

Article No. : 1FK7043-7AK71-1EG5-Z
J09

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :



Figure similar

Engineering data	
Rated speed (100 K)	6,000 rpm
Number of poles	6
Rated torque (100 K)	2.0 Nm
Rated current	4.4 A
Static torque (60 K)	2.50 Nm
Static torque (100 K)	3.10 Nm
Stall current (60 K)	4.80 A
Stall current (100 K)	6.40 A
Moment of inertia	1.550 kgcm²

Physical constants	
Torque constant	0.48 Nm/A
Voltage constant at 20° C	32.0 V/1000*min ⁻¹
Winding resistance at 20° C	0.65 Ω
Rotating field inductance	9.0 mH
Electrical time constant	13.80 ms
Mechanical time constant	0.85 ms
Thermal time constant	40 min
Shaft torsional stiffness	11,000 Nm/rad
Net weight of the motor	10.2 kg

Recommended Motor Module	
Rated inverter current	9 A
Maximum inverter current	18 A
Maximum torque	8.50 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	IP65 and DE flange IP67
Design acc. to Code I	IM B5 (IM V1, IM V3)
Temperature monitoring	KTY84 temperature sensor in the stator winding
Electrical connectors	Connectors for signals and power rotatable
Color of the housing	Standard (Anthracite RAL 7016)
Holding brake	without holding brake
Shaft end	Plain shaft
Encoder system	Encoder AM2048S/R: absolute encoder 2048 S/R, 4096 revolutions multi-turn, with EnDat interface

Gearbox data	
Gearbox type	Planetary gearbox SP+
Designation	SP 075S-MF1
Gearbox shaft end	With feather key
Gear ratio + steps	10 (1-step)
Motor speed S3-60 %	7,500 rpm
Motor speed S1	3,100 rpm
Output torque S1	81 Nm
Rated output torque at duty type S3-60 %	114 Nm
Moment of inertia of gearbox	0.540 kgcm²
Radial output shaft loading, max.	4,200 N
Axial output shaft load, max.	3,350 N
Efficiency of gearbox	0.97
Torsional backlash	4 ´
Gearbox weight	3.90 kg

Limiting data	
Max. permissible speed (mech.)	8,000 rpm
Max. permissible speed (inverter)	13,300 rpm
Maximum torque	9.4 Nm
Maximum current	20.0 A

Data sheet for SIMOTICS S-1FK7 servo geared motor

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Special design

J09 Mounting of SP+ planetary gearbox



Figure similar