

Data sheet for SIMOTICS S-1FG1

Article No. : **1FG1402-5ZE02-2DA1-Z**
D01+J4R+K12+N23

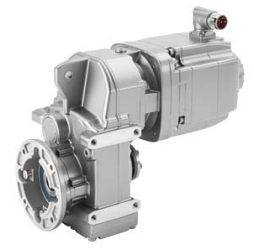


Figure similar

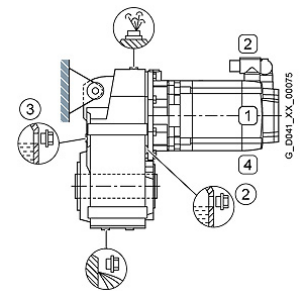
Client order no. :
 Order no. :
 Offer no. :
 Remarks :

Item no. :
 Consignment no. :
 Project :

Gearbox data	
Gear box type	FD39
Gearbox basic type	Parallel shaft geared F
Gearbox size	39
Transmission stages	3
Transmission (ratio)	48.29
Gear number relation	114939/2380
Output moment maximum (short-time)	305 Nm
max. input speed (briefly)	4,500 rpm
Output speed short-time	93 rpm
Emergency off output moment (1000 cycles)	490 Nm
Radial force maximum	5,820 N
Max. permissible radial force with Mmax	5,760 N
Moment of inertia	0.52 kgcm ²
Torsional stiffness	26 Nm/°
Efficiency	0.91
Mounting position	M1
Mounting type	Torque plate
Output shaft version	Hollow shaft standard
Output shaft dimension	H30 mm
Gearbox flange diameter	-/-
Output shaft bearing	No
Figure 2 torque support	-

General tech. specifications	
Color of the housing	Standard painting (Anthracite RAL 7016)
Specification	CE / UL / CSA / EAC / cRUus
Net weight	21.70 kg
1m-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	Synthetic oil CLP PAO VG220
Output shaft sealing	Standard
Oil charge	0.95 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	2,000 rpm
Rated torque (100K)	4.45 Nm
Rated power	0.93 kW
Rated current (100K)	2.55 A
Static torque	5.30 Nm
Static current	2.85 A
Moment of inertia	8.70000 kgcm ²
Efficiency η	91 %
Temperature monitoring	Pt1000 temperature sensor
Connector size	1
Degree of protection	IP65
Encoder system	Encoder AM20DQI with nickel-plated M17 round connector: 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	18.00 Nm
Motor current short term	10.7 A

Optimum operating point	
Optimum speed	2,000 rpm
Optimum power	0.93 kW

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Recommended Motor Module

Rated inverter current	3.0 A
Maximum inverter current	9.0 A
Maximum torque	15.9 Nm

Holding brake

Holding brake	with holding brake
Holding brake version	Permanent-magnet brake
Power supply voltage	DC 24 V \pm 10 %
Dynamic braking torque M_{1Br}	8.50 Nm
Holding torque M_{4Br}	13.00 Nm
Rated current	0.8 A
Opening time	100.0 ms
Closing time	50.0 ms
Maximum switching energy per braking action	380.0 J

Standards

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

Options

D01	M1 for helical and parallel shaft gearboxes
J4R	AM20DQI encoder with M17 connector
K12	Poly-alpha-olefin oil CLP ISO PAO VG220
N23	Standard holding brake (permanent magnet brake)

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.