



Figure similar

## Data sheet for SIMOTICS M-1PH8

Article No. : 1PH8137-1DD12-2BA1

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

Item no. :  
Consignment no. :  
Project :

### Engineering data

|   |              | P <sub>N</sub><br>[kW] | M <sub>N</sub><br>[Nm] | I <sub>N</sub><br>[A] | U <sub>N</sub><br>[V] | f <sub>N</sub><br>[Hz] | n <sub>N</sub><br>[rpm] | M <sub>max</sub><br>[Nm] | I <sub>max</sub><br>[A] | n <sub>max</sub><br>[rpm] | M <sub>0</sub><br>[Nm] | I <sub>0</sub><br>[A] | η     | cos φ | I <sub>μ</sub><br>[A] |
|---|--------------|------------------------|------------------------|-----------------------|-----------------------|------------------------|-------------------------|--------------------------|-------------------------|---------------------------|------------------------|-----------------------|-------|-------|-----------------------|
| Y | ALM 400V     | 19.5                   | 162.0                  | 43.0                  | 350                   | 39.9                   | 1,150                   | 405                      | 108.0                   | 8,000                     | 176.0                  | 45                    | 0.891 | 0.880 | 16.1                  |
|   | BLM/SLM 400V | 17.0                   | 162.0                  | 43.0                  | 307                   | 34.8                   | 1,000                   | 405                      | 108.0                   | 8,000                     | 176.0                  | 45                    | 0.881 | 0.880 | 15.1                  |
|   | ALM 480V     | 24.0                   | 153.0                  | 41.0                  | 447                   | 51.5                   | 1,500                   | 405                      | 108.0                   | 8,000                     | 176.0                  | 45                    | 0.890 | 0.860 | 15.9                  |
|   | BLM/SLM 480V | 22.0                   | 156.0                  | 42.0                  | 404                   | 46.4                   | 1,350                   | 405                      | 108.0                   | 8,000                     | 176.0                  | 45                    | 0.902 | 0.860 | 15.9                  |

### 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 half key balancing   |
| Encoder system            | Incremental encoder 22 bit with commutation position 11 bit, max. encoder speed = 12000 rpm |

### External fan

#### Max. power consumption

|                           |        |
|---------------------------|--------|
| 3 AC 400 V / 50 Hz (±10%) | 0.11 A |
| 3 AC 400 V / 60 Hz (±10%) | 0.13 A |
| 3 AC 480 V / 60 Hz (±10%) | 0.13 A |

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

### Physical constants

|                       |                         |
|-----------------------|-------------------------|
| Thermal time constant | 30 min                  |
| Moment of inertia     | 1,090 kgcm <sup>2</sup> |
| Weight (approx.)      | 141 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 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   | 140 Pa                 |