



Figure similar

Data sheet for SIMOTICS M-1PH8

Article No. : 1PH8107-1SM20-0MA1

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Engineering data

| | P_N [kW] | M_N [Nm] | I_N [A] | U_N [V] | f_N [Hz] | n_N [rpm] | M_{max} [Nm] | I_{max} [A] | n_{max} [rpm] | M_0 [Nm] | I_0 [A] | η | $\cos \phi$ | I_{μ} [A] | |
|---|---------------|---------------|--------------|--------------|---------------|----------------|-------------------|------------------|--------------------|---------------|--------------|--------|-------------|------------------|------|
| Y | ALM 400V | 20.0 | 58.0 | 60.0 | 290 | 112.2 | 3,300 | 180 | 183.0 | 18,000 | 82.0 | 73 | 0.900 | 0.800 | 26.1 |
| | BLM/SLM 400V | 18.0 | 57.0 | 60.0 | 264 | 102.2 | 3,000 | 180 | 183.0 | 18,000 | 82.0 | 73 | 0.900 | 0.800 | 26.0 |
| | ALM 480V | 21.6 | 53.0 | 58.0 | 329 | 131.9 | 3,900 | 180 | 183.0 | 18,000 | 82.0 | 73 | 0.900 | 0.800 | 26.1 |
| | BLM/SLM 480V | 21.0 | 56.0 | 59.0 | 315 | 122.1 | 3,600 | 180 | 183.0 | 18,000 | 82.0 | 73 | 0.910 | 0.790 | 26.1 |

Mechanical data

| | |
|---------------------------|--|
| Motor type | Squirrel cage asynchronous motor |
| Shaft height | 100 |
| Cooling | Water cooling |
| Vibration severity grade | SPECIAL/B |
| Shaft and flange accuracy | SPECIAL |
| Degree of protection | IP65 |
| Design acc. to Code I | IM B3 (IM V5, IM V6) |
| Temperature monitoring | Pt1000 temperature sensor in the stator winding |
| Color | Standard (Anthracite RAL 7016) |
| Type of the bearing | High Performance |
| Shaft end | Plain shaft |
| Encoder system | Incremental encoder 19 bit without commutation position (encoder IN19DQ) |

Cooling water specification

| | |
|---------------------------------|----------------|
| pH value | 6 ... 9 |
| Total hardness | 1.7 mmol/l |
| Electrical conductivity | 500 μ S/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 μ m |
| Antifreeze/corrosion protection | 20 ... 30 % |

¹⁾ at a rated frequency of 4 kHz and a speed range of up to 5000 rpm

Physical constants

| | |
|-----------------------|-----------------------|
| Thermal time constant | 10 min |
| Moment of inertia | 289 kgcm ² |
| Weight (approx.) | 83 kg |

Connection

| | |
|-------------------------------|--------------|
| Type of electrical connection | Terminal box |
| Position of the connection | NDE top |
| Power connection | right |
| Signal connection | DE |
| Terminal box designation | gk823 |

Cooling data and sound pressure level

| | |
|--|---------------------|
| Flow rate, min. | 8 l/min |
| Sound pressure level LpA(1m) motor rated load, tolerance + 3dB | 68 dB ¹⁾ |
| Pressure drop | 0.4 bar |
| NDE thread connection | 0.25 Inches |