



N° :

Date : 1 mars 2018

Induction motor

4P LSES 280MD 90kW IFT/IE3 B35 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	IM2001(IMB35)
Motor serie	LSES	Index of protection	IP55
Frame size (mm)	280	Index of cooling	IC411
Lenght code	MD	Insulation class	F
HS rated power (kW)	90.000	Finish	-
LS rated power (kW)	-	Moment of inertia J (kg.m ²)	1.0799000
Rated speed (min-1)	1484	Motor weight (kg)	470.0
Maximum mechanical speed (min-1)	3420		

Common definitions

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

Motor mechanical interface

Mounting flange	FF500	Shaft material type	Steel shaft
Drive end shaft type	IEC STANDARD shaft end	Nuance of shaft material	-
Diameter DE shaft (mm)	75m6	Second shaft extension	-
Length DE shaft (mm)	140	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	6316	NDE bearing	6218
Code Type de graissage	Graisseurs		

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	2xM63 + 1xM16 ; With plugs
Connection network orientation	up	Principal cable gland position	Right (1)
Connection network relative position	0		

N° :

Date : 1 mars 2018

Induction motor - 4P LSES 280MD 90kW IFT/IE3 B35 380D/400D/415D/690Y-460D 50-60Hz -

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	90.000	579	1482.00	170.00	0.84			95.26		
400	50	90.000	579	1484	166.0	0.82	0.77	0.66	95.50	95.72	95.36
415	50	90.000	579	1488.00	164.00	0.80			95.50		
460	60	-	-	1788.00	148.00	0.80			95.70		

Motor characteristics (on mains supply) 400 V 50 Hz

Starting torque (N.m)	1505.4	Id / In	8.45
Average starting torque (N.m)		Id	1402.70
Maximum torque (N.m)	1997,55	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

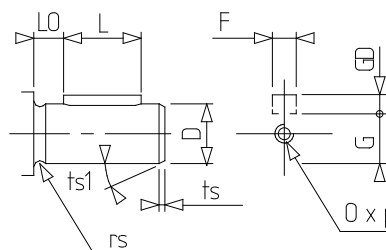
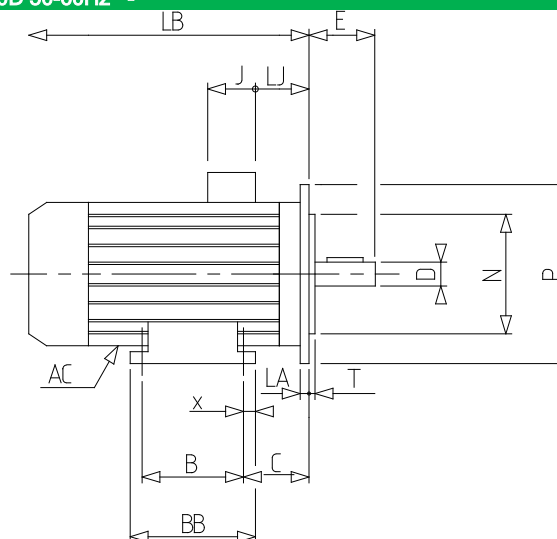
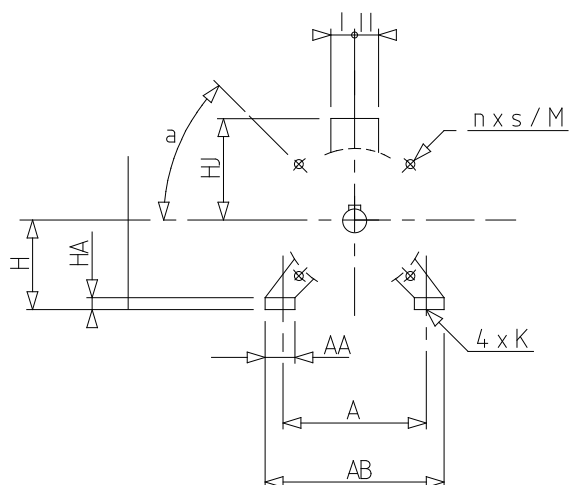
Motor characteristics (supplied via drives)

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	90	1484	176.11	0.82	0.00	492.15	550.05	579.00	579.000	332.76	0.00

N° :

Date : 1 mars 2018

Induction motor - 4P LSES 280MD 90kW IFT/IE3 B35 380D/400D/415D/690Y-460D 50-60Hz -



A	457	p	42
a	22.5	rs	0.8
AA	90	S	18.5
AB	520	T	5
AC	479.00	ts	1
AD1	45	ts1	45
B	419	x	35
BB	478		
C	190.0		
D	75m6		
E	140		
F	20		
G	67.5		
GD	12		
H	280		
HA	35		
HJ	405.0		
I	151		
II	181		
J	292		
K	24		
L	125		
LA	22		
LB	870.0		
LJ	68.0		
LO	15		
M	500		
N	450		
n	8		
O	M20		
P	550		



Data sheet

LEROY-SOMER[™]

The information contained in this data-sheet is for guidance only and does not form part of any contract. The accuracy cannot be guaranteed as our company have an ongoing process of development and reserve the right to change the specification of their products without notice.
Moteurs Leroy-Somer SAS. Siège social : Bd Marcellin Leroy, CS 10015, 16915 Angoulême Cedex 9, France. Capital social : 65 800 512 €, RCS Angoulême 338 567 258.
Control Techniques Limited. Registered Office: The Gro, Newtown, Powys SY16 3BE. Registered in England and Wales. Company Reg. No. 01236886.

Version V8.185