

| Motor Parameters | | Symbols | Units | HoSM-280-AL | | HoSM-280-BL | | HoSM-280-CL | |
|------------------------|----------------------|----------------------|-------------------|---------------------|------|---------------------|------|---------------------|------|
| PERFORMANCE | DC Bus Voltage | V_{DC} | V | 24 | 48 | 24 | 48 | 24 | 48 |
| | Rated Torque | T_r | Nm | 41.6 | | 75 | | 106 | |
| | Peak Torque | T_p | Nm | 69 | | 135.7 | | 200.7 | |
| | Rated Speed | N_r | rpm | 105 | 240 | 65 | 155 | 50 | 120 |
| | No-Load Speed | $N_{no-load}$ | rpm | 150 | 300 | 95 | 190 | 75 | 150 |
| | Torque Constant | K_t | Nm/A | 1.83 | | 2.84 | | 3.66 | |
| | Voltage Constant | K_v | V/rpm | 0.156 | | 0.244 | | 0.313 | |
| | Max. Cogging Torque | T_{cog} | % | | | <1 | | | |
| | Torque Ripple | T_{ripple} | % | | | <1 | | | |
| | Number of Pole | 2p | -- | | | 40 | | | |
| ELECTRICAL | Rated Current | I_r | A_{rms} | 22.8 | | 26.4 | | 29 | |
| | Peak Current | I_p | A_{rms} | 38 | | 48 | | 55.2 | |
| | Line Resistance | $R_{Ll}@25^{\circ}C$ | Ohm | 0.21 ($\pm 20\%$) | | 0.19 ($\pm 20\%$) | | 0.19 ($\pm 20\%$) | |
| | Line Inductance | $L_{Ll}@60Hz$ | mH | 1.04 ($\pm 30\%$) | | 1.18 ($\pm 30\%$) | | 1.14 ($\pm 30\%$) | |
| | MECHANICAL & THERMAL | Total Weight (+Face) | W_s | kg | 29.3 | | 37.7 | | 44.6 |
| Total Weight (+Flange) | | W_r | kg | 30.2 | | 38.5 | | 45.5 | |
| Mech. Time Constant | | K_{mech} | ms | 4.26 | | 2.57 | | 1.98 | |
| Thermal Resistance (2) | | R_{th} | $^{\circ}C/W$ | -- | | -- | | -- | |
| Inertia | | J | kg.m ² | 0.05645 | | 0.08736 | | 0.11493 | |
| Friction Torque | | T_f | Nm | | | 4.2 | | | |
| Motor Constant | | K_m | Nm/ \sqrt{W} | 1.95 | 1.29 | 3.32 | 2.15 | 4.5 | 2.9 |
| Rotor ID | | | mm | | | 73 | | | |

| Motor Parameters | | Symbols | Units | HoSM-280-AH | | HoSM-280-BH | | HoSM-280-CH | |
|------------------------|----------------------|----------------------|-------------------|---------------------|------|---------------------|------|---------------------|------|
| PERFORMANCE | DC Bus Voltage | V_{DC} | V | 310 | 560 | 310 | 560 | 310 | 560 |
| | Rated Torque | T_r | Nm | 40.5 | | 74.1 | | 105.7 | |
| | Peak Torque | T_p | Nm | 142.5 | | 282.8 | | 424 | |
| | Rated Speed | N_r | rpm | 260 | 500 | 230 | 435 | 210 | 395 |
| | No-Load Speed | $N_{no-load}$ | rpm | 325 | 590 | 275 | 500 | 245 | 445 |
| | Torque Constant | K_t | Nm/A | 10.97 | | 13 | | 14.68 | |
| | Voltage Constant | K_v | V/rpm | 0.938 | | 1.112 | | 1.251 | |
| | Max. Cogging Torque | T_{cog} | % | | | <1 | | | |
| | Torque Ripple | T_{ripple} | % | | | <1 | | | |
| | Number of Pole | 2p | -- | | | 40 | | | |
| ELECTRICAL | Rated Current | I_r | A_{rms} | 3.7 | | 5.7 | | 7.2 | |
| | Peak Current | I_p | A_{rms} | 14.0 | | 23.4 | | 31.1 | |
| | Line Resistance | $R_{Ll}@25^{\circ}C$ | Ohm | 7.72 ($\pm 20\%$) | | 4.1 ($\pm 20\%$) | | 2.8 ($\pm 20\%$) | |
| | Line Inductance | $L_{Ll}@60Hz$ | mH | 37.5 ($\pm 30\%$) | | 24.5 ($\pm 30\%$) | | 18.3 ($\pm 30\%$) | |
| | MECHANICAL & THERMAL | Total Weight (+Face) | W_s | kg | 29.3 | | 37.7 | | 44.6 |
| Total Weight (+Flange) | | W_r | kg | 30.2 | | 38.5 | | 45.5 | |
| Mech. Time Constant | | K_{mech} | ms | 4.43 | | 2.6 | | 1.78 | |
| Thermal Resistance (2) | | R_{th} | $^{\circ}C/W$ | -- | | -- | | -- | |
| Inertia | | J | kg.m ² | 0.05645 | | 0.08736 | | 0.11493 | |
| Friction Torque | | T_f | Nm | | | 4.2 | | | |
| Motor Constant | | K_m | Nm/ \sqrt{W} | 1.22 | 0.88 | 1.75 | 1.28 | 2.19 | 1.6 |
| Rotor ID | | | mm | | | 73 | | | |

1. All performance and electrical specifications are obtained at 25°C ambient and may change $\pm 10\%$.

HoSM-280 Torque-Speed Curves

Tr: Rated Torque
Tp: Peak Torque

— @Tr 24V - - - @Tr 48V
— @Tp 24V - - - @Tp 48V

— @Tr 310V - - - @Tr 560V
— @Tp 310V - - - @Tp 560V



