



Data sheet for SIMOTICS M-1PH8

Article No. : 1PH8163-1DF22-2QD1-Z
K18

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 φ	I _μ [A]
Y	ALM 400V	43.0	235.0	84.0	380	59.4	1,750	600	208.0	4,000	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	4,000	288.0	96	0.916	0.880	27.4
	ALM/BLM/SLM 480V	49.0	234.0	84.0	430	67.7	2,000	600	208.0	4,000	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	S/A
Shaft and flange accuracy	R
Degree of protection	IP65
Design acc. to Code I	IM B5 (IM V1, IM V3)
Temperature monitoring	Pt1000 temperature sensor in the stator winding
Color	Standard (Anthracite RAL 7016)
Type of the bearing	Advanced Lifetime
Shaft end	Feather key with half key balancing
Encoder system	Incremental encoder 22 bit with commutation position 11 bit, max. encoder speed = 12000 rpm

Physical constants

Thermal time constant	14 min
Moment of inertia	2,160 kgcm ²
Weight (approx.)	229 kg

Connection

Type of electrical connection	Terminal box
Position of the connection	NDE top
Power connection	DE
Signal connection	left
Terminal box designation	gk873

Cooling data and sound pressure level

Flow rate, min.	15 l/min
Sound pressure level L _{pA} (1m) motor rated load, tolerance + 3dB	69 dB ¹⁾
Pressure drop	0.2 bar
NDE thread connection	0.5 Inches

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 %

Special design

K18 Radial shaft sealing ring DE

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