PMS 080 – Permanentmagnet Synchronous motor

Applications

- Battery powered application with Voltages from 24 V DC, 36 V DC or 48 V DC (for traction applications; Compressors, Pumps etc.)
- Industrial applications with a DC Bus current of 320 V DC or 560 V DC (Fans; industrial machinery etc.)

Rpm	1500 min-1 to 6000 min-1	Depending on the windings, adapted to the System Voltage
Rated Power	0,5 kW bis 1,5 kW	Depending on rpm
Peak Torque	10 Nm	Pulse-Peak torque only up to 30 % of rated rpm
Motorfeedback	Analog Hallsensors (sin/cos); Resolver or Encoders	Depending on controller-specifications
Weight	~ 3,2 kg	Incl. sin/cos Encoder, without break

Max. power at different motor-speed with aircooling at a min. airstream of 5 m/s

Motor Speed	Rated Power	Rated Torque	Peak Torque	Efficiency
1500 min^{-1}	0,55 kW	3,5 Nm	10 Nm	83 %
3000 min^{-1}	1,0 kW	3,2 Nm	10 Nm	85 %
4500 min^{-1}	1,3 kW	2,75 Nm	10 Nm	87 %
6000 min^{-1}	1,5 kW	2,4 Nm	10 Nm	88 %

Other motor speed, torque and power ratings for customised Applications can be checked by request, as well as a direct mounting of gearings and breaks

General technical specs for the PMS 080

Motortype	Permanent excited synchronous-Disc (pancake) motor
cooling	aircooling with a min airstream of 5 m/s
Operation mode	S1 (continous)
Polpairs	4
Magnet material	Neodynium-Iron-Bor
Insulation Class	Class F according VDE 0530
Electrical strength	VDE 0530 – 2000V / 10s
Type of construction	Flange type according IM B14
Electrical connections	Plugs (maiting plug not included) or wire
Protection class	IP 54
Environmental temperature	-10 °C to + 40 °C
Demagnetization temperature	> 5 x I_N
Max. Peak torque at intermittent Duty	1,5-times of rated torque for about 15 seconds
Max. pulse-torque	3-times of rated torque for max. 0,5 seconds
Motorfeedback	Resolver 2-poles, Encoder or Analog Hallsensors with sin/cos output
Temperatursensors	KTY84-130 or PTC (NAT=120°C)