

# MTM-38-13B

**MTM-38-13B** is a direct-drive DC torque motor. It is a permanent rare earth magnet, with continuous rotation and armature excited. The MTM-38-13B have usage where very high torque to power, volume and weight ratios are needed. These applications include missile and aircraft actuators, diagnostic medical instrumentation, ground and airborne radar antennas.



### **Specifications**

Parameters	Units	Values		
Peak Torque (Tp)	Nm	0.141		
No load speed (wNL)	rad/sec	467		
Total breakaway torque (Tf)	Nm	4.94		
Ripple torque (Tr)	%(avg.to pk.)	5		
Temperature rise	°C/Watts	6		
Max. allowable winding temperature	°C	150		
Moment of inertia (Jm)	gr cm²	42.4		
Weight	gr	65		
Damping factor at 25°C (F <sub>o</sub> )	Nm/rad/sec	$2.97 \ 10^{-4}$		
Elect. Time constant at 25°C (T <sub>E</sub> )	Sec	<b>2</b> 10 <sup>-4</sup>		
Note : The system does not include the electronic controller.				

Parameter	Unit	Value	Tolerance
Resistance at 25°C (Rm)	Ohm	18	±12.5%
Torque sensitivity	Nm/A	710 <sup>-2</sup>	±10%
Back EMF constant (KB)	Volt/rad/sec	0.1	±10%
Inductance (LM)	mHy	3.3	±30%

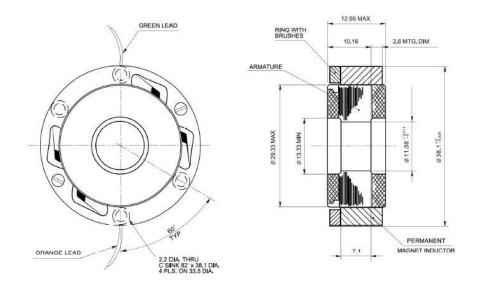
Doc. # 301367 Rev. A (04/2014)

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## MTM-38-13B

### Drawing



All dimensions are in mm

### **For Additional Information**

To learn more about the MTM-38-13B or other MTC products, contact MTC on +972 4 998 7772 or email marketing@mtcind.com

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