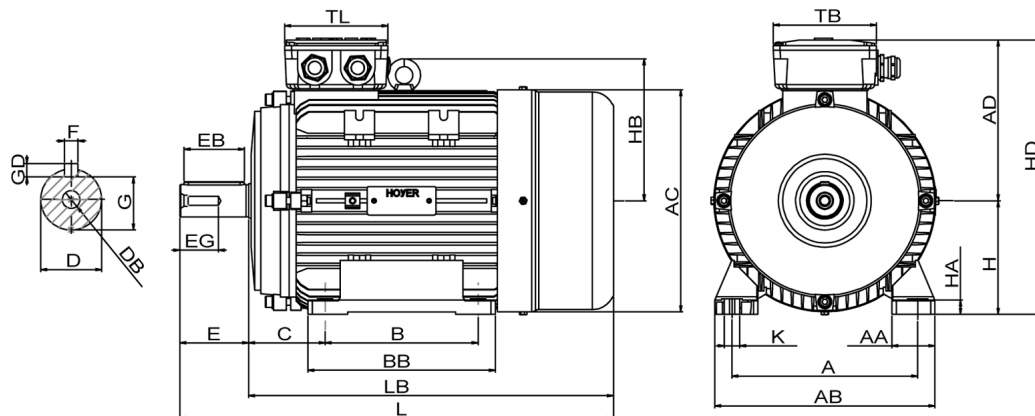


# Data Sheet

Itemnumber....: 3221120109



A = 190	AC = 219	BB = 180	DB = M10	EG = 28	GD = 7	HB = 145	L = 405	TL = 120
AA = 45	AD = 168	C = 70	E = 60	F = 8	H = 112	HD = 280	LB = 345	
AB = 222	B = 140	D = 28	EB = 50	G = 24	HA = 13	K = 12	TB = 120	

## Version

Type.....: HMA2 112M1-2  
Design.....: Induction motor  
Standard series.....: IEC 60034  
Phase / Voltage range.....: 3~ / Low

## Electrical design

Efficiency.....: IE2  
Pole.....: 2  
Power at 50 Hz (kW).....: 4,00  
Hz.....: 60 (60 Hz output)  
Voltage.....: 440VD  
Winding voltage.....: 400VD/690VY 50 Hz  
Power output (kW).....: 4,65  
Duty.....: S1  
Insulation class.....: F  
Temperature rise.....: B

## Mechanical design

Frame size.....: 112  
Mounting.....: B3  
Rain cap.....: No  
Protection class.....: IP55  
Cooling method.....: IC411/TEFC  
External grounding.....: Yes  
Drain hole.....: Yes  
Frame material.....: Aluminium  
Material approval.....: None  
Shaft.....: IEC Standard  
Key.....: Closed key  
Balancing.....: Half key balancing  
Vibration class.....: Grade-A  
Weight (kg).....: 32,0

## Environment condition

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

## Bearing

DE Bearing.....: 6306-ZZ/C3  
NDE Bearing.....: 6306-ZZ/C3  
Fixed bearing.....: DE

## Terminal box

Tbox position.....: Top  
Cable entry direction.....: Right (from DE)  
Cable entry  
Main.....: 1 x M20x1,5  
Ø8-13mm metal  
Accessory.....: 1 x M20x1,5  
Metal blindcap  
Terminal board thread.....: 6-M5

## Test values

Rotor inertia (kgm²).....: 0,0068  
Noise level (dB(A)).....: 71  
No load current (A).....: 2,90  
Winding resist. (ohm).....: 3,21  
Starting time (sec.).....: 0,00  
Temp. rise winding (K).....: 63  
Temp. rise surface (K).....: 52

## Motor protection

Thermal protection main....: PTC 3x 155 dgr  
Thermal protection second..: None  
Space heater.....: None  
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)	4,00	3,90	4,80	4,65
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)	7,50 4,35	7,75 4,50	7,50 4,35	7,75
Speed (rpm)	2910	2910	3500	3500
Power factor cos(phi)	0,90	0,90	0,90	0,86
Efficiency, 100/75/50 (%)	85,8/ 86,0 /84,3	85,8/ 86,0 /84,3	85,8/ 86,0 /84,3	85,1/ 85,3 /83,6
Ist/In	8,65	7,60	8,65	7,95
Full load torque (Nm)	13,2	12,8	13,2	12,8
Tst/Tn	2,75	2,55	2,75	2,40
Tmax/Tn	3,00	2,80	3,00	2,60
Duty	S1	S1	S1	S1
Ambient temp. (°C)	40	45	40	45