SIEMENS

## Data sheet for SIMOTICS M-1PH8



Figure similar

**Article No. :** 1PH8131-1DF12-1BA1

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** | **13.0** | **71.0** | **24.0** | **416** | **59.8** | **1,750** | **148** | **50.0** | **8,000** | **96.0** | **30** | **0.914** | **0.840** | **10.3** |
| | BLM/SLM 400V | 11.0 | 70.0 | 24.0 | 360 | 51.4 | 1,500 | 148 | 50.0 | 8,000 | 96.0 | 30 | 0.899 | 0.840 | 10.4 |
| | ALM 480V | 16.5 | 72.0 | 24.0 | 500 | 75.0 | 2,200 | 148 | 50.0 | 8,000 | 96.0 | 30 | 0.920 | 0.870 | 10.0 |
| | BLM/SLM 480V | 15.0 | 72.0 | 24.0 | 460 | 68.2 | 2,000 | 148 | 50.0 | 8,000 | 96.0 | 30 | 0.931 | 0.860 | 9.2 |

### Mechanical data

| | |
|---|---|
| Motor type | Squirrel cage asynchronous motor |
| Shaft height | 132 |
| Cooling | Forced ventilation NDE -> DE |
| Vibration severity grade | R/A |
| Shaft and flange accuracy | R |
| 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 with fixed bearing |
| Shaft end | Feather key with full key balancing |
| Encoder system | Incremental encoder 22 bit with commutation position 11 bit, max. encoder speed = 12000 rpm |

### Physical constants

| | |
|---|---|
| Thermal time constant | 30 min |
| Moment of inertia | 590 kgcm² |
| Weight (approx.) | 89 kg |

### Connection

| | |
|---|---|
| Type of electrical connection | Terminal box |
| Position of the connection | NDE top |
| Power connection | right |
| Signal connection | DE |
| Terminal box designation | gk833 |

### Cooling data and sound pressure level

| | |
|---|---|
| Airflow, min. | 0.09 m³/s |
| Sound pressure level LpA(1m) motor + external fan operation 50 HZ rated load, tolerance + 3dB | 70 dB [1] |
| Air discharge | axial |
| Pressure drop | 140 Pa |

### External fan

**Max. power consumption**

| | |
|---|---|
| 3 AC 400 V / 50 Hz (±10%) | 0.13 A |
| 3 AC 400 V / 60 Hz (±10%) | 0.16 A |
| 3 AC 480 V / 60 Hz (±10%) | 0.17 A |

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

Siemens 1PH81311DF121BA1 Motors and Motor Control | gesrepair.com