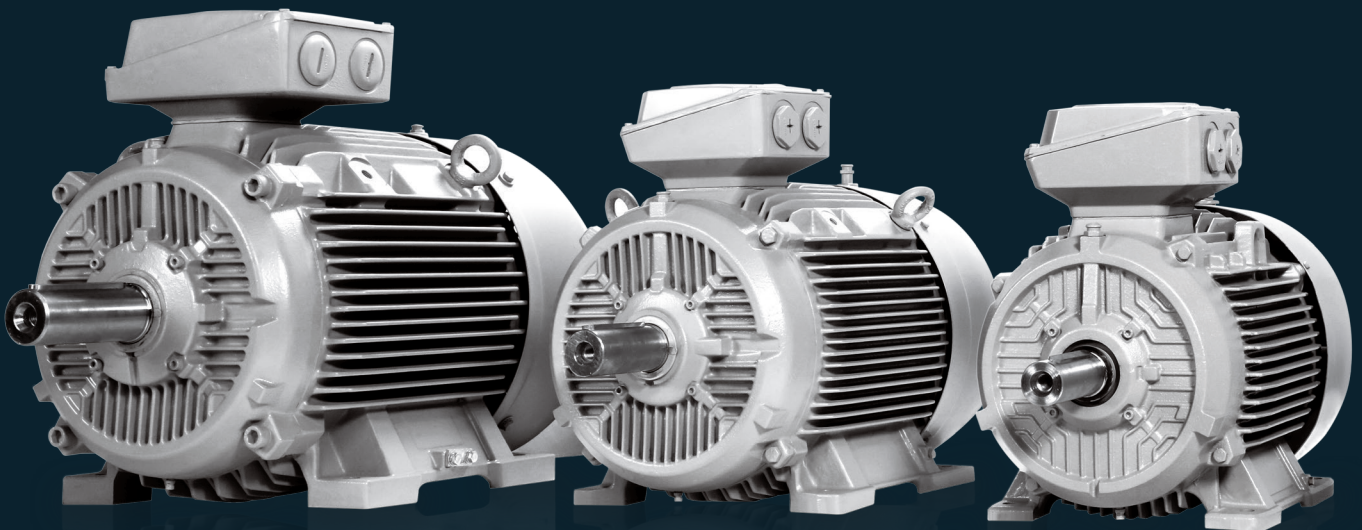


INNOMOTICS

Innomotics Severe Duty 1LE7 IE2 Motors

Presenting a wide range of energy efficient
low voltage motors

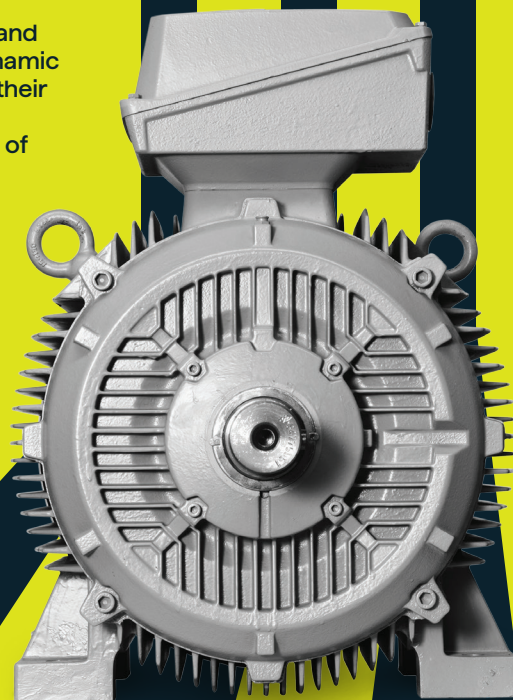


Innomotics Low Voltage Motors – The most comprehensive range of motors

The history of today's most comprehensive range of motors worldwide started about 158 years ago in 1866 when Werner von Siemens developed the dynamo-electric principle. This principle allowed powerful electric motors to be designed and built, thereby creating the basis for their widespread use in industry today. Innomotics sets the pace when it comes to innovative motor technology. Today, millions of Innomotics motors are efficiently powering machines and equipment in industrial facilities around the world. In all sectors, applications and power classes. Innomotics energy-efficient low-voltage motors with high dynamic performance have proven themselves in use, and are attractive as a result of their quality, efficiency and compactness. In line with the tradition of naming the various series of motors the new range of motors will be called as Innomotics. The new Innomotics range of motors are offered in line with the range of motors offered worldwide.

Innomotics severe duty stands for:

- More than 158 years of motor production worldwide
- Optimum solutions in all sectors, regions and power classes
- Innovative motor technology with the highest quality and reliability
- Highest dynamic performance, precision and efficiency, with an optimum degree of compactness
- Integration of the motors in the drive train to create an overall system
- **The global network of skill sets and round the clock service worldwide**



Ordering codes for Innomotics severe duty 1LE7-IE2 series of motors

Output kW	Pole	Frame Size	Ordering Code (MLFB)*				Output kW	Pole	Frame Size	Ordering Code (MLFB)*				Output kW	Pole	Frame Size	Ordering Code (MLFB)*			
				12-13	14	15					12-13	14	15					12-13	14	
							0.25	4	71	1LE7501-OCB2	2-3	A	A	0.18	6	71	1LE7501-0CC2	2-3	A	
							0.37	4	71	1LE7501-OCB3	2-3	A	A	0.25	6	71	1LE7501-0CC3	2-3	A	
0.37	2	71	1LE7501-OCA2	2-3	A	A	0.55	4	80	1LE7501-ODB2	2-3	A	A	0.37	6	80	1LE7501-0DC2	2-3	A	
0.55	2	71	1LE7501-OCA3	2-3	A	A	0.75	4	80	1LE7501-ODB3	2-3	A	A	0.55	6	80	1LE7501-0DC3	2-3	A	
0.75	2	80	1LE7501-ODA2	2-3	A	A	1.1	4	90S	1LE7501-OEB0	2-3	A	A	0.75	6	90S	1LE7501-OEC0	2-3	A	
1.1	2	80	1LE7501-ODA3	2-3	A	A	1.5	4	90L	1LE7501-OEB4	2-3	A	A	1.1	6	90L	1LE7501-OEC4	2-3	A	
1.5	2	90S	1LE7501-OEA0	2-3	A	A	2.2	4	100L	1LE7501-1AB4	3-5	A	A	1.5	6	100L	1LE7501-1AC4	2-3	A	
2.2	2	90L	1LE7501-OEA4	3-5	A	A	3.7	4	112M	1LE7501-1BB2	3-5	A	A	2.2	6	112M	1LE7501-1BC2	3-5	A	
3.7	2	100L	1LE7501-1AA5	3-5	A	A	5.5	4	132S	1LE7501-1CB0	3-5	A	A	3.7	6	132S	1LE7501-1CC1	3-5	A	
5.5	2	132S	1LE7501-1CA0	3-5	A	A	7.5	4	132M	1LE7501-1CB2	3-5	A	A	5.5	6	132M	1LE7501-1CC3	3-5	A	
7.5	2	132S	1LE7501-1CA1	3-5	A	A	11	4	160M	1LE7501-1DB2	3-5	A	A	7.5	6	160M	1LE7501-1DC2	3-5	A	
11	2	160M	1LE7501-1DA2	3-5	A	A	15	4	160L	1LE7501-1DB4	3-5	A	A	11	6	160L	1LE7501-1DC4	3-5	A	
15	2	160M	1LE7501-1DA3	3-5	A	A	18.5	4	180M	1LE7501-1EB2	3-5	A	A	15	6	180L	1LE7501-1EC4	3-5	A	
18.5	2	160L	1LE7501-1DA4	3-5	A	A	22	4	180L	1LE7501-1EB4	3-5	A	A	18.5	6	200L	1LE7501-2AC4	3-5	A	
22	2	180M	1LE7501-1EA2	3-5	A	A	30	4	200L	1LE7501-2AB5	3-5	A	A	22	6	200L	1LE7501-2AC5	3-5	A	
30	2	200L	1LE7501-2AA4	3-5	A	A	37	4	225S	1LE7501-2BB0	3-5	A	A	30	6	225M	1LE7501-2BC2	3-5	A	
37	2	200L	1LE7501-2AA5	3-5	A	A	45	4	225M	1LE7501-2BB2	3-5	A	A	37	6	250M	1LE7501-2CC2	3-5	A	
45	2	225M	1LE7501-2BA2	3-5	A	A	55	4	250M	1LE7501-2CB2	3-5	A	A	45	6	280S	1LE7501-2DC0	3-5	A	
55	2	250M	1LE7501-2CA2	3-5	A	A	75	4	280S	1LE7501-2DB0	3-5	A	A	55	6	280M	1LE7501-2DC2	3-5	A	
75	2	280S	1LE7501-2DA0	3-5	A	A	90	4	280M	1LE7501-2DB2	3-5	A	A	75	6	315S	1LE7501-3AC0	3-5	A	
90	2	280M	1LE7501-2DA2	3-5	A	A	110	4	315S	1LE7501-3AB0	3-5	A	A	90	6	315M	1LE7501-3AC2	3-5	A	
110	2	315S	1LE7501-3AA0	3-5	A	A	132	4	315M	1LE7501-3AB2	3-5	A	A	110	6	315L	1LE7501-3AC4	3-5	A	
132	2	315M	1LE7501-3AA2	3-5	A	A	160	4	315L	1LE7501-3AB4	3-5	A	A	132	6	315L	1LE7501-3AC6	3-5	A	
160	2	315L	1LE7501-3AA4	3-5	A	A	200	4	315L	1LE7501-3AB6	3-5	A	A							
200	2	315L	1LE7501-3AA6	3-5	A	A														

Refer next & last page for details

Salient features:

Shaft height	71 to 315
Power range, pole	0.37kW to 200kW, 2 Pole 0.25kW to 200kW, 4 Pole 0.18kW to 132kW, 6 Pole
Housing material	Cast iron
Efficiency class	IE2
Applicable standards	Efficiency classification according to IS 12615: 2018/ IEC 60034-30-1
Degree of protection	IP 55 (IP56/IP65 options are available)
Voltages	415V (additional voltages available, refer Innomotics product configurator for more details.)
Frequency	50 Hz (60 Hz against enquiry)
Type of construction	IMB3 (Refer Innomotics product configurator for other construction variants)
Cooling method	IC411 totally enclosed fan cooled [TEFC]
Temperature class	155°C (F) utilized to 130°C (B)
Insulation system	VFD Suitable insulation scheme as a standard. 1. Up to 480V - For Frames up to 225 2. Up to 500V - For Frames 250 to 315
Impulse Voltage Insulation Class (IVIC) for U _N 415V	C (Severe) As per std. IEC 60034-18-41 / IS 15999 (Part 18/Sec 41): 2018.
Standard series concept	Diagonally split terminal box as a standard (ease of termination of cables) Terminal box can be rotated through 360° in steps of 90° Increased cantilever force bearings at DE as an option

Notes:
Si/Pn ratio will be higher than as required as per IEC 60034-12 for the NE design and therefore NE will not be indicated on the nameplate.
@ FS315/2P suitable for DOL operation at 50Hz, Please contact nearest sales office for VFD operation.

Innomotics severe duty 1LE7

Voltage code (Specified in MLFB positions 12 & 13)

Frequency 50Hz							Frequency 60Hz			
Position 12 & 13	Connection		Position 12 & 13	Connection			Position 12 & 13	Standard 50Hz Power		
	Δ	Y		Δ	Y			Δ	Y	
18	200VΔ		90	220VΔ	-	M1Y	90	220VΔ	380VY	M2A
20	-	360VY	90	230VΔ	-	M1Y	90	380VΔ	660VY	M2B
21	-	380VY	90	240VΔ	-	M1Y	90		440VY	M2C
22	-	400VY	90	360VΔ	-	M1Y	90	440VΔ		M2D
23	-	415VY	90	440VΔ	-	M1Y	90		460VY	M2E
27	-	500VY	90	460VΔ	-	M1Y	90	460VΔ		M2F
33	380VΔ	-	90	480VΔ	-	M1Y	90		575VY	M2G
34	400VΔ	-	90	525VΔ	-	M1Y	90	575VΔ		M2H
35	415VΔ	-	90	-	660VY	M1Y	90	400VΔ	690VY	M2J
40	500VΔ	-	90	-	690VY	M1Y	90		480VY	M2K
43	(575VΔ)	-					90	480VΔ		M2L
46	660VΔ	-					90	230VΔ	400VY	M2M
47	690VΔ	-						Any other voltage apart		
90	Any other voltage					M1Y	90	from those listed above.		M1Y

Notes:
• Short codes are mandatory when 12 and 13 in MLFB is 9 and 0 respectively. • M1Y requires Hz, V and kW to be specified in plain text • 60Hz mandates that a "-Z", Z = B59 to be specified. For 60Hz please enquire. • For 1LE75 and 1LE76 all above voltagees are possible for frames 71 - 225. • For frames 250-315, please enquire with nearest sales office as not all above voltages may be possible.

Construction code (Specified in MLFB position 14)

14 th	← Position in the MLFB
A	IM B3, IM B6, IM B7, IM B8, IM V5, IM V6. (<i>stamped IM B3</i>)
B	
C	IM V5 / IM 1011
D	IM V6 / IM 1031
E	
F	IM B5 / IM 3001, IM V1, IM V3, (stamped IM B5) flange (upto 315M only)
G	IM V1 / IM 3011 flange
H	IM V3 / IM 3031 flange (for frames upto 315M only)
J	IM B35 / IM 2001 flange
K	IM B14 / IM 3601, IM V19 / IM 3631, IM V18 / IM 3611 (<i>stamped IMB14</i>); standard flange (for frames upto 132M only)
L	IM V19 / IM 3631 standard flange (for frames upto 132M only)
M	IM V18 / IM 3611 standard flange (for frames upto 132M only)
N	IM B34 / IM 2101 standard flange (for frames upto 132M only)
O	
T	IM B6 / IM 1051
U	IM B7 / IM 1061
V	IM B8 / IM 1071
W	IMV15
Y	IMV36 (IMV35 when used with B59)

Motor protection (Specified in MLFB position 15)

15 th	← Position in the MLFB
A	Without winding protection
B	3x PTC thermistors for tripping (Class F)
C	6x PTC thermistors - 3x for alarm and 3x for tripping (Class F)
H	3x PT100 resistance thermometers in stator winding - 2 wire
J	6x PT100 resistance thermometers in stator winding - 2 wire
K	1x Temperature sensor - PT1000
L	2x Temperature sensor - PT1000
Z	Q1B 3x PT100 resistance thermometers in stator winding - 3 wire from sensor
Z	Q2B 6x PT100 resistance thermometers in stator winding - 3 wire from sensor
Z	Q3A 3x Bi-metallic sensors for trip operation (Thermostats)
Z	Q9A 6x Bi-metallic sensors (3x for alarm, 3x for tripping) (Thermostats)
Addition to Position 15 (Value of Positon 15 = B)	
B	-Z = Q11 Additional 3x PTC thermistors for tripping
Addition to Position 15 (Value of Positon 15 = B or C with or without Q11)	
B or C	-Z = Q90 Class B PTC thermistors (Alarm 130°C, Trip 140°C)
Only few cases shown as examples. For further options, please consult nearest Sales office.	

Terminal box position (Specified in MLFB position 16)

16 th	← Position in the MLFB
4	Terminal box on TOP
5	Terminal box on RHS (as viewed from DE)
6	Terminal box on LHS (as viewed from DE)
7	Terminal box at bottom (only for horizontal constructions without feet)

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motors.in@innomotics.com
 Toll free No.- 1800 266 9060
 (8:30 AM to 6:30 PM- Excluding Sunday and national holidays)

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