SIEMENS

Data sheet for SIMOTICS M-1PH8


Figure similar

Article No. : 1PH8168-4FL23-2AB1

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

Item no. :
Consignment no. :
Project :

Engineering data

		P_N [kW]	M_N [Nm]	I_N [A]	U_N [V]	f_N [Hz]	n_N [rpm]	M_{max} [Nm]	I_{max} [A]	n_{max} [rpm]	M_0 [Nm]	I_0 [A]	η	cos φ	Iμ [A]
	ALM 400V	**123.0**	**420.0**	**210.0**	**395**	**187.0**	**2,800**	**1,280**	**661.0**	**4,000**	**520.0**	**240**	**0.959**	**0.00**	**0.0**
Y	BLM/SLM 400V	119.0	455.0	225.0	355	167.0	2,500	1,280	661.0	4,000	520.0	240	0.955	0.00	0.0
	ALM/BLM/SLM 480V	125.0	395.0	197.0	420	200.0	3,000	1,280	661.0	4,000	520.0	240	0.960	0.00	0.0

Mechanical data

Motor type	Permanent-magnet synchronous motor
Shaft height	160
Cooling	Water cooling
Vibration severity grade	A
Shaft and flange accuracy	N
Degree of protection	IP55
Design acc. to Code I	IM B35 (IM V15, IM V35)
Temperature monitoring	Pt1000 temperature sensor in the stator winding
Color	Standard (Anthracite RAL 7016)
Type of the bearing	Standard
Shaft extension	Feather key with half key balancing
Encoder system	Absolut encoder 22 bit Singleturn + 12 bit Multiturn, max. encoder speed = 12000 rpm

Physical constants

Thermal time constant	5 min
Moment of inertia	2,706 kgcm²
Weight (approx.)	345 kg

Connection

Type of electrical connection	Terminal box
Position of the connection	NDE top
Power connection	left
Signal connection	DE
Terminal box designation	gk874

Cooling data and sound pressure level

Flow rate, min.	15 l/min
Sound pressure level LpA(1m) motor rated load, tolerance + 3dB	69 dB [1]
Pressure drop	0.2 bar
NDE thread connection	0.5 Inches

Cooling water specification

pH value	6 ... 9
Total hardness	1.7 mmol/l
Electrical conductivity	500 µS/cm
Chloride ions	40 mg/l
Sulfate ions	50 mg/l
Nitrate ions	50 mg/l
Dissolved substances	340 mg/l
Maximum particle size	100 µm
Antifreeze/corrosion protection	20 ... 30 %

Holding brake

Holding torque	280 ... 500 Nm [2]
Moment of inertia	266 kgcm²
Power supply voltage	V ± 10%
Coil current	A
Permissible brake work	24 kJ
Speed (Emergency Stop)	3,100 rpm
Number of emergency stops	2,000
Number of emergency stops per hour	3
Opening time	750 ms
Closing time	150 ms

[1] at a rated frequency of 4 kHz and a speed range of up to 5000 rpm

[2] Holding torque [Nm]: On motors with shaft height 100 ... 160, the holding torque can be gradually set using an adjusting ring within the value range specified (factory setting 100 % of the possible holding torque). The dynamic braking torque is approx. 70 % of the set holding torque.