

**SIEMENS**

*Ingenuity for life*



A Global  
IE range

## 1LE7 SIMOTICS Motors - The Global Product to Indian Standards

Introducing the new advanced range of  
energy efficient LV motors

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# SIMOTICS – the most comprehensive range of motors

The history of today's most comprehensive range of motors worldwide started about 150 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. Since then, motor development has been one of the core business of the company, and with greater than a century worth of experience, Siemens sets the pace when it comes to innovative motor technology. Today, millions of Siemens motors are efficiently powering machines and equipment in industrial facilities around the world. In all sectors, applications and power classes. Siemens 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 **SIMOTICS**

The new SIMOTICS range of motors are offered in line with the range of motors offered worldwide from the house of Siemens.

SIMOTICS stands for

- 150 years of motor production worldwide **and 50 years of motor production in India**
- 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 new 1LE7 series of motors

kW	Construction IMB3 (Horizontal foot mounted)			Construction IMB35 (Horizontal foot-cum flange mounted)			Construction IMV1 (Vertical flange mounted)		
	Frame Size	Old Series	New Series	Frame Size	Old Series	New Series	Frame Size	Old Series	New Series
<b>2 Pole</b>									
55	250M	1LA2 254-2NA80	1LE7503-2CA23-5AA4	250M	1LA2 254-2NA86	1LE7503-2CA23-5JA4	250M	1LA2 254-2NA81	1LE7503-2CA23-5GA4
75	280S	1LA2 281-2NB80	1LE7503-2DA03-5AA4	280S	1LA2 281-2NB86	1LE7503-2DA03-5JA4	280S	1LA2 281-2NB81	1LE7503-2DA03-5GA4
90	280M	1LA2 284-2NB80	1LE7503-2DA23-5AA4	280M	1LA2 284-2NB86	1LE7503-2DA23-5JA4	280M	1LA2 284-2NB81	1LE7503-2DA23-5GA4
110	315S	1LA2 311-2NB80	1LE7503-3AA03-5AA4	315S	1LA2 311-2NB86	1LE7503-3AA03-5JA4	315S	1LA2 311-2NB81	1LE7503-3AA03-5GA4
132	315M	1LA2 314-2NB80	1LE7503-3AA23-5AA4	315M	1LA2 314-2NB86	1LE7503-3AA23-5JA4	315M	1LA2 314-2NB81	1LE7503-3AA23-5GA4
160	315L	Was not available	1LE7503-3AA43-5AA4	315L	Was not available	1LE7503-3AA43-5JA4	315L	Was not available	1LE7503-3AA43-5GA4
200	315L	Was not available	1LE7503-3AA63-5AA4	315L	Was not available	1LE7503-3AA63-5JA4	315L	Was not available	1LE7503-3AA63-5GA4
<b>4 Pole</b>									
55	250M	1LA2 254-4NA80	1LE7503-2CB23-5AA4	250M	1LA2 254-4NA86	1LE7503-2CB23-5JA4	250M	1LA2 254-4NA81	1LE7503-2CB23-5GA4
75	280S	1LA2 281-4NA80	1LE7503-2DB03-5AA4	280S	1LA2 281-4NA86	1LE7503-2DB03-5JA4	280S	1LA2 281-4NA81	1LE7503-2DB03-5GA4
90	280M	1LA2 284-4NB80	1LE7503-2DB23-5AA4	280M	1LA2 284-4NB86	1LE7503-2DB23-5JA4	280M	1LA2 284-4NB81	1LE7503-2DB23-5GA4
110	315S	1LA2 311-4NA80	1LE7503-3AB03-5AA4	315S	1LA2 311-4NA86	1LE7503-3AB03-5JA4	315S	1LA2 311-4NA81	1LE7503-3AB03-5GA4
132	315M	1LA2 314-4NA80	1LE7503-3AB23-5AA4	315M	1LA2 314-4NA86	1LE7503-3AB23-5JA4	315M	1LA2 314-4NA81	1LE7503-3AB23-5GA4
160	315L	1LA2 318-4NA80	1LE7503-3AB43-5AA4	315L	1LA2 318-4NA86	1LE7503-3AB43-5JA4	315L	1LA2 318-4NA88	1LE7503-3AB43-5GA4
200	315L	1LA2 319-4NA80	1LE7503-3AB63-5AA4	315L	1LA2 319-4NA86	1LE7503-3AB63-5JA4	315L	1LA2 319-4NA88	1LE7503-3AB63-5GA4
<b>6 Pole</b>									
37	250M	1LA2 255-6NA80	1LE7503-2CC23-5AA4	250M	1LA2 255-6NA86	1LE7503-2CC23-5JA4	250M	1LA2 255-6NA81	1LE7503-2CC23-5GA4
45	280S	1LA2 281-6NA80	1LE7503-2DC03-5AA4	280S	1LA2 281-6NA86	1LE7503-2DC03-5JA4	280S	1LA2 281-6NA81	1LE7503-2DC03-5GA4
55	280M	1LA2 284-6NA80	1LE7503-2DC23-5AA4	280M	1LA2 284-6NA86	1LE7503-2DC23-5JA4	280M	1LA2 284-6NA81	1LE7503-2DC23-5GA4
75	315S	1LA2 311-6NA80	1LE7503-3AC03-5AA4	315S	1LA2 311-6NA86	1LE7503-3AC03-5JA4	315S	1LA2 311-6NA81	1LE7503-3AC03-5GA4
90	315M	1LA2 314-6NA80	1LE7503-3AC23-5AA4	315M	1LA2 314-6NA86	1LE7503-3AC23-5JA4	315M	1LA2 314-6NA81	1LE7503-3AC23-5GA4
110	315L	1LA2 318-6NA80	1LE7503-3AC43-5AA4	315L	1LA2 318-6NA86	1LE7503-3AC43-5JA4	315L	1LA2 318-6NA88	1LE7503-3AC43-5GA4
132	315L	1LA2 319-6NA80	1LE7503-3AC63-5AA4	315L	1LA2 319-6NA86	1LE7503-3AC63-5JA4	315L	1LA2 319-6NA88	1LE7503-3AC63-5GA4
<b>8 Pole</b>									
30	250M	1SE0 254-8YB80	1LE7503-2CD23-5AA4*	250M	1SE0 254-8YB86	1LE7503-2CD23-5JA4*	250M	1SE0 254-8YB81	1LE7503-2CD23-5GA4*
37	280S	1SE0 281-8YB80	1LE7503-2DD03-5AA4	280S	1SE0 281-8YB86	1LE7503-2DD03-5JA4	280S	1SE0 281-8YB81	1LE7503-2DD03-5GA4
45	280M	1SE0 284-8YB80	1LE7503-2DD23-5AA4	280M	1SE0 284-8YB86	1LE7503-2DD23-5JA4	280M	1SE0 284-8YB81	1LE7503-2DD23-5GA4
55	315S	1SE0 311-8YB80	1LE7503-3AD03-5AA4	315S	1SE0 311-8YB86	1LE7503-3AD03-5JA4	315S	1SE0 311-8YB81	1LE7503-3AD03-5GA4
75	315M	1SE0 314-8YB80	1LE7503-3AD23-5AA4	315M	1SE0 314-8YB86	1LE7503-3AD23-5JA4	315M	1SE0 314-8YB81	1LE7503-3AD23-5GA4
90	315L	1SE0 318-8YB80	1LE7503-3AD43-5AA4	315L	1SE0 318-8YB86	1LE7503-3AD43-5JA4	315L	1SE0 318-8YB88	1LE7503-3AD43-5GA4
110	315L	1SE0 319-8YB80	1LE7503-3AD53-5AA4	315L	1SE0 319-8YB86	1LE7503-3AD53-5JA4	315L	1SE0 319-8YB88	1LE7503-3AD53-5GA4

\* On Enquiry

Salient Features of the "new" SIMOTICS Low voltage motors are:

<b>Shaft height</b>	250 to 315
<b>Power range</b>	30 kW to 200 kW
<b>No. of poles</b>	2/4/6/8
<b>Motor/material</b>	Frame: Cast Iron Terminal box: Cast Iron Fan cover: Sheet steel
<b>Efficiency classes</b>	IE3 - Premium Efficiency
<b>Standards</b>	Conforming to IS 12615 : 2011 / IEC 60034-1
<b>Degree of protection</b>	IP 55
<b>Voltages</b>	380V, 400V, 415V, 440V, 460V, 500V, 600V, 660V, 690V
<b>Frequency</b>	50 Hz (60 Hz against enquiry)
<b>Type of construction</b>	IMB3, IMV1 and IMB35 (other constructions upon enquiry)
<b>Cooling method</b>	IC411 - Totally enclosed fan cooled [TEFC] Standard / IC416 against enquiry
<b>Temperature class</b>	155°C (F) utilized to 130°C (B)
<b>Insulation system</b>	VFD suitable insulation scheme for voltages up to 500V as a standard
<b>Standard series concept</b>	Diagonally split terminal box (ease of termination of cables), Terminal box can be rotated through 360° in steps of 90°. Identical bearings at DE and NDE standard Increased cantilever force bearings at DE as an option Insulated bearings at NDE as an option for frames 280 and 315

## Ordering codes for new 1LE7 series of motors

Output kW	Construction IMB3 (Horizontal foot mounted)			Construction IMB5 (Horizontal flange mounted)			Construction IMB14 (Horizontal face mounted)		
	Frame Size	Old Series	New Series	Frame Size	Old Series	New Series	Frame Size	Old Series	New Series
<b>2 Pole</b>									
0.37	71	1SE0 070-2NC70	1LE7501-OCA22-3AA4	71	1SE0 070-2NC71	1LE7501-OCA22-3FA4	71	1SE0 070-2NC72	1LE7501-OCA22-3KA4
0.55	71	1SE0 073-2NC70	1LE7501-OCA32-3AA4	71	1SE0 073-2NC71	1LE7501-OCA32-3FA4	71	1SE0 073-2NC72	1LE7501-OCA32-3KA4
0.75	80	1SE0 080-2NC70	1LE7501-ODA22-3AA4	80	1SE0 080-2NC71	1LE7501-ODA22-3FA4	80	1SE0 080-2NC72	1LE7501-ODA22-3KA4
1.1	80	1SE0 083-2NC70	1LE7501-ODA32-3AA4	80	1SE0 083-2NC71	1LE7501-ODA32-3FA4	80	1SE0 083-2NC72	1LE7501-ODA32-3KA4
1.5	90S	1SE0 090-2NB70	1LE7501-OEA02-3AA4	90S	1SE0 090-2NB71	1LE7501-OEA02-3FA4	90S	1SE0 090-2NB72	1LE7501-OEA02-3KA4
2.2	90L	1SE0 096-2NB80	1LE7501-OEA43-5AA4	90L	1SE0 096-2NB81	1LE7501-OEA43-5FA4	90L	1SE0 096-2NB82	1LE7501-OEA43-5KA4
3.7	100L	1SE0 107-2NA80	1LE7501-1AA43-5AA4	100L	1SE0 107-2NA81	1LE7501-1AA43-5FA4	100L	1SE0 107-2NA82	1LE7501-1AA43-5KA4
5.5	132S	1SE0 130-2NC80	1LE7501-1CA03-5AA4	132S	1SE0 130-2NC81	1LE7501-1CA03-5FA4	132S	1SE0 130-2NC82	1LE7501-1CA03-5KA4
7.5	132S	1SE0 131-2NC80	1LE7501-1CA13-5AA4	132S	1SE0 131-2NC81	1LE7501-1CA13-5FA4	132S	1SE0 131-2NC82	1LE7501-1CA13-5KA4
<b>4 Pole</b>									
0.25	71		1LE7501-OCB22-3AA4	71		1LE7501-OCB22-3FA4	71		1LE7501-OCB22-3KA4
0.37	71	1SE0 073-4NC70	1LE7501-OCB32-3AA4	71	1SE0 073-4NC71	1LE7501-OCB32-3FA4	71	1SE0 073-4NC72	1LE7501-OCB32-3KA4
0.55	71	1SE0 080-4NB70	1LE7501-ODB22-3AA4	71	1SE0 080-4NB71	1LE7501-ODB22-3FA4	71	1SE0 080-4NB72	1LE7501-ODB22-3KA4
0.75	80	1SE0 083-4NA70	1LE7501-ODB32-3AA4	80	1SE0 083-4NA71	1LE7501-ODB32-3FA4	80	1SE0 083-4NA72	1LE7501-ODB32-3KA4
1.1	80	1SE0 090-4NA70	1LE7501-OEB02-3AA4	80	1SE0 090-4NA71	1LE7501-OEB02-3FA4	80	1SE0 090-4NA72	1LE7501-OEB02-3KA4
1.5	90S	1SE0 096-4NA70	1LE7501-OEB42-3AA4	90S	1SE0 096-4NA71	1LE7501-OEB42-3FA4	90S	1SE0 096-4NA72	1LE7501-OEB42-3KA4
2.2	90L	1SE0 106-4NA80	1LE7501-1AB43-5AA4	90L	1SE0 106-4NA81	1LE7501-1AB43-5FA4	90L	1SE0 106-4NA82	1LE7501-1AB43-5KA4
3.7	100L	1SE0 113-4NA80	1LE7501-1AB53-5AA4	100L	1SE0 113-4NA81	1LE7501-1AB53-5FA4	100L	1SE0 113-4NA82	1LE7501-1AB53-5KA4
5.5	132S	1SE0 130-4NA80	1LE7501-1CB03-5AA4	132S	1SE0 130-4NA81	1LE7501-1CB03-5FA4	132S	1SE0 130-4NA82	1LE7501-1CB03-5KA4
7.5	132S	1SE0 133-4NA80	1LE7501-1CB23-5AA4	132S	1SE0 133-4NA81	1LE7501-1CB23-5FA4	132S	1SE0 133-4NA82	1LE7501-1CB23-5KA4
<b>6 Pole</b>									
0.18	71		1LE7501-OCC22-3AA4	71		1LE7501-OCC22-3FA4	71		1LE7501-OCC22-3KA4
0.25	71		1LE7501-OCC32-3AA4	71		1LE7501-OCC32-3FA4	71		1LE7501-OCC32-3KA4
0.37	80	1SE0 080-6NB70	1LE7501-ODC22-3AA4	80	1SE0 073-4NC71	1LE7501-ODC22-3FA4	80	1SE0 073-4NC72	1LE7501-ODC22-3KA4
0.55	80	1SE0 083-6NA70	1LE7501-ODC32-3AA4	80	1SE0 080-4NB71	1LE7501-ODC32-3FA4	80	1SE0 080-4NB72	1LE7501-ODC32-3KA4
0.75	90S	1SE0 090-6NA70	1LE7501-OEC02-3AA4	90S	1SE0 083-4NA71	1LE7501-OEC02-3FA4	90S	1SE0 083-4NA72	1LE7501-OEC02-3KA4
1.1	90L	1SE0 096-6NA70	1LE7501-OEC42-3AA4	90L	1SE0 090-4NA71	1LE7501-OEC42-3FA4	90L	1SE0 090-4NA72	1LE7501-OEC42-3KA4
1.5	100L	1SE0 106-6NB70	1LE7501-1AC42-3AA4	100L	1SE0 096-4NA71	1LE7501-1AC42-3FA4	100L	1SE0 096-4NA72	1LE7501-1AC42-3KA4
2.2	112M	1SE0 113-6NB80	1LE7501-1BC23-5AA4	112M	1SE0 106-4NA81	1LE7501-1BC23-5FA4	112M	1SE0 106-4NA82	1LE7501-1BC23-5KA4
3.7	132S	1SE0 131-6NB80	1LE7501-1CC03-5AA4	132S	1SE0 113-4NA81	1LE7501-1CC03-5FA4	132S	1SE0 113-4NA82	1LE7501-1CC03-5KA4
5.5	132M	1SE0 134-6NB80	1LE7501-1CC33-5AA4	132M	1SE0 130-4NA81	1LE7501-1CC33-5FA4	132M	1SE0 130-4NA82	1LE7501-1CC33-5KA4

### 14th digit of order code to change for other construction types

Construction	IMV1 *	IMB35	IMB34	IMV18	IMV19
14th Digit	G	J	N	M	L

\*For IMV1 with canopy Z code of H00 to be added

Salient Features of the "new" SIMOTICS Low voltage motors are:

<b>Shaft height</b>	71 to 132
<b>Power range</b>	0.37 kW to 7.5 kW
<b>No. of poles</b>	2/4/6
<b>Motor/material</b>	Frame: Cast Iron Terminal box: Aluminium Fan cover: Sheet steel
<b>Efficiency classes</b>	IE2 - High Efficiency
<b>Marking</b>	Classification according to IS 12615 : 2011 / IEC 60034-1
<b>Degree of protection</b>	IP 55
<b>Voltages</b>	380V, 400V, 415V, 440V, 460V, 500V, 600V, 660V, 690V (additional voltages on request)
<b>Frequency</b>	50 Hz (60 Hz against enquiry)
<b>Type of construction</b>	IMB3, IMB5, IMV1 (with or without canopy), IMB14, IMB35, IMB34
<b>Cooling method</b>	IC411 (Totally enclosed fan cooled [TEFC] Standard / IC416 against enquiry)
<b>Temperature class</b>	155°C (F) utilized to 130°C (B)
<b>Insulation system</b>	VFD suitable insulation scheme for voltages up to 500V as a standard
<b>Standard series concept</b>	Diagonally split terminal box (ease of termination of cables) Terminal box can be rotated through 360° in steps of 90° Identical bearings at DE and NDE standard



