

MB057DT series

PMDC Servo Motor with Tacho



- High performance motors with exceptional efficiency
- Rated torque from 0.2Nm to 0.4Nm
- High overload capability, peak torque up to 2.8Nm
- Compact size through optimized torque to inertia ratio
- Developed for high dynamic applications
- Best price performance ratio by cost improved design
- Various options to meet your specific needs

Descriptions

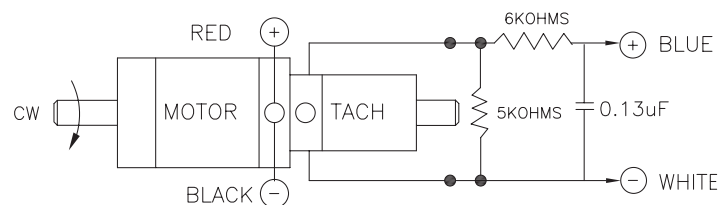
This series Servo motors with tacho are designed to satisfy the demands of a broad range of industrial and professional applications, where highly precise speed and/or positioning performance are required.

Standard Specification

- Insulation Class F
- Flange mounting IMB5 according to IEC34-7
- Vibration class N (DIN 45665)
- Ambient temperature 0-40°C
- Manufactured according to EN60034-1:1995-02
- Double color Flying leads
- Protection class IP23
- Ball bearings with lifetime lubrication
- Black coating

Special Options

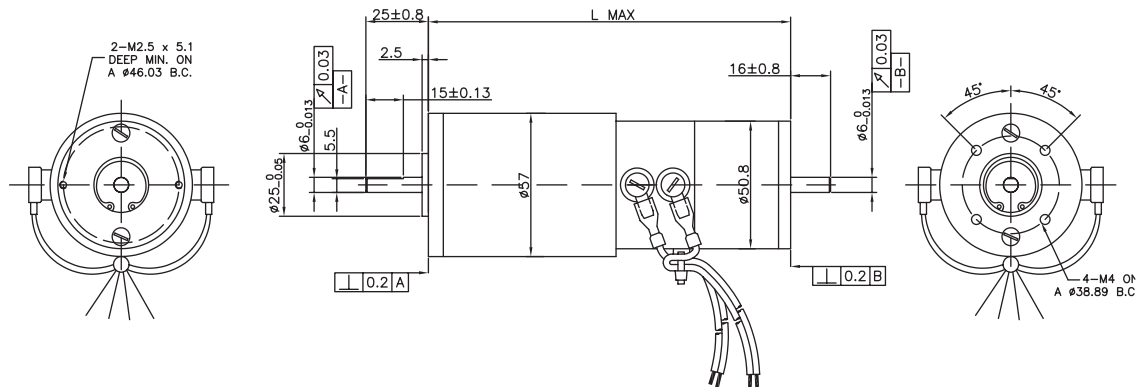
- Encoder
- Various Connectors
- Gearboxes
- Custom Shaft Extensions



Tacho Filter Circuit

MB057DT series

Mechanical



Performance Data

SPECIFICATION ITEMS		MB057DT110	MB057DT210	MB057DT310
CONTINUOUS STALL TORQUE	Nm	0.21	0.35	0.40
PEAK STALL TORQUE	Nm	1.69	2.48	2.82
CONTINUOUS STALL CURRENT	A	4.2	3.7	3.7
MAXIMUM PULSE CURRENT	A	18.7	14.2	11.9
MAXIMUM TERMINAL VOLTAGE	V	60	60	60
MAXIMUM SPEED	rpm	6000	4700	4000
MECHANICAL DATA				
ROTOR MOMENT OF INERTIA	Kg m ²	3.88*10 ⁻⁵	5.5*10 ⁻⁵	6.8*10 ⁻⁵
MECHANICAL TIME CONSTANT	ms	10.2	10	8
MOTOR MASS	Kg	1.3	1.7	1.9
MAX LENGTH	mm	145	168	184
THERMAL DATA				
THERMAL RESISTANCE (ARMATURE TO AMBIENT)	°C/W	5	4.2	4
MAXIMUM ARMATURE TEM.	°C	155	155	155
WINDING SPECIFICATIONS				
TORQUE CONSTANT(KT)	Nm/A	0.056	0.105	0.12
VOLTAGE CONSTANT(BACK EMF)	V/K rpm	5.8	11	12.7
ARMATURE RESISTANCE	OHMS	0.8	1.6	1.8
TERMINAL RESISTANCE	OHMS	1.15	2	2.2
ARMATURE INDUCTANCE	mH	1.4	5.2	6.4
ELECTRICAL TIME CONSTANT	ms	2.95	2.6	2.9
TACHOMETER DATA				
LINEARITY(maximum deviation)	%		0.2	
RIPPLE(max. peak to peak)	%		5.0	
RIPPLE FREQUENCY	cycle/revolution		11.0	
TEMPERATURE COEFFICIENT	%/°C		-0.05	
OUTPUT VOLTAGE GRADIENT	V/K rpm		14+/-10%	