



N° :

Date : 13 févr. 2018

### Induction motor

2P LSES 90L 1,8kW IFT/IE3 B5 230D/380Y/400Y/415Y-460Y 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 ; Aluminium alloy NDE endshield.



### Motor definition

		Application	General applications
Protection type	-	Main voltage (V)	400
Generation code	IFT	Connection	DY
Efficiency class	IE3	Motor winding (V)	230D/380Y/400Y/415Y-460Y
Number of network phases	3	Rated Frequency (Hz)	50-60
Number of speed		Operation position	IM3001(IMB5)
Polarity	2P	Index of protection	IP55
Motor serie	LSES	Index of cooling	IC411
Frame size (mm)	90	Insulation class	F
Lenght code	L	Finish	-
HS rated power (kW)	1.800	Moment of inertia J (kg.m <sup>2</sup> )	0.0029200
LS rated power (kW)	-	Motor weight (kg)	20.4
Rated speed (min-1)	2890		
Maximum mechanical speed (min-1)	11700		

### Common definitions

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

### Motor mechanical interface

Mounting flange	FF165	Shaft material type	Steel shaft
Drive end shaft type	IEC STANDARD shaft end	Nuance of shaft material	-
Diameter DE shaft (mm)	24j6	Second shaft extension	-
Length DE shaft (mm)	50	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	6205	NDE bearing	6204
Code Type de graissage	Vie		

### Motor electrical interface

Connection network type	Terminal box	Cable type	-
Connection network material	Composite materials	Cable gland material	Cable gland not supplied, holes tapped with polyamide plugs
Connection network position	A	Main cable gland type	1xM20 ; 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 (25µm ; 1.6mm/s ; 2.5m/s <sup>2</sup> )	Cover	Plastic cover
Balancing type	Half-key (H)	Drip proof cover option	-
Impregnation type	< 95% ; -16+40°C (T)	cooling type	-
Winding thermal protection	-	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	1.800	6	2880.00	3.95	0.87			85.00		
400	50	1.800	6	2890	3.75	0.85	0.79	0.67	85.50	86.30	86.20
415	50	1.800	6	2900.00	3.60	0.83			85.60		
460	60	-	-	3510.00	3.30	0.83			86.90		

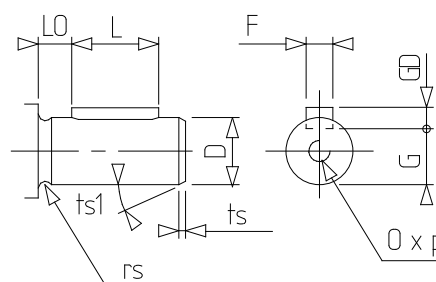
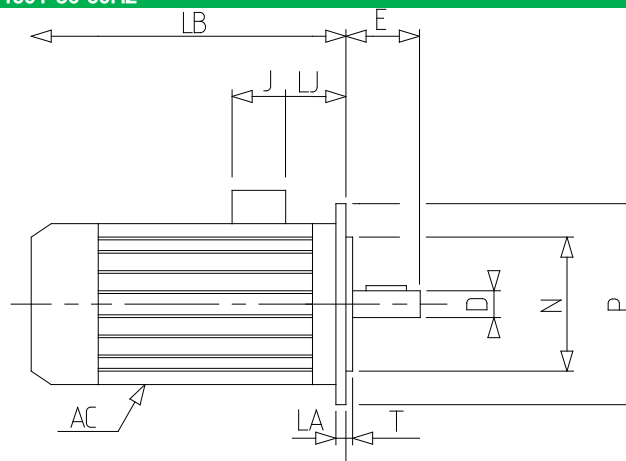
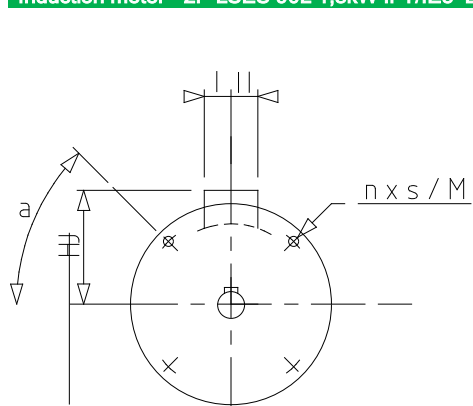
### Motor characteristics (on mains supply) 400 V 50 Hz

Starting torque (N.m)	18.5	Id / In	7.52
Average starting torque (N.m)		Id	28.20
Maximum torque (N.m)	20,2	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))	67

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a	45
AC	189.00
D	24j6
E	50
F	8
G	20
GD	7
HJ	135.0
I	43
II	43
J	86
L	40
LA	10
LB	265.0
LJ	46.0
LO	6
M	165
N	130
n	4
O	M8
P	200
p	19
rs	0.5
S	12
T	3.5
ts	2
ts1	20