



Figure similar

Data sheet for SIMOTICS M-1PH8

Article No. : 1PH8184-1MF23-2BB2

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         | 82.0                   | 447.0                  | 150.0                 | 390                   | 59.3                   | 1,750                   | 895                      | 300.0                   | 5,000                     | 447.0                  | 150                   | 0.933 | 0.870 | 65.0                  |
|   | BLM/SLM 400V     | 70.0                   | 446.0                  | 150.0                 | 335                   | 51.9                   | 1,500                   | 891                      | 300.0                   | 5,000                     | 446.0                  | 150                   | 0.928 | 0.870 | 66.0                  |
|   | ALM/BLM/SLM 480V | 95.0                   | 454.0                  | 152.0                 | 450                   | 67.3                   | 2,000                   | 907                      | 304.0                   | 5,000                     | 454.0                  | 152                   | 0.938 | 0.850 | 68.0                  |

Mechanical data

|                           |                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------|
| Motor type                | Squirrel cage asynchronous motor                                                             |
| Shaft height              | 180                                                                                          |
| Cooling                   | Water cooling                                                                                |
| Vibration severity grade  | R/A                                                                                          |
| Shaft and flange accuracy | R                                                                                            |
| Degree of protection      | IP55                                                                                         |
| Design acc. to Code I     | IM B35 with A450 flange (IM V35)                                                             |
| 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 sin/cos 1Vpp 2048 S/R with C- and D-Spur, max. encoder speed = 12000 rpm |

Physical constants

|                       |                         |
|-----------------------|-------------------------|
| Thermal time constant | 25 min                  |
| Moment of inertia     | 4,890 kgcm <sup>2</sup> |
| Weight (approx.)      | 340 kg                  |

Connection

|                               |              |
|-------------------------------|--------------|
| Type of electrical connection | Terminal box |
| Position of the connection    | NDE top      |
| Power connection              | left         |
| Signal connection             | DE           |
| Terminal box designation      | 1XB7322-P05  |

Cooling data and sound pressure level

|                                                                |                     |
|----------------------------------------------------------------|---------------------|
| Flow rate, min.                                                | 15 l/min            |
| Sound pressure level LpA(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 5000 rpm