

# IEC Squirrel-Cage Motors

Recoding overview of Order No.  
from motor series 1LA7/1LA9 to 1LE1

Supplement to Catalog D 81.1 · 2008



## Motors

**SIEMENS**

# IEC Squirrel-Cage Motors

## Recoding overview of Order No. from motor series 1LA7/1LA9 to 1LE1

### Order No. code for motors 1LA7/1LA9

#### Overview

The Order No. comprises a combination of letters and digits and for clarity it is subdivided into two blocks which are connected by hyphens, e. g.:

**1LA7113-4AA19-Z**  
**M1F + A11 + G17**

The first block (positions 1 to 7) identifies the motor type; further characteristics of the version are coded in the second block (positions 8 to 12).

For deviations in the second block from the catalog codes, either **-Z** or **9** should be used as appropriate.

#### Ordering data:

- Complete Order No. and order code(s) or plain text.
- If a quotation has been requested, please specify the quotation number in addition to the Order No.
- When ordering a complete motor as a spare part, please specify the works serial No. for the previously supplied motor as well as the Order No.

Structure of the Order No.:		Position:	1	2	3	4	5	6	7	-	8	9	10	11	12
<b>IEC squirrel-cage motors, surface-cooled</b>															
<b>Positions 1 to 3:</b> Digit, letter, letter	• Self-ventilated by fan mounted on and driven by rotor, aluminum or cast-iron housing		1	L	A										
<b>Position 4:</b> Digit	Type series 7 Type series 9					7 9									
<b>Positions 5 to 7:</b> 3 digits	Motor frame size (frame size comprising shaft height and construction length, codes from 050 to 457)														
<b>Position 8:</b> Digit	Number of poles														
<b>Positions 9 to 10:</b> Letter	Version														
<b>Position 11:</b> Digit	Voltage, circuit and frequency														
<b>Position 12:</b> Digit	Type of construction														
	Special order versions: Encoded – additional order code required Not encoded – additional plain text required														- Z

#### Ordering example

Selection criteria	Requirement	Structure of the Order No.
Motor type	Standard motor with improved efficiency, IP55 degree of protection, aluminum housing	<b>1LA7000-000000</b>
Motor frame size/No. of poles/speed	112M/4-pole/1500 rpm	<b>1LA7113-4AA00</b>
Rated output	4 kW	
Voltage and frequency	230 VΔ/400 VY, 50 Hz	<b>1LA7113-4AA10</b>
Type of construction	IM V5 with protective cover	<b>1LA7113-4AA19</b> <b>M1F</b>
Special versions	3 PTC thermistors	<b>1LA7113-4AA19-Z</b> <b>M1F A11</b>
	Mounted separately driven fan	<b>1LA7113-4AA19-Z</b> <b>M1F A11 G17</b>

# IEC Squirrel-Cage Motors

## Recoding overview of Order No. from motor series 1LA7/1LA9 to 1LE1

Order No. code for motors 1LE1

### Overview

The Order No. comprises a combination of letters and digits and for clarity it is subdivided into two blocks which are connected by hyphens, e. g.:

**1LE1001-1DB20-1AA5-Z  
H00**

The first block (positions 1 to 7) identifies the motor type; the second block (positions 8 to 12) defines the motor frame size and length, the number of poles and in some cases the frequency/output; and in the third block (positions 13 to 16), the frequency/output, type of construction and other design features are encoded.

For deviations in the second and third blocks from the catalog codes, either **-Z** or **9** should be used as appropriate.

#### Ordering data:

- Complete Order No. and order code(s) or plain text.
- If a quotation has been requested, please specify the quotation number in addition to the Order No.
- When ordering a complete motor as a spare part, please specify the works serial No. for the previously supplied motor as well as the Order No.

Structure of the Order No.:	Position:	1	2	3	4	5	6	7	-	8	9	10	11	12	-	13	14	15	16
<b>IEC squirrel-cage motors, surface-cooled</b>																			
<b>Positions 1 to 4:</b> Digit, letter, letter, digit	<b>New generation</b> Design or version (motor type)	1	L	E	1														
	<b>Standard:</b> • Self-ventilated by fan mounted on and driven by rotor																		
<b>Positions 5 to 7:</b> 3 digits	• Motors with high efficiency (High Efficiency, EFF1), aluminum housing • Motors with improved efficiency (Improved Efficiency, EFF2), aluminum housing					0	0	1											
						0	0	2											
<b>Positions 8, 9 and 11:</b> Digit, letter, digit	<b>Motor frame size</b> (frame size as a combination of shaft height and overall length, encoded)								1	A		0							
										...	D	...	6						
<b>Position 10:</b> Letter	<b>Number of poles</b> A ... D = 2-, 4-, 6-, 8-pole										A								
											...	D							
<b>Positions 12 and 13:</b> 2 digits	<b>Voltage, circuit and frequency</b>												0		0				
													...	9	...	8			
<b>Position 14:</b> Letter	<b>Type of construction</b> (A – V)																A		
																	...	V	
<b>Position 15:</b> Letter	<b>Motor protection</b> (A – Z; special versions encoded)																	A	
																		...	Z
<b>Position 16:</b> Digit	<b>Mechanical design (motor version and connection box position)</b> • <b>General Line motors with shorter delivery times, limited options</b> (connection box on top, cast feet, only basic versions possible, non-drive-end (NDE) cannot be modified) • <b>All options are possible or can be modified</b> - Connection box on top - Connection box on RHS (viewed from DE) - Connection box on LHS (viewed from DE) - Connection box below																		0
																			4
																			5
																			6
																			7
	<b>Special order versions:</b> Encoded – additional order code required Not encoded – additional plain text required																		
																			-
																			Z

### Ordering example

Selection criteria	Requirement	Structure of the Order No.
Motor type	New generation Standard motor with high efficiency EFF1, IP55 degree of protection, aluminum version	<b>1LE1001-□□□□□□-□□□□□</b>
Motor frame size/No. of poles/speed	160/4-pole/1500 rpm	<b>1LE1001-1DB2□-□□□□□</b>
Rated output	11 kW	
Voltage and frequency	230 VΔ/400 VY, 50 Hz	<b>1LE1001-1DB22-2□□□□</b>
Type of construction	IM V5 with protective cover <sup>1)</sup>	<b>1LE1001-1DB22-2C□□□-Z</b> <b>H00</b>
(Special versions)	3 PTC thermistors (motor protection with 3 embedded temperature sensors for tripping <sup>2)</sup> )	<b>1LE1001-1DB22-2CB□□-Z</b> <b>H00</b>
Mechanical design (motor version)	Connection box on RHS (viewed from DE) Mounted separately driven fan	<b>1LE1001-1DB22-2CB5-Z</b> <b>H00</b> <b>1LE1001-1DB22-2CB5-Z</b> <b>H00 F70</b>

<sup>1)</sup> Standard without protective cover – the protective cover is defined with option **H00** and this option must be ordered in addition.

<sup>2)</sup> No additional option must be specified in the order.

# IEC Squirrel-Cage Motors

## Recoding overview of Order No. from motor series 1LA7/1LA9 to 1LE1

### Guide to selecting and ordering the motors 1LA7/1LA9 and 1LE1

#### Overview

Determining the **motor type** according to cooling method, degree of protection and frame design

Applications for surface-cooled motor types	Cooling method	Standard designation for degree of protection to DIN EN 60034 Part 5	Frame design	Motor type (Positions 1 to 3 of the Order No.) + type series (Position 4 of the Order No.) Rated output at 50 Hz																
				Motor frame sizes (shaft heights) 56 63 71 80 90 100 112 132 160 180 200 225 250 280 315 355 400 450																
<b>New generation motors 1LE1</b>				<b>Extract from catalog part 1</b>																
General Line motors with shorter delivery time	Self-ventilated	IP55	Aluminum	1LE1 1.5 ... 18.5 kW																
Energy-saving motors with improved efficiency (Improved Efficiency EFF2)	Self-ventilated	IP55	Aluminum	1LE1 0.75 ... 18.5 kW																
Energy-saving motors with high efficiency (High Efficiency EFF1)	Self-ventilated	IP55	Aluminum	1LE1 0.75 ... 18.5 kW																
Motors with increased output and improved efficiency	Self-ventilated	IP55	Aluminum	1LE1 2.2 ... 22 kW																
Motors with increased output and high efficiency	Self-ventilated	IP55	Aluminum	1LE1 2.2 ... 22 kW																
Motors without external fan and fan cover with improved efficiency	Forced-air-cooled	IP55	Aluminum	1LE1 0.75 ... 18.5 kW																
Motors without external fan and fan cover with high efficiency	Forced-air-cooled	IP55	Aluminum	1LE1 0.75 ... 18.5 kW																
<b>Standard motors (up to frame size 315 L)</b>				<b>Extract from catalog part 2</b>																
Energy-saving motors with improved efficiency (Improved Efficiency EFF 2)	Self-ventilated	IP55	Aluminum	1LA7 0.06 ... 18.5 kW			1LE1			1LA5 11 ... 45 kW										
		IP55	Cast-iron				1LA6 0.75 ... 18.5 kW			1LG4 11 ... 200 kW										
Pole-changing motors with improved efficiency	Self-ventilated	IP55	Aluminum	1LA7 0.15 ... 17 kW			1LA5 18 ... 31 kW													
Energy-saving motors with high efficiency (High Efficiency EFF1)	Self-ventilated	IP55	Aluminum	1LA9 0.06 ... 37 kW																
		IP55	Cast-iron				1LG6 11 ... 200 kW													
Motors with increased output	Self-ventilated	IP55	Aluminum	1LA9 0.14 ... 53 kW																
		IP55	Cast-iron				1LG4 15 ... 110 kW													

## Recoding overview of Order No. from motor series 1LA7/1LA9 to 1LE1

Motors ex stock

## Selection and ordering data

Synchronous speed at 50 Hz rpm	Output at 50 Hz kW	Frame size	Voltage	Type of construction	PTC thermistors	Order No.			
						Motors ex stock 1LA7	General Line 1LE1		
<b>Self-ventilated energy-saving motors with improved efficiency</b>									
3000	3	100 L	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7106-2AA10	1LE1002-1AA42-2AA0		
				IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7106-2AA11	1LE1002-1AA42-2FA0		
				IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7106-2AA11-Z A11	1LE1002-1AA42-2FB0		
				IM B 14 with standard flange	<input type="checkbox"/>	1LA7106-2AA12	1LE1002-1AA42-2KA0		
				400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7106-2AA60	1LE1002-1AA43-4AA0	
					IM B3	<input checked="" type="checkbox"/>	1LA7106-2AA60-Z A11	1LE1002-1AA43-4AB0	
	4	112 M	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7113-2AA10	1LE1002-1BA22-2AA0		
				IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7113-2AA11	1LE1002-1BA22-2FA0		
				IM B 14 with standard flange	<input type="checkbox"/>	1LA7113-2AA12	1LE1002-1BA22-2KA0		
				400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7113-2AA60	1LE1002-1BA23-4AA0	
					IM B3	<input checked="" type="checkbox"/>	1LA7113-2AA60-Z A11	1LE1002-1BA23-4AB0	
					IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7113-2AA61	1LE1002-1BA23-4FA0	
5.5	132 S	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7113-2AA61-Z A11	1LE1002-1BA23-4FB0			
			400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7130-2AA10	1LE1002-1CA02-2AA0		
				IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7130-2AA11	1LE1002-1CA02-2FA0		
				IM B3	<input type="checkbox"/>	1LA7130-2AA60	1LE1002-1CA03-4AA0		
			7.5	132 S	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input checked="" type="checkbox"/>	1LA7130-2AA60-Z A11	1LE1002-1CA03-4AB0
						IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7130-2AA61	1LE1002-1CA03-4FA0
IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7130-2AA61-Z A11				1LE1002-1CA03-4FB0			
11	160 M	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7131-2AA10	1LE1002-1CA12-2AA0			
			IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7131-2AA11	1LE1002-1CA12-2FA0			
			IM B3	<input type="checkbox"/>	1LA7131-2AA60	1LE1002-1CA13-4AA0			
			IM B3	<input checked="" type="checkbox"/>	1LA7131-2AA60-Z A11	1LE1002-1CA13-4AB0			
			IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7131-2AA61	1LE1002-1CA13-4FA0			
			IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7131-2AA61-Z A11	1LE1002-1CA13-4FB0			
15	160 M	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7163-2AA60	1LE1002-1DA23-4AA0			
			IM B3	<input checked="" type="checkbox"/>	1LA7163-2AA60-Z A11	1LE1002-1DA23-4AB0			
			IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7163-2AA61	1LE1002-1DA23-4FA0			
			IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7163-2AA61-Z A11	1LE1002-1DA23-4FB0			
			18.5	160 L	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7164-2AA60	1LE1002-1DA33-4AA0
						IM B3	<input checked="" type="checkbox"/>	1LA7164-2AA60-Z A11	1LE1002-1DA33-4AB0
18.5	160 L	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7164-2AA61	1LE1002-1DA33-4FA0			
			IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7164-2AA61-Z A11	1LE1002-1DA33-4FB0			
			IM B3	<input type="checkbox"/>	1LA7166-2AA60	1LE1002-1DA43-4AA0			
			IM B3	<input checked="" type="checkbox"/>	1LA7166-2AA60-Z A11	1LE1002-1DA43-4AB0			
18.5	160 L	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7166-2AA61	1LE1002-1DA43-4FA0			
			IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7166-2AA61-Z A11	1LE1002-1DA43-4FB0			

# IEC Squirrel-Cage Motors

## Recoding overview of Order No. from motor series 1LA7/1LA9 to 1LE1

### Motors ex stock

#### Selection and ordering data (continued)

Synchronous speed at 50 Hz rpm	Output at 50 Hz kW	Frame size	Voltage	Type of construction	PTC thermistors	Order No.	
						Motors ex stock 1LA7	General Line 1LE1
<b>Self-ventilated energy-saving motors with improved efficiency</b>							
1500	2.2	100 L	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7106-4AA10	1LE1002-1AB42-2AA0
				IM B3	<input checked="" type="checkbox"/>	1LA7106-4AA10-Z A11	1LE1002-1AB42-2AB0
				IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7106-4AA11	1LE1002-1AB42-2FA0
				IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7106-4AA11-Z A11	1LE1002-1AB42-2FB0
				IM B 14 with standard flange	<input type="checkbox"/>	1LA7106-4AA12	1LE1002-1AB42-2KA0
				IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7106-4AA12-Z A11	1LE1002-1AB42-2KB0
	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7106-4AA60	1LE1002-1AB43-4AA0		
		IM B3	<input checked="" type="checkbox"/>	1LA7106-4AA60-Z A11	1LE1002-1AB43-4AB0		
		IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7106-4AA61	1LE1002-1AB43-4FA0		
		IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7106-4AA61-Z A11	1LE1002-1AB43-4FB0		
		IM B 14 with standard flange	<input type="checkbox"/>	1LA7106-4AA62	1LE1002-1AB43-4KA0		
		IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7106-4AA62-Z A11	1LE1002-1AB43-4KB0		
3	100 L	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7107-4AA10	1LE1002-1AB52-2AA0	
			IM B3	<input checked="" type="checkbox"/>	1LA7107-4AA10-Z A11	1LE1002-1AB52-2AB0	
			IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7107-4AA11	1LE1002-1AB52-2FA0	
			IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7107-4AA11-Z A11	1LE1002-1AB52-2FB0	
			IM B 14 with standard flange	<input type="checkbox"/>	1LA7107-4AA12	1LE1002-1AB52-2KA0	
			IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7107-4AA12-Z A11	1LE1002-1AB52-2KB0	
	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7107-4AA60	1LE1002-1AB53-4AA0		
		IM B3	<input checked="" type="checkbox"/>	1LA7107-4AA60-Z A11	1LE1002-1AB53-4AB0		
		IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7107-4AA61	1LE1002-1AB53-4FA0		
		IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7107-4AA61-Z A11	1LE1002-1AB53-4FB0		
		IM B 14 with standard flange	<input type="checkbox"/>	1LA7107-4AA62	1LE1002-1AB53-4KA0		
		IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7107-4AA62-Z A11	1LE1002-1AB53-4KB0		
4	112 M	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7113-4AA10	1LE1002-1BB22-2AA0	
			IM B3	<input checked="" type="checkbox"/>	1LA7113-4AA10-Z A11	1LE1002-1BB22-2AB0	
			IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7113-4AA11	1LE1002-1BB22-2FA0	
			IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7113-4AA11-Z A11	1LE1002-1BB22-2FB0	
			IM B 14 with standard flange	<input type="checkbox"/>	1LA7113-4AA12	1LE1002-1BB22-2KA0	
			IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7113-4AA12-Z A11	1LE1002-1BB22-2KB0	
	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7113-4AA60	1LE1002-1BB23-4AA0		
		IM B3	<input checked="" type="checkbox"/>	1LA7113-4AA60-Z A11	1LE1002-1BB23-4AB0		
		IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7113-4AA61	1LE1002-1BB23-4FA0		
		IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7113-4AA61-Z A11	1LE1002-1BB23-4FB0		
		IM B 14 with standard flange	<input type="checkbox"/>	1LA7113-4AA62	1LE1002-1BB23-4KA0		
		IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7113-4AA62-Z A11	1LE1002-1BB23-4KB0		
5.5	132 S	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7130-4AA10	1LE1002-1CB02-2AA0	
			IM B3	<input checked="" type="checkbox"/>	1LA7130-4AA10-Z A11	1LE1002-1CB02-2AB0	
			IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7130-4AA11	1LE1002-1CB02-2FA0	
			IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7130-4AA11-Z A11	1LE1002-1CB02-2FB0	
			IM B 14 with standard flange	<input type="checkbox"/>	1LA7130-4AA12	1LE1002-1CB02-2KA0	
			IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7130-4AA12-Z A11	1LE1002-1CB02-2KB0	
	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7130-4AA60	1LE1002-1CB03-4AA0		
		IM B3	<input checked="" type="checkbox"/>	1LA7130-4AA60-Z A11	1LE1002-1CB03-4AB0		
		IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7130-4AA61	1LE1002-1CB03-4FA0		
		IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7130-4AA61-Z A11	1LE1002-1CB03-4FB0		
		IM B 14 with standard flange	<input type="checkbox"/>	1LA7130-4AA62	1LE1002-1CB03-4KA0		
		IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7130-4AA62-Z A11	1LE1002-1CB03-4KB0		
7.5	132 M	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7133-4AA10	1LE1002-1CB22-2AA0	
			IM B3	<input checked="" type="checkbox"/>	1LA7133-4AA10-Z A11	1LE1002-1CB22-2AB0	
			IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7133-4AA11	1LE1002-1CB22-2FA0	
			IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7133-4AA11-Z A11	1LE1002-1CB22-2FB0	
			IM B 14 with standard flange	<input type="checkbox"/>	1LA7133-4AA12	1LE1002-1CB22-2KA0	
			IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7133-4AA12-Z A11	1LE1002-1CB22-2KB0	
	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7133-4AA60	1LE1002-1CB23-4AA0		
		IM B3	<input checked="" type="checkbox"/>	1LA7133-4AA60-Z A11	1LE1002-1CB23-4AB0		
		IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7133-4AA61	1LE1002-1CB23-4FA0		
		IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7133-4AA61-Z A11	1LE1002-1CB23-4FB0		
		IM B 14 with standard flange	<input type="checkbox"/>	1LA7133-4AA62	1LE1002-1CB23-4KA0		
		IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7133-4AA62-Z A11	1LE1002-1CB23-4KB0		
11	160 M	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7163-4AA10	1LE1002-1DB22-2AA0	
			IM B3	<input checked="" type="checkbox"/>	1LA7163-4AA10-Z A11	1LE1002-1DB22-2AB0	
			IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7163-4AA11	1LE1002-1DB22-2FA0	
			IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7163-4AA11-Z A11	1LE1002-1DB22-2FB0	
			IM B 14 with standard flange	<input type="checkbox"/>	1LA7163-4AA12	1LE1002-1DB22-2KA0	
			IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7163-4AA12-Z A11	1LE1002-1DB22-2KB0	
	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7163-4AA60	1LE1002-1DB23-4AA0		
		IM B3	<input checked="" type="checkbox"/>	1LA7163-4AA60-Z A11	1LE1002-1DB23-4AB0		
		IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7163-4AA61	1LE1002-1DB23-4FA0		
		IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7163-4AA61-Z A11	1LE1002-1DB23-4FB0		
		IM B 14 with standard flange	<input type="checkbox"/>	1LA7163-4AA62	1LE1002-1DB23-4KA0		
		IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7163-4AA62-Z A11	1LE1002-1DB23-4KB0		
15	160 L	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7166-4AA10	1LE1002-1DB42-2AA0	
			IM B3	<input checked="" type="checkbox"/>	1LA7166-4AA10-Z A11	1LE1002-1DB42-2AB0	
			IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7166-4AA11	1LE1002-1DB42-2FA0	
			IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7166-4AA11-Z A11	1LE1002-1DB42-2FB0	
			IM B 14 with standard flange	<input type="checkbox"/>	1LA7166-4AA12	1LE1002-1DB42-2KA0	
			IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7166-4AA12-Z A11	1LE1002-1DB42-2KB0	
	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7166-4AA60	1LE1002-1DB43-4AA0		
		IM B3	<input checked="" type="checkbox"/>	1LA7166-4AA60-Z A11	1LE1002-1DB43-4AB0		
		IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7166-4AA61	1LE1002-1DB43-4FA0		
		IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7166-4AA61-Z A11	1LE1002-1DB43-4FB0		
		IM B 14 with standard flange	<input type="checkbox"/>	1LA7166-4AA62	1LE1002-1DB43-4KA0		
		IM B 14 with standard flange	<input checked="" type="checkbox"/>	1LA7166-4AA62-Z A11	1LE1002-1DB43-4KB0		

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Siemens Supplement to Catalog D 81.1-2008

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## Recoding overview of Order No. from motor series 1LA7/1LA9 to 1LE1

Motors ex stock

## Selection and ordering data (continued)

Synchronous speed at 50 Hz rpm	Output at 50 Hz kW	Frame size	Voltage	Type of construction	PTC thermistors	Order No.	Order No.
						Motors ex stock 1LA7	General Line 1LE1
<b>Self-ventilated energy-saving motors with improved efficiency</b>							
1000	1.5	100 L	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7106-6AA10	1LE1002-1AC42-2AA0
				IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7106-6AA11	1LE1002-1AC42-2FA0
				IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7106-6AA11-Z A11	1LE1002-1AC42-2FB0
				IM B 14 with standard flange	<input type="checkbox"/>	1LA7106-6AA12	1LE1002-1AC42-2KA0
	2.2	112 M	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7113-6AA10	1LE1002-1BC22-2AA0
				IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7113-6AA11	1LE1002-1BC22-2FA0
				IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7113-6AA11-Z A11	1LE1002-1BC22-2FB0
				IM B 14 with standard flange	<input type="checkbox"/>	1LA7113-6AA12	1LE1002-1BC22-2KA0
	3	132 S	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7130-6AA10	1LE1002-1CC02-2AA0
				IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7130-6AA11	1LE1002-1CC02-2FA0
				IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7130-6AA11-Z A11	1LE1002-1CC02-2FB0
		400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7130-6AA60	1LE1002-1CC03-4AA0	
IM B3			<input checked="" type="checkbox"/>	1LA7130-6AA60-Z A11	1LE1002-1CC03-4AB0		
IM B5, IM V1, IM V3			<input type="checkbox"/>	1LA7130-6AA61	1LE1002-1CC03-4FA0		
4	132 M	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7133-6AA10	1LE1002-1CC22-2AA0	
			IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7133-6AA11	1LE1002-1CC22-2FA0	
			IM B3	<input type="checkbox"/>	1LA7133-6AA60	1LE1002-1CC23-4AA0	
	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input checked="" type="checkbox"/>	1LA7133-6AA60-Z A11	1LE1002-1CC23-4AB0		
		IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7133-6AA61	1LE1002-1CC23-4FA0		
		IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7133-6AA61-Z A11	1LE1002-1CC23-4FB0		
5.5	132 M	230 VΔ/400 VY, 50 Hz, 460 VY, 60 Hz	IM B3	<input type="checkbox"/>	1LA7134-6AA10	1LE1002-1CC32-2AA0	
			IM B3	<input type="checkbox"/>	1LA7134-6AA60	1LE1002-1CC33-4AA0	
			IM B3	<input checked="" type="checkbox"/>	1LA7134-6AA60-Z A11	1LE1002-1CC33-4AB0	
	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7134-6AA61	1LE1002-1CC33-4FA0		
		IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7134-6AA61-Z A11	1LE1002-1CC33-4FB0		
		IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7134-6AA61-Z A11	1LE1002-1CC33-4FB0		
7.5	160 M	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7163-6AA60	1LE1002-1DC23-4AA0	
			IM B3	<input checked="" type="checkbox"/>	1LA7163-6AA60-Z A11	1LE1002-1DC23-4AB0	
			IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7163-6AA61	1LE1002-1DC23-4FA0	
			IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7163-6AA61-Z A11	1LE1002-1DC23-4FB0	
11	160 L	400 VΔ/690 VY, 50 Hz, 460 VΔ, 60 Hz	IM B3	<input type="checkbox"/>	1LA7166-6AA60	1LE1002-1DC43-4AA0	
			IM B3	<input checked="" type="checkbox"/>	1LA7166-6AA60-Z A11	1LE1002-1DC43-4AB0	
			IM B5, IM V1, IM V3	<input type="checkbox"/>	1LA7166-6AA61	1LE1002-1DC43-4FA0	
			IM B5, IM V1, IM V3	<input checked="" type="checkbox"/>	1LA7166-6AA61-Z A11	1LE1002-1DC43-4FB0	

# IEC Squirrel-Cage Motors

## Recoding overview of Order No. from motor series 1LA7/1LA9 to 1LE1

### Catalog motors

#### Selection and ordering data

Synchronous speed at 50 Hz rpm	Output at 50 Hz kW	Frame size	Order No.	
			Catalog motors 1LA7/1LA9	Catalog motors 1LE1
<b>Self-ventilated energy-saving motors with improved efficiency</b>				
<b>3000</b>	3	100 L	1LA7106-2AA□□	1LE1002-1AA4□-□□□□
	4	112 M	1LA7113-2AA□□	1LE1002-1BA2□-□□□□
	5.5	132 S	1LA7130-2AA□□	1LE1002-1CA0□-□□□□
	7.5	132 S	1LA7131-2AA□□	1LE1002-1CA1□-□□□□
	11	160 M	1LA7163-2AA□□	1LE1002-1DA2□-□□□□
	15	160 M	1LA7164-2AA□□	1LE1002-1DA3□-□□□□
	18.5	160 L	1LA7166-2AA□□	1LE1002-1DA4□-□□□□
<b>1500</b>	2.2	100 L	1LA7106-4AA□□	1LE1002-1AB4□-□□□□
	3	100 L	1LA7107-4AA□□	1LE1002-1AB5□-□□□□
	4	112 M	1LA7113-4AA□□	1LE1002-1BB2□-□□□□
	5.5	132 S	1LA7130-4AA□□	1LE1002-1CB0□-□□□□
	7.5	132 M	1LA7133-4AA□□	1LE1002-1CB2□-□□□□
	11	160 M	1LA7163-4AA□□	1LE1002-1DB2□-□□□□
	15	160 L	1LA7166-4AA□□	1LE1002-1DB4□-□□□□
<b>1000</b>	1.5	100 L	1LA7106-6AA□□	1LE1002-1AC4□-□□□□
	2.2	112 M	1LA7113-6AA□□	1LE1002-1BC2□-□□□□
	3	132 S	1LA7130-6AA□□	1LE1002-1CC0□-□□□□
	4	132 M	1LA7133-6AA□□	1LE1002-1CC2□-□□□□
	5.5	132 M	1LA7134-6AA□□	1LE1002-1CC3□-□□□□
	7.5	160 M	1LA7163-6AA□□	1LE1002-1DC2□-□□□□
	11	160 L	1LA7166-6AA□□	1LE1002-1DC4□-□□□□
<b>750</b>	0.75	100 L	1LA7106-8AB□□	1LE1002-1AD4□-□□□□
	1.1	100 L	1LA7107-8AB□□	1LE1002-1AD5□-□□□□
	1.5	112 M	1LA7113-8AB□□	1LE1002-1BD2□-□□□□
	2.2	132 S	1LA7130-8AB□□	1LE1002-1CD0□-□□□□
	3	132 M	1LA7133-8AB□□	1LE1002-1CD2□-□□□□
	4	160 M	1LA7163-8AB□□	1LE1002-1DD2□-□□□□
	5.5	160 M	1LA7164-8AB□□	1LE1002-1DD3□-□□□□
7.5	160 L	1LA7166-8AB□□	1LE1002-1DD4□-□□□□	
<b>Self-ventilated energy-saving motors with high efficiency</b>				
<b>3000</b>	3	100 L	1LA9106-2KA□□	1LE1001-1AA4□-□□□□
	4	112 M	1LA9113-2KA□□	1LE1001-1BA2□-□□□□
	5.5	132 S	1LA9130-2KA□□	1LE1001-1CA0□-□□□□
	7.5	132 S	1LA9131-2KA□□	1LE1001-1CA1□-□□□□
	11	160 M	1LA9163-2KA□□	1LE1001-1DA2□-□□□□
	15	160 M	1LA9164-2KA□□	1LE1001-1DA3□-□□□□
	18.5	160 L	1LA9166-2KA□□	1LE1001-1DA4□-□□□□
<b>1500</b>	2.2	100 L	1LA9106-4KA□□	1LE1001-1AB4□-□□□□
	3	100 L	1LA9107-4KA□□	1LE1001-1AB5□-□□□□
	4	112 M	1LA9113-4KA□□	1LE1001-1BB2□-□□□□
	5.5	132 S	1LA9130-4KA□□	1LE1001-1CB0□-□□□□
	7.5	132 M	1LA9133-4KA□□	1LE1001-1CB2□-□□□□
	11	160 M	1LA9163-4KA□□	1LE1001-1DB2□-□□□□
	15	160 L	1LA9166-4KA□□	1LE1001-1DB4□-□□□□
<b>1000</b>	1.5	100 L	1LA9106-6KA□□	1LE1001-1AC4□-□□□□
	2.2	112 M	1LA9113-6KA□□	1LE1001-1BC2□-□□□□
	3	132 S	1LA9130-6KA□□	1LE1001-1CC0□-□□□□
	4	132 M	1LA9133-6KA□□	1LE1001-1CC2□-□□□□
	5.5	132 M	1LA9134-6KA□□	1LE1001-1CC3□-□□□□
	7.5	160 M	1LA9163-6KA□□	1LE1001-1DC2□-□□□□
	11	160 L	1LA9166-6KA□□	1LE1001-1DC4□-□□□□
<b>750</b>	0.75	100 L	–	1LE1001-1AD4□-□□□□
	1.1	100 L	–	1LE1001-1AD5□-□□□□
	1.5	112 M	–	1LE1001-1BD2□-□□□□
	2.2	132 S	–	1LE1001-1CD0□-□□□□
	3	132 M	–	1LE1001-1CD2□-□□□□
	4	160 M	–	1LE1001-1DD2□-□□□□
	5.5	160 M	–	1LE1001-1DD3□-□□□□
7.5	160 L	–	1LE1001-1DD4□-□□□□	

# IEC Squirrel-Cage Motors

## Recoding overview of Order No. from motor series 1LA7/1LA9 to 1LE1

Catalog motors

## Selection and ordering data (continued)

Synchronous speed at 50 Hz rpm	Output at 50 Hz kW	Frame size	Order No.	
			Catalog motors 1LA7/1LA9	Catalog motors 1LE1
<b>Self-ventilated motors with increased output and improved efficiency</b>				
3000	4	100 L	–	1LE1002-1AA6□-□□□□
	4.4	100 L	1LA9106-2LA□□	–
	5.5	112 M	–	1LE1002-1BA6□-□□□□
	6.5	112 M	1LA9113-2LA□□	–
	9	132 S	1LA9130-2LA□□	–
	11	132 M	–	1LE1002-1CA6□-□□□□
	12	132 S	1LA9131-2LA□□	–
	18	160 M	1LA9163-2LA□□	–
	21	160 M	1LA9164-2LA□□	–
	26	160 L	1LA9166-2LA□□	–
	22	160 L	–	1LE1002-1DA6□-□□□□
1500	4	100 L	1LA9107-4LA□□	1LE1002-1AB6□-□□□□
	5.5	112 M	1LA9113-4LA□□	1LE1002-1BB6□-□□□□
	8.6	132 S	1LA9130-4LA□□	–
	11	132 M	1LA9133-4LA□□	1LE1002-1CB6□-□□□□
	17	160 M	1LA9163-4LA□□	–
	22	160 L	1LA9166-4LA□□	–
	18.5	160 L	–	1LE1002-1DB6□-□□□□
1000	2.2	100 L	–	1LE1002-1AC6□-□□□□
	3	112 M	–	1LE1002-1BC6□-□□□□
	7.5	132 M	–	1LE1002-1CC6□-□□□□
	15	160 L	–	1LE1002-1DC6□-□□□□
<b>Self-ventilated motors with increased output and high efficiency</b>				
3000	4	100 L	–	1LE1001-1AA6□-□□□□
	5.5	112 M	–	1LE1001-1BA6□-□□□□
	11	132 M	–	1LE1001-1CA6□-□□□□
	22	160 L	–	1LE1001-1DA6□-□□□□
1500	4	100 L	–	1LE1001-1AB6□-□□□□
	5.5	112 M	–	1LE1001-1BB6□-□□□□
	11	132 M	–	1LE1001-1CB6□-□□□□
	18.5	160 L	–	1LE1001-1DB6□-□□□□
1000	2.2	100 L	–	1LE1001-1AC6□-□□□□
	3	112 M	–	1LE1001-1BC6□-□□□□
	7.5	132 M	–	1LE1001-1CC6□-□□□□
	15	160 L	–	1LE1001-1DC6□-□□□□

# IEC Squirrel-Cage Motors

## Recoding overview of Order No. from motor series 1LA7/1LA9 to 1LE1

### Order No. supplements

#### Selection and ordering data

##### Order No. supplements

Motor type	Order No. supplement	Voltages								
		Standard voltages				Further voltages				
		50 Hz	230 VΔ/400 VY	400 VΔ/690 VY	500 VY	500 VΔ	220 VΔ/380 VY	380 VΔ/660 VY	415 VY	415 VΔ
		60 Hz				Rated voltage range				
		460 VY	460 VΔ			(210 ... 230 VΔ/ 360 ... 400 VY)	(360 ... 400 VΔ/ 625 ... 695 VY)	(395 ... 435 VY)	(395 ... 435 VΔ)	
1LA7/1LA9	Position 11: Voltages (voltage codes)	1	6	3	5	9	9	9	9	
	Additional identification code with order code					L1R	L1L	L1C	L1D	
1LE1	Positions 12 and 13: Voltages (voltage codes)	22	34	27	40	21	33	23	35	

Order other voltages for 1LE1 motors with voltage code **9** in position 12, code **0** in position 13 and the required order code (see "Voltages", Page 11).

Motor type	Order No. supplement	Types of construction											
		Without flange						With flange (acc. to DIN EN 50347)					
		IM B3	IM B6	IM B7	IM B8	IM V6	IM V5 without protective cover	IM V5 with protective cover	IM B5	IM V1 without protective cover	IM V1 with protective cover	IM V3	IM B35
1LA7/1LA9	Position 12: Types of construction (type of construction codes)	0	0	0	0	0	0	9	1	1	4	1	6
	Additional identification code with order code	M1F											
1LE1	Position 14: Types of construction (type letter)	A	T	U	V	D	C	C	F	G	G	H	J
	Additional identification code -Z with order code							-Z H00					

Motor type	Order No. supplement	Types of construction									
		With standard flange (acc. to DIN EN 50347)					With special flange (for 1LE1 motors next larger standard flange acc. to DIN EN 50347)				
		IM B14	IM V19	IM V18 without protective cover	IM V18 with protective cover	IM B34	IM B14	IM V19	IM V18 without protective cover	IM V18 with protective cover	IM B34
1LA7/1LA9	Position 12: Types of construction (type of construction codes)	2	2	2	9	7	3	3	3	9	9
	Additional identification code with order code	M2A					M2B M2C				
1LE1	Position 14: Types of construction (type letter)	K	L	M	M	N	K	L	M	M	N
	Additional identification code -Z with order code					-Z H00	-Z P01	-Z P01	-Z P01	-Z H00 P01	-Z P01

Motor type	Order No. supplement	Motor protection					
		Without motor protection	Motor protection with PTC thermistors with 3 embedded temperature sensors for tripping	Motor protection with PTC thermistors with 6 embedded temperature sensors for alarm and tripping	Motor temperature detection with embedded temperature sensor KTY 84-130	NTC thermistors for tripping	Temperature detectors for tripping
1LA7/1LA9	Additional identification code -Z with order code	□	-Z A11	-Z A12	-Z A23	-	-Z A31
1LE1	Position 15: Motor protection (motor protection letter)	A	B	C	F	Z	Z
	Additional identification code with order code					Q2A	Q3A

□ Standard version

Motor type	Order No. supplement	Connection box			
		Connection box top	Connection box on RHS	Connection box on LHS	Connection box bottom
1LA7/1LA9	Additional identification code -Z with order code	□	-Z K09	-Z K10	-
1LE1	Position 16: Connection box (connection box code)	4	5	6	7

□ Standard version

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## Selection and ordering data

## Voltages

Additional order codes for other voltages or voltage codes (without -Z supplement) for motors 1LA7, 1LA9 and 1LE1

For some non-standard voltages at 50 or 60 Hz, order codes are specified. They are ordered by specifying the code **9** for voltage in the 12th position and **0** in the 13th position of the Order No. and the appropriate order code.

Special versions	1LA7/1LA9		1LE1		
	Position 11: Voltages (voltage codes)	Additional identification code with order code and plain text if required	Positions 12 and 13: Voltages (voltage codes)	Additional identification code with order code and plain text if required	
<b>Voltage at 60 Hz</b>					
220 VΔ/380 VY; 50 Hz output	9	L2A	9	0	M2A
220 VΔ/380 VY; 60 Hz output	9	L2B	9	0	M1A
380 VΔ/660 VY; 50 Hz output	9	L2C	9	0	M2B
380 VΔ/660 VY; 60 Hz output	9	L2D	9	0	M1B
440 VY; 50 Hz output	9	L2Q	9	0	M2C
440 VY; 60 Hz output	9	L2W	9	0	M1C
440 VΔ; 50 Hz output	9	L2R	9	0	M2D
440 VΔ; 60 Hz output	9	L2X	9	0	M1D
460 VY; 50 Hz output	9	L2S	9	0	M2E
460 VY; 60 Hz output	9	L2E	9	0	M1E
460 VΔ; 50 Hz output	9	L2T	9	0	M2F
460 VΔ; 60 Hz output	9	L2F	9	0	M1F
575 VY; 50 Hz output	9	L2U	9	0	M2G
575 VY; 60 Hz output	9	L2L	9	0	M1G
575 VΔ; 50 Hz output	9	L2V	9	0	M2H
575 VΔ; 60 Hz output	9	L2M	9	0	M1H
<b>Non-standard voltages and / or frequencies</b>					
Non-standard winding for voltages between 200 V and 690 V (voltages outside this range are available on request)	9	L1Y	9	0	M1Y

# IEC Squirrel-Cage Motors

## Recoding overview of Order No. from motor series 1LA7/1LA9 to 1LE1

### Special versions

#### Selection and ordering data (continued)

##### Options

Order codes for motors 1LA7/1LA9 and 1LE1

All options are alphanumerically listed according to order codes in the following table. This concerns a functioning encoding of the order codes. The technical design of the order codes may differ.

For detailed information to individual order codes see page references in Catalog D 81.1 in the Appendix under "Overview of order codes".

Order code	Order code	Special version	Category
<b>Motors 1LA7/1LA9</b>	<b>Motors 1LE1</b>		
A10	●	PTC thermistors for alarm for converter-fed operation in Zones 2, 21, 22	Motor protection
A11	Position 15 of the Order No., letter B	Motor protection through PTC thermistor with 3 embedded temperature sensors for tripping	
A12	Position 15 of the Order No., letter C	Motor protection through PTC thermistor with 6 embedded temperature sensors for alarm and tripping	
A23	Position 15 of the Order No., letter F	Motor temperature detection with embedded temperature sensor KTY 84-130	
A25	●	Motor temperature detection with embedded temperature sensors 2x KTY 84-130	
A31	Position 15 of the Order No., letter Z Q3A	Temperature detectors for tripping	
A60	●	Installation of 3 PT 100 resistance thermometers in stator winding	
B00	B00	Without safety and commissioning note. Customer's declaration of renouncement required.	Packaging, safety notes, documentation and test certificates
B01	B01	Complete with one set of safety and commissioning notes per wire-lattice pallet	
B02	B02	Acceptance test certificate 3.1 according to EN 10204	
B06	●	Second lubricating plate, supplied loose	Rating plate and extra rating plates
B23	B04	Operating instructions German/English enclosed in print	Packaging, safety notes, documentation and test certificates
C00	F10	Brake supply voltage 24 V DC	Modular technology – Additional versions
C01	F12	Brake supply voltage 400 V AC	
C02	●	Brake supply voltage 180 V DC, for operation on MM411-ECOFAS	
C11	N01	Temperature class 155 (F), used acc. to 155 (F), with service factor (SF)	Windings and insulation
C12	N02	Temperature class 155 (F), used acc. to 155 (F), with increased output	
C13	N03	Temperature class 155 (F), used acc. to 155 (F), with increased coolant temperature	
C18	N11	Temperature class 180 (H) at rated output and max. CT 60 °C	
C19	N20	Increased air humidity/temperature with 30 to 60 g water per m <sup>3</sup> of air	
C22	N05	Temperature class 155 (F), used acc. to 130 (B), coolant temperature 45 °C, derating approx. 4 %	
C23	N06	Temperature class 155 (F), used acc. to 130 (B), coolant temperature 50 °C, derating approx. 8 %	
C24	N07	Temperature class 155 (F), used acc. to 130 (B), coolant temperature 55 °C, derating approx. 13 %	
C25	N08	Temperature class 155 (F), used acc. to 130 (B), coolant temperature 60 °C, derating approx. 18 %	
C26	N21	Increased air humidity/temperature with 60 to 100 g water per m <sup>3</sup> of air	
C27	●	Stamping of Ex nA II on VIK rating plate	Design for Zones 1, 2, 21 and 22 according to ATEX
D01	D01	CCC China Compulsory Certification	Designs in accordance with standards and specifications
D02	●	Coolant temperature –50 to +40 °C	Coolant temperature and site altitude
D03	D03	Coolant temperature –40 to +40 °C	
D04	D04	Coolant temperature –30 to +40 °C	
D19	●	Coolant temperature –40 to +40 °C for EX motor	
D30	D30	Electrical according to NEMA MG1-12	Designs in accordance with standards and specifications
D31	D31	Design according to UL with "Recognition Mark"	
D32	●	Ex certification for China	
D33	●	Certified for Korea according to KS C4202	
D40	D40	Canadian regulations (CSA)	
D46	D46	PSE Mark Japan	
E00	●	Without type test certificate according to ABS 50 °C/CCS 45 °C/ RINA 45 °C, temperature class 155 (F), used according to 155 (F)	Marine version – Basic marine version

- This order code remains to be available for 1LA7/1LA9 motors only.

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## Recoding overview of Order No. from motor series 1LA7/1LA9 to 1LE1

## Special versions

## Selection and ordering data (continued)

Order code	Order code	Special version	Category
<b>Motors 1LA7/1LA9</b>	<b>Motors 1LE1</b>		
E09	●	Individual acceptance by marine classification society with supervision of construction and acceptance test certificate 3.2 according to EN 10204	Marine version – Acceptance/certification
E10	●	Individual acceptance by marine classification society	
E11	●	With/without type test certificate according to GL (Germanischer Lloyd), Germany, CT 45 °C, temperature class 155 (F), used according to 155 (F)	Marine version – Basic marine version
E21	●	With/without type test certificate according to LR (Lloyds Register), Great Britain, CT 45 °C, temperature class 155 (F), used according to 155 (F)	
E31	●	With/without type test certificate according to BV (Bureau Veritas), France, CT 45 °C, temperature class 155 (F), used according to 155 (F)	
E51	●	With/without type test certificate according to DNV (Det Norske Veritas), Norway, CT 45 °C, temperature class 155 (F), used according to 155 (F)	
E61	●	With/without type test certificate according to ABS (American Bureau of Shipping), USA, CT 50 °C, temperature class 155 (F), used according to 155 (F)	
E71	●	With/without type test certificate according to CCS (Chinese Classification Society), China, CT 45 °C, temperature class 155 (F), used according to 155 (F)	
E80	●	Motor for use in shipping, higher ambient temperature and/or used as 155 (F) according to 130 (B)	
F83	●	Type test with heat run for horizontal motors, with acceptance	Marine version – Acceptance/certification
F83	B83	Type test with heat run for horizontal motors, with acceptance	Packaging, safety notes, documentation and test certificates
F93	●	Type test with heat run for vertical motors, with acceptance	Marine version – Acceptance/certification
G17	F70	Mounting of separately driven fan	Modular technology – Basic versions
G26	F01	Mounting of brake	
G50	Q01	Measuring nipple for SPM shock pulse measurement for bearing inspection	Bearings and lubrication
G55	●	ECOFAST motor plug Han-Drive 10e for 230 VΔ/400 VY	Motor connection and connection boxes
G56	●	ECOFAST motor plug EMC Han-Drive 10e for 230 VΔ/400 VY	
H15	●	Prepared for mounting MMI	Special technology
H17	F75	Fan cover for textile industry	Heating and ventilation
H57	G01	Mounting of 1XP8 001-1 (HTL) rotary pulse encoder/ Mounting of 1XP8 012-10 (HTL) rotary pulse encoder	Modular technology – Basic versions
H58	G02	Mounting of 1XP8 001-2 (TTL) rotary pulse encoder/ Mounting of 1XP8 012-20 (HTL) rotary pulse encoder	
H61	F70+G01	Mounting of separately driven fan and 1XP8 001-1 rotary pulse encoder	Modular technology – Combinations of basic versions
H62	F01+F11+G01	Mounting of brake and 1XP8 001-1 rotary pulse encoder	
H63	F01+F11+F70	Mounting of brake and separately driven fan	
H64	F01+F11+F70+G01	Mounting of brake, separately driven fan and 1XP8 001-1 rotary pulse encoder	
H70	G04	Mounting of LL 861 900 220 rotary pulse encoder	Special technology
H72	G05	Mounting of HOG 9 D 1024 I rotary pulse encoder	
H73	G06	Mounting of HOG 10 D 1024 I rotary pulse encoder	
H78	●	Prepared for mounting LL 861 900 220	
H79	●	Prepared for mounting HOG 9 D 1024 I	
H80	●	Prepared for mounting HOG 10 D 1024 I	
H86	●	Mounting of explosion-proof rotary pulse encoder for use in Zones 2, 21, 22	
H97	F70+G02	Mounting of separately driven fan and 1XP8 001-2 rotary pulse encoder	Modular technology – Combinations of basic versions
H98	F01+F11+G02	Mounting of brake and 1XP8 001-2 rotary pulse encoder	
H99	F01+F11+F70+G02	Mounting of brake, separately driven fan and 1XP8 001-2 rotary pulse encoder	
K02	L00	Vibration quantity level B	Balance and vibration quantity
K04	L08	Concentricity of shaft extension, coaxiality and linear movement in accordance with DIN 42955 Tolerance R for flange-mounting motors	Shaft and rotor
K09	Position 16 of the Order No., digit 5	Connection box on RHS	Motor connection and connection boxes
K10	Position 16 of the Order No., digit 6	Connection box on LHS	
K11	Position 16 of the Order No., digit 4	Connection box top, feet screwed on	
K15	●	Connection box in cast-iron version	
K16	L05	Second standard shaft extension	Shaft and rotor
K17	H23	Drive-end seal for flange-mounting motors with oil resistance to 0.1 bar	Mechanical design and degrees of protection
K20	L22	Bearing design for increased cantilever forces	Bearings and lubrication
K23	S00	Unpainted (only cast-iron parts primed)	Colors and paint finish
K24	S01	Unpainted, only primed	

● This order code remains to be available for 1LA7/1LA9 motors only.  
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# IEC Squirrel-Cage Motors

## Recoding overview of Order No. from motor series 1LA7/1LA9 to 1LE1

### Special versions

#### Selection and ordering data (continued)

Order code	Order code	Special version	Category
<b>Motors 1LA7/1LA9</b>	<b>Motors 1LE1</b>		
K30	●	VIK design (comprises Zone 2 for mains-fed operation, without Ex nA II marking on rating plate)	Design for Zones 1, 2, 21 and 22 according to ATEX
K31	M10	Second rating plate, loose	Rating plate and extra rating plates
K35	F76	Metal external fan	Heating and ventilation
K36	L25	Special bearing for DE and NDE, bearing size 63	Bearings and lubrication
K37	F77	Low-noise version for 2-pole motors with clockwise direction of rotation	Mechanical design and degrees of protection
K38	F78	Low-noise version for 2-pole motors with anticlockwise direction of rotation	Mechanical design and degrees of protection
K40	L23	Regreasing device	Bearings and lubrication
K42	L04	Shaft extension with standard dimensions, without featherkey way	Shaft and rotor
K45	Q02	Anti-condensation heaters for 230 V	Heating and ventilation
K46	Q03	Anti-condensation heaters for 115 V	Heating and ventilation
K50	H20	IP65 degree of protection	Mechanical design and degrees of protection
K52	H22	IP56 degree of protection (non-heavy-sea)	Mechanical design and degrees of protection
K54	R15	One cable entry, metal	Motor connection and connection boxes
K55	●	Cable entry, maximum configuration	Motor connection and connection boxes
K82	F50	Manual brake release with lever	Modular technology – Additional versions
K83	R10	Rotation of the connection box through 90°, entry from DE	Motor connection and connection boxes
K84	R11	Rotation of the connection box through 90°, entry from NDE	Motor connection and connection boxes
K85	R12	Rotation of connection box through 180°	Motor connection and connection boxes
K94	L20	Located bearing DE	Bearings and lubrication
L00	R50	Next larger connection box/Larger connection box	Motor connection and connection boxes
L03	H02	Vibration-proof version	Mechanical design and degrees of protection
L04	L21	Located bearing NDE	Bearings and lubrication
L12	H03	Condensation drainage holes	Mechanical design and degrees of protection
L13	H04	External earthing	Motor connection and connection boxes
L36	F74	Sheet metal fan cover	Heating and ventilation
L39	L07	Concentricity of shaft extension in accordance with DIN 42955 Tolerance R	Shaft and rotor
L44	R20	3 cables protruding, 0.5 m long	Motor connection and connection boxes
L45	R21	3 cables protruding, 1.5 m long	Motor connection and connection boxes
L47	R22	6 cables protruding, 0.5 m long	Motor connection and connection boxes
L48	R23	6 cables protruding, 1.5 m long	Motor connection and connection boxes
L49	R24	6 cables protruding, 3 m long	Motor connection and connection boxes
L68	L02	Full key balancing	Balance and vibration quantity
L99	B99	Wire-lattice pallet	Packaging, safety notes, documentation and test certificates
M14	●	Anti-condensation heater, Ex. 115 V	Heating and ventilation
M15	●	Anti-condensation heater, Ex. 230 V	Heating and ventilation
M27	H07	Non-rusting screws (externally)	Mechanical design and degrees of protection
M32	M01	Connected in star for dispatch	Packaging, safety notes, documentation and test certificates
M33	M02	Connected in delta for dispatch	Packaging, safety notes, documentation and test certificates
M34	●	Design for Zone 21, as well as Zone 22 for conducting dust (IP65) for mains-fed operation	Design for Zones 1, 2, 21 and 22 according to ATEX
M35	●	Design for Zone 22 for non-conducting dust (IP55) for mains-fed operation	Design for Zones 1, 2, 21 and 22 according to ATEX
M37	L01	Balancing without key	Balance and vibration quantity
M38	●	Design for Zone 21, as well as Zone 22 for conducting dust (IP65) for converter-fed operation, derating	Design for Zones 1, 2, 21 and 22 according to ATEX
M39	●	Design for Zone 22 for non-conducting dust (IP55) for converter-fed operation, derating	Design for Zones 1, 2, 21 and 22 according to ATEX
M64	H08	Connection box on NDE	Motor connection and connection boxes
M65	L06	Standard shaft made of non-rusting steel	Shaft and rotor
M68	<b>Standard version for mounting of encoder</b>	Mechanical protection for encoder	Mechanical design and degrees of protection
M69	●	Terminal strip for main and auxiliary terminals	Motor connection and connection boxes

● This order code remains to be available for 1LA7/1LA9 motors only.

## Recoding overview of Order No. from motor series 1LA7/1LA9 to 1LE1

## Special versions

## Selection and ordering data (continued)

Order code	Order code	Special version	Category
<b>Motors 1LA7/1LA9</b>	<b>Motors 1LE1</b>		
M72	●	Design for Zone 2 for mains-fed operation Ex nA II T3 to IEC/EN 60079-15	Design for Zones 1, 2, 21 and 22 according to ATEX
M73	●	Design for Zone 2 for converter-fed operation, derating Ex nA II T3 to IEC/EN 60079-15	
M74	●	Design (IP55) for Zones 2 and 22, for non-conducting dust, for mains-fed operation	
M75	●	Design (IP55) for Zones 2 and 22, for non-conducting dust, for converter-fed operation, derating	
M76	●	Design (IP65) for Zones 1 and 21, as well as for Zone 22 for conducting dust, for mains-fed operation	
M77	●	Design (IP65) for Zones 1 and 21, as well as for Zone 22 for conducting dust, for converter-fed operation, derating	
M94	S03	Special finish sea air resistant	Colors and paint finish
M97	●	Mounting of explosion-proof separately driven fan II 3D for use in Zone 22	Special technology
Y50	●	Temperature class 155 (F), used acc. to 130 (B) with increased coolant temperature and/or site altitude	Windings and insulation
Y51	Y51	Special finish in special RAL colors	Colors and paint finish
Y52	Y52	Temperature class 155 (F), used acc. to 155 (F), other requirements	Windings and insulation
Y54	Y54	Special finish in other standard RAL colors	Colors and paint finish
Y55	Y55	Non-standard cylindrical shaft extension	Shaft and rotor
Y68	●	Alternative converter (SIMOVERT MASTERDRIVES, SINAMICS G110, SINAMICS S120 or ET 200 S FC)	Design for Zones 1, 2, 21 and 22 according to ATEX
Y80	Y80	Extra rating plate or rating plate with deviating rating plate data	Rating plate and extra rating plates
Y82	Y82	Extra rating plate with customer data	
Y84	Y84	Additional information on rating plate and on package label (maximum of 20 characters)	
Standard version	F11	Brake supply voltage 230 V AC, 50/60 Hz	Modular technology – Additional versions
See fan motors 1PP7	F90	Without external fan and fan cover	Forced-air cooled motors without external fan and fan cover
–	G40	Prepared for mountings, only center hole	Mechanical design and degrees of protection
–	G41	Prepared for mountings with D12 shaft	
–	G42	Prepared for mountings with D16 shaft	
–	G43	Protective cover for encoder (loosely enclosed – only for mountings acc. to order codes G40, G41 and G42)	
Position 12 of the Order No., letter 4, 9 M1F, 9 M2A or 9 M2B	H00	Protective cover for types of construction	
–	H01	Screwed-on feet (instead of cast)	
–	M11	Nirosta rating plate	Rating plate and extra rating plates
–	R30	Reduction piece for M cable gland in accordance with British Standard, both cable entries mounted	Motor connection and connection boxes

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