



Figure similar

Data sheet for SIMOTICS M-1PH8

Article No. : 1PH8224-2DF10-2BA1

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         | 117.0                  | 638.0                  | 235.0                 | 315                   | 117.0                  | 1,750                   | 2,400                    | 900.0                   | 3,500                     | 708.0                  | 256                   | 0.965 | 0.000 | 0.0                   |
|   | BLM/SLM 400V     | 101.0                  | 643.0                  | 235.0                 | 271                   | 100.0                  | 1,500                   | 2,400                    | 900.0                   | 3,500                     | 708.0                  | 256                   | 0.965 | 0.000 | 0.0                   |
|   | ALM/BLM/SLM 480V | 118.0                  | 563.0                  | 210.0                 | 355                   | 133.0                  | 2,000                   | 2,400                    | 900.0                   | 3,500                     | 708.0                  | 256                   | 0.963 | 0.000 | 0.0                   |

Mechanical data

|                           |                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------|
| Motor type                | Permanent-magnet synchronous motor                                                          |
| Shaft height              | 225                                                                                         |
| 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 B3 (IM B6, IM B7, IM B8, IM V6)                                                          |
| 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 22 bit with commutation position 11 bit, max. encoder speed = 12000 rpm |

External fan

Max. power consumption

1 AC 200 ... 277 V (±10%) 50/60 Hz ±10% 2.0 ... 2.3 A

<sup>1)</sup> at a rated frequency of 2 kHz and a speed range of up to 3500 rpm

Physical constants

|                       |                          |
|-----------------------|--------------------------|
| Thermal time constant | 23 min                   |
| Moment of inertia     | 12,800 kgcm <sup>2</sup> |
| Weight (approx.)      | 580 kg                   |

Connection

|                               |              |
|-------------------------------|--------------|
| Type of electrical connection | Terminal box |
| Position of the connection    | NDE top      |
| Power connection              | right        |
| Signal connection             | DE           |
| Terminal box designation      | 1XB7422-P06  |

Cooling data and sound pressure level

|                                                                                               |                     |
|-----------------------------------------------------------------------------------------------|---------------------|
| Airflow, min.                                                                                 | 0.31 m³/s           |
| Sound pressure level LpA(1m) motor + external fan operation 50 HZ rated load, tolerance + 3dB | 73 dB <sup>1)</sup> |
| Air discharge                                                                                 | axial               |
| Pressure drop                                                                                 | 650 Pa              |