Nidec
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Drives & Motors Technology | Drives & Motors Services | Automation Solutions

Data sheet

N° :

Date : 8 févr. 2019

Induction motor with options

6P LSES 90LU 1,1kW IFT/IE3 B14 230D/380Y/400Y/415Y 50Hz -

1 set of 3 probes PTC (winding) ;

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)	230D/380Y/400Y/415Y
Number of speed		Rated Frequency (Hz)	50
Polarity	6P	Operation position	IM3601(IMB14)
Motor serie	LSES	Index of protection	IP55
Frame size (mm)	90	Index of cooling	IC411
Lenght code	LU	Insulation class	F
HS rated power (kW)	1.100	Finish	-
	-	Moment of inertia J (kg.m2)	0.0051900
Rated speed (min-1)	956	Motor weight (kg)	21.5
Maximum mechanical speed (min-1)	11700		

Common definitions

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

Motor mechanical interface

Mounting flange	FT115	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	6205
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 glan 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/s²)	Cover	Plastic 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	1.100	11	950.00	2.80	0.74			81.30		
400	50	1.100	11	956	2.75	0,7	0,61	0,47	81.90	92.30	80.30
415	50	1.100	11	960.00	2.80	0.67			81.90		
460	60	-	-								

Motor characteristics (on mains supply) 400 V 50 Hz

Starting torque (N.m)	25.85	Id / In	4.85
Average starting torque (N.m)		Id	13.34
Maximum torque (N.m)	29,7	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))	56

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 Y	50	1.1	956	2.75	0.71	0.00	11.00	11.00	11.00	11.000	6.32	0.00
400 D	87	1.91	1656	4.74	0.71	0.00	11.00	11.00	11.00	11.000	0.00	0.00

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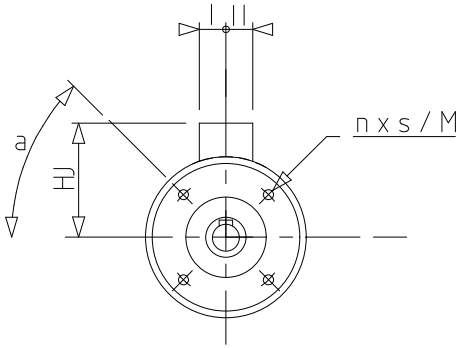

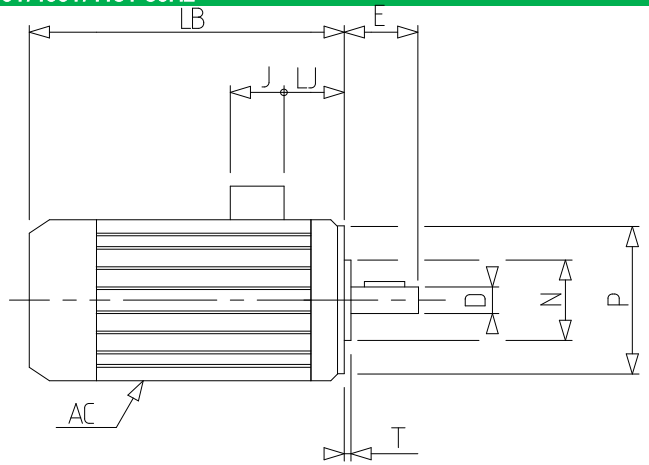

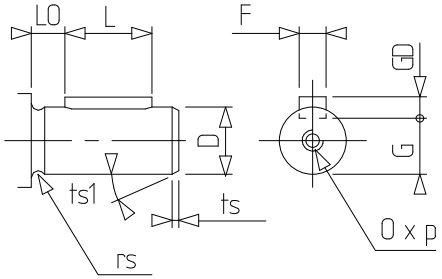

a	45
AC	189.00
D	24j6
E	50
F	8
G	20
GD	7
HJ	135.0
I	43
II	43
J	86
L	40
LA	0
LB	276.0
LJ	26.0
LO	6
M	115
N	95
n	4
O	M8
P	140
p	19
rs	0.5
S	M8
T	3
ts	2
ts1	20