

## Data sheet for SIMOTICS M-1PH8

Article No. : **1PH8103-3DF12-2AA1-Z**  
U60

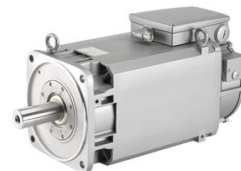


Figure similar

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

Item no. :  
Consignment no. :  
Project :

### Engineering data

		P <sub>N</sub> [kW]	M <sub>N</sub> [Nm]	I <sub>N</sub> [A]	U <sub>N</sub> [V]	f <sub>N</sub> [Hz]	n <sub>N</sub> [rpm]	M <sub>max</sub> [Nm]	I <sub>max</sub> [A]	n <sub>max</sub> [rpm]	M <sub>0</sub> [Nm]	I <sub>0</sub> [A]	η	cos φ	l <sub>μ</sub> [A]
Y	ALM 400V	6.3	34.0	13.1	412	60.8	1,750	60	23.0	5,000	38.0	14	0.859	0.810	6.0
	BLM/SLM 400V	5.5	35.0	13.5	368	52.4	1,500	60	23.0	5,000	38.0	14	0.852	0.800	6.5
	ALM 480V	7.7	33.0	12.7	480	76.1	2,200	60	23.0	5,000	38.0	14	0.880	0.830	5.8
	BLM/SLM 480V	7.0	33.0	12.7	460	69.1	2,000	60	23.0	5,000	38.0	14	0.894	0.810	5.8

### Mechanical data

Motor type	Squirrel cage asynchronous motor
Shaft height	100
Cooling	Forced ventilation NDE -> DE
Vibration severity grade	A
Shaft and flange accuracy	N
Degree of protection	IP55
Design acc. to Code I	IM B5 (IM V1, IM V3)
Temperature monitoring	Pt1000 temperature sensor in the stator winding
Color	Standard (Anthracite RAL 7016)
Type of the bearing	Standard
Shaft end	Feather key with half key balancing
Encoder system	Incremental encoder 22 bit with commutation position 11 bit, max. encoder speed = 12000 rpm

### Physical constants

Thermal time constant	20 min
Moment of inertia with brake	220 kgcm <sup>2</sup>
Weight with brake (approx.)	72 kg

### Connection

Type of electrical connection	Terminal box
Position of the connection	NDE top
Power connection	right
Signal connection	DE
Terminal box designation	gk813

### Cooling data and sound pressure level

Airflow, min.	0.04 m <sup>3</sup> /s
Sound pressure level LpA(1m) motor + external fan operation 50 HZ rated load, tolerance + 3dB	70 dB <sup>1)</sup>
Air discharge	axial
Pressure drop	110 Pa

### Holding brake

Holding torque	60 ... 150 Nm <sup>2)</sup>
Moment of inertia	48 kgcm <sup>2</sup>
Power supply voltage	AC 230 V ± 10%
Coil current	1 A
Permissible brake work	7 kJ
Speed (Emergency Stop)	4,500 rpm
Number of emergency stops	2,000
Number of emergency stops per hour	3
Opening time	500 ms
Closing time	60 ms

### External fan

#### Max. power consumption

3 AC 400 V / 50 Hz (±10%)	0.08 A
3 AC 400 V / 60 Hz (±10%)	0.07 A
3 AC 480 V / 60 Hz (±10%)	0.11 A

### Special design

U60 230 V AC holding brake

<sup>1)</sup> at a rated frequency of 4 kHz and a speed range of up to 5000 rpm

<sup>2)</sup> 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.