



Figure similar

Data sheet for SIMOTICS M-1PH8

Article No. : 1PH8224-1HF21-2EA2

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         | 138.0                  | 753.0                  | 240.0                 | 395                   | 58.9                   | 1,750                   | 1,506                    | 480.0                   | 4,500                     | 753.0                  | 240                   | 0.954 | 0.880 | 87.0                  |
|   | BLM/SLM 400V     | 119.0                  | 758.0                  | 240.0                 | 340                   | 50.6                   | 1,500                   | 1,515                    | 480.0                   | 4,500                     | 758.0                  | 240                   | 0.951 | 0.890 | 87.0                  |
|   | ALM/BLM/SLM 480V | 155.0                  | 740.0                  | 235.0                 | 460                   | 67.2                   | 2,000                   | 1,480                    | 470.0                   | 4,500                     | 740.0                  | 235                   | 0.958 | 0.860 | 90.0                  |

Mechanical data

|                           |                                                                 |
|---------------------------|-----------------------------------------------------------------|
| Motor type                | Squirrel cage asynchronous motor                                |
| Shaft height              | 225                                                             |
| Cooling                   | Water cooling                                                   |
| Vibration severity grade  | A                                                               |
| Shaft and flange accuracy | N                                                               |
| Degree of protection      | IP55                                                            |
| Design acc. to Code I     | IM V5                                                           |
| Temperature monitoring    | Pt1000 temperature sensor in the stator winding                 |
| Color                     | Standard (Anthracite RAL 7016)                                  |
| Type of the bearing       | Increased cantilever forces                                     |
| Shaft end                 | Feather key with half key balancing                             |
| Encoder system            | Incremental encoder HTL 1024 S/R, max. encoder speed = 9000 rpm |

Physical constants

|                       |                          |
|-----------------------|--------------------------|
| Thermal time constant | 30 min                   |
| Moment of inertia     | 14,520 kgcm <sup>2</sup> |
| Weight (approx.)      | 610 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

|                                                                             |                     |
|-----------------------------------------------------------------------------|---------------------|
| Flow rate, min.                                                             | 20 l/min            |
| Sound pressure level L <sub>pA</sub> (1m) motor rated load, tolerance + 3dB | 70 dB <sup>1)</sup> |
| Pressure drop                                                               | 0.6 bar             |
| NDE thread connection                                                       | 0.375 Inches        |

Cooling water specification

|                                 |             |
|---------------------------------|-------------|
| pH value                        | 6 ... 9     |
| Total hardness                  | 1.7 mmol/l  |
| Electrical conductivity         | 2,000 μS/cm |
| Chloride ions                   | 250 mg/l    |
| Sulfate ions                    | 240 mg/l    |
| Nitrate ions                    | 50 mg/l     |
| Dissolved substances            | 340 mg/l    |
| Maximum particle size           | 100 μm      |
| Antifreeze/corrosion protection | 20 ... 30 % |

<sup>1)</sup> at a rated frequency of 2 kHz or 4 kHz and a speed range of up to 4500 rpm