

Article No. : 1FK7063-5AF71-1FG5-Z
J12

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

Item no. :
Consignment no. :
Project :



Figure similar

Engineering data	
Rated speed (100 K)	3,000 rpm
Number of poles	8
Rated torque (100 K)	7.3 Nm
Rated current	5.6 A
Static torque (60 K)	9.10 Nm
Static torque (100 K)	11.00 Nm
Stall current (60 K)	6.60 A
Stall current (100 K)	8.00 A
Moment of inertia	18.290 kgcm ²

Physical constants	
Torque constant	1.37 Nm/A
Voltage constant at 20° C	87.5 V/1000*min ⁻¹
Winding resistance at 20° C	0.65 Ω
Rotating field inductance	7.7 mH
Electrical time constant	11.80 ms
Mechanical time constant	1.56 ms
Thermal time constant	40 min
Shaft torsional stiffness	35,000 Nm/rad
Net weight of the motor	28.5 kg

Recommended Motor Module	
Rated inverter current	9 A
Maximum inverter current	18 A
Maximum torque	24.50 Nm

Mechanical data	
Motor type	Permanent-magnet synchronous motor
Motor type	Compact
Shaft height	63
Cooling	Natural cooling
Radial runout tolerance	0.040 mm
Concentricity tolerance	0.10 mm
Axial runout tolerance	0.10 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 AM22DQ: absolute encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)

Gearbox data	
Gearbox type	Planetary gearbox SP+
Designation	SP 140S-MF2
Gearbox shaft end	With feather key
Gear ratio + steps	16 (2-step)
Motor speed S3-60 %	6,000 rpm
Motor speed S1	2,900 rpm
Output torque S1	461 Nm
Rated output torque at duty type S3-60 %	726 Nm
Moment of inertia of gearbox	3.190 kgcm ²
Radial output shaft loading, max.	9,900 N
Axial output shaft load, max.	9,870 N
Efficiency of gearbox	0.94
Torsional backlash	5 ´
Gearbox weight	17.00 kg

Limiting data	
Max. permissible speed (mech.)	7,200 rpm
Max. permissible speed (inverter)	6,600 rpm
Maximum torque	35.0 Nm
Maximum current	28.0 A

Data sheet for SIMOTICS S-1FK7 servo geared motor

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Special design

J12 Mounting of SP+ planetary gearbox



Figure similar