

MDH(12)-40 Series

- Direct Drive Brushless AC Servo
- 40mm diameter, 3 stack lengths
- Incremental encoder
- 12mm hollow shaft



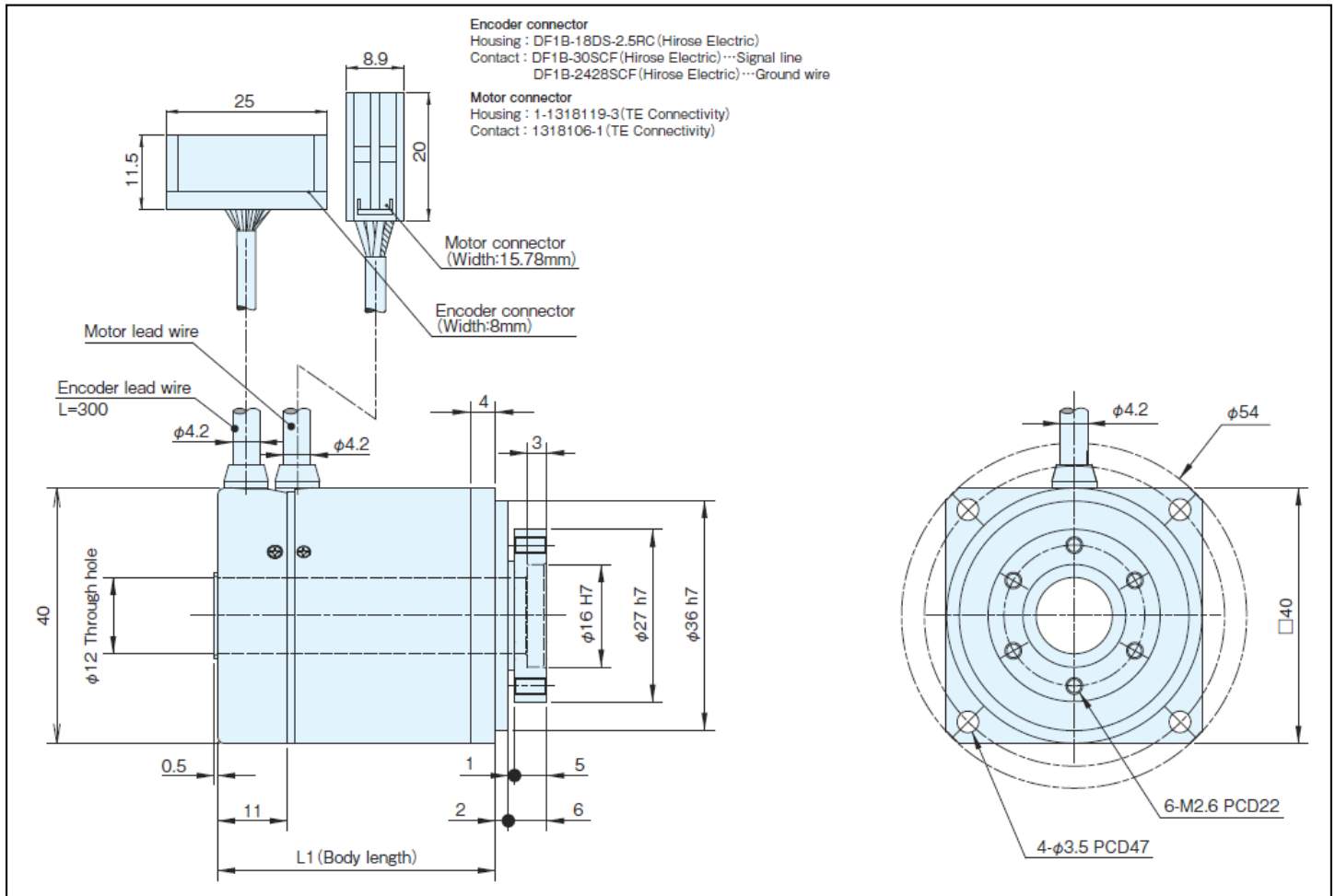
Visit nipponpulse.com to download 3D CAD drawings and 2D prints of this motor.

Specifications	Unit	MDH(12)-4006	MDH(12)-4012	MDH(12)-4018
Peak Stall Torque	Nm	0.33	0.70	1.0
Rated Torque	Nm	0.12	0.20	0.28
Continuous Rated Torque	Nm	0.10	0.16	0.23
Max Speed	rpm	450		
Rated Speed	rpm	450		
Max Encoder Resolution	P/R	Incremental: 2,592,000 (multiplied by 4)		
Input Power (driver input)	VDC	48		
Peak Power	W	14	27	40
Peak Armature Current	Arms	6.3	7.5	10
Rated Armature Current*	Arms	1.6	1.7	2.3
Voltage Constant	V/krpm	6.1	10	11
Torque Constant (at 25°C)	Nm/Arms	0.058	0.096	0.10
Line Armature Resistance (at 25°C)	Ω	2.6	2.5	1.7
Line Armature Inductance	mH	2.6	3.0	2.0
Rotor Poles	P	16		
Moment of Inertia (J)	g·cm ²	49.8	64.6	79.4
Permissible Radial Load (Fr)	N	140		
Permissible Axial Load (Fa)	N	70		
Mass	kg	0.21	0.26	0.30
Operating Environment		0°C - +40°C, 10% to 85% relative humidity (non-condensing)		
Standard Heatsink		150 x 150 x 8 Aluminum		

* Rated armature current is the value measured with the standard heatsink attached to the motor at an ambient temperature of 40°C.

Encoder	Base Resolution	Interpolation Factors	Max. Resolution (post quad)
Incremental	3240 6750	25, 32, 50, 64, 100, 125, 128, 200 2, 4, 5, 8, 10, 16, 20, 32	2,592,000 864,000

MDH(12)-40XX Dimensions



Standard Models

- MDH(12)-40 Δ -324KE (Incremental)

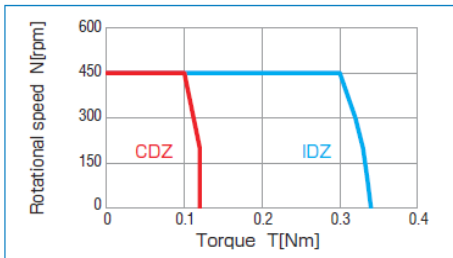
Δ = stack length indicator
 06, 12, 18

Model	Stack Length (L1)
MDH(12)-4006	31.5 mm
MDH(12)-4012	37.5 mm
MDH(12)-4018	43.5 mm

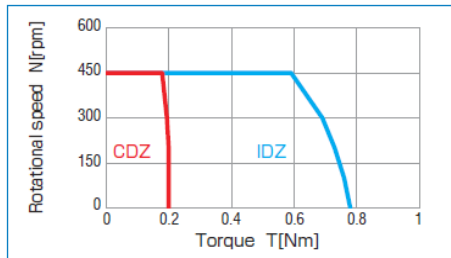
see drawings of motor dimensions on next page

Performance Curves

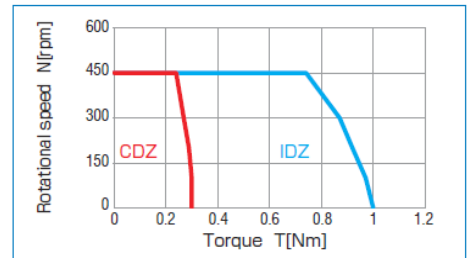
MDH(12)-4006



MDH(12)-4012



MDH(12)-4018



CDZ = Continuous Duty Zone, IDZ = Intermittent Duty Zone

Performance curve based on MCC Drive, 48VDC input power

For assistance in selecting the best motor for your application, contact Nippon Pulse to speak with an applications engineer. 1-540-633-1677