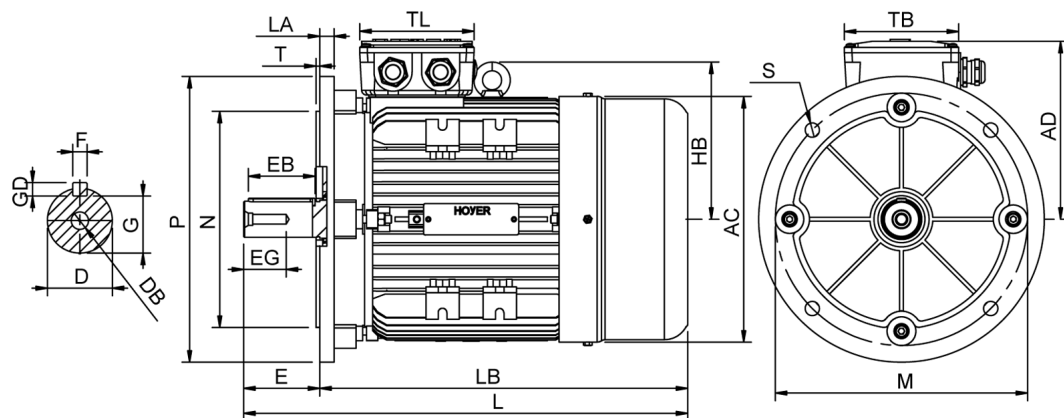


Data Sheet

Itemnumber....: 3221120209



AC = 219	DB = M10	EG = 28	GD = 7	LA = 14	N = 180	T = 4
AD = 168	E = 60	F = 8	HB = 145	LB = 345	P = 250	TB = 120
D = 28	EB = 50	G = 24	L = 405	M = 215	S = 4-Ø15	TL = 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

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

Mechanical design

Frame size.....: 112
 Mounting.....: B5
 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

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