



Figure similar

MLFB-Ordering data

1FK7043-4CK71-1QG0-Z  
V42

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

### Engineering data

Rated speed (100 K)	6000 rpm
Number of poles	6
Rated torque (100 K)	2.0 Nm
Rated current	3.5 A
Static torque (60 K)	2.90 Nm
Static torque (100 K)	3.5 Nm
Stall current (60 K)	4.50 A
Stall current (100 K)	5.60 A
Moment of inertia	1.490 kgcm <sup>2</sup>

### Physical constants

Torque constant	0.63 Nm/A
Voltage constant at 20° C	39.8 V/1000*min <sup>-1</sup>
Winding resistance at 20° C	0.65 Ω
Rotating field inductance	7.4 mH
Electrical time constant	11.50 ms
Mechanical time constant	0.49 ms
Thermal time constant	40 min
Shaft torsional stiffness	11400 Nm/rad
Net weight of the motor	9.8 kg

### Recommended Motor Module

Rated inverter current	9 A
Maximum inverter current	27 A
Maximum torque	10.00 Nm

### 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	IP64
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	without holding brake
Shaft extension	Plain shaft
Encoder system	Encoder AS20DQI: absolute encoder single-turn 20 bits



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### Gearbox data

Gearbox type	Planetary gearbox NP+	Moment of inertia of gearbox	0.490 kgcm <sup>2</sup>
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		

### Special design

V42 Mounting of NP+ planetary gearbox

### Limiting data

Max. permissible speed (mech.)	9000 rpm
Max. permissible speed (inverter)	9000 rpm
Maximum torque	10.0 Nm
Maximum current	17.0 A