



Figure similar

MLFB-Ordering data

1FK7042-2AF74-1AG1-Z  
J25

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)	2.6 Nm	Shaft height	48																				
Rated current	1.9 A	Cooling	Natural cooling																				
Static torque (60 K)	2.50 Nm	Radial runout tolerance	0.040 mm																				
Static torque (100 K)	3.0 Nm	Concentricity tolerance	0.08 mm																				
Stall current (60 K)	1.80 A	Axial runout tolerance	0.08 mm																				
Stall current (100 K)	2.20 A	Vibration severity grade	Grade A																				
Moment of inertia	3.490 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>1.38 Nm/A</td> </tr> <tr> <td>Voltage constant at 20° C</td> <td>90.0 V/1000*min<sup>-1</sup></td> </tr> <tr> <td>Winding resistance at 20° C</td> <td>4.67 Ω</td> </tr> <tr> <td>Rotating field inductance</td> <td>35.0 mH</td> </tr> <tr> <td>Electrical time constant</td> <td>7.50 ms</td> </tr> <tr> <td>Mechanical time constant</td> <td>2.15 ms</td> </tr> <tr> <td>Thermal time constant</td> <td>30 min</td> </tr> <tr> <td>Shaft torsional stiffness</td> <td>15500 Nm/rad</td> </tr> <tr> <td>Net weight of the motor</td> <td>8.5 kg</td> </tr> </tbody> </table>		Physical constants		Torque constant	1.38 Nm/A	Voltage constant at 20° C	90.0 V/1000*min <sup>-1</sup>	Winding resistance at 20° C	4.67 Ω	Rotating field inductance	35.0 mH	Electrical time constant	7.50 ms	Mechanical time constant	2.15 ms	Thermal time constant	30 min	Shaft torsional stiffness	15500 Nm/rad	Net weight of the motor	8.5 kg	Degree of protection	IP65
		Physical constants																					
		Torque constant	1.38 Nm/A																				
		Voltage constant at 20° C	90.0 V/1000*min <sup>-1</sup>																				
		Winding resistance at 20° C	4.67 Ω																				
		Rotating field inductance	35.0 mH																				
		Electrical time constant	7.50 ms																				
		Mechanical time constant	2.15 ms																				
		Thermal time constant	30 min																				
		Shaft torsional stiffness	15500 Nm/rad																				
Net weight of the motor	8.5 kg																						
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 IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track																						



Figure similar

MLFB-Ordering data

1FK7042-2AF74-1AG1-Z  
J25

### Gearbox data

Gearbox type	Planetary gearbox SP+	Moment of inertia of gearbox	0.590 kgcm <sup>2</sup>
Designation	SP 075S-MF1	Radial output shaft loading, max.	4000 N
Gearbox shaft end	Without feather key	Axial output shaft load, max.	3350 N
Gear ratio + steps	7 (1-step)	Efficiency of gearbox	0.97
Motor speed S3-60 %	6000 rpm	Torsional backlash	4 '
Motor speed S1	3100 rpm	Gearbox weight	3.90 kg
Output torque S1	75 Nm		
Rated output torque at duty type S3-60 %	110 Nm		

### Special design

J25 Mounting of SP+ planetary gearbox

### Limiting data

Max. permissible speed (mech.)	9000 rpm
Max. permissible speed (inverter)	6400 rpm
Maximum torque	10.5 Nm
Maximum current	7.6 A