

synchronous servomotor



Ordering data

1FK7043-7AH71-1DB3

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Engineering data		Physical constants	
Rated speed	4500 rpm	Torque constant	0.67 Nm/A
Number of poles	6	Voltage constant at 20° C	44.0 V/1000*min ⁻¹
Rated torque (100 K)	2.6 Nm	Winding resistance at 20° C	1.20 Ω
Rated motor current	4.0 A	Rotating field inductance	15.0 mH
Static torque (60 K)	2.50 Nm	Electrical time constant	12.50 ms
Static torque (100 K)	3.1 Nm	Mechanical time constant	0.81 ms
Stall current (60 K)	3.6 A	Thermal time constant	40 min
Stall current (100 K)	4.5 A	Shaft torsional stiffness	11000 Nm/rad
Rotor moment of inertia	0.0001140 kgm ²	Net weight of the motor	7.0 kg
Efficiency	90.0 %		

Mechanical data		Optimum operating point	
Motor type	High Dynamic	Optimum speed	4500 rpm
Shaft height	48 mm	Optimum power	1.2 kW
Encoder system	Encoder IC22DQ: incremental encoder 22 bits (resolution 4194304, encoder-internal 2048 S/R) + commutation position 11 bits		
Cooling	Natural cooling		
Holding brake	Spring-operated brake		
Shaft extension	Fitted key and keyway		
Radial runout tolerance	N		
Vibration severity grade	Grade A		
Connector size	1		
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	Anthracite RAL 7016		

Recommended motor module	
Rated inverter current	5 A
Maximum inverter current	10 A
Maximum torque	6.80 Nm