



Figure similar

MLFB-Ordering data

1FK7042-2AF71-1RG1

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)	3.00 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	IP65		
<th colspan="2">Physical constants</th>		Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
		Torque constant	1.38 Nm/A	Temperature monitoring	Pt1000 temperature sensor
		Voltage constant at 20° C	90.0 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
		Winding resistance at 20° C	4.67 Ω	Color of the housing	Standard (Anthracite RAL 7016)
		Rotating field inductance	35.0 mH	Holding brake	without holding brake
		Electrical time constant	7.50 ms	Shaft end	Plain shaft
		Mechanical time constant	2.15 ms	Encoder system	Encoder AM20DQI: absolute encoder 20 bits (resolution 1048576, encoder-internal 512 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)
		Thermal time constant	30 min		
		Shaft torsional stiffness	15500 Nm/rad		
		Net weight of the motor	4.6 kg		



Figure similar

MLFB-Ordering data

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Optimum operating point		Recommended Motor Module	
Optimum speed	3000 rpm	Rated inverter current	3 A
Optimum power	0.8 kW	Maximum inverter current	9 A
Limiting data		Maximum torque	10.50 Nm
Max. permissible speed (mech.)	9000 rpm		
Max. permissible speed (inverter)	6400 rpm		
Maximum torque	10.5 Nm		
Maximum current	7.6 A		



Figure similar

Article No. : 1FK7042-2AF71-1RG1

Client order no. :
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Engineering data

Rated speed (100 K)	3,000 rpm
Number of poles	8
Rated torque (100 K)	2.6 Nm
Rated current	2.0 A
Static torque (60 K)	2.50 Nm
Static torque (100 K)	3.00 Nm
Stall current (60 K)	1.80 A
Stall current (100 K)	2.20 A
Moment of inertia	2.900 kgcm ²
Efficiency	89.0 %

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	15,500 Nm/rad
Net weight of the motor	4.6 kg

Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	48
Cooling	Natural cooling
Radial runout tolerance	0.040 mm
Concentricity tolerance	0.08 mm
Axial runout tolerance	0.08 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	without 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)

Optimum operating point

Optimum speed	3,000 rpm
Optimum power	0.8 kW

Limiting data

Max. permissible speed (mech.)	9,000 rpm
Max. permissible speed (inverter)	6,400 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