

Data sheet for SIMOTICS M-1PH8

Article No. : **1PH8107-3JF02-2AB2-Z**
U60



Figure similar

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 | I _μ [A] |
|---|--------------|------------------------|------------------------|-----------------------|-----------------------|------------------------|-------------------------|--------------------------|-------------------------|---------------------------|------------------------|-----------------------|-------|-------|-----------------------|
| Y | ALM 400V | 10.0 | 55.0 | 22.0 | 380 | 60.4 | 1,750 | 135 | 54.0 | 5,000 | 63.0 | 25 | 0.878 | 0.800 | 10.9 |
| | BLM/SLM 400V | 9.0 | 57.0 | 23.5 | 330 | 52.2 | 1,500 | 135 | 54.0 | 5,000 | 63.0 | 25 | 0.869 | 0.810 | 10.8 |
| | ALM 480V | 12.1 | 53.0 | 21.5 | 470 | 75.2 | 2,200 | 135 | 54.0 | 5,000 | 63.0 | 25 | 0.900 | 0.780 | 10.8 |
| | BLM/SLM 480V | 11.0 | 53.0 | 21.5 | 428 | 68.6 | 2,000 | 135 | 54.0 | 5,000 | 63.0 | 25 | 0.901 | 0.790 | 10.8 |

Mechanical data

| | |
|---------------------------|---|
| Motor type | Squirrel cage asynchronous motor |
| Shaft height | 100 |
| Cooling | Forced ventilation DE -> NDE |
| 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 HTL 2048 S/R, max. encoder speed = 4600 rpm |

Physical constants

| | |
|------------------------------|-----------------------|
| Thermal time constant | 20 min |
| Moment of inertia with brake | 337 kgcm ² |
| Weight with brake (approx.) | 94 kg |

Connection

| | |
|-------------------------------|--------------|
| Type of electrical connection | Terminal box |
| Position of the connection | NDE top |
| Power connection | left |
| Signal connection | DE |
| Terminal box designation | gk813 |

Cooling data and sound pressure level

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

Holding brake

| | |
|------------------------------------|-----------------------------|
| Holding torque | 60 ... 150 Nm ²⁾ |
| Moment of inertia | 48 kgcm ² |
| 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%) | 0.10 A |
| 3 AC 400 V / 60 Hz (±10%) | 0.08 A |
| 3 AC 480 V / 60 Hz (±10%) | 0.11 A |

Special design

U60 230 V AC holding brake

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.