

MLFB-Ordering data

1FK7043-7AH71-1PA3

Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data	
Rated speed (100 K)	4500 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	6	Motor type	High Dynamic
Rated torque (100 K)	2.6 Nm	Shaft height	48
Rated current	4.0 A	Cooling	Natural cooling
Static torque (60 K)	2.50 Nm	Radial runout tolerance	0.040 mm
Static torque (100 K)	3.1 Nm	Concentricity tolerance	0.08 mm
Stall current (60 K)	3.60 A	Axial runout tolerance	0.08 mm
Stall current (100 K)	4.50 A	Vibration severity grade	Grade A
Moment of inertia	1.010 kgcm ²	Connector size	1
Efficiency	90.0 %	Degree of protection	IP64
Physical constants		Design acc. to Code I	IM B5 (IM V1, IM V3)
Torque constant	0.67 Nm/A	Temperature monitoring	KTY84 temperature sensor in the stator winding
Voltage constant at 20° C	44.0 V/1000*min ⁻¹	Electrical connectors	Connectors for signals and power rotatable
Winding resistance at 20° C	1.20 Ω	Color of the housing	Standard (Anthracite RAL 7016)
Rotating field inductance	15.0 mH	Holding brake	without holding brake
Electrical time constant	12.50 ms	Shaft extension	Feather key
Mechanical time constant	0.81 ms	Encoder system	Resolver R14DQ: resolver 14 bits (resolution 16384, internal 2-pole)
Thermal time constant	40 min		
Shaft torsional stiffness	11000 Nm/rad		
Net weight of the motor	6.3 kg		

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Optimum operating point

Optimum speed 4500 rpm

Optimum power 1.2 kW

Limiting data

Max. permissible speed (mech.) 8000 rpm

Max. permissible speed (inverter) 13100 rpm

Maximum torque 9.4 Nm

Maximum current 14.8 A

Recommended Motor Module

Rated inverter current 5 A

Maximum inverter current 10 A

Maximum torque 6.80 Nm