

N° :

Date : 16 févr. 2018

Induction motor

2P LSES 225MR 45kW IFT/IE3 B3 380D/400D/415D/690Y-460D 50-60Hz -

Utilisation : Environment Current ; Ambiance Non corrosive ; Finition - ; Zone Non specific ; General applications ; Ambient temperature -16 +40 °C ; Maximum altitude 1000 m.

Motor characteristics : Aluminium alloy housing ; Cast iron DE endshield ; Cast iron NDE endshield.



Motor definition

Protection type	-	Application	General applications
Generation code	IFT	Main voltage (V)	400
Efficiency class	IE3	Connection	DY
Number of network phases	3	Motor winding (V)	380D/400D/415D/690Y-460D
Number of speed		Rated Frequency (Hz)	50-60
Polarity	2P	Operation position	IM1001(IMB3)
Motor serie	LSES	Index of protection	IP55
Frame size (mm)	225	Index of cooling	IC411
Length code	MR	Insulation class	F
HS rated power (kW)	45.000	Finish	-
LS rated power (kW)	-	Moment of inertia J (kg.m2)	0.1597000
Rated speed (min-1)	2950	Motor weight (kg)	227.0
Maximum mechanical speed (min-1)	4320		

Common definitions

Paint shade	RAL6000
Paint system	C3_la (1 polyurethane coat 20/30 microns)

Motor mechanical interface

Mounting flange	-	Shaft material type	Steel shaft
Drive end shaft type	IEC STANDARD shaft end	Nuance of shaft material	-
Diameter DE shaft (mm)	55m6	Second shaft extension	-
Length DE shaft (mm)	110	Diameter NDE shaft (mm)	-
DE bearing mounting	Locked	Second shaft end length (mm)	-
DE bearing type	DE ball bearing	NDE bearing type	NDE ball bearing
DE bearing	6313	NDE bearing	6312
Code Type de graissage	Vie		

Motor electrical interface

Connection network type	Terminal box	Cable type	-
Connection network material	Aluminium alloy	Cable gland material	Cable gland not supplied, holes tapped with polyamide plugs
Connection network position	A	Main cable gland type	2xM50 + 1xM16 ; With plugs
Connection network orientation	up	Principal cable gland position	Right (1)
Connection network relative position	0		

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Motor options

Vibration level	A (35µm ; 2.2mm/s ; 3.5m/s²)	Cover	Metal cover
Balancing type	Half-key (H)	Drip proof cover option	-
Impregnation type	< 95% ; -16+40°C (T)	cooling type	-
Winding thermal protection	1xPTC (winding)	Forced ventilation characteristics	-
Space heater	-	Encoder type	-
Draining plugs position	6H	Encoder characteristics	-
Nameplate material	Aluminium nameplate	Screw material	Steel screw
Endshield thermal protection	-	Adaptation for vibration sensor	-
Reinforced winding insulation	-		

Motor characteristics (on mains supply)

Main voltage (V)	Rated Frequency (Hz)	HS rated power (kW)	Rated torque (N.m)	Rated speed (min-1)	Rated current (A)	Power factor at 4/4 of the load	Power factor at 3/4 of the load	Power factor at 2/4 of the load	Efficiency at 4/4 (IEC 60 034-2-1) of the load (%)	Efficiency at 3/4 (IEC 60 034-2-1) of the load (%)	Efficiency at 2/4 (IEC 60 034-2-1) of the load (%)
380	50	45.000	146	2940.00	81.00	0.90			94.00		
400	50	45.000	146	2950	77.5	0.89	0.86	0.79	94.30	94.84	94.78
415	50	45.000	146	2956.00	75.40	0.88			94.56		
460	60	-	-	3560.00	67.20	0.89			94.93		

Motor characteristics (on mains supply) 400 V 50 Hz

Starting torque (N.m)	386.9	Id / In	8.1
Average starting torque (N.m)		Id	627.75
Maximum torque (N.m)	496,4	Maximum current (A)	
Unload maximum starting frequency (d/h)	-	No-load current (A)	0.00
Rotor locked time (cold) (s)		Acoustic pressure level (dB(A))	76

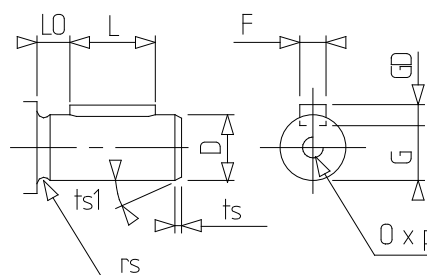
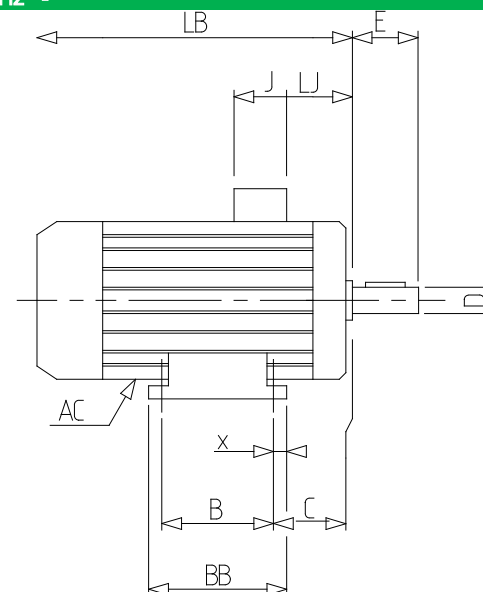
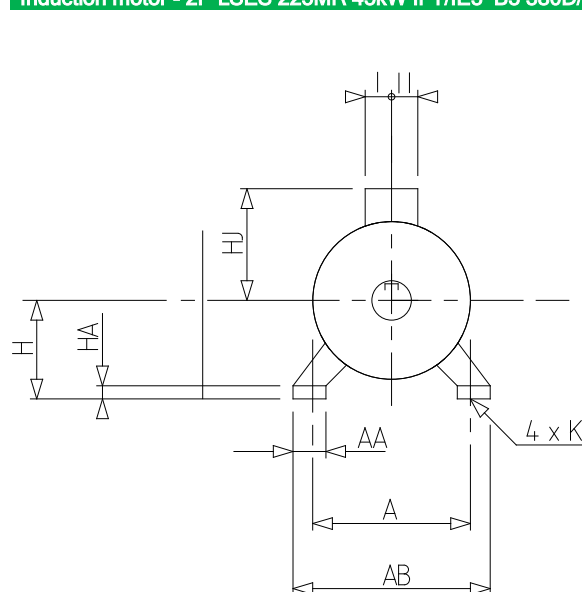
Motor characteristics (supplied via drives)

Main voltage (V)	Nominal frequency (Hz)	Pn (kW)	Nn (min-1)	In (A)	Cos Phi	Mn @ f/10 (N.m)	Mn @ f/5 (N.m)	Mn @ f/3 (N.m)	Mn @ f/2 (N.m)	Mn (N.m)	Mn @ fx1.7 (N.m)	Mn @ fx2 (N.m)
400 D	50	45	2950	83.3	0.89	0.00	116.80	131.40	146.00	146.000	0.00	0.00

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A	356
AA	127
AB	431
AC	390.00
B	311
BB	386
C	149.0
D	55m6
E	110
F	16
G	49
GD	10
H	225
HA	36
HJ	310.0
I	119
II	141
J	231
K	18.5
L	97
LB	676.0
LJ	61.0
LO	13
O	M20
p	42
rs	0.8
ts	1
ts1	45
x	50