



Figure similar

Data sheet for SIMOTICS S-1FK7

MLFB-Ordering data

1FK7042-2AF71-1SG0-Z
M39

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	2.0 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	2.900 kgcm ²	Connector size	1																				
Efficiency	89.0 %	Degree of protection	IP64																				
<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⁻¹</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>4.6 kg</td> </tr> </tbody> </table>		Physical constants		Torque constant	1.38 Nm/A	Voltage constant at 20° C	90.0 V/1000*min ⁻¹	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	4.6 kg	Design acc. to Code I	IM B5 (IM V1, IM V3)
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Shaft torsional stiffness	15500 Nm/rad																						
Net weight of the motor	4.6 kg																						
		Temperature monitoring	KTY84 temperature sensor in the stator winding																				
		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	Multi-pole resolver (number of pole pairs corresponds to number of pole pairs of the motor)																				

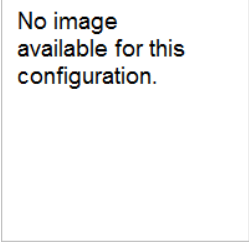


Figure similar

MLFB-Ordering data

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M39**

Optimum operating point

Optimum speed	3000 rpm
Optimum power	0.8 kW

Limiting data

Max. permissible speed (mech.)	6000 rpm
Max. permissible speed (inverter)	6400 rpm
Maximum torque	10.5 Nm
Maximum current	7.6 A

Recommended Motor Module

Rated inverter current	3 A
Maximum inverter current	9 A
Maximum torque	10.50 Nm

Special design

M39 Version for Zone 22 hazardous areas according to EN 50281/IEC 61241