



Figure similar

MLFB-Ordering data

**1FK7044-4CH71-1RG0-Z
V42**

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)	3.0 Nm	Shaft height	48
Rated current	3.9 A	Cooling	Natural cooling
Static torque (60 K)	3.75 Nm	Radial runout tolerance	0.040 mm
Static torque (100 K)	4.5 Nm	Concentricity tolerance	0.08 mm
Stall current (60 K)	4.35 A	Axial runout tolerance	0.08 mm
Stall current (100 K)	5.40 A	Vibration severity grade	Grade A
Moment of inertia	1.750 kgcm ²	Connector size	1
Physical constants		Degree of protection	IP64
Torque constant	0.83 Nm/A	Design acc. to Code I	IM B5 (IM V1, IM V3)
Voltage constant at 20° C	53.0 V/1000*min ⁻¹	Temperature monitoring	Pt1000 temperature sensor
Winding resistance at 20° C	0.81 Ω	Electrical connectors	Connectors for signals and power rotatable
Rotating field inductance	10.2 mH	Color of the housing	Standard (Anthracite RAL 7016)
Electrical time constant	12.50 ms	Holding brake	without holding brake
Mechanical time constant	0.44 ms	Shaft extension	Plain shaft
Thermal time constant	45 min	Encoder system	Encoder AM20DQI: absolute encoder 20 bits (resolution 1048576, encoder-internal 512 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)
Shaft torsional stiffness	9800 Nm/rad		
Net weight of the motor	11.2 kg		
Recommended Motor Module			
Rated inverter current	9 A		
Maximum inverter current	27 A		
Maximum torque	13.00 Nm		



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Gearbox data			
Gearbox type	Planetary gearbox NP+	Moment of inertia of gearbox	0.490 kgcm²
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	10 (1-step)	Efficiency of gearbox	0.97
Temporary input speed	7000 rpm	Torsional backlash	8 '
Motor speed S1	3900 rpm	Gearbox weight	3.80 kg
Output torque S1	45 Nm		
Output moment maximum (short-time)	90 Nm		

Limiting data	
Max. permissible speed (mech.)	9000 rpm
Max. permissible speed (inverter)	9000 rpm
Maximum torque	13.0 Nm
Maximum current	16.4 A

Special design	
V42	Mounting of NP+ planetary gearbox