



Figure similar

MLFB-Ordering data 1FK7032-2AK71-1CH0-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	6	Motor type	Compact
Rated torque (100 K)	0.8 Nm	Shaft height	36
Rated current	1.3 A	Cooling	Natural cooling
Static torque (60 K)	0.95 Nm	Radial runout tolerance	0.035 mm
Static torque (100 K)	1.10 Nm	Concentricity tolerance	0.08 mm
Stall current (60 K)	1.40 A	Axial runout tolerance	0.08 mm
Stall current (100 K)	1.70 A	Vibration severity grade	Grade A
Moment of inertia	1.020 kgcm²	Connector size	1
Physical constants		Degree of protection	IP64
Torque constant	0.67 Nm/A	Design acc. to Code I	IM B5 (IM V1, IM V3)
Voltage constant at 20° C	45.0 V/1000*min ⁻¹	Temperature monitoring	Pt1000 temperature sensor
Winding resistance at 20° C	5.05 Ω	Electrical connectors	Connectors for signals and power rotatable
Rotating field inductance	17.3 mH	Color of the housing	Standard (Anthracite RAL 7016)
Electrical time constant	3.45 ms	Holding brake	with holding brake
Mechanical time constant	2.20 ms	Shaft end	Plain shaft
Thermal time constant	25 min	Encoder system	Encoder AM24DQI: absolute encoder 24 bits (resolution 16777216, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)
Shaft torsional stiffness	4100 Nm/rad		
Net weight of the motor	5.0 kg		
Recommended Motor Module			
Rated inverter current	3 A		
Maximum inverter current	9 A		
Maximum torque	4.50 Nm		



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Gearbox data			
Gearbox type	Planetary gearbox NP+	Moment of inertia of gearbox	0.270 kgcm²
Designation	NP 015	Radial output shaft loading, max.	1700 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	8000 rpm	Torsional backlash	8 '
Motor speed S1	3700 rpm	Gearbox weight	1.90 kg
Output torque S1	21 Nm		
Output moment maximum (short-time)	40 Nm		

Limiting data	
Max. permissible speed (mech.)	10000 rpm
Max. permissible speed (inverter)	10000 rpm
Maximum torque	4.5 Nm
Maximum current	7.0 A

Holding brake	
Holding brake version	Permanent-magnet brake
Holding torque	1.9 Nm
Power supply voltage	DC 24 V ± 10 %
Coil current	0.3 A
Opening time	50 ms
Closing time	30 ms
Highest braking work	40 J

Special design	
V40	Mounting of NP+ planetary gearbox

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Client order no. :
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Engineering data	
Rated speed (100 K)	6,000 rpm
Number of poles	6
Rated torque (100 K)	0.8 Nm
Rated current	1.3 A
Static torque (60 K)	0.95 Nm
Static torque (100 K)	1.10 Nm
Stall current (60 K)	1.40 A
Stall current (100 K)	1.70 A
Moment of inertia	1.020 kgcm²

Physical constants	
Torque constant	0.67 Nm/A
Voltage constant at 20° C	45.0 V/1000*min ⁻¹
Winding resistance at 20° C	5.05 Ω
Rotating field inductance	17.3 mH
Electrical time constant	3.45 ms
Mechanical time constant	2.20 ms
Thermal time constant	25 min
Shaft torsional stiffness	4,100 Nm/rad
Net weight of the motor	5.0 kg

Recommended Motor Module	
Rated inverter current	3 A
Maximum inverter current	9 A
Maximum torque	4.50 Nm

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	36
Cooling	Natural cooling
Radial runout tolerance	0.035 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	with holding brake
Shaft end	Plain shaft
Encoder system	Encoder AM24DQI: absolute encoder 24 bits (resolution 16777216, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)

Gearbox data	
Gearbox type	Planetary gearbox NP+
Designation	NP 015
Gearbox shaft end	With feather key
Gear ratio + steps	5 (1-step)
Temporary input speed	8,000 rpm
Motor speed S1	3,700 rpm
Output torque S1	21 Nm
Output moment maximum (short-time)	40 Nm
Moment of inertia of gearbox	0.270 kgcm²
Radial output shaft loading, max.	1,700 N
Axial output shaft load, max.	0 N
Efficiency of gearbox	0.97
Torsional backlash	8 ´
Gearbox weight	1.90 kg

Limiting data	
Max. permissible speed (mech.)	10,000 rpm
Max. permissible speed (inverter)	10,000 rpm
Maximum torque	4.5 Nm
Maximum current	7.0 A

Data sheet for SIMOTICS S-1FK7 servo geared motor

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Figure similar

Holding brake	
Holding brake version	Permanent-magnet brake
Holding torque	1.9 Nm
Power supply voltage	DC 24 V ± 10 %
Coil current	0.3 A
Opening time	50 ms
Closing time	30 ms
Highest braking work	40 J

Special design	
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V40 Mounting of NP+ planetary gearbox