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Data sheet

N° :

Date : 4 avr. 2019

Induction motor

2P LSES 180MR 22kW IFT/IE3 B5 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 caracteristics : 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	IM3001(IMB5)
Motor serie	LSES	Index of protection	IP55
Frame size (mm)	180	Index of cooling	IC411
Lenght code	MR	Insulation class	F
HS rated power (kW)	22.000	Finish	-
	-	Moment of inertia J (kg.m2)	0.0628000
Rated speed (min-1)	2950	Motor weight (kg)	105.0
Maximum mechanical speed (min-1)	5670		

Common definitions

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

Motor mechanical interface

Mounting flange	FF300	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	6210
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 glan 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 caracteristics	-
Space heater	-	Encoder type	-
Draining plugs position	6H	Encoder caracteristics	-
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	22.000	71,1	2945.00	40.60	0.89			92.60		
400	50	22.000	71,1	2954	38.7	0,88	0,85	0,77	93.20	93.90	94.00
415	50	22.000	71,1	2958.00	38.10	0.86			93.50		
460	60	-	-	3564.00	33.80	0.87			94.00		

Motor characteristics (on mains supply) 400 V 50 Hz

Starting torque (N.m)	224.28	Id / In	8.67
Average starting torque (N.m)		Id	335.62
Maximum torque (N.m)	224,28	Maximun current (A)	
Unload maximum starting frequency (d/h)	-	No-load current (A)	0.00
Rotor locked time (cold) (s)		Acoustic pressure level (dB(A))	69

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	22	2950	41.65	0.88	0.0	60.5	67.6	71.2	71.2	40.9	0.0

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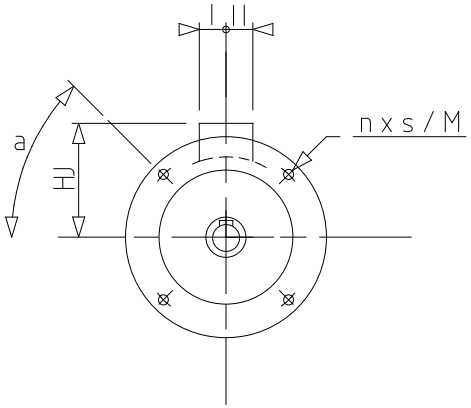
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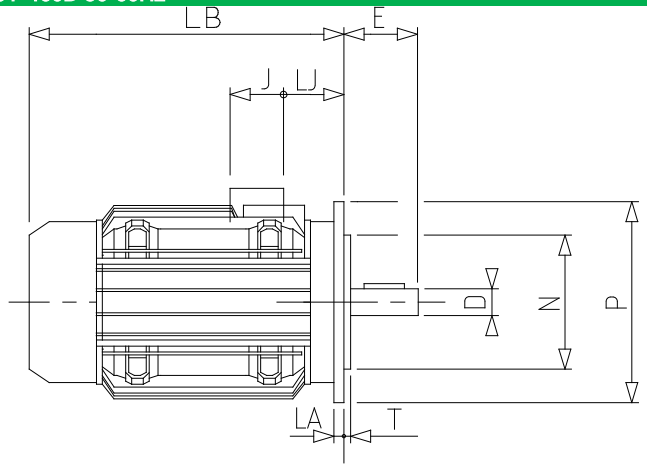
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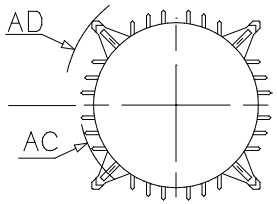
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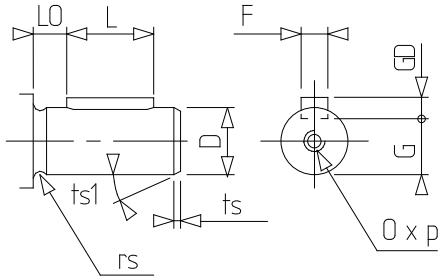
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a	45
AC	312.00
AD	186
AD1	45
D	48k6
E	110
F	14
G	42.5
GD	9
HJ	248.0
I	112
II	98
J	186
L	98
LA	15
LB	520.0
LJ	54.0
LO	12
M	300
N	250
n	4
O	M16
P	350
p	36
rs	0.8
S	18.5
T	5
ts	1
ts1	45

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