



## PMS 120 – 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	2,2 kW bis 7,0 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	~ 12,3 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]	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	20,4	3,2	20,4	3,2	20,4	3,2
3000	18,5	5,8	19,1	6,0	19,1	6,0	19,1	6,0
4500	13,8	6,5	13,8	6,5	13,8	6,5	13,8	6,5
6000	10,4	6,5	11,1	7,0	11,1	7,0	11,1	7,0

**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 120

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
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)