



Figure similar

MLFB-Ordering data

1FK7100-2AF71-1PH0

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)	12.0 Nm	Shaft height	100		
Rated current	8.0 A	Cooling	Natural cooling		
Static torque (60 K)	14.90 Nm	Radial runout tolerance	0.050 mm		
Static torque (100 K)	18.0 Nm	Concentricity tolerance	0.10 mm		
Stall current (60 K)	9.00 A	Axial runout tolerance	0.10 mm		
Stall current (100 K)	11.10 A	Vibration severity grade	Grade A		
Moment of inertia	62.000 kgcm ²	Connector size	1		
Efficiency	92.0 %	Degree of protection	IP64		
<th colspan="2">Physical constants</th>		Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
		Torque constant	1.62 Nm/A	Temperature monitoring	Pt1000 temperature sensor
		Voltage constant at 20° C	104.5 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
		Winding resistance at 20° C	0.32 Ω	Color of the housing	Standard (Anthracite RAL 7016)
		Rotating field inductance	7.3 mH	Holding brake	with holding brake
		Electrical time constant	22.50 ms	Shaft extension	Plain shaft
		Mechanical time constant	2.00 ms	Encoder system	Resolver R14DQ: resolver 14 bits (resolution 16384, internal 2-pole)
		Thermal time constant	55 min		
		Shaft torsional stiffness	135000 Nm/rad		
		Net weight of the motor	21.0 kg		



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Optimum operating point

Optimum speed 3000 rpm

Optimum power 3.8 kW

Limiting data

Max. permissible speed (mech.) 5000 rpm

Max. permissible speed (inverter) 5000 rpm

Maximum torque 55.0 Nm

Maximum current 37.0 A

Holding brake

Holding brake version Permanent-magnet brake

Holding torque 23.0 Nm

Power supply voltage DC 24 V \pm 10 %

Coil current 1.0 A

Opening time 300 ms

Closing time 70 ms

Highest braking work 3380 J

Recommended Motor Module

Rated inverter current 18 A

Maximum inverter current 54 A

Maximum torque 55.00 Nm