



Figure similar

Data sheet for SIMOTICS M-1PH8

Article No. : 1PH8186-1HF21-2EA1-Z  
X05

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         | 111.0                  | 606.0                  | 200.0                 | 385                   | 59.3                   | 1,750                   | 1,211                    | 400.0                   | 5,000                     | 606.0                  | 200                   | 0.939 | 0.890 | 85.0                  |
|   | BLM/SLM 400V     | 93.0                   | 592.0                  | 198.0                 | 330                   | 51.0                   | 1,500                   | 1,184                    | 396.0                   | 5,000                     | 592.0                  | 198                   | 0.935 | 0.880 | 85.0                  |
|   | ALM/BLM/SLM 480V | 126.0                  | 602.0                  | 200.0                 | 445                   | 67.3                   | 2,000                   | 1,203                    | 400.0                   | 5,000                     | 602.0                  | 200                   | 0.943 | 0.870 | 89.0                  |

Mechanical data

|                           |                                                                 |
|---------------------------|-----------------------------------------------------------------|
| Motor type                | Squirrel cage asynchronous motor                                |
| Shaft height              | 180                                                             |
| 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    | KTY84 temperature sensor in the stator winding                  |
| Color                     | Sky blue RAL 5015                                               |
| 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 | 28 min      |
| Moment of inertia     | 6,520 kgcm² |
| Weight (approx.)      | 410 kg      |

Connection

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

Cooling data and sound pressure level

|                                                                             |                     |
|-----------------------------------------------------------------------------|---------------------|
| Flow rate, min.                                                             | 15 l/min            |
| Sound pressure level L <sub>pA</sub> (1m) motor rated load, tolerance + 3dB | 70 dB <sup>1)</sup> |
| Pressure drop                                                               | 0.7 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 % |

Special design

X05    Paint finish: Sky blue RAL 5015

<sup>1)</sup> at a rated frequency of 2 kHz or 4 kHz and a speed range of up to 5000 rpm