

This direct drive motor is an outer runner permanent magnet synchronous motors (PMSM) which also can be used for high dynamic applications. With this motor high torque and high efficiency's can be achieved. It is ideal for direct drive applications. The motors are intended to be used in combination with a three-phase sinusoidal current amplifier which guarantees smooth rotation with minimal torque ripple.

Key features of the outer runner

- direct drive motor are:
- High torque density
- High efficiency
- Transmission not required
- High reliability and lifetime
- Quiet operation
- Maintenance free
- Cost efficient design



Description	Unit	MI-Drum
Motortype Max DC bus Voltage	VDC	600
Stall torque	Nm	38,8
Continuous torque	Nm	44,4
Peak torque	Nm	173,0
Torque constant at 20°C	Nm/Arms	12,19
Motor constant at 20°C	(Nm) ² /W	9,6
Stall current	Arms	3,1
Continuous current	Arms	3,6
Peak current	Arms	20,9
Maximum no load rpm	rpm	500
Back EMF constant (*)	Vrms/rpm	0,827
Coil Resistance at 20°C (*)	Ohm	10,33
Coil Induction (*)	mHenry	111,6
Electric time constant	msec	10,8
Max. Continious Power Dissipation	Watt	310
Thermal resitance	K/W	0,32
Rotor outer diameter	mm	120
Shaft length	mm	530
Pole pairs	-	7
temperature sensor optional	-	
Rotor Inertia	kg.m ²	0,0256
Stator Mass	kg	13,3
Rotor Mass	kg	9,1
Total Mass	kg	22,5
(*) terminal to terminal		
Ambient temperature = 20°C, Max. allowed coil temperature = 120°C		

Note

* Other dimensions available upon request.

* Can be customized