



Figure similar

Data sheet for SIMOTICS M-1PH8

Article No. : 1PH8163-1HF23-2DA1

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     | 43.0                   | 235.0                  | 84.0                  | 380                   | 59.4                   | 1,750                   | 600                      | 208.0                   | 6,500                     | 288.0                  | 96                    | 0.924 | 0.880 | 27.3                  |
|   | BLM/SLM 400V | 37.0                   | 236.0                  | 84.0                  | 328                   | 51.1                   | 1,500                   | 600                      | 208.0                   | 6,500                     | 288.0                  | 96                    | 0.916 | 0.880 | 27.4                  |
|   | ALM 480V     | 53.0                   | 230.0                  | 83.0                  | 460                   | 74.4                   | 2,200                   | 600                      | 208.0                   | 6,500                     | 288.0                  | 96                    | 0.920 | 0.880 | 26.9                  |
|   | BLM/SLM 480V | 49.0                   | 234.0                  | 84.0                  | 430                   | 67.7                   | 2,000                   | 600                      | 208.0                   | 6,500                     | 288.0                  | 96                    | 0.925 | 0.880 | 26.9                  |

Mechanical data

|                           |                                                                 |
|---------------------------|-----------------------------------------------------------------|
| Motor type                | Squirrel cage asynchronous motor                                |
| Shaft height              | 160                                                             |
| Cooling                   | Water cooling                                                   |
| Vibration severity grade  | SR/A                                                            |
| Shaft and flange accuracy | R                                                               |
| Degree of protection      | IP65                                                            |
| Design acc. to Code I     | IM B35 (IM V15, IM V35)                                         |
| Temperature monitoring    | KTY84 temperature sensor in the stator winding                  |
| Color                     | Standard (Anthracite RAL 7016)                                  |
| Type of the bearing       | Standard with fixed bearing                                     |
| Shaft end                 | Feather key with half key balancing                             |
| Encoder system            | Incremental encoder HTL 1024 S/R, max. encoder speed = 9000 rpm |

Cooling water specification

|                                 |             |
|---------------------------------|-------------|
| pH value                        | 6 ... 9     |
| Total hardness                  | 1.7 mmol/l  |
| Electrical conductivity         | 500 μS/cm   |
| Chloride ions                   | 40 mg/l     |
| Sulfate ions                    | 50 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 4 kHz and a speed range of up to 5000 rpm

Physical constants

|                       |                         |
|-----------------------|-------------------------|
| Thermal time constant | 14 min                  |
| Moment of inertia     | 2,160 kgcm <sup>2</sup> |
| Weight (approx.)      | 229 kg                  |

Connection

|                               |              |
|-------------------------------|--------------|
| Type of electrical connection | Terminal box |
| Position of the connection    | NDE top      |
| Power connection              | right        |
| Signal connection             | DE           |
| Terminal box designation      | gk873        |

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 | 69 dB <sup>1)</sup> |
| Pressure drop                                                               | 0.2 bar             |
| NDE thread connection                                                       | 0.5 Inches          |