



PMS 120 W – 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	3,2 kW bis 12,5 kW	Depending on rpm
Peak Torque	40 Nm	Pulse-Peak torque only up to 30 % of rated rpm
Motor-Impuls-torque	~ 50 Nm	Impulstorque for max. 0,5 sec. and rpm < 50 rpm
Motorfeedback	Analog Hallsensors (sin/cos); Resolver or Encoders	Depending on controller-specifications
Weight	~ 14,0 kg	Incl. sin/cos Encoder, without break

Max. power at different motor-speed with watercooling at a max.temperature of 60°C , and 4 l / min of cooling-liquid flow.

rpm [min-1]	48 V DC		72 V DC		96 V DC		ab 320 V DC	
	torque [Nm]	Power [kW]	torque [Nm]	Power [kW]	torque [Nm]	Power [kW]	torque [Nm]	Power [kW]
1500	20,4	3,2	24,2	3,8	24,2	3,8	24,2	3,8
3000	19,1	6,0	23,9	7,5	22,9	7,2	23,9	7,5
4500	-		21,2	10,0	23,3	11,0	23,3	11,0
6000	-		-		19,9	12,5	19,9	12,5

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 120 W

Motortype	Permanent excited synchronous-Disc (pancake) motor
cooling	watercooling with max. 60 °C , a mx. Pressure of 3 bar and a minimum liquid-flow of 4 l / min
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 x I _N
Max. Peak torque at intermittent Duty	1,5-times of rated torque for about 15 seconds
Max. pulse-torque	2-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)