

Article No. : **1FK2204-6AF10-2MA0-Z**
A23+M00+R80



Figure similar

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

Item no. :
 Consignment no. :
 Project :

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 $M_{2,0}$	44.00 Nm
Static current I_0	0.6 A
Maximum torque at output $M_{2max}^{(1)}$	70.00 Nm
Maximum output speed n_{2max}	95 rpm
Moment of inertia motor + gearbox (related to the input) J_1	1.786 kgcm ²
Mass m	5.62 kg
Lubrication	Standard
Gearbox orientation	-

Rated data of geared motor

SINAMICS S210, 3AC 400V

Rated speed related to the gear output n_{2N}	38 rpm
Rated torque related to the gear output M_{2N}	44.00 Nm
Rated power P_N	0.173 kW

Basic data of gearbox

Gearbox type and size	Planetary gearbox NRB060
Transmission ratio i	1 : 80 (Output to input)
Number of gear stages z	3
Output torque (fatigue strength) $M_{2N,G}$	44.0 Nm
Maximum permissible output torque (short-time, end of fatigue strength) $M_{2max,G}^{(2)}$	70.0 Nm
Emergency off output moment (1000 cycles) $M_{2Em,Off}$	88.0 Nm
Torsional backlash related to the output φ_2	15 '
Torsional stiffness related to the output c_{t2}	2.8 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 η_G	0.91
Degree of protection gearbox	IP64
Gearbox shaft end	Plain shaft

Basic motor data

Maximum average torque (incl. derating due to mounted gearing) $M_{0,M}$	2.96 Nm
Maximum average continuous current (incl. derating due to mounted gearing) $I_{0,M}$	2.79 A
Maximum acceleration torque $M_{max,M}^{(2)}$	9.08 Nm
Maximum short-time permissible current $I_{max,M}$	9.90 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 multitrans
Color of the housing	Standard (Anthracite, similar to RAL 7016)

Holding brake

Holding torque	3.30 Nm
Average dynamic torque	3.30 Nm
Opening time	50 ms
Closing time	40 ms
Maximum single switching energy ⁽⁵⁾	270 J
Service life, operating energy	120,000 J
Holding current ⁽⁶⁾	0.2 A
Break-induced current for 500 ms ⁽⁶⁾	1.2 A

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

²The maximum acceleration torque $M_{max,M}$ x 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.

³based on an output speed of 100 rpm and a force application point in the center of the shaft

⁴based on an output speed of 100 rpm

⁵Up to three consecutive emergency stops and up to 25% of all emergency stops as a W_{max} high energy stop possible.

⁶Typical value for 20°C ambient temperature. At -15°C the break-induced currents can be increased by up to 30%.