A130K594-2x13Y1

SINETON
RESEARCH & ENGINEERING

Electric motor characteristics

All parameters stipulated for the machine thermalized at 20°C.
All values for current are stipulated as RMS.

Basic Information	
Motor Type	AC synchronous electric motor with permanent magnets
EM circuit topology	radial, internal rotor
IP Rating	IP65
Winding Configuration	2x13Y1

Parameter	**Value**	**Units**	**Tolerance**	**Note**
Rated Speed	2400	RPM	NA	
Winding Voltage	309	V	±3%	Peak line to line.
Continuous Torque	585	Nm	±3%	
Peak Torque	930	Nm	±3%	
Peak Current	800	A	±3%	A (RMS)
Cogging Torque (max)	2	Nm p-p		Peak to peak span.
Torque Constant	1,40	Nm/A	±3%	A (RMS)
Voltage Constant	0,129	V/RPM	±3%	Peak line to line.
Motor Constant	10,7	Nm/√W	+5%	
Terminal Resistance	13,0	mOhm	±2%	
Terminal Inductance	0,165	mH	±5%	
Thermal Resistance	0,015	°C/W	±10%	Winding to case.
Motor Inertia	0,086	kg-m²	±2%	Including propeller flange 30-21.111B.
Motor Mass	37	kg	±0,5 kg	Including propeller flange 30-21.111B.
Ambient Operating Temperature	-40 .. +50	°C	NA	
Ambient Storage Temperature	-40 .. +90	°C	NA	
Rotor Poles	30	-	NA	
Additional Data				
Maximum Winding Temperature	180	°C	NA	
Maximum Rotor Temperature	180	°C	NA	
Temperature Sensor for Winding	PT1000	-	NA	3, one for each phase.
Temp. Sensor – Front Bearing	PT1000	-	NA	
Temp. Sensor – Rear Bearing	PT1000	-	NA	
Commutation Sensor	Resolver	-	NA	V23401U7018-B709