

0.15-0.4 kW dc servo motors

The M600 series motors provide the ideal solution for use in applications which require output power ratings up to 400 watts, 150 watts being available where only 24 Vdc is available. The robust low inertia construction which utilises a skewed rotor for smooth running, ensures reliable operation in industrial environments combined with fast response and accurate control.

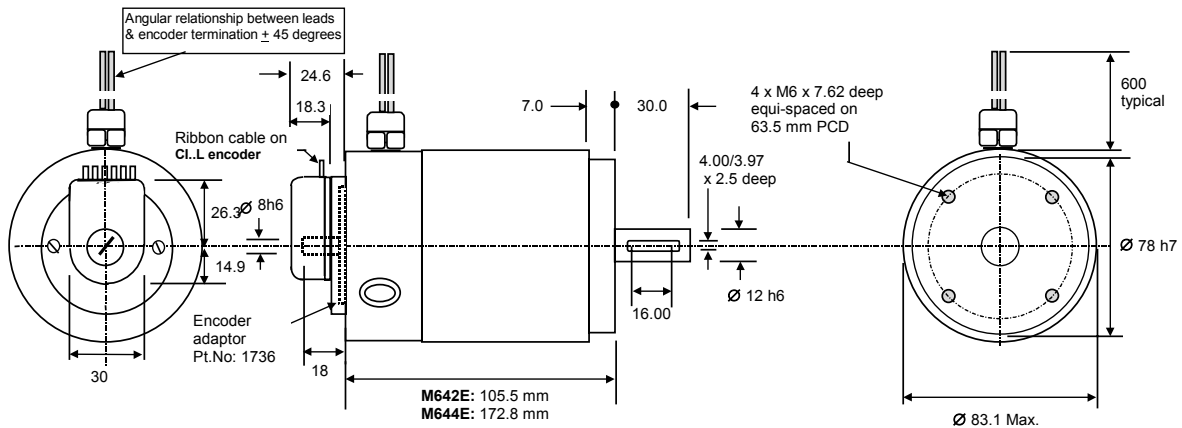
Versions with dc tachogenerator may also be provided for high accuracy speed regulation using analogue control techniques while a choice of dual track encoders may also be specified when digital control is required.

M600 series

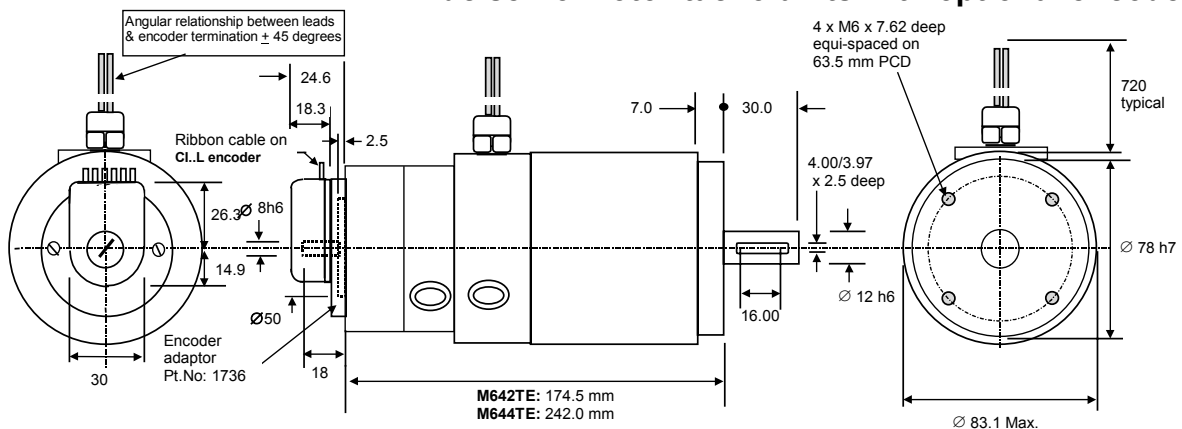


Dimensions: mm

dc servo motors with optional encoder



dc servo motor-tacho units with optional encoder



typical performance

dc servo motors	No-load Speed (rpm)	Rated Speed (rpm)	Rated Torque (Nm)	Rated Current (Amps)	Peak Torque (Nm)	using Servo Amplifier	DC Supply (Vdc)	Power Supply for AC operation (110-240 Vac)
M642E	2,750	2,250	0.66	8.0	1.6	MSE810	24	MSE173 (Single axis)
M644E	3,750	3,000	1.30	8.0	2.6	MSE810	50	MSE174 (single axis)
dc servo motor-tacho units								
M642TE	2,750	2,250	0.66	8.0	1.6	MSE810	24	MSE173 (Single axis)
M644TE	3,750	3,000	1.30	8.0	2.6	MSE810	50	MSE174 (single axis)

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M600 series

Specification: dc servo motor M600 series

		Servo motors		Motor-tacho	
Specification	Units	M642E 0860	M644E 1340	M642TE 0860	M644TE 1340
Maximum Voltage	Vdc	60	60	60	60
Typical Voltage	Vdc	24	50	24	50
Maximum Continuous Output Power	Watts	150	440	150	440
Maximum No-load speed	rpm	4000	4000	4000	4000
Typical speed @ rated torque	rpm	2250	3000	2250	3000
Rated Torque	Nm	0.66	1.4	0.66	1.4
Maximum Peak Torque	Nm	3.3	6.36	3.3	6.36
Typical . No load current	Amps	0.5	0.30	0.5	0.30
Rotor Inertia	Kgcm ²	1.2	2.4	1.3	2.6
Mechanical time constant	milli secs	8.1	6.5	8.1	6.8
Torque Constant	Nm / A	0.0816	0.130	0.0816	0.130
Voltage Constant	V / 1000 rpm	8.6	13.4	8.6	13.4
Terminal Resistance	Ohms	0.6	0.46	0.6	0.46
Rotor inductance	mH	0.42	0.64	0.42	0.64
Commutation	copper -graphite				
Bearings	pre-loaded ball				
Maximum radial load	45 N				
Maximum axial load	130N				
Tacho Specification					
Voltage constant	V/1000 rpm			14 + 10%	
Average ripple	peak / peak			0.7 @ 1000 rpm	
Ripple frequency	Per rev.			21	
Rotor resistance	Ohms			600-800	
Max. continuous speed	rpm			4,000	

motor-encoder version M600 CI series

motor encoder types		M642 CI...T M644 CI...T	M642 CI...L M644 CI...L
motor tacho encoder types		M642TCI...T M644TCI...T	M642TCI...L M644TCI...L
Motor specification: As above			
Encoder type		CI...T	CI...L
Supply	Vdc	5 ± 0.5	5 ± 0.5
Max. Output signal	Vdc	5	5
Signal wave form		Square	Square
Output Circuit		TTL	RS 422
Output Configuration		Dual Track Quadrature	Dual Track + Index (complementary)
Number of Lines		100 or 500	100 or 500

Typical Motor-tacho-encoder part number: **M644T CI 500 L**

500 line dual track encoder with Index

