

N° :

Date : 27 févr. 2019

### Induction motor

4P LSES 180M 18,5kW 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	4P	Operation position	IM1001(IMB3)
Motor serie	LSES	Index of protection	IP55
Frame size (mm)	180	Index of cooling	IC411
Length code	M	Insulation class	F
HS rated power (kW)	18.500	Finish	-
		Moment of inertia J (kg.m <sup>2</sup> )	0.1333000
Rated speed (min-1)	1468	Motor weight (kg)	130.0
Maximum mechanical speed (min-1)	5670		

### Common definitions

Paint shade	RAL6000
Paint system	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)	48k6	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	6310	NDE bearing	6212
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	2xM40 + 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	1 set of 3 probes PTC (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 insulation system	-		

### 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	18.500	120	1466.00	34.90	0.87			92.60		
400	50	18.500	120	1468	33.9	0.85	0.81	0.72	92.80	93.60	93.50
415	50	18.500	120	1474.00	32.90	0.84			93.00		
460	60	-	-	1774.00	29.50	0.84			93.60		

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

Starting torque (N.m)	354.0	Id / In	7.75
Average starting torque (N.m)		Id	262.86
Maximum torque (N.m)	342	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))	68

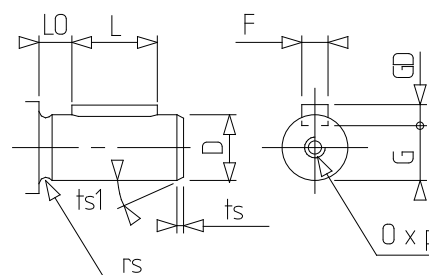
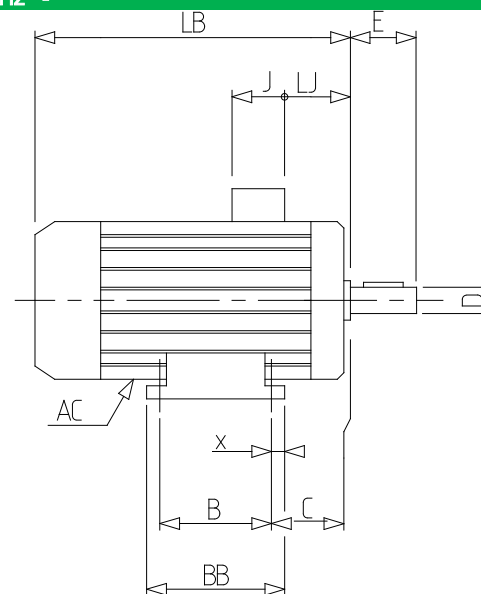
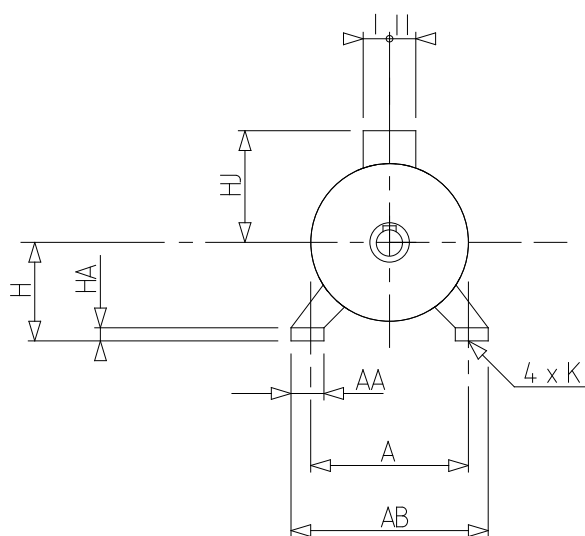
### Motor characteristics (supplied via drives)

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	18.5	1468	36.29	0.85	0.00	96.00	108.00	120.00	120.000	68.97	0.00

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A	279
AA	86
AB	339
AC	350.00
AD1	45
B	241
BB	291
C	121.0
D	48k6
E	110
F	14
G	42.5
GD	9
H	180
HA	25
HJ	256.0
I	112
II	98
J	186
K	14.5
L	98
LB	552.0
LJ	64.0
LO	12
O	M16
p	36
rs	0.8
ts	1
ts1	45
x	25