



Data sheet for SIMOTICS M-1PH8

Article No. : 1PH8138-1MF23-2LA2-Z
V90

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	33.0	180.0	77.0	332	60.0	1,750	400	168.0	10,000	223.0	88	0.898	0.870	27.1
	BLM/SLM 400V	30.0	191.0	80.0	289	51.9	1,500	400	168.0	10,000	223.0	88	0.882	0.880	27.1
	ALM/BLM/SLM 480V	37.0	177.0	76.0	380	68.4	2,000	400	168.0	10,000	223.0	88	0.920	0.860	28.4

Mechanical data	
Motor type	Squirrel cage asynchronous motor
Shaft height	132
Cooling	Water cooling
Vibration severity grade	SPECIAL/B
Shaft and flange accuracy	SPECIAL
Degree of protection	IP65
Design acc. to Code I	IM B35 (IM V15, IM V35)
Temperature monitoring	Pt1000 temperature sensor in the stator winding
Color	Standard (Anthracite RAL 7016)
Type of the bearing	Performance
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	12 min
Moment of inertia	1,090 kgcm ²
Weight (approx.)	157 kg

Connection

Type of electrical connection	Terminal box
Position of the connection	NDE top
Power connection	right
Signal connection	DE
Terminal box designation	gk833

Cooling data and sound pressure level

Flow rate, min.	12 l/min
Sound pressure level LpA(1m) motor rated load, tolerance + 3dB	68 dB ¹⁾
Pressure drop	0.9 bar
NDE thread connection	0.375 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

V90 1PH7-compatible shaft end 42 mm x 110 mm

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