

Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1502-5RE03-2DJ1-Z  
D12+K07+X10

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

Item no. :  
Consignment no. :  
Project :

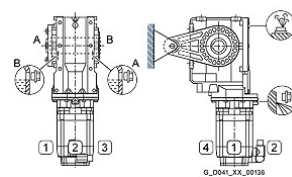


Figure similar

| Gearbox data                              |                       |
|-------------------------------------------|-----------------------|
| Gear box type                             | B39                   |
| Gearbox basic type                        | Bevel geared B / K    |
| Gearbox size                              | 39                    |
| Transmission stages                       | 2                     |
| Transmission (ratio)                      | 10.69                 |
| Gear number relation                      | 385/36                |
| Output moment maximum (short-time)        | 183 Nm                |
| max. input speed (briefly)                | 4,500 rpm             |
| Output speed short-time                   | 421 rpm               |
| Emergency off output moment (1000 cycles) | 405 Nm                |
| Radial force maximum                      | 4,960 N               |
| Max. permissible radial force with Mmax   | 4,960 N               |
| Moment of inertia                         | 0.98 kgcm²            |
| Torsional stiffness                       | 39 Nm/°               |
| Efficiency                                | 0.95                  |
| Mounting position                         | M2-A                  |
| 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                   | 1                     |

| General tech. specifications              |                             |
|-------------------------------------------|-----------------------------|
| Color of the housing                      | Ultramarine blue RAL 5002   |
| Specification                             | CE / UL / CSA / EAC / cRUus |
| Net weight                                | 17.72 kg                    |
| 1m-sound pressure level LpA (Tol.+3dB(A)) | 70                          |
| Plug position                             | top (default) (2)           |
| Adapter flange position                   | top (default) (2)           |

| Lubrication and sealing |                                 |
|-------------------------|---------------------------------|
| Gear oil                | Polyglycol oil CLP ISO PG 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            | 3,000 rpm                                                                                                                                         |
| Rated torque (100K)    | 3.95 Nm                                                                                                                                           |
| Rated power            | 1.24 kW                                                                                                                                           |
| Rated current (100K)   | 3.25 A                                                                                                                                            |
| Static torque          | 5.30 Nm                                                                                                                                           |
| Static current         | 4.05 A                                                                                                                                            |
| Moment of inertia      | 7.70 kgcm²                                                                                                                                        |
| Efficiency η           | 91 %                                                                                                                                              |
| Temperature monitoring | Pt1000 temperature sensor                                                                                                                         |
| Connector size         | 1                                                                                                                                                 |
| 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) | 7,200 rpm |
| Maximum torque             | 18.00 Nm  |
| Motor current short term   | 15.0 A    |

| Optimum operating point |           |
|-------------------------|-----------|
| Optimum speed           | 3,000 rpm |
| Optimum power           | 1.25 kW   |



Data sheet for SIMOTICS S-1FG1

Article No. : 1FG1502-5RE03-2DJ1-Z  
D12+K07+X10

| Recommended Motor Module |         |
|--------------------------|---------|
| Rated inverter current   | 5.0 A   |
| Maximum inverter current | 15.0 A  |
| Maximum torque           | 18.0 Nm |

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

| Options |                                         |
|---------|-----------------------------------------|
| D12     | M2-A for bevel and worm gearboxes       |
| K07     | Polyglycol oil CLP ISO PG VG220         |
| X10     | Paint finish: Ultramarine blue RAL 5002 |

**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.