

Article No. : 1FK7083-5AF71-1UA3-Z
X01

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

Item no. :
Consignment no. :
Project :

Figure similar

Engineering data	
Rated speed (100 K)	3,000 rpm
Number of poles	8
Rated torque (100 K)	10.5 Nm
Rated current	7.4 A
Static torque (60 K)	13.30 Nm
Static torque (100 K)	16.00 Nm
Stall current (60 K)	8.60 A
Stall current (100 K)	10.40 A
Moment of inertia	27.300 kgcm ²
Efficiency	93.0 %

Physical constants	
Torque constant	1.52 Nm/A
Voltage constant at 20° C	97.0 V/1000*min ⁻¹
Winding resistance at 20° C	0.40 Ω
Rotating field inductance	6.0 mH
Electrical time constant	15.50 ms
Mechanical time constant	1.41 ms
Thermal time constant	50 min
Shaft torsional stiffness	105,000 Nm/rad
Net weight of the motor	14.0 kg

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
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
Degree of protection	IP64
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	Jet black, matt RAL 9005
Holding brake	without holding brake
Shaft end	Feather key

Encoder system	Resolver R15DQ: resolver 15 bits (resolution 32768, internal multi-pole)
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Optimum operating point	
Optimum speed	3,000 rpm
Optimum power	3.3 kW

Limiting data	
Max. permissible speed (mech.)	6,000 rpm
Max. permissible speed (inverter)	5,900 rpm
Maximum torque	50.0 Nm
Maximum current	37.0 A

Recommended Motor Module	
Rated inverter current	9 A
Maximum inverter current	18 A
Maximum torque	27.80 Nm

Special design	
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X01 Paint finish: Jet black, matt RAL 9005