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## Data sheet for SIMOTICS S-1FG1

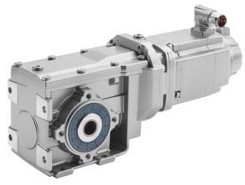


Figure similar

**Article No. :** 1FG1510-5RG53-2CM1-Z
D14+K07+N23

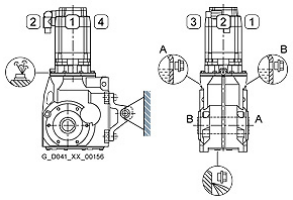
Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

| Gearbox data | |
|---|---|
| Gear box type | K89 |
| Gearbox basic type | Bevel geared B / K |
| Gearbox size | 89 |
| Transmission stages | 3 |
| Transmission (ratio) | 24.86 |
| Gear number relation | 2387/96 |
| Output moment maximum (short-time) | 1,610 Nm |
| max. input speed (briefly) | 4,500 rpm |
| Output speed short-time | 181 rpm |
| Emergency off output moment (1000 cycles) | 2,720 Nm |
| Radial force maximum | 18,100 N |
| Max. permissible radial force with Mmax | 18,100 N |
| Moment of inertia | 3.80 kgcm² |
| Torsional stiffness | 143 Nm/' |
| Efficiency | 0.95 |
| Mounting position | M4-A |
| Mounting type | Torque plate |
| Output shaft version | Hollow shaft standard |
| Output shaft dimension | H50 mm |
| Gearbox flange diameter | -/- |
| Figure 2 torque support | - |

| General tech. specifications | |
|---|---|
| Color of the housing | Standard painting (Anthracite RAL 7016) |
| Specification | CE / UL / CSA / EAC / cRUus |
| Net weight | 111.93 kg |
| 1m-sound pressure level $L_{pA}$ (Tol.+3dB(A)) | 75 |
| Plug position | top (default) (2) |
| Adapter flange position | top (default) (2) |

| Lubrication and sealing | |
|---|---|
| Gear oil | Synthetic oil CLP PG VG220 |
| Output shaft sealing | Standard |
| Oil charge | 6.90 l |



| Motor data | |
|---|---|
| Motor type | Permanent-magnet synchronous motor |
| Motor type | Compact |
| DC-link voltage, max. | 510...720V |
| Shaft height | 100 mm |
| Cooling | Natural cooling |
| Rated speed | 3,000 rpm |
| Rated torque (100K) | 23.50 Nm |
| Rated power | 7.38 kW |
| Rated current (100K) | 16.00 A |
| Static torque | 45.00 Nm |
| Static current | 29.00 A |
| Moment of inertia | 162.00000 kgcm² |
| Efficiency η | 94 % |
| Temperature monitoring | Pt1000 temperature sensor |
| Connector size | 1.5 |
| Degree of protection | IP65 |
| 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) | 5,000 rpm |
| Maximum torque | 150.00 Nm |
| Motor current short term | 109.0 A |

| Optimum operating point | |
|---|---|
| Optimum speed | 2,640 rpm |
| Optimum power | 7.60 kW |

Subject to change. Calculated values may differ from nameplate ratings. © Copyright Siemens

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## Data sheet for SIMOTICS S-1FG1

**Article No. :** **1FG1510-5RG53-2CM1-Z**
**D14+K07+N23**

| Recommended Motor Module | |
|---|---|
| Rated inverter current | 30.0 A |
| Maximum inverter current | 56.0 A |
| Maximum torque | 87.0 Nm |

| Holding brake | |
|---|---|
| Holding brake | with holding brake |
| Holding brake version | Permanent-magnet brake |
| Power supply voltage | DC 24 V ± 10 % |
| Dynamic braking torque $M_{1Br}$ | 25.00 Nm |
| Holding torque $M_{4Br}$ | 43.00 Nm |
| Rated current | 1.0 A |
| Opening time | 300.0 ms |
| Closing time | 70.0 ms |
| Maximum switching energy per braking action | 3,380.0 J |

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

| Options | |
|---|---|
| D14 | M4-A for bevel and worm gearboxes |
| K07 | Polyglycol oil CLP ISO PG 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.