Additional Characteristics for ME 1616 Permanent Magnet Synchronous Motor

Link:  
<https://evea-kartmasters.fr/en/synchronous-motors/1914-me1616-pmsm-brushless-water-cool-motor.html>

Liquid cooling version of Motenergy ME1507 motor.

Motenergy ME1616 electric motor  
No brush maintenance, brushless  
Fully enclosed  
3-phases, double stators, Y-connected  
Permanent Magnet Synchronus Motor  
Motor efficiency of 92% at 80 VDC.  
5 pairs pole motor (10 magnets).  
Phase to Phase winding resistance is 0.027 Ohms.  
Phase to Phase winding inductor is 0.1 mH.  
Maximum recommended rotor speed is 8000 RPM (837,7 rad/s).  
Controller input voltage 48 à 120 VDC.  
Torque constant 0.20 Nm/Amp.  
Armature Inertia 960 kg\*cm²= 960\*1e-4kgm2= 0,096kgm2  
Rated power 14,5kW, peak 48kW (68hp).  
rated current 160Arms (130A continuous is input controller)  
Maximum current 650Arms during1 min (500A continuous is input controller)  
Weight 21Kg  
Maximum torque 130Nm.  
Liquid coolingglycol 50% (fully enclosed).  
Power supply cable 35mm², terminals 8mm eyelet lugs  
Temperature sensor KTY84-130  
Rotor sensor type Sin/Cos  
Shaft 7/8"  
Recommended water cooling 15l/min  
Water cooling maximum pressure : 1.5 Bar  
Hose diameter for liquide cooling : 19mm