



Figure similar

MLFB-Ordering data

1FK7042-5AK71-1EH3-Z
V40

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data			
Rated speed (100 K)	6000 rpm	Motor type	Permanent-magnet synchronous motor		
Number of poles	8	Motor type	Compact		
Rated torque (100 K)	1.5 Nm	Shaft height	48		
Rated current	2.5 A	Cooling	Natural cooling		
Static torque (60 K)	2.50 Nm	Radial runout tolerance	0.040 mm		
Static torque (100 K)	3.0 Nm	Concentricity tolerance	0.08 mm		
Stall current (60 K)	3.60 A	Axial runout tolerance	0.08 mm		
Stall current (100 K)	4.40 A	Vibration severity grade	Grade A		
Moment of inertia	4.060 kgcm ²	Connector size	1		
Physical constants		Degree of protection	IP64		
		Torque constant	0.69 Nm/A	Design acc. to Code I	IM B5 (IM V1, IM V3)
		Voltage constant at 20° C	44.0 V/1000*min ⁻¹	Temperature monitoring	KTY84 temperature sensor in the stator winding
		Winding resistance at 20° C	1.20 Ω	Electrical connectors	Connectors for signals and power rotatable
		Rotating field inductance	6.7 mH	Color of the housing	Standard (Anthracite RAL 7016)
		Electrical time constant	5.60 ms	Holding brake	with holding brake
		Mechanical time constant	2.27 ms	Shaft extension	Plain shaft
		Thermal time constant	30 min	Encoder system	Encoder AM2048S/R: absolute encoder 2048 S/R, 4096 revolutions multi-turn, with EnDat interface
		Shaft torsional stiffness	16000 Nm/rad		
		Net weight of the motor	9.2 kg		
Recommended Motor Module					
		Rated inverter current	5 A		
		Maximum inverter current	10 A		
Maximum torque	6.80 Nm				



Figure similar

MLFB-Ordering data

1FK7042-5AK71-1EH3-Z
V40

Gearbox data

Gearbox type	Planetary gearbox NP+	Moment of inertia of gearbox	0.610 kgcm ²
Designation	NP 025	Radial output shaft loading, max.	2800 N
Gearbox shaft end	With feather key	Axial output shaft load, max.	0 N
Gear ratio + steps	5 (1-step)	Efficiency of gearbox	0.97
Temporary input speed	7000 rpm	Torsional backlash	8 '
Motor speed S1	3400 rpm	Gearbox weight	3.80 kg
Output torque S1	50 Nm		
Output moment maximum (short-time)	100 Nm		

Special design

V40 Mounting of NP+ planetary gearbox

Limiting data

Max. permissible speed (mech.)	9000 rpm
Max. permissible speed (inverter)	9990 rpm
Maximum torque	10.5 Nm
Maximum current	15.3 A

Holding brake

Holding brake version	Permanent-magnet brake
Holding torque	4.0 Nm
Power supply voltage	DC 24 V ± 10 %
Coil current	0.5 A
Opening time	70 ms
Closing time	30 ms
Highest braking work	150 J