SIEMENS

# Data sheet for SIMOTICS M-1PH8



Figure similar

**Article No. :** **1PH8166-1MG23-1BA2**

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] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Y | **ALM 400V** | **72.0** | **299.0** | **124.0** | **420** | **77.8** | **2,300** | **600** | **241.0** | **6,500** | **353.0** | **147** | **0.946** | **0.890** | **35.5** |
| | BLM/SLM 400V | 64.0 | 306.0 | 125.0 | 376 | 67.8 | 2,000 | 600 | 241.0 | 6,500 | 353.0 | 147 | 0.937 | 0.880 | 39.3 |
| | ALM 480V | 87.0 | 297.0 | 124.0 | 500 | 94.5 | 2,800 | 600 | 241.0 | 6,500 | 353.0 | 147 | 0.950 | 0.900 | 35.7 |
| | BLM/SLM 480V | 83.0 | 299.0 | 125.0 | 460 | 89.6 | 2,650 | 600 | 241.0 | 6,500 | 353.0 | 147 | 0.948 | 0.900 | 35.7 |

## Mechanical data

| | |
|---|---|
| Motor type | Squirrel cage asynchronous motor |
| Shaft height | 160 |
| Cooling | Water cooling |
| Vibration severity grade | R/A |
| Shaft and flange accuracy | R |
| Degree of protection | IP65 |
| 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 with fixed bearing |
| Shaft end | Feather key with full key balancing |
| Encoder system | Incremental encoder sin/cos 1Vpp 2048 S/R with C- and D-Spur, max. encoder speed = 12000 rpm |

## Physical constants

| | |
|---|---|
| Thermal time constant | 14 min |
| Moment of inertia | 2,320 kgcm² |
| Weight (approx.) | 269 kg |

## Connection

| | |
|---|---|
| Type of electrical connection | Terminal box |
| Position of the connection | NDE top |
| Power connection | right |
| Signal connection | DE |
| Terminal box designation | gk873 |

## 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 % |

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