

Data Sheet

Itemnumber..... 3241800109



A = 279	AC = 357	BB = 311	DB = M16	EG = 40	GD = 9	HB = 238	L = 688	TL = 162
AA = 70	AD = 293	C = 121	E = 110	F = 14	H = 180	HD = 473	LB = 578	
AB = 349	B = 241	D = 48	EB = 90	G = 42,50	HA = 22	K = 14,50	TB = 218	

Version

Type..... HMC2 180M-4
Design..... Induction motor
Standard series..... IEC 60034
Phase / Voltage range..... 3~ / Low

Electrical design

Efficiency..... IE2
Pole..... 4
Power at 50 Hz (kW)..... 18,5
Hz..... 60 (60 Hz output)
Voltage..... 440VD
Winding voltage..... 400VD/690VY 50 Hz
Power output (kW)..... 21,6
Duty..... S1
Insulation class..... F
Temperature rise..... B

Mechanical design

Frame size..... 180
Mounting..... B3
Rain cap..... No
Protection class..... IP55
Cooling method..... IC411/TEFC
External grounding..... Yes
Drain hole..... Yes
Frame material..... Cast Iron
Material approval..... None
Shaft..... IEC Standard
Key..... Closed key
Balancing..... Half key balancing
Vibration class..... Grade-A
Weight (kg)..... 175

Environment condition

Ambient temp. min. (°C)..... -20
Ambient temp. max. (°C)..... 45
Altitude (mtr up to)..... 1000

Bearing

DE Bearing..... 6311-ZZ/C3
NDE Bearing..... 6311-ZZ/C3
Fixed bearing..... DE

Terminal box

Tbox position..... Top
Cable entry direction..... Right (from DE)
Cable entry
Main..... 2 x M40x1,5
Ø22-30mm metal
Accessory..... 2 x M20x1,5
Metal blindcaps
Terminal board thread..... 6-M6

Motor protection

Thermal protection main..... PTC 3x 155 dgr
Thermal protection second.. None
Space heater..... 1x 230V 60W
Temperature detector..... No
SPM..... No
IR wire..... No
Tropical insulation..... Yes

Explosion protection

According to..... None
Type of protection..... None

General

Direction of rotation..... CW
Painting..... RAL 9005
Nameplate..... Multivoltage + VFD
Special packing..... No
Special requirements..... No

Test values

Rotor inertia (kgm²)..... 0,20
Noise level (dB(A))..... 66
No load current (A)..... 11,2
Winding resist. (ohm)..... 0,35
Starting time (sec.)..... 0,11
Temp. rise winding (K)..... 71
Temp. rise surface (K)..... 54

Rated power (kW)	18,5	18,0	22,2	21,6
Frequency (Hz)	50	50	60	60
Voltage (V)	400 690	380 660	480 830	440
Connection	D Y	D Y	D Y	D
Full load current (A)	34,0 19,8	35,0 20,4	34,0 19,8	35,5
Speed (rpm)	1470	1470	1740	1740
Power factor cos(phi)	0,86	0,87	0,86	0,87
Efficiency, 100/75/50 (%)	91,2/ 90,5 /89,6	91,2/ 90,5 /89,6	91,2/ 90,5 /89,6	90,6/ 89,9 /88,8
Ist/In	7,60	6,70	7,60	7,00
Full load torque (Nm)	120	116	120	116
Tst/Tn	2,60	2,40	2,60	2,24
Tmax/Tn	3,25	3,05	3,25	2,85
Duty	S1	S1	S1	S1
Ambient temp. (°C)	40	45	40	45