

Product: ELECTRIC MOTOR RM 90-VC



TECHNICAL DATA

Type	PMSM
Design	internal rotor
Flux	radial
Cooling	liquid cooled
Weight [kg]	9,8
Housing diameter [mm]	215
Design maximal battery voltage [VDC]	400
Max. load [rpm]	4200 (field weakening 8000)
Peak motor power at max. load [kW]	70
Continuous motor power at max. load [kW]	42
Maximal rotation speed [rpm]	8000
Rated rotation speed [rpm]	3000
Max. motor current [Arms]	265
Continuous motor current [Arms]	139
Max. peak motor torque [Nm]	150
Continuous motor torque [Nm]	90
Motor efficiency [%]	up to 96
Internal phase resistance at 25 °C [mΩ]	18
Induction of 1 phase [μH]	140
Magnetic field weakening torque [%]	up to 100
Peak line to line back EMF [V/rpm]	0.059
RMS line to line back EMF [V/rpm]	0.042
Torque constant [Nm/Arms]	0.67
Embedded temperature sensor	pt1000
Number of pole pairs	10
Resolver	integrated, IP 68
Encoder	optional on request