

**TECHNICAL DATA**

series

**SM158**

**STEP MOTOR 35S48B07  
with 158 gearbox**



- High Torque
- Low noise
- Small size

**TECHNICAL DATA**

Motor Step Angle	7,5°	full step	Nominal voltage	12V
Number of Phases	2	bipolar	Driver voltage range	3,75 - 36V
Insulation resistance	100 MΩ	500Vdc	Max axial/radial shaft load	10N/50N
Insulation class	E		Max allowed torque	100 Ncm
Coil Resistance/Induction	7,5Ω/10mH		Max current (continuous)	250 mA
Max temp. (motor housing)	60 °C		Max current (intermittent)	500 mA
Rec. temp (motor housing)	35-45 °C		Operating temperature	-20 °C/+65 °C
			Approx. weight	160g

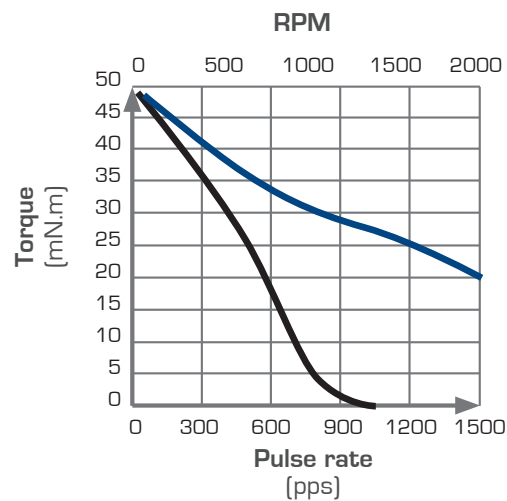
PART NUMBER	Ratio (x:1)	Length mm	Holding Torque mNm	Max Speed (ref.) RPM
SM158.35S.15	14,14	43,3	700	105
SM158.35S.30	29,75	43,3	1500	50
SM158.35S.75	76,84	45,8	1500	20
SM158.35S.100	94,37	45,8	1500	16
SM158.35S.200	198,5	48,3	1500	7
SM158.35S.250	243,8	48,3	1500	6
SM158.35S.510	512,85	51,3	1500	3
SM158.35S.630	629,82	51,3	1500	2

**SM158**

**Motor Dynamic Torque Curves 24V/0,5A**

Conditions: Bi-polar Constant Current Driver  
Driver: AMIS 30522  
Mode: Full Step

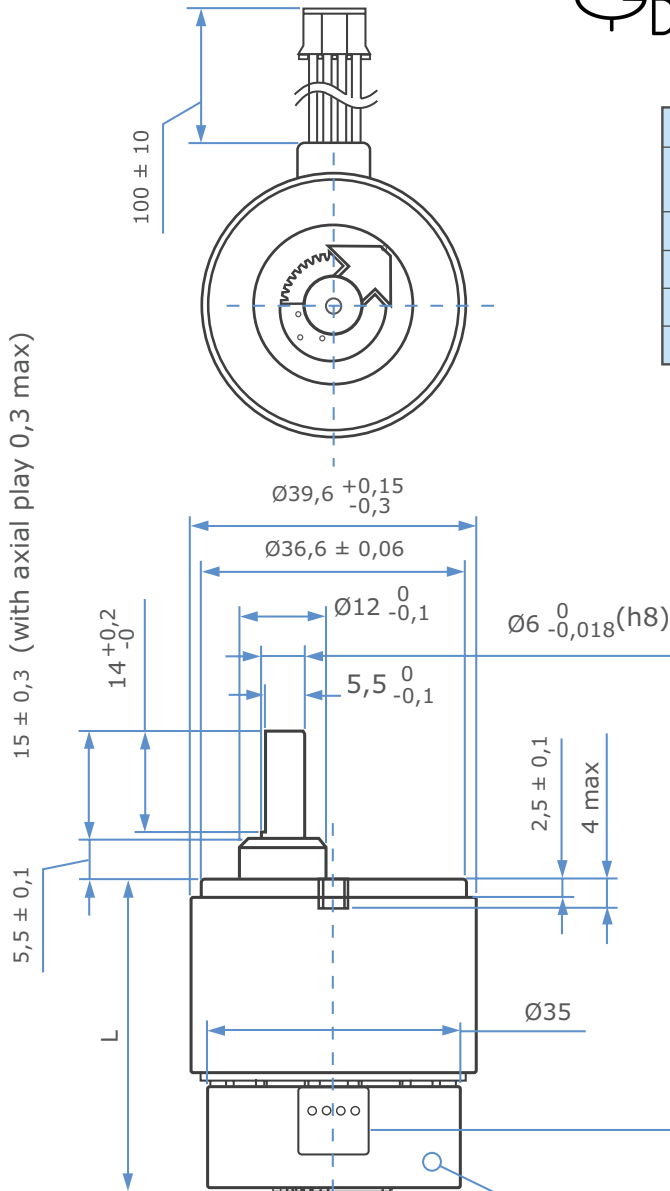
— Pull in torque — Pull out torque



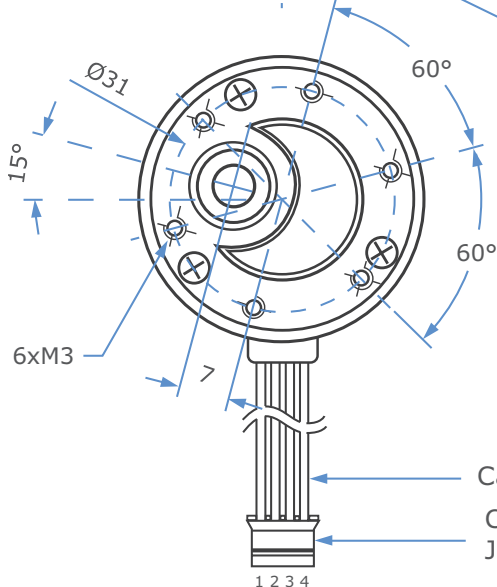
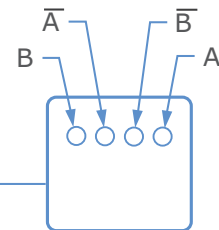
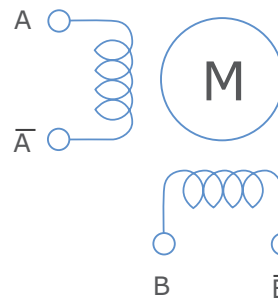
# SM158

## Mechanical dimensions

**GAP DRIVES** <sup>®</sup> ...from concept to integration



SEQUENCE EXCITATION						
PIN	COLOUR	CCW ← → CW (FROM OUTPUT SHAFT SIDE)				PHASE
			+	+		
1	YELLOW		+	+		A
2	ORANGE	+			+	$\bar{A}$
3	BROWN	+	+			$\bar{B}$
4	BLACK			+	+	B



Ratio		L (mm)
15:1	(14,14:1)	43,3
30:1	(29,75:1)	43,3
75:1	(76,85:1)	45,8
100:1	(94,37:1)	45,8
200:1	(198,52:1)	48,3
250:1	(243,80:1)	48,3
510:1	(512,85:1)	51,3
630:1	(629,82:1)	51,3

Cable AWG26 UL1061

Connector housing  
JST PHR-4 (white)