

Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1505-5RE24-2AR1-Z
D25+K06



Figure similar

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

Item no. :
Consignment no. :
Project :

Gearbox data

Gear box type	K49
Gearbox basic type	Bevel geared
Gearbox size	49
Transmission stages	3
Transmission (ratio)	32.57
Gear number relation	228/7
Output moment maximum (short-time)	425 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	138 rpm
Emergency off output moment (1000 cycles)	710 Nm
Radial force maximum	4,350 N
Max. permissible radial force with Mmax	4,310 N
Moment of inertia	1.00 kgcm ²
Torsional stiffness	40 Nm/°
Efficiency	0.93
Mounting position	M5-B
Mounting type	Foot-mounted
Output shaft version	Hollow shaft standard
Output shaft dimension	H35 mm
Gearbox flange diameter	-/-
Figure 2 torque support	-

General tech. specifications

Degree of protection	IP65
Color of the housing	Standard painting (Anthracite RAL 7016)
Specification	CE / UL / CSA / EAC / cRUus
Net weight	27.28 kg
1 m-sound pressure level L _{pA} (Tol.+3dB(A))	70
Plug position	top (default) (2)
Adapter flange position	top (default) (2)

Lubrication and sealing

Gear oil	Mineral oil CLP ISO VG220
Output shaft sealing	Standard
Oil charge	1.60 l

Motor data

Motor type	Permanent-magnet synchronous motor
Motor type	Compact
DC-link voltage, max.	510...720V
Shaft height	63 mm
Cooling	Natural cooling
Rated speed	4,500 rpm
Rated torque (100K)	3.00 Nm
Rated power	1.41 kW
Rated current (100K)	3.30 A
Static torque	7.50 Nm
Static current	7.30 A
Moment of inertia	11.20 kgcm ²
Efficiency η	91 %
Temperature monitoring	Pt1000 temperature sensor
Connector size	1
Encoder system	Encoder AM20DQI: absolute encoder 20 bits (resolution 1048576, encoder-internal 512 S/R) + 12 bits multi-turn (traversing range 4096 revolutions)

Limiting data

Maximum speed (short-time)	7,200 rpm
Maximum torque	26.00 Nm
Motor current short term	29.0 A

Optimum operating point

Optimum speed	3,870 rpm
Optimum power	1.75 kW

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Recommended Motor Module

Rated inverter current	9.0 A
Maximum inverter current	27.0 A
Maximum torque	24.8 Nm

Standards

Compliance with standards	CE / UL / CSA / EAC / cRUus
CE marking	EN 60034

Options

D25	M5-B for bevel and worm gearboxes
K06	Mineral oil CLP ISO VG220

Info servo geared motor

Outside the standard temperature range of -10 to +40 °C, further selectable options must be observed, in addition to the lubricant selection.

Further, you have to check the suitability of the components and options used for the requested temperature range.