

stepper motor



- IP00 vacuum



- IP65 splash water



- IP68 under-water

stepper motor MOT- . . .



part number

MOT - XX - S - 060 - 007 - 056 - M - A - AAAA

specifics	
AAAK	IP65 splash water
AAAI	IP68 under-water
AAAJ	IP00 vacuum

options	
A	without

motor connection	
M	metric plug
L	stranded wire
K	terminal box

flange dimension	
056	56mm (NEMA23)

holding torque	
007	0,7Nm
013	1,3Nm
017	1,7Nm

max voltage	
060	60V/DC

motor type	
S	stepper motor

type	
XX	version

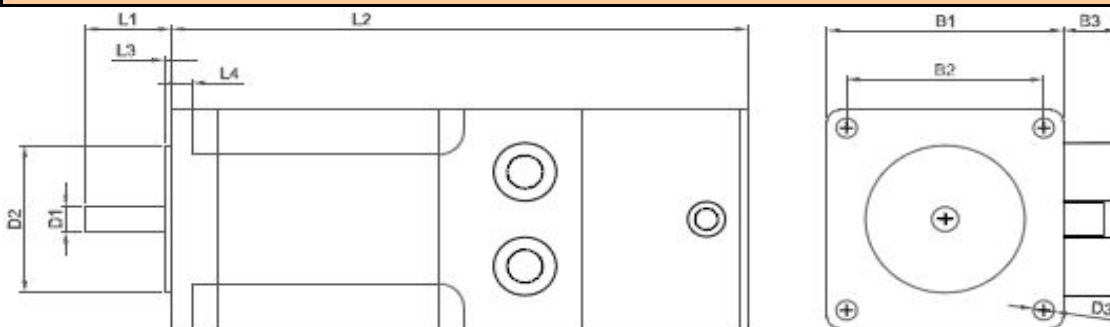
product group	
MOT	motor

technical data					
motor		MOT-AD-S-060-017-056-M-A-AAAK IP65 splash water	MOT-AP-S-060-013-056-K-A-AAAI IP68 under-water	MOT-AP-S-060-007-056-L-A-AAAJ IP00 vacuum	
max voltage	[VDC]	60	60	60	
nominal voltage	[VDC]	24-48	24-48	24-48	
nominal current	[A]	3,00	4,2	2,5	
holding torque	[Nm]	1,7	1,3	0,7	
detent torque	[Nm]	0,055	0,025	0,050	
step angle	°	1,8	1,8	1,8	
resistance / phase	[Ω]	0,9	0,8	0,8	
inductance / phase	[mH]	4,4	1,5	2,4	
moment of inertia / rotor	[kgcm ²]	0,36	0,38	0,24	
max. shaft load axial	[N]	15	80	40	
max. shaft load radial	[N]	23	150	80	

weight					
product weight	[kg]	1,2	1,40	1,00	

operating data					
ambient temperature	[°C]	-10 ...+50	-10 ...+50	-10 ...+50	
max temperature rise	[°C]	80	80	110	
humidity (not condensing)	[%]	100	100	0	
protection class engine case		IP65	IP68	IP00	

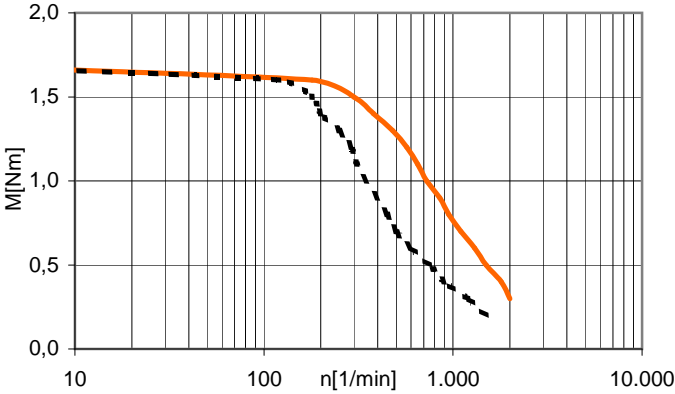
dimension



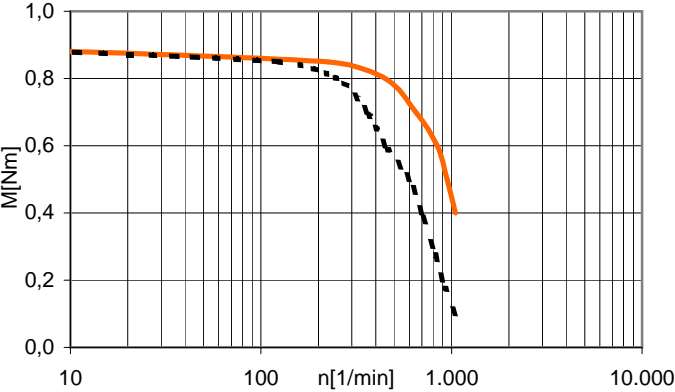
Typ	B1 [mm]	B2 [mm]	B3 [mm]	D1 Ø [mm]	D2 Ø [mm]	D3 Ø [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]
MOT-AD-S-060-017-056-M-A-AAAK	56,4	47,14 ±0,2	13 ±0,1	6,35 -0,013	38,1 ±0,025	5,0	20,6 ±1	106,0 ±1	1,6	5
MOT-AP-S-060-013-056-K-A-AAAI	56,4	47,14	21	6,35	38,1	5,4	17,0	134,0	1,6	5
MOT-AP-S-060-007-056-L-A-AAAJ	56,4	47,14	/	6,35	38,1	5,0	20,6	74,0	1,6	5

stepper motor MOT- . . .

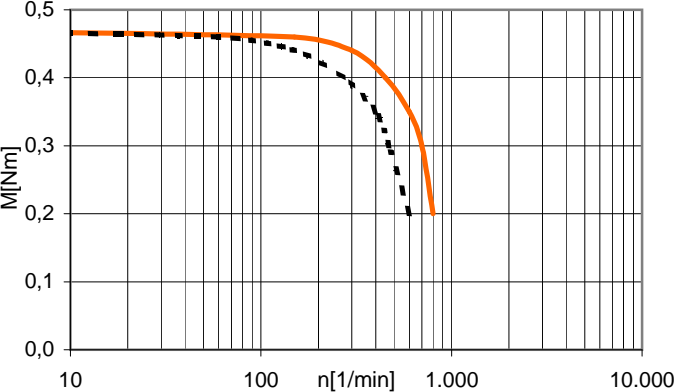
characteristic
flange dimension 56 (NEMA23)
 MOT-AD-S-060-017-056-M-A-AAAK (IP65 splash water)



MOT-AP-S-060-013-056-K-A-AAAI (IP68 under-water)



MOT-AP-S-060-007-056-L-A-AAAJ (IP00 vacuum)



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

MOT-AP-S-060-013-056-K-A-AAAI (IP68 under-water)

+	= resistant
0	= conditionally resistant
-	= not resistant

chemical resistance

substance	residence time	
	1h	24h
formic acid (10%)	+	+
acetic acid (10%)	+	+
lactic acid (10%)	+	+
phosphoric acid (25%)	+	+
sulphur acid (25%)	+	+
hydrochloric acid (10%)	+	+
caustic soda (50%)	+	+
ammoniac (10%)	+	+
salinde solution (10%)	+	+

solvent-, fuel- and detergent resistance

substance	residence time	
	1h	24h
ethanol	+	0
methylated spirit	+	0
isopropanol	+	+
ethyl acetate	0	0
butyl acetate	+	0
acetone	0	0
methylisobutylketone	+	0
white spirit	+	+
xylene	+	0
unleaded petrol	+	+
diesel oil	+	+
gear oil	+	+
hydraulic oil	+	+
brake fluid	+	+
cooling liquid (4%ig)	+	+
Sidolin (konz.)	+	+
Meister Proper (konz.)	+	+
Microzid Liquid (konz.)	+	+
Pril (1%ig)	+	+
chlorine blech Domestos	+	+