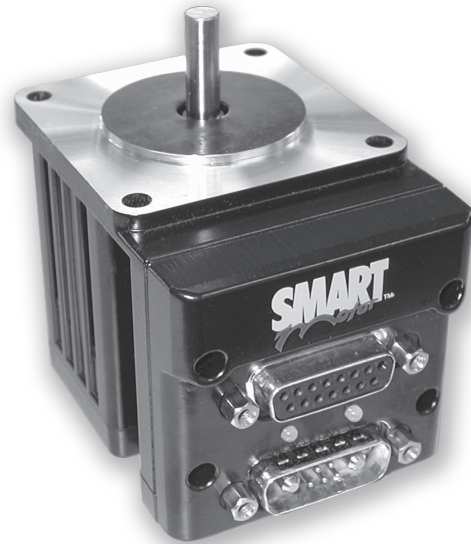


| SM23165DT                           |       |                                    |
|-------------------------------------|-------|------------------------------------|
| Continuous Torque                   | 4.61  | in-lb                              |
|                                     | 74    | oz-in                              |
|                                     | 0.52  | N-m                                |
| Peak Torque                         | 7.40  | in-lb                              |
|                                     | 118   | oz-in                              |
|                                     | 0.84  | N-m                                |
| Nominal Continuous Power            | 204   | Watt                               |
| No Load Speed                       | 5,200 | RPM                                |
| Max. Continuous Current* @ 3800 RPM | 5.074 | Amps                               |
| Peak Power @ 3400 RPM               | 210   | Watts                              |
| Voltage Constant                    | 9.08  | V/kRPM                             |
| Inductance                          | 1.31  | mH                                 |
| Encoder Resolution                  | 4,000 | Counts/Rev                         |
| Rotor Inertia                       | 0.001 | oz-in-sec <sup>2</sup>             |
|                                     | 0.706 | 10 <sup>-5</sup> Kg-m <sup>2</sup> |
| Weight                              | 1.3   | lb                                 |
|                                     | 0.59  | kg                                 |
| Shaft Diameter                      | 0.250 | in                                 |
|                                     | 6.35  | mm                                 |
| Shaft, Radial Load                  | 7     | lb                                 |
|                                     | 3.18  | kg                                 |
| Shaft, Axial Thrust Load            | 3     | lb                                 |
|                                     | 1.36  | kg                                 |
| DeviceNet Available                 | Yes   |                                    |
| PROFIBUS Available                  | Yes   |                                    |
| CANopen Available                   | Yes   |                                    |

\*Default voltage is 48V. See graphs for additional voltages.



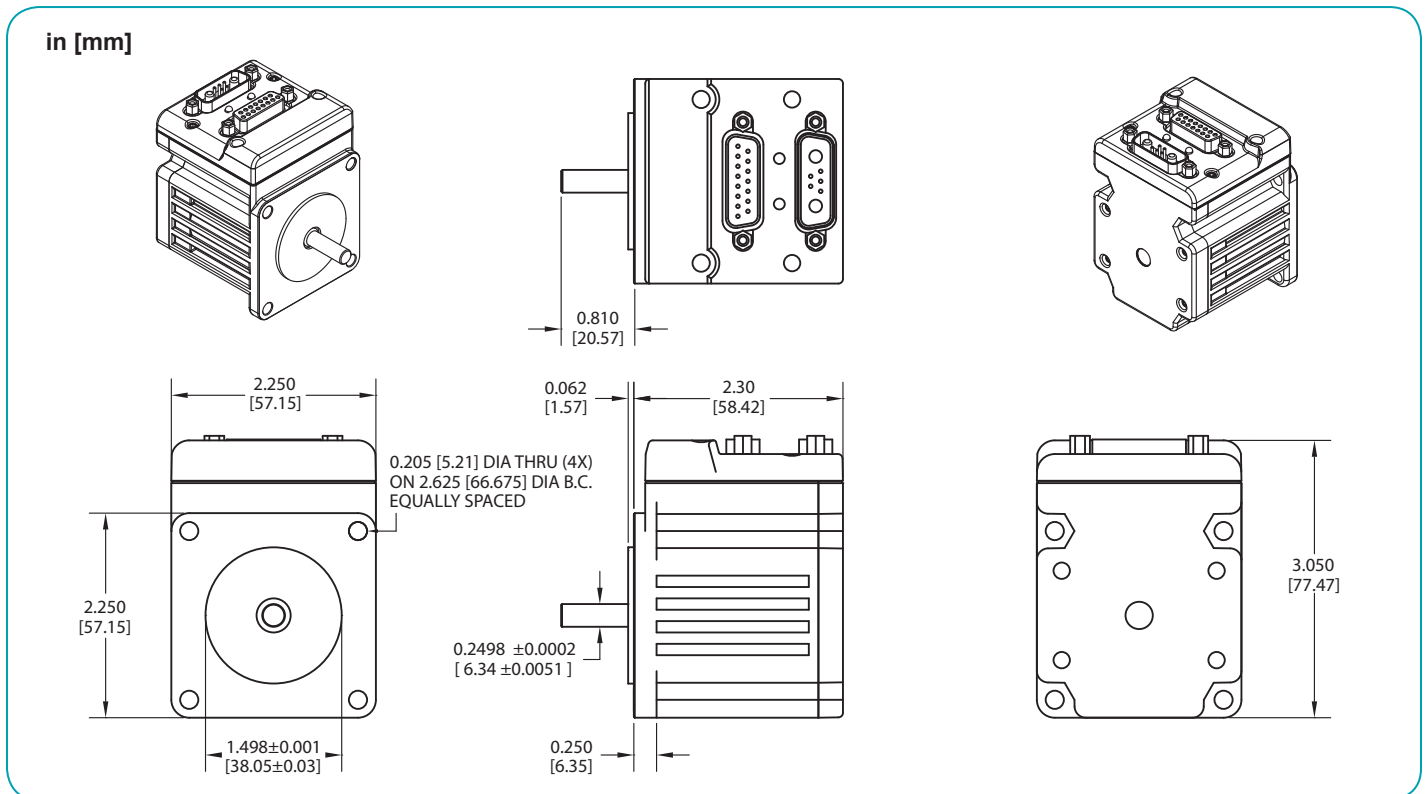
Operating temperature range: 0°C–85°C

Storage temperature range: -10°C–85°C, noncondensing

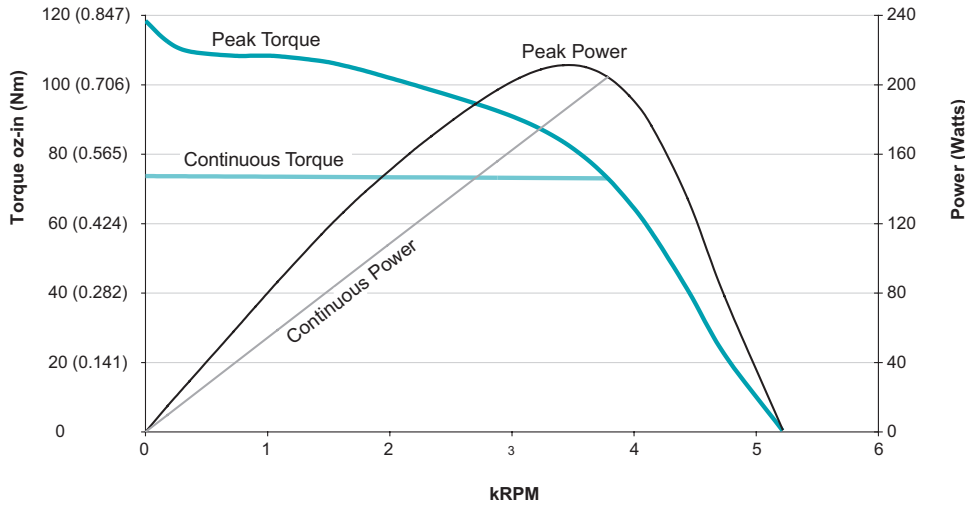
**NOTE: Motor specifications are subject to changes without notice. Consult website and factory for latest data.**



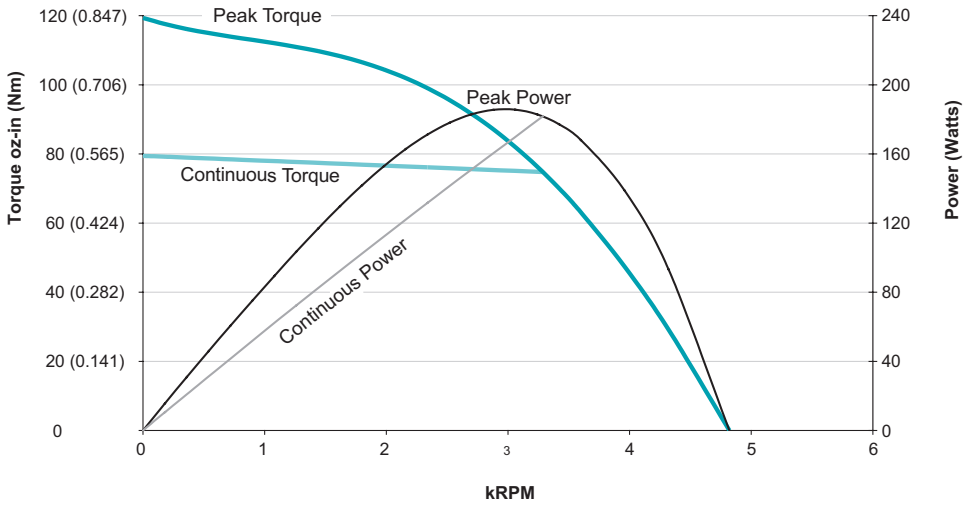
## Moog Animatics SmartMotor™ SM23165DT (No Options) CAD Drawing



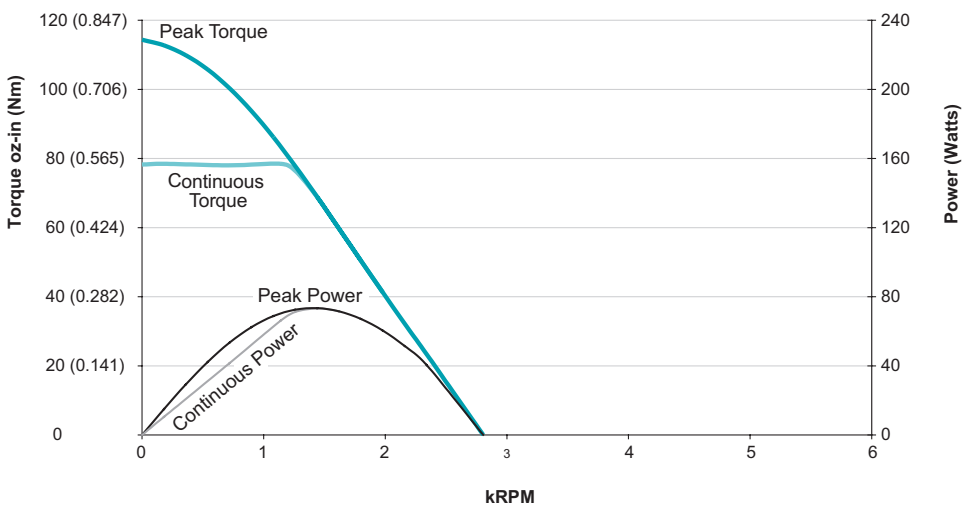
OVERVIEW  
SOFTWARE  
D-STYLE MOTORS  
D-STYLE CONNECTIVITY  
PERIPHERALS  
M-STYLE MOTORS  
M-STYLE CONNECTIVITY  
LINEAR SYSTEMS  
POWER SUPPLIES & SHUNTS  
GEAR HEADS  
APPENDIX



**SM23165DT**  
**at 48 VDC**  
**at rise to 85°C**



**SM23165DT**  
**at 42 VDC**  
**at rise to 85°C**



**SM23165DT**  
**at 24 VDC**  
**at rise to 85°C**

All torque curves based on 25°C ambient.  
Motors were operated using MDT (Trapezoidal Drive Mode) Commutation.  
For ambient temperatures above 25°C, Continuous Torque must be linearly derated to 0% at 85°C.