

# Data Sheet

Itemnumber..... 3221600109



A = 254	AC = 313	BB = 260	DB = M16	EG = 36	GD = 8	HB = 222	L = 608	TL = 162
AA = 65	AD = 277	C = 108	E = 110	F = 12	H = 160	HD = 437	LB = 498	
AB = 314	B = 210	D = 42	EB = 90	G = 37	HA = 20	K = 14,50	TB = 218	

## Version

Type..... HMC2 160M1-2  
Design..... Induction motor  
Standard series..... IEC 60034  
Phase / Voltage range..... 3~ / Low

## Electrical design

Efficiency..... IE2  
Pole..... 2  
Power at 50 Hz (kW)..... 11,0  
Hz..... 60 (60 Hz output)  
Voltage..... 440VD  
Winding voltage..... 400VD/690VY 50 Hz  
Power output (kW)..... 12,8  
Duty..... S1  
Insulation class..... F  
Temperature rise..... B

## Mechanical design

Frame size..... 160  
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)..... 100

## Environment condition

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

## Bearing

DE Bearing..... 6309-ZZ/C3  
NDE Bearing..... 6309-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 50W  
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)..... 0,043  
Noise level (dB(A))..... 74  
No load current (A)..... 5,35  
Winding resist. (ohm)..... 0,68  
Starting time (sec.)..... 0,17  
Temp. rise winding (K)..... 63  
Temp. rise surface (K)..... 39

Rated power (kW)	11,0	10,6	13,2	12,8
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)	19,4 11,2	20,0 11,6	19,4 11,2	20,6
Speed (rpm)	2930	2930	3520	3520
Power factor cos(phi)	0,92	0,92	0,92	0,92
Efficiency, 100/75/50 (%)	89,4/ 88,2 /87,1	89,4/ 88,2 /87,1	89,4/ 88,2 /87,1	88,9/ 87,7 /86,4
Ist/In	6,55	5,75	6,55	6,05
Full load torque (Nm)	36,0	34,5	36,0	34,5
Tst/Tn	2,16	2,00	2,16	1,86
Tmax/Tn	3,15	2,90	3,15	2,70
Duty	S1	S1	S1	S1
Ambient temp. (°C)	40	45	40	45