

N° :

Date : 2 mars 2018

### Induction motor

4P LSES 112MU 4kW IFT/IE3 B34 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

Motor definition		Application	General applications
Protection type	-	Main voltage (V)	400
Generation code	IFT	Connection	DY
Efficiency class	IE3	Motor winding (V)	230D/380Y/400Y/415Y-460Y
Number of network phases	3	Rated Frequency (Hz)	50-60
Number of speed		Operation position	IM2101(IMB34)
Polarity	4P	Index of protection	IP55
Motor serie	LSES	Index of cooling	IC411
Frame size (mm)	112	Insulation class	F
Lenght code	MU	Finish	-
HS rated power (kW)	4.000	Moment of inertia J (kg.m <sup>2</sup> )	0.0131200
LS rated power (kW)	-	Motor weight (kg)	34.4
Rated speed (min-1)	1458		
Maximum mechanical speed (min-1)	9900		

### Common definitions

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

### Motor mechanical interface

Mounting flange	FT130	Shaft material type	Steel shaft
Drive end shaft type	IEC STANDARD shaft end	Nuance of shaft material	-
Diameter DE shaft (mm)	28j6	Second shaft extension	-
Length DE shaft (mm)	60	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	6206	NDE bearing	6206
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 gland 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/s <sup>2</sup> )	Cover	Metal cover
Balancing type	Half-key (H)	Drip proof cover option	-
Impregnation type	< 95% ; -16+40°C (T)	cooling type	-
Winding thermal protection	-	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 <sup>-1</sup> )	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	4.000	26,2	1450.00	8.30	0.83			88.60		
400	50	4.000	26,2	1458	8.1	0,8	0,73	0,62	88.80	89.60	89.20
415	50	4.000	26,2	1462.00	8.05	0.78			88.90		
460	60	-	-	1764.00	7.10	0.79			90.20		

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

Starting torque (N.m)	70.7	Id / In	7.05
Average starting torque (N.m)		Id	57.10
Maximum torque (N.m)	81,2	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))	54

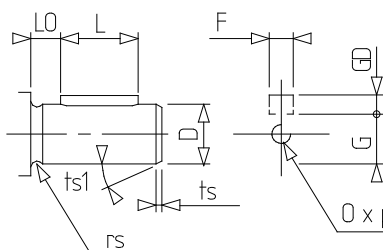
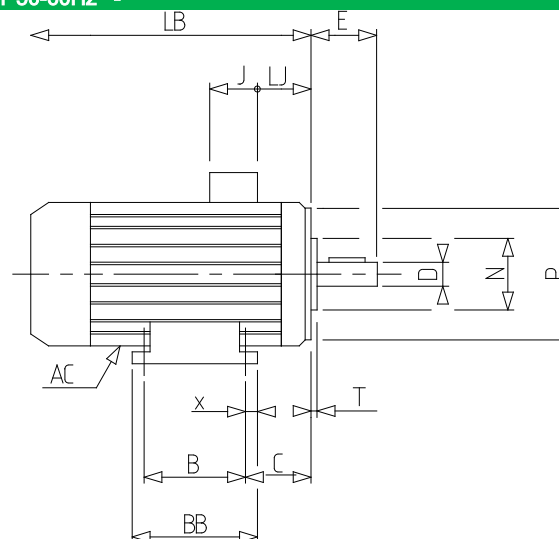
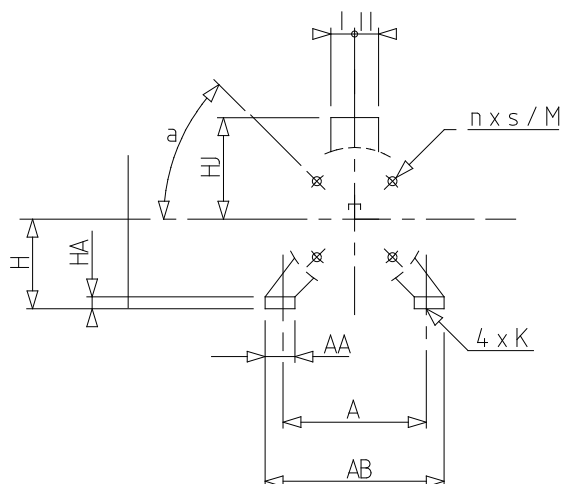
**Motor characteristics (supplied via drives)**

Main voltage (V)	Nominal frequency (Hz)	Pn (kW)	Nn (min <sup>-1</sup> )	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	4	1458	8.37	0.8	0.00	23.58	26.20	26.20	26.200	15.06	0.00
400 D	87	6.96	2525	14.56	0.8	0.00	23.58	26.20	26.20	26.200	0.00	0.00

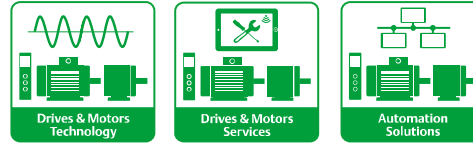
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A	190	S	M8
a	45	T	3.5
AA	52	ts	2
AB	220	ts1	20
AC	235.00	x	12
B	140		
BB	165		
C	70.0		
D	28j6		
E	60		
F	8		
G	24		
GD	7		
H	112		
HA	14		
HJ	149.0		
I	43		
II	43		
J	86		
K	12		
L	50		
LB	332.0		
LJ	35.0		
LO	6		
M	130		
N	110		
n	4		
O	M10		
P	160		
p	22		
rs	0.5		



## Data sheet

**LEROY-SOMER**<sup>™</sup>

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.  
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