



Figure similar

MLFB-Ordering data

**1FK7100-2AF71-1RH0-Z
V42**

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Mechanical data	
Rated speed (100 K)	3000 rpm	Motor type	Permanent-magnet synchronous motor
Number of poles	8	Motor type	Compact
Rated torque (100 K)	12.0 Nm	Shaft height	100
Rated current	8.0 A	Cooling	Natural cooling
Static torque (60 K)	14.90 Nm	Radial runout tolerance	0.050 mm
Static torque (100 K)	18.0 Nm	Concentricity tolerance	0.10 mm
Stall current (60 K)	9.00 A	Axial runout tolerance	0.10 mm
Stall current (100 K)	11.10 A	Vibration severity grade	Grade A
Moment of inertia	69.200 kgcm ²	Connector size	1
Physical constants		Degree of protection	IP64
Torque constant	1.62 Nm/A	Design acc. to Code I	IM B5 (IM V1, IM V3)
Voltage constant at 20° C	104.5 V/1000*min ⁻¹	Temperature monitoring	Pt1000 temperature sensor
Winding resistance at 20° C	0.32 Ω	Electrical connectors	Connectors for signals and power rotatable
Rotating field inductance	7.3 mH	Color of the housing	Standard (Anthracite RAL 7016)
Electrical time constant	22.50 ms	Holding brake	with holding brake
Mechanical time constant	2.00 ms	Shaft extension	Plain shaft
Thermal time constant	55 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	135000 Nm/rad		
Net weight of the motor	40.0 kg		
Recommended Motor Module			
Rated inverter current	18 A		
Maximum inverter current	54 A		
Maximum torque	55.00 Nm		



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Gearbox data			
Gearbox type	Planetary gearbox NP+	Moment of inertia of gearbox	7.200 kgcm²
Designation	NP 045	Radial output shaft loading, max.	8000 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	4000 rpm	Torsional backlash	8 '
Motor speed S1	2300 rpm	Gearbox weight	19.00 kg
Output torque S1	200 Nm		
Output moment maximum (short-time)	400 Nm		

Limiting data	
Max. permissible speed (mech.)	5000 rpm
Max. permissible speed (inverter)	5000 rpm
Maximum torque	55.0 Nm
Maximum current	37.0 A

Holding brake	
Holding brake version	Permanent-magnet brake
Holding torque	23.0 Nm
Power supply voltage	DC 24 V ± 10 %
Coil current	1.0 A
Opening time	300 ms
Closing time	70 ms
Highest braking work	3380 J

Special design	
V42	Mounting of NP+ planetary gearbox