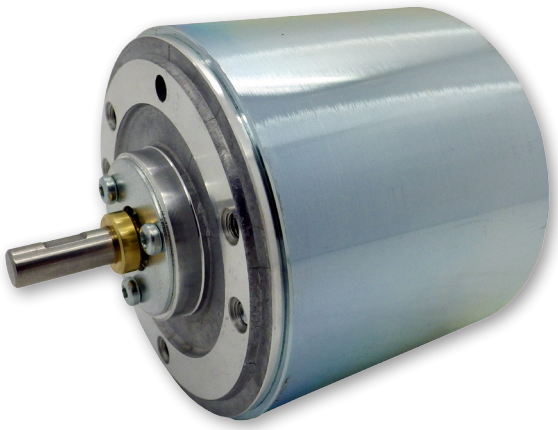
M66 Series Low Inertia DC Servo Motor

The M66CE is a low inertia dc servo motor, providing up to 30W output power and offers a smooth operation over a wide speed range.

Key features:

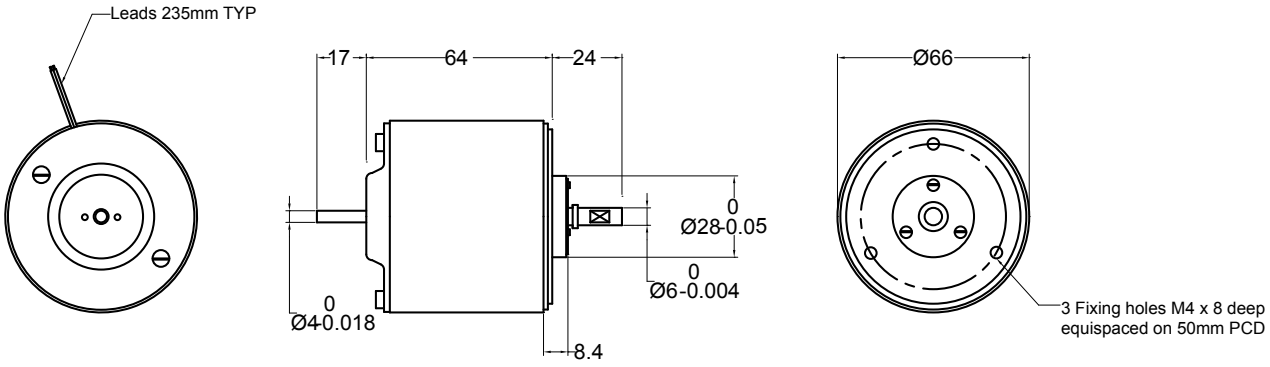
- 12V & 24V versions available from stock.
- Low inertia design allows for smooth running over a wide speed range
- Can be fitted to a variety of gear heads, dual track encoders, parking barks or tachometers if required



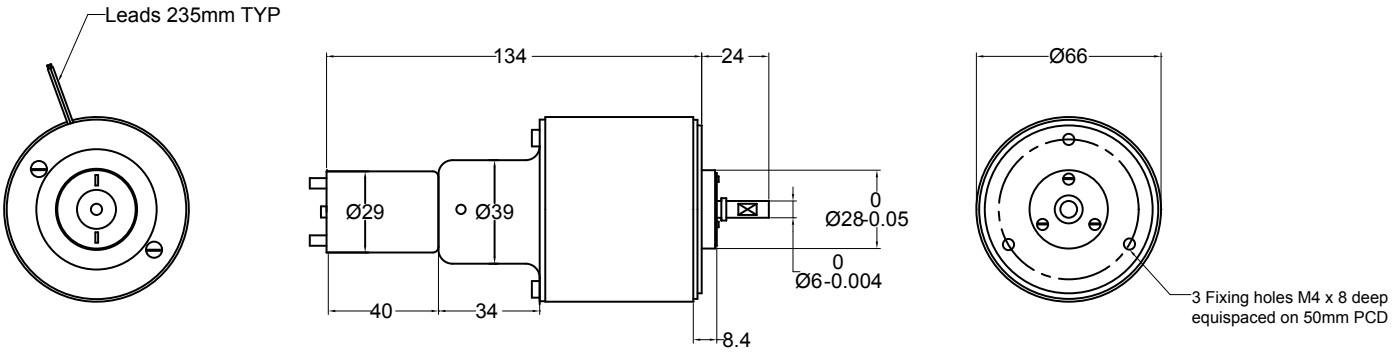
Mechanical specification

Outline dimensions (mm)

M66CE - DC Servo Motor

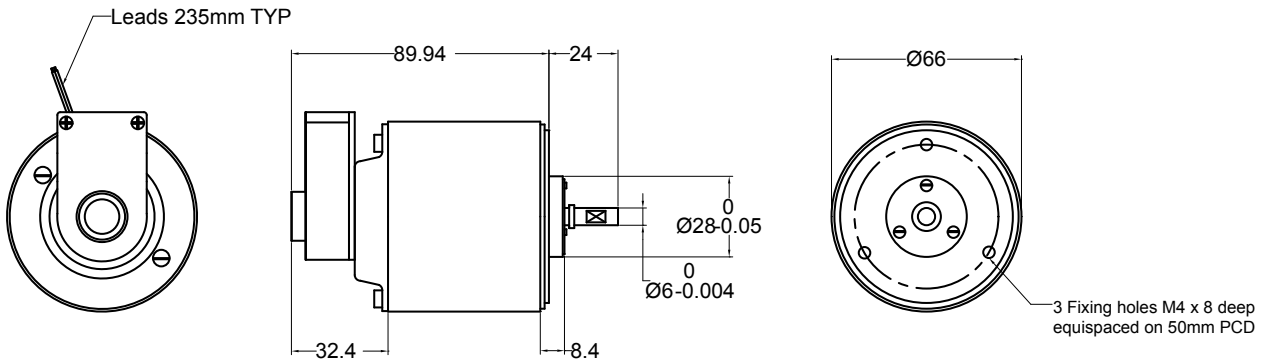


M66CT - with Tacho

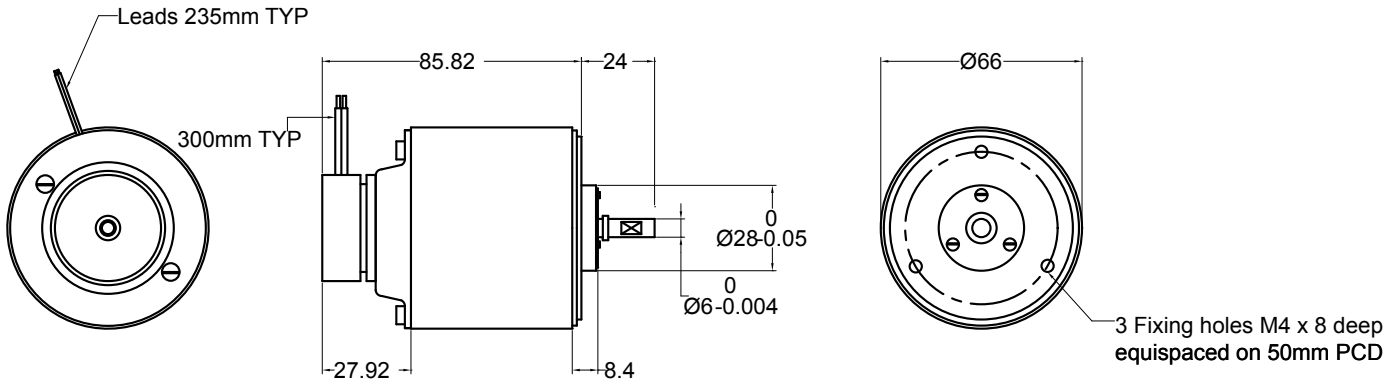


Outline dimensions (mm)

M66E5 - with Encoder



M66DB - with Parking Brake



Typical Performance

DC Servo Motors	No-load Speed	Rated Speed	Rated Torque	Rated Current	Peak Torque	Using Amplifier	DC Supply
	rpm	rpm	Ncm	Amps	Ncm		V DC
M66CE-12	2700	1700	8	2.0	16	MSE421	12
M66CE-24	2300	1600	9	1.0	27	MSE421-30	24
M66CE-24	2300	1600	12	1.3	27	MSE421-60	24

Electrical specification

Specification	Units	M66CE-12	M66CE-24	Performance @ 24 V DC
Maximum Voltage	V DC	12	30	24
Maximum Continuous Output Power	watts	15	30	20
Maximum No-load speed	rpm	2700	2900	2300
Typical speed @rated torque	rpm	1800	2300	1600
Rated torque	Ncm	8	12	12
Peak torque	Ncm	25	36	27
Typical no-load current	mA	120	65	60

Electrical specification (cont')

Specification	Units	M66CE-12	M66CE-24
Rotor inertia	Kgcm²	0.214	0.214
Mechanical time constant	msec	24.5	17
Torque constant	Ncm/A	4.1	9.8
Voltage constant	V/1000 rpm	4.27	10.3
Terminal resistance	ohms	1.90	7.8
Rotor inductance	mH	1.0	5.0
Commutation		Copper – graphite	
Bearings		Pre-loaded ball	
Maximum radial load		45N	
Maximum axial load		22N	

Motor-Tacho Specification

Model	Units	M66C12 T3	M66C24 T3	M66C24 T6
Nominal Voltage	V DC	12	24-30	24-30
Motor Specification		As above		
Tacho specification	-	T3	T6	
Voltage constant	V/1000rpm	3.25	6.50	
Average ripple	Peak/peak	3%		
Ripple frequency	Per rev	18 cycles		
Rotor Resistance	Ohms	12	47	
Max continuous speed	rpm	3000		

Motor-Encoder Specification

Model	Units	M66CI...L-12	M66CI...L-24
Nominal Voltage	V DC	12	24-30
Motor specification		As above	
Encoder type		CI...L	
Supply	V DC	5 +/-0.5	
Max. Output signal	V DC	5	
Signal wave form		Sqare	
Output Circuit		RS422	
Output Configuration		Dual Track + Index	
Resolution	Lines	100 or 500 Standard (others available on request)	

Motor-Brake Specification

Model	Units	M66CE-12 DB12/24	M66CE-24 DB12/24
Nominal Voltage	VDC	12	24-30
Motor Specification		As above	
Brake Type		DB12	DB24
Supply	VDC	12	24
Operating Current	Amps	<0.50	0.22
Min. Pull-in Voltage	V DC	<10	18
Max. Drop-out Voltage	V DC	>6	8
Output Configuration	Ncm	10	10