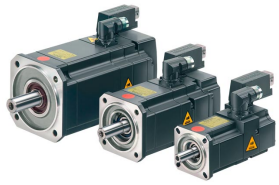
SIEMENS

synchronous servomotor



Ordering data : **1FK7042-5AF21-1PA3**

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) :	2.6 Nm
Rated motor current :	3.5 A
Static torque (60 K) :	2.50 Nm
Static torque (100 K) :	3.0 Nm
Stall current (60 K) :	3.2 A
Stall current (100 K) :	3.9 A
Rotor moment of inertia :	0.0003010 kgm²
Efficiency :	89.0 %

Physical constants / :

Torque constant :	0.77 Nm/A
Voltage constant at 20º C :	49.0 V/1000*min⁻¹
Winding resistance at 20º C :	1.42 Ω
Rotating field inductance :	8.0 mH
Electrical time constant :	5.60 ms
Mechanical time constant :	2.16 ms
Thermal time constant :	30 min
Shaft torsional stiffness :	16000 Nm/rad
Net weight of the motor :	4.9 kg

Mechanical data :

Design of the motor type :	Compact
Shaft height :	48 mm
Sensor design :	Resolver 14 bit
Cooling :	Natural cooling
Holding brake type :	no break
Shaft end type :	Fitted key and keyway
Radial runout tolerance :	N
Vibration severity grade :	Grade A
Degree of protection :	IP64
Design acc. to Code I :	IM B5 (IM V1, IM V3)
Arrangement of electrical connectors :	Connectors for signals and power rotatable
Color of the housing :	Anthracite RAL 7016

Optimum operating point :

Optimum speed :	3000 1/min
Optimum power :	0.8 kW

Recommended motor module / :

Rated inverter current :	4 A
Maximum inverter current :	8 A
Maximum torque :	6.00 Nm

Special design /

Technical data are subject to change! There may be discrepancies between calculated and rating plate values.

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