



Figure similar

MLFB-Ordering data

1FK7103-2AF71-1CG1-Z
J09

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data

Rated speed (100 K)	3000 rpm
Number of poles	8
Rated torque (100 K)	14.0 Nm
Rated current	11.5 A
Static torque (60 K)	30.00 Nm
Static torque (100 K)	36.0 Nm
Stall current (60 K)	21.00 A
Stall current (100 K)	26.00 A
Moment of inertia	123.200 kgcm ²

Physical constants

Torque constant	1.39 Nm/A
Voltage constant at 20° C	89.5 V/1000*min ⁻¹
Winding resistance at 20° C	0.09 Ω
Rotating field inductance	2.4 mH
Electrical time constant	27.00 ms
Mechanical time constant	1.46 ms
Thermal time constant	65 min
Shaft torsional stiffness	148000 Nm/rad
Net weight of the motor	62.5 kg

Recommended Motor Module

Rated inverter current	30 A
Maximum inverter current	90 A
Maximum torque	108.00 Nm

Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	100
Cooling	Natural cooling
Radial runout tolerance	0.050 mm
Concentricity tolerance	0.10 mm
Axial runout tolerance	0.10 mm
Vibration severity grade	Grade A
Connector size	1.5
Degree of protection	IP65
Design acc. to Code I	IM B5 (IM V1, IM V3)
Temperature monitoring	Pt1000 temperature sensor
Electrical connectors	Connectors for signals and power rotatable
Color of the housing	Standard (Anthracite RAL 7016)
Holding brake	without holding brake
Shaft extension	Plain shaft
Encoder system	Encoder AM24DQI: absolute encoder 24 bits (resolution 16777216, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)



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Gearbox data

Gearbox type	Planetary gearbox SP+	Moment of inertia of gearbox	19.200 kgcm ²
Designation	SP 180S-MF1	Radial output shaft loading, max.	15400 N
Gearbox shaft end	With feather key	Axial output shaft load, max.	15570 N
Gear ratio + steps	10 (1-step)	Efficiency of gearbox	0.97
Motor speed S3-60 %	4500 rpm	Torsional backlash	3 '
Motor speed S1	2300 rpm	Gearbox weight	34.00 kg
Output torque S1	864 Nm		
Rated output torque at duty type S3-60 %	1164 Nm		

Special design

J09 Mounting of SP+ planetary gearbox

Limiting data

Max. permissible speed (mech.)	5000 rpm
Max. permissible speed (inverter)	5000 rpm
Maximum torque	108.0 Nm
Maximum current	84.0 A