



## PMS 120 W – Permanentmagnet Synchronous motor

### Applications

- Battery powered application with Voltages from 48 V DC to 96 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 <sup>-1</sup> to 6000 min <sup>-1</sup>	Depending on the windings, adapted to the System Voltage
Rated Power	3,5 kW to 11,0 kW	Depending on rpm
Peak Torque	40 Nm	Pulse-Peak torque only up to 30 % of rated rpm
Motorfeedback	Analog Hallsensors (sin/cos); Resolver or Encoders	Depending on controller-specifications
Weight	~ 14,3 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.**

Motor Speed	Rated Power	Rated Torque	Peak Torque	Efficiency
1500 min <sup>-1</sup>	3,5 kW	22,3 Nm	40 Nm	85 %
3000 min <sup>-1</sup>	7,0 kW	22,3 Nm	40 Nm	91 %
4500 min <sup>-1</sup>	9,2 kW	19,5 Nm	40 Nm	92 %
6000 min <sup>-1</sup>	11,0 kW	17,5 Nm	40 Nm	92 %

**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 0120 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 <sub>N</sub>
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)