



Figure similar

MLFB-Ordering data 1FK7060-2AF71-1RH1-Z
J03

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)	4.7 Nm	Shaft height	63
Rated current	3.7 A	Cooling	Natural cooling
Static torque (60 K)	5.00 Nm	Radial runout tolerance	0.040 mm
Static torque (100 K)	6.00 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	3.60 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	4.45 A	Vibration severity grade	Grade A
Moment of inertia	11.310 kgcm ²	Connector size	1
Physical constants		Degree of protection	IP65
Torque constant	1.33 Nm/A	Design acc. to Code I	IM B5 (IM V1, IM V3)
Voltage constant at 20° C	85.5 V/1000*min ⁻¹	Temperature monitoring	Pt1000 temperature sensor
Winding resistance at 20° C	1.35 Ω	Electrical connectors	Connectors for signals and power rotatable
Rotating field inductance	15.2 mH	Color of the housing	Standard (Anthracite RAL 7016)
Electrical time constant	11.30 ms	Holding brake	with holding brake
Mechanical time constant	1.71 ms	Shaft end	Plain shaft
Thermal time constant	30 min	Encoder system	Encoder AM20DQI: absolute encoder 20 bits (resolution 1048576, encoder-internal 512 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)
Shaft torsional stiffness	28500 Nm/rad		
Net weight of the motor	16.2 kg		
Recommended Motor Module			
Rated inverter current	5 A		
Maximum inverter current	15 A		
Maximum torque	18.00 Nm		



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Gearbox data			
Gearbox type	Planetary gearbox SP+	Moment of inertia of gearbox	2.610 kgcm²
Designation	SP 100S-MF1	Radial output shaft loading, max.	6600 N
Gearbox shaft end	With feather key	Axial output shaft load, max.	5650 N
Gear ratio + steps	5 (1-step)	Efficiency of gearbox	0.97
Motor speed S3-60 %	5500 rpm	Torsional backlash	3 '
Motor speed S1	2500 rpm	Gearbox weight	7.70 kg
Output torque S1	169 Nm		
Rated output torque at duty type S3-60 %	378 Nm		

Limiting data	
Max. permissible speed (mech.)	7200 rpm
Max. permissible speed (inverter)	6700 rpm
Maximum torque	18.0 Nm
Maximum current	15.0 A

Holding brake	
Holding brake version	Permanent-magnet brake
Holding torque	13.0 Nm
Power supply voltage	DC 24 V ± 10 %
Coil current	0.8 A
Opening time	100 ms
Closing time	50 ms
Highest braking work	380 J

Special design	
J03	Mounting of SP+ planetary gearbox

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Engineering data	
Rated speed (100 K)	3,000 rpm
Number of poles	8
Rated torque (100 K)	4.7 Nm
Rated current	3.7 A
Static torque (60 K)	5.00 Nm
Static torque (100 K)	6.00 Nm
Stall current (60 K)	3.60 A
Stall current (100 K)	4.45 A
Moment of inertia	11.310 kgcm ²

Physical constants	
Torque constant	1.33 Nm/A
Voltage constant at 20° C	85.5 V/1000*min ⁻¹
Winding resistance at 20° C	1.35 Ω
Rotating field inductance	15.2 mH
Electrical time constant	11.30 ms
Mechanical time constant	1.71 ms
Thermal time constant	30 min
Shaft torsional stiffness	28,500 Nm/rad
Net weight of the motor	16.2 kg

Recommended Motor Module	
Rated inverter current	5 A
Maximum inverter current	15 A
Maximum torque	18.00 Nm

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	63
Cooling	Natural cooling
Radial runout tolerance	0.040 mm
Concentricity tolerance	0.10 mm
Axial runout tolerance	0.10 mm
Vibration severity grade	Grade A
Connector size	1
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	with holding brake
Shaft end	Plain shaft
Encoder system	Encoder AM20DQI: absolute encoder 20 bits (resolution 1048576, encoder-internal 512 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)

Gearbox data	
Gearbox type	Planetary gearbox SP+
Designation	SP 100S-MF1
Gearbox shaft end	With feather key
Gear ratio + steps	5 (1-step)
Motor speed S3-60 %	5,500 rpm
Motor speed S1	2,500 rpm
Output torque S1	169 Nm
Rated output torque at duty type S3-60 %	378 Nm
Moment of inertia of gearbox	2.610 kgcm ²
Radial output shaft loading, max.	6,600 N
Axial output shaft load, max.	5,650 N
Efficiency of gearbox	0.97
Torsional backlash	3 ´
Gearbox weight	7.70 kg

Limiting data	
Max. permissible speed (mech.)	7,200 rpm
Max. permissible speed (inverter)	6,700 rpm
Maximum torque	18.0 Nm
Maximum current	15.0 A

Data sheet for SIMOTICS S-1FK7 servo geared motor

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Holding brake	
Holding brake version	Permanent-magnet brake
Holding torque	13.0 Nm
Power supply voltage	DC 24 V ± 10 %
Coil current	0.8 A
Opening time	100 ms
Closing time	50 ms
Highest braking work	380 J

Special design	
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J03 Mounting of SP+ planetary gearbox