



Figure similar

Data sheet for SIMOTICS M-1PH8

Article No. : 1PH8103-1HD12-2GC2

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     | 4.3                    | 36.0                   | 10.0                  | 380                   | 40.9                   | 1,150                   | 60                       | 17.0                    | 9,000                     | 38.0                   | 11                    | 0.824 | 0.810 | 4.8                   |
|   | BLM/SLM 400V | 3.7                    | 35.0                   | 10.0                  | 333                   | 35.8                   | 1,000                   | 60                       | 17.0                    | 9,000                     | 38.0                   | 11                    | 0.814 | 0.820 | 4.6                   |
|   | ALM 480V     | 5.2                    | 33.0                   | 9.7                   | 470                   | 52.2                   | 1,500                   | 60                       | 17.0                    | 9,000                     | 38.0                   | 11                    | 0.850 | 0.810 | 4.4                   |
|   | BLM/SLM 480V | 4.7                    | 33.0                   | 9.7                   | 423                   | 47.3                   | 1,350                   | 60                       | 17.0                    | 9,000                     | 38.0                   | 11                    | 0.848 | 0.820 | 4.4                   |

Mechanical data

|                           |                                                                 |
|---------------------------|-----------------------------------------------------------------|
| Motor type                | Squirrel cage asynchronous motor                                |
| Shaft height              | 100                                                             |
| 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                                                        |
| Shaft end                 | Feather key with half key balancing                             |
| Encoder system            | Incremental encoder HTL 1024 S/R, max. encoder speed = 9000 rpm |

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 |

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

Physical constants

|                       |                       |
|-----------------------|-----------------------|
| Thermal time constant | 20 min                |
| Moment of inertia     | 172 kgcm <sup>2</sup> |
| Weight (approx.)      | 51 kg                 |

Connection

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

Cooling data and sound pressure level

|                                                                                               |                     |
|-----------------------------------------------------------------------------------------------|---------------------|
| Airflow, min.                                                                                 | 0.04 m³/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              |