



Figure similar

Article No. : **1FK7086-4CF71-1CH1-Z**
N24

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

Item no. :
Consignment no. :
Project :

Engineering data

Rated speed (100 K)	3,000 rpm
Number of poles	8
Rated torque (100 K)	6.5 Nm
Rated current	5.7 A
Static torque (60 K)	23.00 Nm
Static torque (100 K)	28.00 Nm
Stall current (60 K)	17.40 A
Stall current (100 K)	21.50 A
Moment of inertia	37.400 kgcm ²
Efficiency	93.0 %

Physical constants

Torque constant	1.30 Nm/A
Voltage constant at 20° C	84.5 V/1000*min ⁻¹
Winding resistance at 20° C	0.12 Ω
Rotating field inductance	3.1 mH
Electrical time constant	26.50 ms
Mechanical time constant	0.46 ms
Thermal time constant	65 min
Shaft torsional stiffness	63,000 Nm/rad
Net weight of the motor	26.0 kg

Mechanical data

Motor type	Permanent-magnet synchronous motor
Motor type	High Dynamic
Shaft height	80
Cooling	Natural cooling
Radial runout tolerance	0.050 mm
Concentricity tolerance	0.10 mm
Axial runout tolerance	0.10 mm
Vibration severity grade	Grade A
Connector size	1.5
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	Option: reinforced brake
Shaft end	Plain shaft
Encoder system	Encoder AM24DQI: absolute encoder 24 bits (resolution 16777216, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)

Optimum operating point

Optimum speed	2,000 rpm
Optimum power	3.8 kW

Limiting data

Max. permissible speed (mech.)	6,000 rpm
Max. permissible speed (inverter)	6,000 rpm
Maximum torque	105.0 Nm
Maximum current	115.0 A

Holding brake

Holding brake version	Permanent-magnet brake
Holding torque	48.0 Nm
Power supply voltage	DC 24 V ± 10 %
Coil current	1.0 A
Opening time	220 ms
Closing time	65 ms
Highest braking work	1,900 J

Recommended Motor Module

Rated inverter current	30 A
Maximum inverter current	72 A
Maximum torque	79.30 Nm

Special design

N24 Reinforced brake