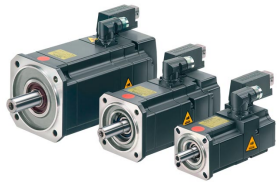
SIEMENS

synchronous servomotor



Ordering data **1FK7101-5AF71-1FH0**

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

Item no. :
Consignment no. :
Project :

Engineering data

Rated speed	3000 1/min
Number of poles	8
Rated torque (100 K)	15.5 Nm
Rated motor current	11.8 A
Static torque (60 K)	22.40 Nm
Static torque (100 K)	27.0 Nm
Stall current (60 K)	15.7 A
Stall current (100 K)	19.0 A
Rotor moment of inertia	0.0092300 kgm²
Efficiency	93.0 %

Physical constants

Torque constant	1.41 Nm/A
Voltage constant at 20º C	90.0 V/1000*min⁻¹
Winding resistance at 20º C	0.15 Ω
Rotating field inductance	3.0 mH
Electrical time constant	20.00 ms
Mechanical time constant	1.80 ms
Thermal time constant	60 min
Shaft torsional stiffness	165000 Nm/rad
Net weight of the motor	24.0 kg

Mechanical data

Motor type	Compact
Shaft height	100 mm
Encoder system	Encoder AM22DQ: absolute encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)
Cooling	Natural cooling
Holding brake	Permanent-magnet brake instead of spring-loaded brake (only for
Shaft extension	Plain shaft
Radial runout tolerance	N
Vibration severity grade	Grade A
Connector size	1.5
Degree of protection	IP64
Design acc. to Code I	IM B5 (IM V1, IM V3)
Electrical connectors	Connectors for signals and power rotatable
Color of the housing	Unpainted

Optimum operating point

Optimum speed	3000 1/min
Optimum power	4.9 kW

Recommended motor module

Rated inverter current	18 A
Maximum inverter current	36 A
Maximum torque	51.00 Nm