



Figure similar

MLFB-Ordering data

1FK7022-5AK71-1LH5-Z  
J17

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data																					
Rated speed (100 K)	6000 rpm	Motor type	Permanent-magnet synchronous motor																				
Number of poles	6	Motor type	Compact																				
Rated torque (100 K)	0.6 Nm	Shaft height	28																				
Rated current	1.4 A	Cooling	Natural cooling																				
Static torque (60 K)	0.70 Nm	Radial runout tolerance	0.035 mm																				
Static torque (100 K)	0.8 Nm	Concentricity tolerance	0.08 mm																				
Stall current (60 K)	1.50 A	Axial runout tolerance	0.08 mm																				
Stall current (100 K)	1.80 A	Vibration severity grade	Grade A																				
Moment of inertia	0.450 kgcm <sup>2</sup>	Connector size	1																				
<table border="1"> <thead> <tr> <th colspan="2">Physical constants</th> </tr> </thead> <tbody> <tr> <td>Torque constant</td> <td>0.46 Nm/A</td> </tr> <tr> <td>Voltage constant at 20° C</td> <td>29.0 V/1000*min<sup>-1</sup></td> </tr> <tr> <td>Winding resistance at 20° C</td> <td>4.20 Ω</td> </tr> <tr> <td>Rotating field inductance</td> <td>9.1 mH</td> </tr> <tr> <td>Electrical time constant</td> <td>2.20 ms</td> </tr> <tr> <td>Mechanical time constant</td> <td>1.70 ms</td> </tr> <tr> <td>Thermal time constant</td> <td>18 min</td> </tr> <tr> <td>Shaft torsional stiffness</td> <td>3000 Nm/rad</td> </tr> <tr> <td>Net weight of the motor</td> <td>5.6 kg</td> </tr> </tbody> </table>		Physical constants		Torque constant	0.46 Nm/A	Voltage constant at 20° C	29.0 V/1000*min <sup>-1</sup>	Winding resistance at 20° C	4.20 Ω	Rotating field inductance	9.1 mH	Electrical time constant	2.20 ms	Mechanical time constant	1.70 ms	Thermal time constant	18 min	Shaft torsional stiffness	3000 Nm/rad	Net weight of the motor	5.6 kg	Degree of protection	IP65 and DE flange IP67
		Physical constants																					
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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 extension	Plain shaft																				
Encoder system	Encoder AM20DQ: absolute encoder 20 bits (resolution 1048576, encoder-internal 512 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)																						



Figure similar

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### Gearbox data

Gearbox type	Planetary gearbox SP+	Moment of inertia of gearbox	0.100 kgcm <sup>2</sup>
Designation	SP 075S-MF2	Radial output shaft loading, max.	4000 N
Gearbox shaft end	With feather key	Axial output shaft load, max.	3350 N
Gear ratio + steps	50 (2-step)	Efficiency of gearbox	0.94
Motor speed S3-60 %	6000 rpm	Torsional backlash	6 '
Motor speed S1	3800 rpm	Gearbox weight	3.60 kg
Output torque S1	75 Nm		
Rated output torque at duty type S3-60 %	110 Nm		

### Special design

J17 Mounting of SP+ planetary gearbox

### Limiting data

Max. permissible speed (mech.)	10000 rpm
Max. permissible speed (inverter)	10000 rpm
Maximum torque	3.4 Nm
Maximum current	8.0 A

### Holding brake

Holding brake version	Permanent-magnet brake
Holding torque	1.0 Nm
Power supply voltage	DC 24 V ± 10 %
Coil current	0.3 A
Opening time	30 ms
Closing time	20 ms
Highest braking work	8 J