



PMS 100 – 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	1,2 kW bis 3,0 kW	Depending on rpm
Peak Torque	20 Nm	Pulse-Peak torque only up to 30 % of rated rpm
Motor-Impuls-torque	~ 24 Nm	Impulstorque for max. 0,5 sec. and rpm < 50 rpm
Motorfeedback	Analog Hallsensors (sin/cos); Resolver or Encoders	Depending on controller-specifications
Weight	~ 5,8 kg	Incl. sin/cos Encoder, without break

Max. rated power in continuous mode (S1) at different System-Voltages and different motor-speed with aircooling at a min. airstream of 5 m/s and a good contact of the mounting surface for best thermal transfer.

rpm [min-1]	24 V DC		48 V DC		72 V DC		ab 320 V DC	
	torque [Nm]	Power [kW]	torque [Nm]	Power [kW]	torque [Nm]	Power [kW]	torque [Nm]	Power [kW]
1500	7,64	1,2	7,0	1,1	7,64	1,2	7,0	1,1
3000	4,78	1,5	7,64	2,4	7,0	2,2	6,7	2,1
4500	-		5,31	2,5	5,31	2,5	5,1	2,4
6000	-		4,30	2,7	4,14	2,7	4,78	3,0

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 100

Motortype	Permanent excited synchronous-Disc (pancake) motor
cooling	aircooling with a min airstream of 5 m/s
Operation mode	S1 (continuous)
Polpairs	4
Magnet material	Neodymium-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 (mating plug not included) or wire
Protection class	IP 54
Environmental temperature	-10 °C to + 40 °C
Demagnetization temperature	$> 5 \times I_N$
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
Temperaturesensors	KTY84-130 or PTC (NAT=120°C)