

Three-Phase-Asynchronous-Motor FCM 180 L 4/PHE

IE3AC18L4004

General data

Kind of motor	3~
Type designation	FCM
Frame size	180
Mounting form	B5
Frame execution	L
Frame material	Cast iron
Insulation class	F/B
Terminal box location	top DE
Terminal box orientation	0° cable gland right side
Weight (kg)	209,00
Rotation Direction	right /left
Vibration level	A
Balancing method	half key
cooling type	IC411
Executed acc. to	IEC 60034-1
noise level	IEC 60034-9

Electrical data

Power 1 50Hz (kW)	22,00
Power 1 60Hz (kW)	26,40
Frequency (Hz)	50/60
Voltage 50Hz (V)	400/690
Voltage 60Hz (V)	460/795
Voltage/Frequency tolerance (not valid for range voltage)	range B
Connection	Δ/Y
Poles	4
Efficiency 100% 50Hz (%)	93,0
Efficiency 75% 50Hz (%)	93,0
Efficiency 50% 50Hz (%)	91,1
Efficiency 100% 60Hz (%)	94,1
Efficiency 75% 60Hz (%)	93,0
Efficiency 50% 60Hz (%)	91,1
Power factor	0,86
Starting current (I _a /I _n)	7,7
Starting torque (M _a /M _n)	2,2
Breakdown torque (M _k /M _n)	2,3
Current 50Hz (A)	39,70/23,02
Current 60Hz (A)	40,94/23,69
Eff.Cl.50Hz	IE3
Eff.Cl.60Hz	IE3

Motor characteristics

Color	RAL7030
Paint surface	shiny
Protection class	IP55
Cable gland size (cable connection)	2xM40x1,5
Cable gland size (option)	M20x1,5
Cable gland type	Standard
Shaft end (mm)	48 x 110
Shaft material	C45
Specification NDE	Plastic fan
Flange size	350

Mechanical data

Torque (Nm)	142,93/142,93
Rotation speed (1/min)	1470/1764
Bearing DE	6311.ZZ.C3
Bearing NDE	6311.ZZ.C3
Mounting of bearing DE	loose bearing
Mounting of bearing NDE	fixed bearing
Bearing lifetime (h)	20000
allow. Radial load (X/2) (N)	4862
allow. Radial load (X0) (N)	5375
allow. Radial load (X _{max}) (N)	4350
allow. Axial load B3,B5,B35,B14,B34 (N)	4525
allow. Axial load V1,V3,V19,V18 (N)	4425
Moment of inertia (kgm ²)	0,168

Influencing factors

Duty	S1
Ambient temperature (°C)	-20 up to +40
Height of location (m)	1000

Additional options

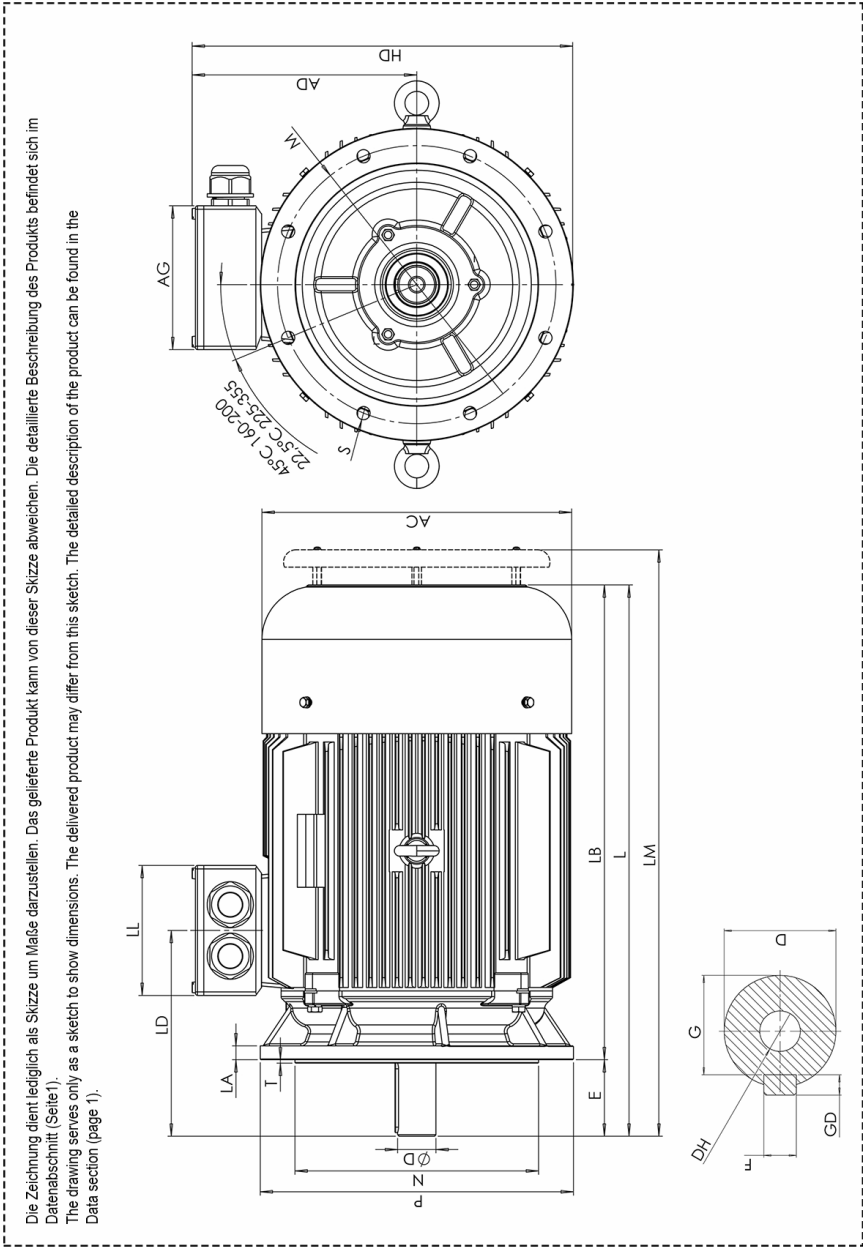
Protection winding	PTC 150°C
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Technical changes and errors reserved.

29.10.2020

Drawings

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S	T	HD	P	N	M	LB	LA	LM	IPE/kk	DH	ED	G	LL	LD	L	AG	GD	EB	F	E	D	AD	AC
4x18,5	5,00	444,50	350	250	300	589	15	744	M40x1,5	M16x36	10,00	42,50	152,00	271,00	699,00	162,00	9	90	14	110	48	267	355