



Figure similar

MLFB-Ordering data

1FK7083-2AF71-1BG1-Z  
J09

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data			
Rated speed (100 K)	3000 rpm	Motor type	Permanent-magnet synchronous motor		
Number of poles	8	Motor type	Compact		
Rated torque (100 K)	10.5 Nm	Shaft height	80		
Rated current	7.2 A	Cooling	Natural cooling		
Static torque (60 K)	13.30 Nm	Radial runout tolerance	0.050 mm		
Static torque (100 K)	16.0 Nm	Concentricity tolerance	0.10 mm		
Stall current (60 K)	8.20 A	Axial runout tolerance	0.10 mm		
Stall current (100 K)	10.10 A	Vibration severity grade	Grade A		
Moment of inertia	34.440 kgcm <sup>2</sup>	Connector size	1		
<b>Physical constants</b>		Degree of protection	IP65		
		Torque constant	1.58 Nm/A	Design acc. to Code I	IM B5 (IM V1, IM V3)
		Voltage constant at 20° C	102.5 V/1000*min <sup>-1</sup>	Temperature monitoring	Pt1000 temperature sensor
		Winding resistance at 20° C	0.38 Ω	Electrical connectors	Connectors for signals and power rotatable
		Rotating field inductance	7.0 mH	Color of the housing	Standard (Anthracite RAL 7016)
		Electrical time constant	18.60 ms	Holding brake	without holding brake
		Mechanical time constant	1.18 ms	Shaft extension	Plain shaft
		Thermal time constant	50 min	Encoder system	Encoder AS24DQI: absolute encoder single-turn 24 bits
		Shaft torsional stiffness	101000 Nm/rad		
		Net weight of the motor	32.8 kg		
<b>Recommended Motor Module</b>					
		Rated inverter current	9 A		
		Maximum inverter current	27 A		
Maximum torque	40.00 Nm				



Figure similar

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### Gearbox data

Gearbox type	Planetary gearbox SP+	Moment of inertia of gearbox	8.440 kgcm <sup>2</sup>
Designation	SP 140S-MF1	Radial output shaft loading, max.	9900 N
Gearbox shaft end	With feather key	Axial output shaft load, max.	9870 N
Gear ratio + steps	10 (1-step)	Efficiency of gearbox	0.97
Motor speed S3-60 %	5000 rpm	Torsional backlash	3 '
Motor speed S1	2600 rpm	Gearbox weight	17.20 kg
Output torque S1	327 Nm		
Rated output torque at duty type S3-60 %	636 Nm		

### Special design

J09 Mounting of SP+ planetary gearbox

### Limiting data

Max. permissible speed (mech.)	6000 rpm
Max. permissible speed (inverter)	5600 rpm
Maximum torque	50.0 Nm
Maximum current	37.0 A