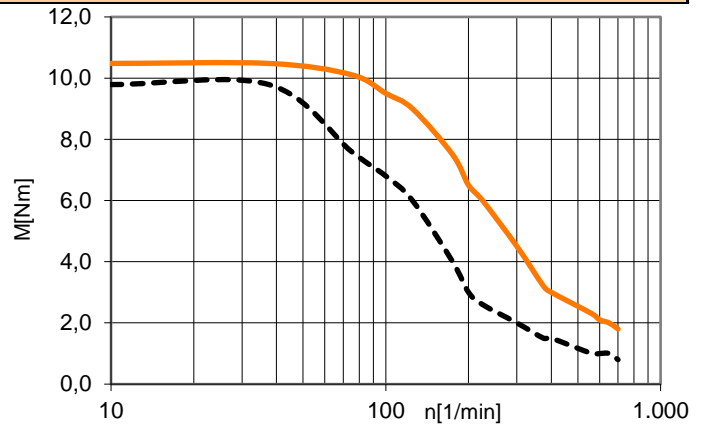
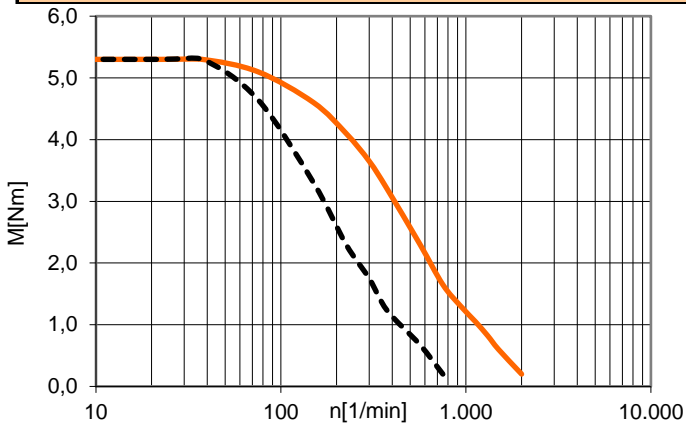


flange dimension 56 (NEMA23) MOT-AN-S-060-020-056-...
flange dimension 60 (NEMA24) MOT-AN-S-060-035-060-...



----- 24VDC ——— 48 VDC characteristic based on quarter step mode

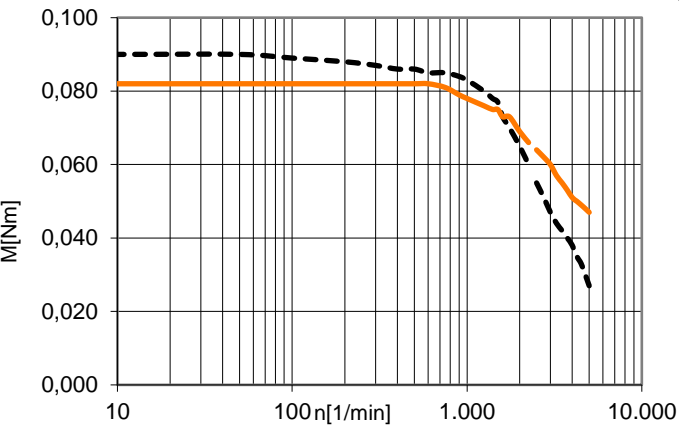
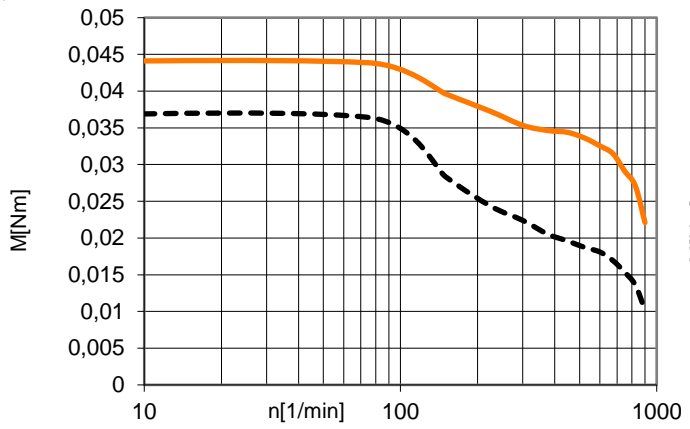
characteristic flange dimension 86 (NEMA34) MOT-AN-S-060-059-086-...	flange dimension 86 (NEMA34) MOT-AN-S-060-112-086-...
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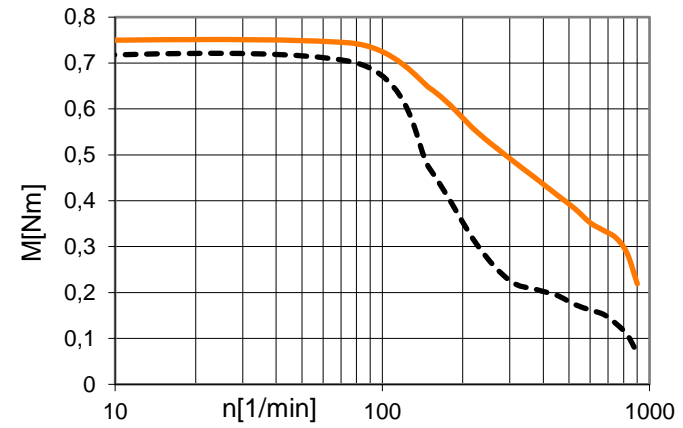
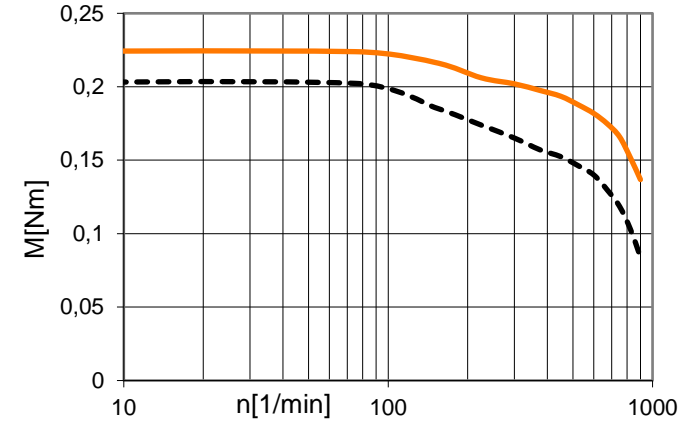
- - - - - 24VDC	— 48 VDC	characteristic based on quarter step mode
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stepper motor MOT-AN-S-...-AAAO

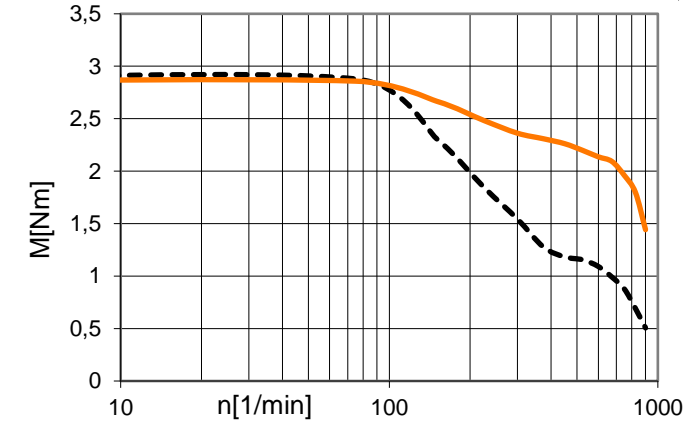
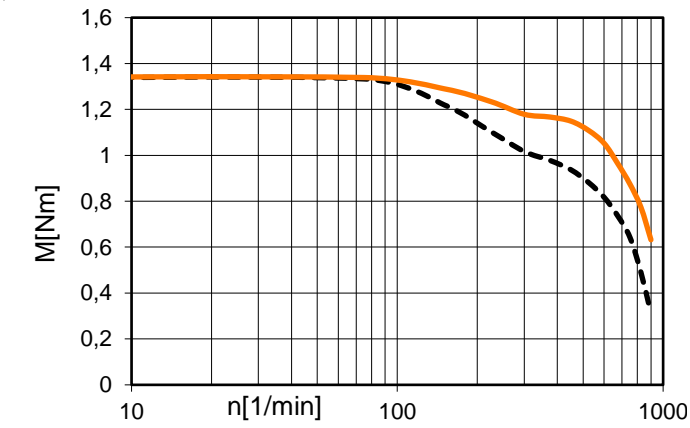
characteristic
flange dimension 28 (NEMA11) MOT-AN-S-060-001-028-...
flange dimension 35 (NEMA14) MOT-AN-S-060-001-035-...



flange dimension 42 (NEMA17) MOT-AN-S-060-002-042-...
flange dimension 56 (NEMA23) MOT-AN-S-060-010-056-...

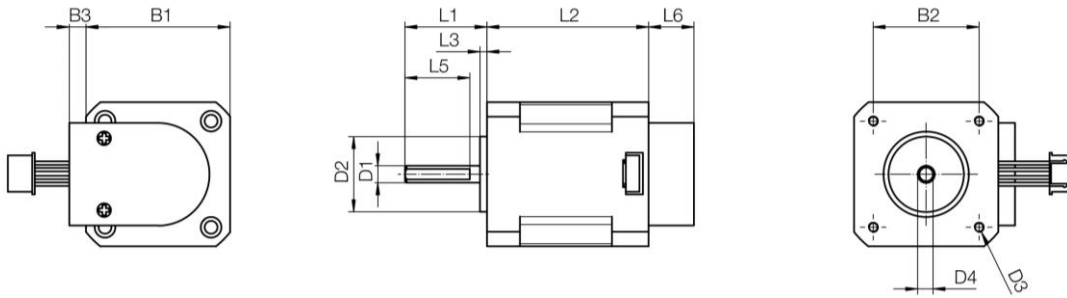


flange dimension 60 (NEMA24) MOT-AN-S-060-016-060-...
flange dimension 86 (NEMA34) MOT-AN-S-060-036-086-...



----- 24VDC ——— 48 VDC characteristic based on quarter step mode

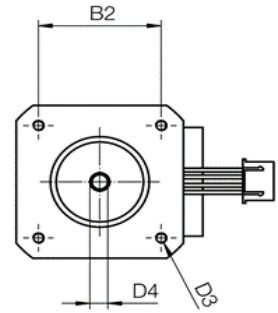
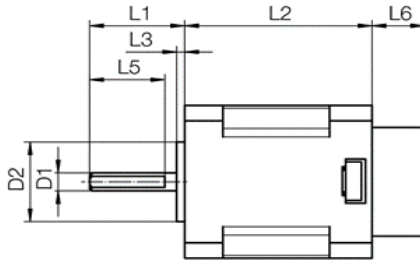
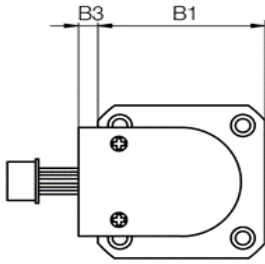
dimensions



Typ	B1 [mm] ±1	B2 [mm] ±1	B3 [mm] ±1	D1 [mm] -0,015	D2 [mm] ±0,05	D3 [mm] +0,5	D4 [mm] ±0,15	L1 [mm] ±1	L2 [mm] ±1	L3 [mm]	L4 [mm]	L5 [mm] ±1	L6 [mm] ±1
MOT-AN-S-060-001-020-L-A-AAAA	20,0	15,40	-	4,00	16,00	M2	3,5	20,0	40	1,6	-	15,0	-
MOT-AN-S-060-001-020-L-C-AAAC	20,0	15,40	-	4,00	16,00	M2	3,5	20,0	40	1,6	-	15,0	-
MOT-AN-S-060-001-028-L-A-AAAA	28,0	23,00	-	5,00	22,00	M2,5-3,5	4,5	20,0	50,5	2,0	-	15,0	-
MOT-AN-S-060-001-028-L-A-AAAO	28,0	23,00	-	5,00	22,00	M2,5-3,5	4,5	20,0	31,5	2,0	-	15,0	-
MOT-AN-S-060-001-028-L-C-AAAC	28,0	23,00	-	5,00	22,00	M2,5-3,5	4,5	20,0	50,5	2,0	-	15,0	10,0
MOT-AN-S-060-001-028-L-C-AAAO	28,0	23,00	-	5,00	22,00	M2,5-3,5	4,5	20,0	31,5	2,0	-	15,0	10,0
MOT-AN-S-060-001-028-M-A-AAAA	28,0	23,00	13	5,00	22,00	M2,5-3,5	4,5	20,0	70,3	2,0	-	15,0	-
MOT-AN-S-060-001-035-L-A-AAAO	35,0	26,00	-	5,00	22,00	M3	4,5	24,0	28	1,6	-	19,0	-
MOT-AN-S-060-001-035-L-C-AAAO	35,0	26,00	-	5,00	22,00	M3	4,5	24,0	28	1,6	-	19,0	15,7
MOT-AN-S-060-002-035-L-A-AAAA	35,0	26,00	-	5,00	22,00	M3	4,5	24,0	42	1,6	-	19,0	-
MOT-AN-S-060-002-035-L-B-AAAA	35,0	26,00	-	5,00	22,00	M3	4,5	24,0	42	1,6	-	19,0	29,2
MOT-AN-S-060-002-035-L-C-AAAC	35,0	26,00	-	5,00	22,00	M3	4,5	24,0	42	1,6	-	19,0	15,7
MOT-AN-S-060-002-042-L-A-AAAO	42,3	31,00	-	5,00	22,00	M3-4,5	4,5	24,0	30,5	2,0	-	19,0	-
MOT-AN-S-060-005-042-L-A-AAAA	42,3	31,00	-	5,00	22,00	M3-4,5	4,5	24,0	48	2,0	-	19,0	-
MOT-AN-S-060-005-042-L-A-AAAB	42,3	31,00	-	5,00	22,00	M3-4,5	4,5	24,0	48	2,0	-	19,0	15,0
MOT-AN-S-060-005-042-L-B-AAAA	42,3	31,00	-	5,00	22,00	M3-4,5	4,5	24,0	48	2,0	-	19,0	29,7
MOT-AN-S-060-002-042-L-C-AAAO	42,3	31,00	-	5,00	22,00	M3-4,5	4,5	24,0	30,5	2,0	-	19,0	15,7
MOT-AN-S-060-005-042-L-C-AAAC	42,3	31,00	-	5,00	22,00	M3-4,5	4,5	24,0	49	2,0	-	19,0	15,7
MOT-AN-S-060-005-042-M-A-AAAA	42,3	31,00	13	5,00	22,00	M3-4,5	4,5	24,0	70,4	2,0	-	19,0	-
MOT-AN-S-060-005-042-M-C-AAAC	42,3	31,00	13	5,00	22,00	M3-4,5	4,5	24,0	70,4	2,0	-	19,0	-
MOT-AN-S-060-005-042-M-C-AAAS	42,3	31,00	13	5,00	22,00	M3-4,5	4,5	24,0	72,7	2,0	-	19,0	-
MOT-AN-S-060-005-042-M-D-AAAD	42,3	31,00	13	5,00	22,00	M3-4,5	4,5	24,0	106,4	2,0	-	19,0	-
MOT-AN-S-060-010-056-L-A-AAAO	56,4	47,14	-	6,35	38,10	5,0	5,8	20,6	50	1,6	5	16,0	-
MOT-AN-S-060-010-056-L-C-AAAO	56,4	47,14	-	6,35	38,10	5,0	5,8	20,6	50	1,6	5	16,0	15,7
MOT-AN-S-060-016-060-L-A-AAAO	60,0	47,14	-	8,00	38,10	4,5	7,5	20,6	56	1,6	6	16,0	-
MOT-AN-S-060-016-060-L-C-AAAO	60,0	47,14	-	8,00	38,10	4,5	7,5	20,6	56	1,6	6	16,0	15,7
MOT-AN-S-060-020-056-L-A-AAAA	56,4	47,14	-	6,35	38,10	5,0	5,8	20,6	76	1,6	5	16,0	-
MOT-AN-S-060-020-056-L-A-AAAB	56,4	47,14	-	6,35	38,10	5,0	5,8	20,6	76	1,6	5	16,0	15,0
MOT-AN-S-060-020-056-L-B-AAAA	56,4	47,14	-	6,35	38,10	5,0	5,8	20,6	76	1,6	5	16,0	28,5
MOT-AN-S-060-020-056-L-C-AAAC	56,4	47,14	-	6,35	38,10	5,0	5,8	20,6	76	1,6	5	16,0	15,7
MOT-AN-S-060-020-056-M-A-AAAA	56,4	47,14	13	6,35	38,10	5,0	5,8	20,6	98	1,6	5	16,0	-
MOT-AN-S-060-020-056-M-C-AAAC	56,4	47,14	13	6,35	38,10	5,0	5,8	20,6	98	1,6	5	16,0	-
MOT-AN-S-060-020-056-M-C-AAAS	56,4	47,14	13	6,35	38,10	5,0	5,8	20,6	99	1,6	6	16,0	-
MOT-AN-S-060-020-056-M-D-AAAD	56,4	47,14	13	6,35	38,10	5,0	5,8	20,6	138	1,6	5	16,0	-
MOT-AN-S-060-035-060-L-A-AAAA	60,0	47,14	9	8,00	38,10	4,5	7,5	20,6	88	1,6	7	16,0	-
MOT-AN-S-060-035-060-L-A-AAAB	60,0	47,14	9	8,00	38,10	4,5	7,5	20,6	88	1,6	7	16,0	15,0
MOT-AN-S-060-035-060-L-B-AAAA	60,0	47,14	9	8,00	38,10	4,5	7,5	20,6	90	1,6	7	16,0	28,2
MOT-AN-S-060-035-060-L-C-AAAC	60,0	47,14	9	8,00	38,10	4,5	7,5	20,6	88	1,6	7	16,0	15,7
MOT-AN-S-060-035-060-M-A-AAAA	60,0	47,14	13	8,00	38,10	4,5	7,5	20,6	112	1,6	7	16,0	-
MOT-AN-S-060-035-060-M-C-AAAC	60,0	47,14	13	8,00	38,10	4,5	7,5	20,6	112	1,6	7	16,0	-
MOT-AN-S-060-035-060-M-C-AAAS	60,0	47,14	13	8,00	38,10	4,5	7,5	20,6	112	1,6	7	16,0	-
MOT-AN-S-060-035-060-M-D-AAAD	60,0	47,14	13	8,00	38,10	4,5	7,5	20,6	152	1,6	7	16,0	-

stepper motor MOT-AN-S . . .

dimensions



Typ	B1 [mm] ±1	B2 [mm] ±1	B3 [mm] ±1	D1 Ø [mm] -0,015	D2 Ø [mm] ±0,05	D3 Ø [mm]	D4 [mm] ±0,15	L1 [mm] ±1	L2 [mm] ±1	L3 [mm]	L4 [mm]	L5 [mm] ±1	L6 [mm] ±1
MOT-AN-S-060-036-086-L-A-AAAO	85,8	69,50	-	14,00	73,02	6,6	13,0	37,0	66	2,0	10	32,0	-
MOT-AN-S-060-036-086-L-C-AAAO	85,8	69,50	-	14,00	73,02	6,6	13,0	37,0	66	2,0	10	32,0	15,7
MOT-AN-S-060-059-086-L-A-AAAA	85,8	69,50	-	14,00	73,02	6,6	13,0	37,0	98	2,0	10	32,0	-
MOT-AN-S-060-059-086-L-A-AAAB	85,8	69,50	-	14,00	73,02	6,6	13,0	37,0	98	2,0	10	32,0	20,0
MOT-AN-S-060-059-086-L-B-AAAA	85,8	69,50	-	14,00	73,02	6,6	13,0	37,0	98	2,0	10	32,0	32,0
MOT-AN-S-060-059-086-L-C-AAAC	85,8	69,50	-	14,00	73,02	6,6	13,0	37,0	98	2,0	10	32,0	15,7
MOT-AN-S-060-059-086-M-A-AAAA	85,8	69,50	37	14,00	73,02	6,6	13,0	37,0	118	2,0	8	32,0	-
MOT-AN-S-060-059-086-M-C-AAAC	85,8	69,50	37	14,00	73,02	6,6	13,0	37,0	118	2,0	8	32,0	-
MOT-AN-S-060-059-086-M-D-AAAD	85,8	69,50	37	14,00	73,02	6,6	13,0	37,0	188	2,0	8	32,0	-
MOT-AN-S-060-112-086-L-A-AAAA	85,8	69,60	-	14,00	73,00	6,5	13,0	37,0	150	1,6	10	32,0	-
MOT-AN-S-060-112-086-L-B-AAAA	85,8	69,60	-	14,00	73,00	6,5	13,0	37,0	150	1,6	10	32,0	32,0
MOT-AN-S-060-112-086-L-C-AAAC	85,8	69,60	-	14,00	73,00	6,5	13,0	37,0	150	1,6	10	32,0	15,7

Connection cable motors with metric connector				
part number	outer jacket	type	cable length	plug
flange dimension 28(NEMA11), 42(NEMA17), 56(NEMA23), 60(NEMA24)				
motor cable Ø: 5,5 mm / bending radius moved < 10m travel distance: min. 5 x d				
DLE904121451-3	TPE	CF9.03.05.INI	3	straight
DLE904121451-5	TPE	CF9.03.05.INI	5	straight
DLE904121451-10	TPE	CF9.03.05.INI	10	straight
DLE904121452-3	TPE	CF9.03.05.INI	3	angulate
DLE904121452-5	TPE	CF9.03.05.INI	5	angulate
DLE904121452-10	TPE	CF9.03.05.INI	10	angulate
flange dimension 86(NEMA34)				
motor + brake cable Ø: 10,5 mm / bending radius moved < 10m travel distance: min. 6,8 x d				
DLE904121457-3	PUR	CF78.UL.07.07	3	straight
DLE904121457-5	PUR	CF78.UL.07.07	5	straight
DLE904121457-10	PUR	CF78.UL.07.07	10	straight
flange dimension 28(NEMA11), 42(NEMA17), 56(NEMA23), 60(NEMA24)				
Encoder cable Ø: 7 mm / bending radius moved < 10m travel distance: min. 10 x d				
DLE904121455-3	PVC	CF240.02.08	3	straight
DLE904121455-5	PVC	CF240.02.08	5	straight
DLE904121455-10	PVC	CF240.02.08	10	straight
DLE904121456-3	PVC	CF240.02.08	3	angulate
DLE904121456-5	PVC	CF240.02.08	5	angulate
DLE904121456-10	PVC	CF240.02.08	10	angulate
flange dimension 86(NEMA34)				
Encoder cable Ø: 8 mm / bending radius moved < 10m travel distance: min. 10 x d				
DLE904121458-3	PVC	CF211.009	3	straight
DLE904121458-5	PVC	CF211.009	5	straight
DLE904121458-10	PVC	CF211.009	10	straight
flange dimension 42(NEMA17), 56(NEMA23), 60(NEMA24)				
brake cable Ø: 4,5 mm / bending radius moved < 10m travel distance: min. 5 x d				
DLE904121453-3	TPE	CF9.02.03.INI	3	straight
DLE904121453-5	TPE	CF9.02.03.INI	5	straight
DLE904121453-10	TPE	CF9.02.03.INI	10	straight
DLE904121454-3	TPE	CF9.02.03.INI	3	angulate
DLE904121454-5	TPE	CF9.02.03.INI	5	angulate
DLE904121454-10	TPE	CF9.02.03.INI	10	angulate

Connection cables motors with stranded wires				
part number	outer jacket	type	cable length	plug
flange dimension 20(NEMA8), 28(NEMA11), 35(NEMA14), 42(NEMA17), 56(NEMA23), 60(NEMA24)				
motor cable Ø: 5,5 mm / bending radius moved < 10m travel distance: min. 5 x d				
DLE904121461-3	TPE	CF9.03.05.INI	3	straight
DLE904121461-5	TPE	CF9.03.05.INI	5	straight
DLE904121461-10	TPE	CF9.03.05.INI	10	straight
flange dimension 86(NEMA34)				
motor cable Ø: 7 mm / bending radius moved < 10m travel distance: min. 5 x d				
DLE904161278-3	TPE	CF880.07.05	3	straight
DLE904161278-5	TPE	CF880.07.05	5	straight
DLE904161278-10	TPE	CF880.07.05	10	straight
flange dimension 20(NEMA8), 28(NEMA11)				
encoder cable Ø: 7,5 mm / bending radius moved < 10m travel distance: min. 6,8 x d				
DLE904121459-3	TPE	CF11.01.04.02	3	straight
DLE904121459-5	TPE	CF11.01.04.02	5	straight
DLE904121459-10	TPE	CF11.01.04.04	10	straight
flange dimension 35(NEMA14), 42(NEMA17), 56(NEMA23), 60(NEMA24), 86(NEMA34)				
encoder cable Ø: 7,5 mm / bending radius moved < 10m travel distance: min. 6,8 x d				
DLE904121460-3	TPE	CF11.01.04.02	3	straight
DLE904121460-5	TPE	CF11.01.04.02	5	straight
DLE904121460-10	TPE	CF11.01.04.02	10	straight
flange dimension 35(NEMA14), 42(NEMA17), 56(NEMA23), 60(NEMA24), 86(NEMA34)				
brake cable Ø: 4,5 mm / bending radius moved < 10m travel distance: min. 5 x d				
DLE904172361-3	TPE	CF9.02.02	3	straight
DLE904172361-5	TPE	CF9.02.02	5	straight
DLE904172361-10	TPE	CF9.02.02	10	straight

component part

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motor flange



spacer



coupling



initiator / initiator bracket

