

Article No. : 1FK7044-7AH71-1AG2

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Figure similar

Engineering data

Rated speed (100 K)	4,500 rpm
Number of poles	6
Rated torque (100 K)	3.0 Nm
Rated current	4.9 A
Static torque (60 K)	3.00 Nm
Static torque (100 K)	4.00 Nm
Stall current (60 K)	4.60 A
Stall current (100 K)	6.30 A
Moment of inertia	1.280 kgcm ²
Efficiency	91.0 %

Physical constants

Torque constant	0.63 Nm/A
Voltage constant at 20° C	42.0 V/1000*min ⁻¹
Winding resistance at 20° C	0.81 Ω
Rotating field inductance	11.0 mH
Electrical time constant	13.50 ms
Mechanical time constant	0.78 ms
Thermal time constant	45 min
Shaft torsional stiffness	9,500 Nm/rad
Net weight of the motor	7.7 kg

Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
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 and DE flange IP67
Design acc. to Code I	IM B5 (IM V1, IM V3)
Temperature monitoring	KTY84 temperature sensor in the stator winding
Electrical connectors	Connectors for signals and power rotatable
Color of the housing	without
Holding brake	without holding brake
Shaft end	Plain shaft
Encoder system	Encoder IC2048S/R: incremental encoder sin/cos 1 Vpp 2048 S/R with C and D track

Optimum operating point

Optimum speed	4,500 rpm
Optimum power	1.4 kW

Limiting data

Max. permissible speed (mech.)	8,000 rpm
Max. permissible speed (inverter)	13,300 rpm
Maximum torque	12.0 Nm
Maximum current	20.0 A

Recommended Motor Module

Rated inverter current	9 A
Maximum inverter current	18 A
Maximum torque	11.00 Nm