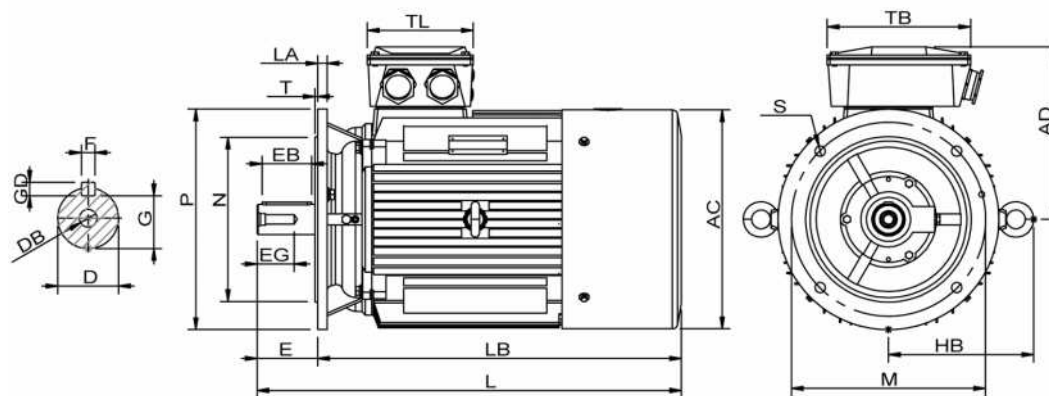


Itemnumber.....: 3241600209



AC = 313 DB = M16 EG = 36 GD = 8 L = 608 M = 300 S = 4-Ø18.5 TL = 162
AD = 277 E = 110 F = 12 H = 160 LA = 15 N = 250 T = 5
D = 42 EB = 90 G = 37 HB = 222 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 60 Hz
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.....	B5
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).....	116

Environment condition

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

Motor protection

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

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Explosion protection

According to.....: None

General

Direction of rotation.....: CW
Painting.....: RAL 9005 Gloss 10
Nameplate.....: Multivoltage + VFD
Special packing.....: No
Special requirements.....: No

Bearing

Bearing
DE Bearing.....: 6309-ZZ/C3
NDE Bearing.....: 6309-ZZ/C3
Fixed bearing.....: DE

Terminal box

Terminal box	
Tbox position.....	Top
Cable entry direction.....	Right (from DE)
Cable entry	
Main.....	2 x M40x1,5 022-32mm metal
Accessory.....	2 x M20x1,5 Metal blindcaps
Connection type.....	Delta (D)
Terminal board thread.....	6-M6

Test values

Rotor inertia (kgm ²).....	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).....	63
Temp. rise surface (K).....	58

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) . . .	20,4 11,8	21,0 12,0	20,4 11,8	21,4
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	7,6	6,7	7,6	7
Full load torque (Nm) . . .	72	70,0	72	70,0
Tst/Tn	2,9	2,7	2,9	2,5
Tmax /Tn	3,4	3,2	3,4	2,9
Duty	S1	S1	S1	S1
Ambient temp. (°C)	40	45	40	45