



Figure similar

Article No. : **1FK2204-5AF00-2MA0-Z**  
**A21+M01+R07**

Client order no. :  
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### Basic data of geared motor

Motor type	Permanent-magnet synchronous motor, Planetary gearbox, Natural cooling, Degree of protection IP64
Motor type	Compact
Static torque at output $M_{2,0}$	15.70 Nm
Static current $I_0$	2.2 A
Maximum torque at output $M_{2max}^{1)}$	40.00 Nm
Maximum output speed $n_{2max}$	1,071 rpm
Moment of inertia motor + gearbox (related to the input) $J_1$	1.32 kgcm <sup>2</sup>
Mass $m$	3.78 kg
Lubrication	Standard
Gearbox orientation	-

### Rated data of geared motor

#### SINAMICS S210, 3AC 400V

Rated speed related to the gear output $n_{2N}$	375 rpm
Rated torque related to the gear output $M_{2N}$	12.20 Nm
Rated power $P_N$	0.479 kW

### Basic data of gearbox

Gearbox type and size	Planetary gearbox NRB060
Transmission ratio $i$	1 : 7 (Output to input)
Number of gear stages $z$	1
Output torque (fatigue strength) $M_{2N,G}$	25.0 Nm
Maximum permissible output torque (short-time, end of fatigue strength) $M_{2max,G}^{2)}$	40.0 Nm
Emergency off output moment (1000 cycles) $M_{2Em.Off}$	80.0 Nm
Torsional backlash related to the output $\varphi_2$	10 '
Torsional stiffness related to the output $c_{T2}$	2.3 Nm/'
Maximum static radial force $F_{Rmax}$	700 N
Max. average radial force for 20000 h $F_{Req}^{3)}$	400 N
Maximum static axial force $F_{Amax}$	800 N
Max. average axial force for 20000 h $F_{Aeq}^{4)}$	500 N
Max. bending moment on the flange to the motor $M_B$	12 Nm
Efficiency $\eta_G$	0.97
Degree of protection gearbox	IP64
Gearbox shaft end	Fitted key

### Basic motor data

Maximum average torque (incl. derating due to mounted gearing) $M_{0,M}$	2.26 Nm
Maximum average continuous current (incl. derating due to mounted gearing) $I_{0,M}$	2.13 A
Maximum acceleration torque $M_{max,M}^{2)}$	6.95 Nm
Maximum short-time permissible current $I_{max,M}$	7.10 A
Degree of protection motor	IP64
Connection type	OCC for S210
Connector size OCC	M17
Encoder system	Encoder AM22DQC: Absolute encoder 22 bit + 12 bit multiturn
Color of the housing	Standard (Anthracite, similar to RAL 7016)

<sup>1)</sup> Fatigue limit range - for max. 30 000 revolutions of the output shaft, utilization only with service life calculation

<sup>2)</sup> The maximum acceleration torque  $M_{max,M} \times$  of transmission ratio  $i$  is greater than the maximum permitted output torque (short-time fixed)  $M_{2max,G}$ . Depending on the load conditions, a torque limitation and service life calculation may be necessary.

<sup>3)</sup> based on an output speed of 100 rpm and a force application point in the center of the shaft

<sup>4)</sup> based on an output speed of 100 rpm