

N° :

Date : 27 févr. 2018

### Induction motor

4P LSES 280MD 90kW IFT/IE3 B35 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 ; 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-460Y
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 <sup>2</sup> )	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		

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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	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

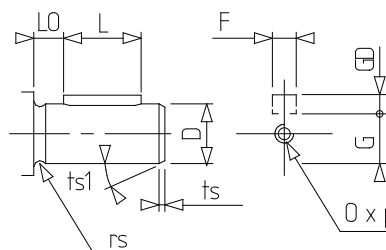
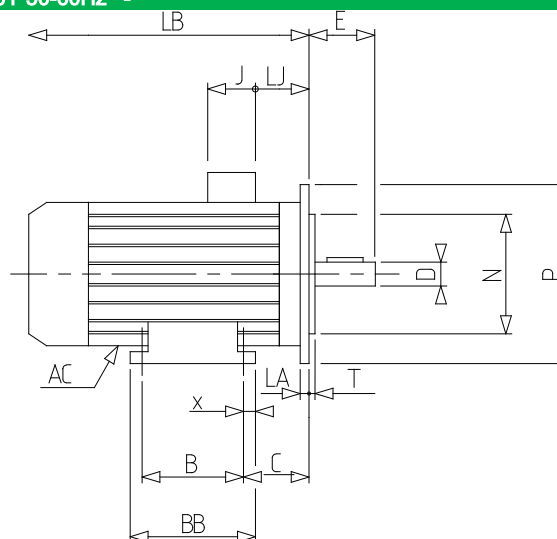
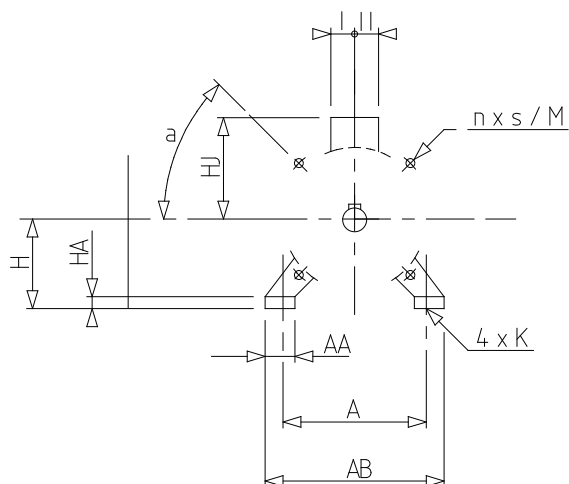
### Motor characteristics (supplied via drives)

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)
-	50	0	0	0	0	0.00	0.00	0.00	0.00	0.000	0.00	0.00

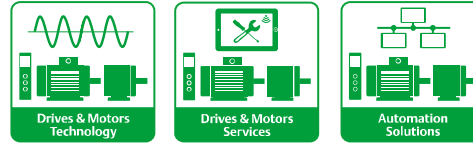
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A	457	p	42
a	22.5	rs	0.8
AA	90	S	18.5
AB	520	T	5
AC	479.00	ts	1
AD1	45	ts1	45
B	419	x	35
BB	478		
C	190.0		
D	75m6		
E	140		
F	20		
G	67.5		
GD	12		
H	280		
HA	35		
HJ	405.0		
I	151		
II	181		
J	292		
K	24		
L	125		
LA	22		
LB	870.0		
LJ	68.0		
LO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



## Data sheet

**LEROY-SOMER**<sup>™</sup>

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