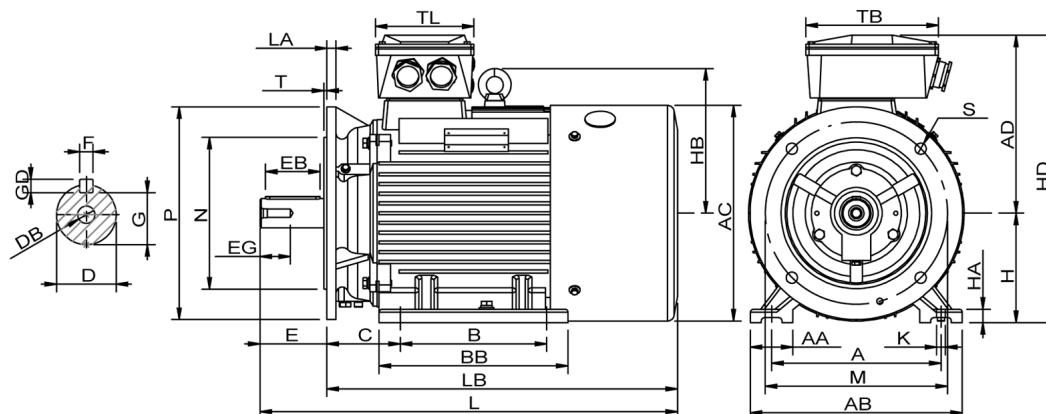


# Data Sheet

Itemnumber..... 3241600409



A = 254	AC = 313	BB = 260	DB = M16	EG = 36	GD = 8	HB = 222	L = 608	M = 300	S = 4-Ø18,5	TL = 162
AA = 65	AD = 277	C = 108	E = 110	F = 12	H = 160	HD = 437	LA = 15	N = 250	T = 5	
AB = 314	B = 210	D = 42	EB = 90	G = 37	HA = 20	K = 14,50	LB = 498	P = 350	TB = 218	

## Version

Type..... HMC2 160M-4  
Design..... Induction motor  
Standard series..... IEC 60034  
Phase / Voltage range..... 3~ / Low

## Electrical design

Efficiency..... IE2  
Pole..... 4  
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..... B35  
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)..... 125

## 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

## Test values

Rotor inertia (kgm²)..... 0,097  
Noise level (dB(A))..... 65  
No load current (A)..... 8,15  
Winding resist. (ohm)..... 0,64  
Starting time (sec.)..... 0,08  
Temp. rise winding (K)..... 61  
Temp. rise surface (K)..... 57

## 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

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)	20,2 11,8	20,8 12,0	20,2 11,8	21,2
Speed (rpm)	1470	1470	1740	1740
Power factor cos(phi)	0,87	0,88	0,87	0,89
Efficiency, 100/75/50 (%)	89,8/ 90,0 /88,6	89,8/ 90,0 /88,6	89,8/ 90,0 /88,6	89,1/ 89,2 /87,8
Ist/In	7,60	6,70	7,60	7,00
Full load torque (Nm)	72,0	70,0	72,0	70,0
Tst/Tn	2,90	2,70	2,90	2,50
Tmax/Tn	3,35	3,15	3,35	2,90
Duty	S1	S1	S1	S1
Ambient temp. (°C)	40	45	40	45