SIMOTICS SD 1LE1 Standard Motors

Supplements to order numbers and special versions

Voltages
Cast-iron series 1LE15 Basic Line, 1LE16 Performance Line

Selection and ordering data

Voltages	Voltage code 12th and 13th position of the Order No.		Additional identification code with order code and plain text if required	Motor category / Motor version	Motor type (cast-iron)	Standard delivery time (colored area) / Motor type – Frame size / Frame size	100	112	132	160	180	200	225	250	280	315
				IE2 High Efficiency	1LE1501	1LE1501 Basic Line ①										
					1LE1601	1LE1601 Performance Line ②										
				IE3 Premium Efficiency	1LE1503	1LE1503 Basic Line ③										
					1LE1603	1LE1603 Performance Line ④										
				NEMA Energy Efficient	1LE1521	1LE1521 Eagle Line Basic ⑤										
					1LE1621	1LE1621 Eagle Line Performance ⑥										
				NEMA Premium Efficient	1LE1523	1LE1523 Eagle Line Basic ⑦										
					1LE1623	1LE1623 Eagle Line Performance ⑧										
1LE1. . . - . . . . ■ - ■ . . .				Motor version	Motor type	Frame size	100	112	132	160	180	200	225	250	280	315
Voltage at 50 Hz or 60 Hz																
50 Hz 230 VΔ/400 VY, 60 Hz 460 VY	2	2	–	All	All		□	□	□	□	□	□	□	□	□	□
50 Hz 400 VΔ/690 VY, 60 Hz 460 VΔ [1]	3	4	–	All except ⑤, ⑥, ⑦ and ⑧			□	□	□	□	□	□	□	□	□	□
50 Hz 400 VΔ, 60 Hz 460 VΔ [1]				Only applicable for ⑤, ⑥, ⑦ and ⑧			□	□	□	□	□	□	□	□	□	□
50 Hz 500 VY	2	7	–	All	All		○	○	○	○	○	○	○	○	○	○
50 Hz 500 VΔ	4	0	–	All	All		○	○	○	○	○	○	○	○	○	○
50 Hz 220 VΔ/380 VY	2	1	–	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
50 Hz 380 VΔ/660 VY [1]	3	3	–	All except ⑤, ⑥, ⑦ and ⑧			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
50 Hz 380 VΔ [1]				Only applicable for ⑤, ⑥, ⑦ and ⑧			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
50 Hz 240 VΔ/415 VY, 60 Hz 480 VY	2	3	–	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
50 Hz 415 VΔ, 60 Hz 480 VΔ	3	5	–	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Voltage at 60 Hz and required output at 60 Hz																
220 VΔ/380 VY; 50 Hz output	9	0	M2A	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
220 VΔ/380 VY; 60 Hz output [2]	9	0	M1A	All except ⑤, ⑥, ⑦ and ⑧			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
380 VΔ/660 VY; 50 Hz output [1]	9	0	M2B	All except ⑤, ⑥, ⑦ and ⑧			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
380 VΔ; 50 Hz output [1]				Only applicable for ⑤, ⑥, ⑦ and ⑧			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
380 VΔ/660 VY; 60 Hz output [1] [2]	9	0	M1B	All except ⑤, ⑥, ⑦ and ⑧			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
440 VY; 50 Hz output	9	0	M2C	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
440 VY; 60 Hz output [2]	9	0	M1C	All except ⑤, ⑥, ⑦ and ⑧			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
440 VΔ; 50 Hz output	9	0	M2D	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
440 VΔ; 60 Hz output [2]	9	0	M1D	All except ⑤, ⑥, ⑦ and ⑧			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
460 VY; 50 Hz output	9	0	M2E	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
460 VY; 60 Hz output [2]	9	0	M1E	All except ⑤, ⑥, ⑦ and ⑧			○	○	○	○	○	○	○	○	○	○
460 VΔ; 50 Hz output	9	0	M2F	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
460 VΔ; 60 Hz output [2]	9	0	M1F	All except ⑤, ⑥, ⑦ and ⑧			○	○	○	○	○	○	○	○	○	○
575 VY; 50 Hz output	9	0	M2G	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
575 VY; 60 Hz output [2]	9	0	M1G	All except ⑤, ⑥, ⑦ and ⑧			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
575 VΔ; 50 Hz output	9	0	M2H	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
575 VΔ; 60 Hz output [2]	9	0	M1H	All except ⑤, ⑥, ⑦ and ⑧			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Voltage at 87 Hz and 87 Hz output																
400 VΔ [3]	9	0 *New!*	M3A	All	All		✓	✓	✓	✓	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
Non-standard voltage and/or frequencies																
Non-standard winding [4]	9	0	M1Y • and identification code	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

□ Standard version
○ Without additional charge
• This order code only determines the price of the version – Additional plain text is required.
O. R. Possible on request
✓ With additional charge

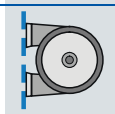
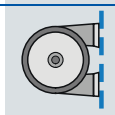
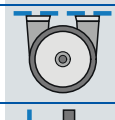
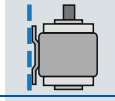
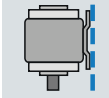
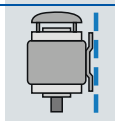
[1] For North America export versions Eagle Line 1LE1521/1LE1621 NEMA Energy Efficient and 1LE1523/1LE1623 NEMA Premium Efficient, voltages above 600 V will not be stamped.

[2] Not admissible for North America export versions Eagle Line 1LE1521/1LE1621 NEMA Energy Efficient and 1LE1523/1LE1623 NEMA Premium Efficient.

[3] Only possible for 4-pole, 6-pole and 8-pole motors. The operating data for converter-fed operation is also provided in a table on the rating plate.

[4] Plain text must be specified in the order: Voltage between 200 and 690 V (voltages outside this range are available on request), frequency, circuit, for 60 Hz additionally required rated output in kW.

Selection and ordering data

Types of construction		Type of construc. code 14th pos. of the Order No.	Additional identification code -Z with order code and plain text if required	Motor category		Standard delivery time (colored area)											
				Motor version	**Motor type (cast-iron)**	**Motor type – Frame size**											
						100	**112**	**132**	**160**	**180**	**200**	**225**	**250**	**280**	**315 S/M**	**315 L 2-pole**	**315 L 4-pole, 6-pole, 8-pole**
				IE2 High Efficiency	1LE1501	**1LE1501 Basic Line** ①											
					1LE1601	**1LE1601 Performance Line** ②											
				IE3 Premium Efficiency	1LE1503					**1LE1503 Basic Line** ③							
					1LE1603					**1LE1603 Performance Line** ④							
				NEMA Energy Efficient	1LE1521	**1LE1521 Eagle Line Basic** ⑤											
					1LE1621	**1LE1621 Eagle Line Performance** ⑥											
				NEMA Premium Efficient	1LE1523	**1LE1523 Eagle Line Basic** ⑦											
					1LE1623	**1LE1623 Eagle Line Performance** ⑧											
1LE1. . . - . . . . . - . ■ . .				Motor version	Motor type	Frame size											
						100	112	132	160	180	200	225	250	280	315 S/M	315 L 2-pole	315 L 4-pole, 6-pole, 8-pole
Without flange																	
IM B3 1) 2) 3)		**A**	–	All except ⑤/⑥ ≤ 200 hp		□	□	□	□	□	□	□	□	□	□	□	□
IM B6 2) 3)		**T**	–	All except ⑤/⑥ ≤ 200 hp		□	□	□	□	□	□	□	□	□	□	□	□
IM B7 2) 3)		**U**	–	All except ⑤/⑥ ≤ 200 hp		□	□	□	□	□	□	□	□	□	□	□	□
IM B8 2) 3)		**V**	–	All except ⑤/⑥ ≤ 200 hp		□	□	□	□	□	□	□	□	□	□	□	□
IM V6 2) 3)		**D**	–	All except ⑤/⑥ ≤ 200 hp		□	□	□	□	□	□	□	□	□	□	✓	□
IM V5 without protective cover 2) 3)		**C**	–	All except ⑤/⑥ ≤ 200 hp		□	□	□	□	□	□	□	□	□	□	✓	□
IM V5 with protective cover 2) 3) 4) 5)		**C**	**-Z H00**	All except ⑤/⑥ ≤ 200 hp		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

For legends, notes and footnotes, see Page 4.

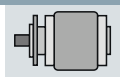
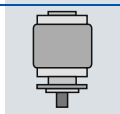
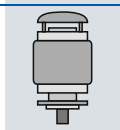
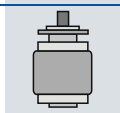
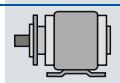
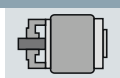
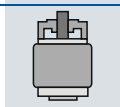
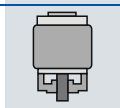
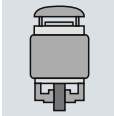
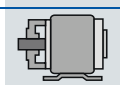
SIMOTICS SD 1LE1 Standard Motors

Supplements to order numbers and special versions

Standard delivery times:

10 working days | **20 working days** | **On request**

Types of construction
Cast-iron series 1LE15 Basic Line, 1LE16 Performance Line

Types of construction		Type of construction code 14th pos. of the Order No.	Additional identification code **-Z** with order code and plain text if required	Motor category		Standard delivery time (colored area)											
				Motor version	**Motor type (cast-iron)**	**Motor type – Frame size** 100	112	132	160	180	200	225	250	280	315 S/M	315 L 2-pole	315 L 4-pole, 6-pole, 8-pole
				IE2 High Efficiency	1LE1501	1LE1501 Basic Line ①											
					1LE1601	1LE1601 Performance Line ②											
				IE3 Premium Efficiency	1LE1503					1LE1503 Basic Line ③							
					1LE1603					1LE1603 Performance Line ④							
				NEMA Energy Efficient	1LE1521	1LE1521 Eagle Line Basic ⑤											
					1LE1621	1LE1621 Eagle Line Performance ⑥											
				NEMA Premium Efficient	1LE1523	1LE1523 Eagle Line Basic ⑦											
					1LE1623	1LE1623 Eagle Line Performance ⑧											
				Motor version	Motor type	Frame size 100	112	132	160	180	200	225	250	280	315 S/M	315 L 2-pole	315 L 4-pole, 6-pole, 8-pole
1LE1. . . - . . . . . - . ■ . .																	
With flange		**acc. to DIN EN 50347**				**FF215**	**FF215**	**FF265**	**FF300**	**FF300**	**FF350**	**FF400**	**FF500**	**FF500**	**FF600**	**–**	**–**
		acc. to DIN 42948				**A 250**	**A 250**	**A 300**	**A 350**	**A 350**	**A 400**	**A 450**	**A 550**	**A 550**	**A 660**	**A 660**	**A 660**
IM B5 2) 6)		**F**	**–**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–	–
IM V1 without protective cover 2)		**G**	**–**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IM V1 with protective cover 2) 4) 5)		**G**	**-Z H00**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IM V3 5)		**H**	**–**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–	–
IM B35 3)		**J**	**–**	All except ⑤/⑥ ≤ 200 hp		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
With standard flange		**acc. to DIN EN 50347**				**FT130**	**FT130**	**FT165**	**FT215**								
		acc. to DIN 42948				**C 160**	**C 160**	**C 200**	**C 250**								
IM B14 2) 7)		**K**	**–**	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–	–
IM V19 2)		**L**	**–**	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–	–
IM V18 without protective cover 2)		**M**	**–**	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–	–
IM V18 with protective cover 2) 4) 5)		**M**	**-Z H00**	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–	–
IM B34 3)		**N**	**–**	All except ⑤/⑥ ≤ 200 hp		✓	✓	✓	✓	–	–	–	–	–	–	–	–

For legends, notes and footnotes, see Page 4.

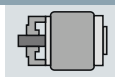
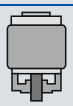
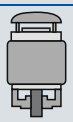
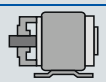
Standard delivery times:

10 working days	20 working days	On request

SIMOTICS SD 1LE1 Standard Motors

Supplements to order numbers and special versions

Types of construction
Cast-iron series 1LE15 Basic Line, 1LE16 Performance Line

Types of construction	Type of construc. code 14th pos. of the Order No.	Additional identification code **-Z** with order code and plain text if required	Motor category		Standard delivery time (colored area)											
			Motor version	**Motor type (cast-iron)**	**Motor type – Frame size** 100	112	132	160	180	200	225	250	280	315 S/M	315 L 2-pole	315 L 4-pole, 6-pole, 8-pole
			IE2 High Efficiency	1LE1501	1LE1501 Basic Line ①											
				1LE1601	1LE1601 Performance Line ②											
			IE3 Premium Efficiency	1LE1503					1LE1503 Basic Line ③							
				1LE1603					1LE1603 Performance Line ④							
			NEMA Energy Efficient	1LE1521	1LE1521 Eagle Line Basic ⑤											
				1LE1621	1LE1621 Eagle Line Performance ⑥											
			NEMA Premium Efficient	1LE1523	1LE1523 Eagle Line Basic ⑦											
				1LE1623	1LE1623 Eagle Line Performance ⑧											
			Motor version	Motor type	Frame size 100	112	132	160	180	200	225	250	280	315 S/M	315 L 2-pole	315 L 4-pole, 6-pole, 8-pole
1LE1. . . - . . . . . - . ■ . .																
With special flange		**acc. to DIN EN 50347 acc. to DIN 42948**			**FT165 C 200**	**FT165 C 200**	**FT215 C 250**	**FT265 C 300**								
IM B14 2) 7)		**K**	**-Z P01**	All	All	✓	✓	✓	–	–	–	–	–	–	–	–
IM V19 2)		**L**	**-Z P01**	All	All	✓	✓	✓	–	–	–	–	–	–	–	–
IM V18 without protective cover 2)		**M**	**-Z P01**	All	All	✓	✓	✓	–	–	–	–	–	–	–	–
IM V18 with protective cover 2) 4) 5)		**M**	**-Z P01 + H00**	All	All	✓	✓	✓	–	–	–	–	–	–	–	–
IM B34 3)		**N**	**-Z P01**	All except ⑤/⑥ ≤ 200 hp		✓	✓	✓	–	–	–	–	–	–	–	–

□ Standard version
✓ With additional charge
– Not possible

1) The types of construction IM B6/7/8, IM V6 and IM V5 with/without protective cover are also possible as long as no stamping of these types of construction on the rating plate is required. As standard the type of construction IM B3 is then stamped on the rating plate. With type of construction IM V5 with protective cover, the protective cover has to be additionally ordered with order code H00. The protective cover is not stamped on the rating plate.

2) The type of construction is stamped on the rating plate. If mounted in a different position, the position must be specified to ensure that the condensation drainage holes are positioned correctly.

3) For North America export version Eagle Line 1LE1521/1LE1621 NEMA Energy Efficient, types of construction with feet are not possible for 2-pole, 4-pole and 6-pole motors ≤ 200 hp in accordance with NEMA MG1 Table 12-11.

4) In combination with an encoder it is not necessary to order the protective cover (order code H00), as this is delivered as a protection for the encoder as standard. In this case the protective cover is standard version (without additional charge).

5) The "Second shaft extension" option (order code L05) is not possible.

6) The types of construction IM V3 and IM V1 with/without protective cover are also possible as long as no stamping of these types of construction on the rating plate is required. As standard the type of construction IM B5 is then stamped on the rating plate. With type of construction IM V1 with protective cover, the protective cover has to be additionally ordered with order code H00. The protective cover is not stamped on the rating plate.

7) The types of construction IM V19 and IM V18 with/without protective cover are also possible as long as no stamping of these types of construction on the rating plate is required. As standard the type of construction IM B14 is then stamped on the rating plate. With type of construction IM V18 with protective cover, the protective cover has to be additionally ordered with order code H00. The protective cover is not stamped on the rating plate.

Selection and ordering data

Motor protection	Motor protection code 15th position of the Order No.		Additional identification code with order code and plain text if required	Motor category		Standard delivery time (colored area)									
				Motor version	**Motor type (cast-iron)**	**Motor type – Frame size**									
						100	**112**	**132**	**160**	**180**	**200**	**225**	**250**	**280**	**315**
				IE2 High Efficiency	1LE1501	**1LE1501 Basic Line ①**									
					1LE1601	**1LE1601 Performance Line ②**									
				IE3 Premium Efficiency	1LE1503					**1LE1503 Basic Line ③**					
					1LE1603					**1LE1603 Performance Line ④**					
				NEMA Energy Efficient	1LE1521	**1LE1521 Eagle Line Basic ⑤**									
					1LE1621	**1LE1621 Eagle Line Performance ⑥**									
				NEMA Premium Efficient	1LE1523	**1LE1523 Eagle Line Basic ⑦**									
					1LE1623	**1LE1623 Eagle Line Performance ⑧**									
1LE1. . . - . . . . . - . . . ■ .				Motor version	Motor type	Frame size									
						100	112	132	160	180	200	225	250	280	315
Motor protection (winding protection)															
Without motor protection [1]	**A**		**–**	All except Performance Line ②, ④, ⑥ and ⑧		□	□	□	□	□	□	□	□	□	□
Motor protection with PTC thermistors with 3 embedded temperature sensors for tripping [1] [2]	**B**		**–**	Standard version for Performance Line ②, ④, ⑥ and ⑧		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Motor protection with PTC thermistors with 6 embedded temperature sensors for alarm and tripping [2]	**C**		**–**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Motor temperature detection with embedded temperature sensor KTY 84-130 [2]	**F**		**–**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Motor temperature detection with embedded temperature sensors 2 x KTY 84-130 [2]	**G**	*New!*	**–**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Installation of 3 PT100 resistance thermometers	**H**	*New!*	**–**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Installation of 6 PT100 resistance thermometers [2]	**J**	*New!*		All	All	–	–	–	–	✓	✓	✓	✓	✓	✓
NTC thermistors for tripping	**Z**		**Q2A**	All	All	✓	✓	✓	✓	–	–	–	–	–	–
Temperature detectors for tripping [2]	**Z**		**Q3A**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

□ Standard version
✓ With additional charge
– Not possible

Note:

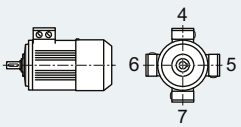
Options are available specifically for bearing protection –
For order codes and descriptions, see from Page 1/65.

[1] For the Performance Line, motor protection by means of PTC thermistors with 3 embedded temperature sensors for tripping (motor protection code B) is already included in the base price. For the Performance Line, the option "without motor protection" (motor protection code A) is not possible.

[2] Evaluation with appropriate tripping unit (see Catalog IC 10) is recommended.

Selection and ordering data

Connection box position



1LE1. . . - . . . . . - . . . ■

Connection box position	Connection box position code 16th position of the Order No.	Additional identification code with order code and plain text if required	Motor category: Motor version	Motor category: Motor type (cast-iron)	Standard delivery time (colored area): Motor type – Frame size 100	112	132	160	180	200	225	250	280	315
			IE2 High Efficiency	1LE1501	1LE1501 Basic Line									
				1LE1601	1LE1601 Performance Line									
			IE3 Premium Efficiency	1LE1503					1LE1503 Basic Line					
				1LE1603					1LE1603 Performance Line					
			NEMA Energy Efficient	1LE1521	1LE1521 Eagle Line Basic									
				1LE1621	1LE1621 Eagle Line Performance									
			NEMA Premium Efficient	1LE1523	1LE1523 Eagle Line Basic									
				1LE1623	1LE1623 Eagle Line Performance									
			Motor version	Motor type	Frame size 100	112	132	160	180	200	225	250	280	315
Connection box position														
Connection box top [1]	4	–	All	All	□	□	□	□	□	□	□	□	□	□
Connection box on RHS [2]	5	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Connection box on LHS [2]	6	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Connection box bottom [2] [3]	7	–	All	All	✓	✓	✓	✓	–	–	–	–	–	–

□ Standard version
✓ With additional charge
– Not possible

[1] For types of construction with feet, cast feet are standard. Screwed-on feet are available with order code H01.

[2] For types of construction with feet, screwed-on feet are standard.

[3] Not generally possible for motors with feet.

Selection and ordering data

Special versions	Additional identification code **-Z** with order code and plain text if required	Motor category		Standard delivery time (colored area)									
		Motor version	**Motor type (cast-iron)**	**Motor type – Frame size**									
				100	**112**	**132**	**160**	**180**	**200**	**225**	**250**	**280**	**315**
		IE2 High Efficiency	1LE1501	**1LE1501 Basic Line** ①									
			1LE1601	**1LE1601 Performance Line** ②									
		IE3 Premium Efficiency	1LE1503					**1LE1503 Basic Line** ③					
			1LE1603					**1LE1603 Performance Line** ④					
		NEMA Energy Efficient	1LE1521	**1LE1521 Eagle Line Basic** ⑤									
			1LE1621	**1LE1621 Eagle Line Performance** ⑥									
		NEMA Premium Efficient	1LE1523	**1LE1523 Eagle Line Basic** ⑦									
			1LE1623	**1LE1623 Eagle Line Performance** ⑧									
1LE1. . . - . . . . . - . . . . -Z		Motor version	Motor type	Frame size									
				100	112	132	160	180	200	225	250	280	315
Motor protection (bearing protection)													
Installation of 2 PT100 screw-in resistance thermometers in basic circuit for rolling-contact bearings [1]	**Q72** *New!*	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓
Motor connection and connection box													
One metal cable gland	**R15**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cable gland, max. configuration	**R18** *New!*	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the connection box through 90°, entry from DE	**R10**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the connection box through 90°, entry from NDE	**R11**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the connection box through 180°	**R12**	All	All	○	○	○	○	✓	✓	✓	✓	✓	✓
Larger connection box	**R50**	All	All	✓	✓	✓	–	–	–	–	–	–	–
External grounding	**H04**	All	All	✓	✓	✓	✓	◘	◘	◘	◘	◘	◘
Stud terminal for cable connection, accessories pack (3 items)	**R17** *New!*	All	All	–	–	–	–	–	–	–	✓	✓	✓
Silicone-free version	**R74** *New!*	All	All	–	–	–	–	–	–	–	✓	✓	✓
Windings and insulation													
Temperature class 155 (F), used acc. to 155 (F), with increased coolant temperature	**N03**	All	All	✓	✓	✓	✓	–	–	–	–	–	–
Temperature class 180 (H) at rated output and max. CT 60 °C [2]	**N11**	All	All	✓	✓	✓	✓	–	–	–	–	–	–
Increased air humidity/ temperature with 30 to 60 g water per m^3 of air	**N20**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 50 °C, derating approx. 8 %	**N06**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Increased air humidity/ temperature with 60 to 100 g water per m^3 of air	**N21**	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓
Colors and paint finish													
Standard finish in RAL 7030 stone gray		Only possible for Basic Line ①, ③, ⑤ and ⑦		◘	◘	◘	◘	◘	◘	◘	◘	◘	◘
Standard finish in other standard RAL colors: RAL 1002, 1013, 1015, 1019, 2003, 2004, 3000, 3007, 5007, 5009, 5010, 5012, 5015, 5017, 5018, 5019, 6011, 6019, 6021, 7000, 7001, 7004, 7011, 7016, 7022, 7031, 7032, 7033, 7035, 9001, 9002, 9005 (see Catalog D 81.1 · 2008 Part 0 "Introduction")	**Y53** • and standard finish RAL …. *New!*	Only possible for Basic Line ①, ③, ⑤ and ⑦		–	–	–	–	✓	✓	✓	✓	✓	✓
Special finish in RAL 7030 stone gray	**S10** *New!*	All; standard version for Performance Line ②, ④, ⑥ and ⑧		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

For legends, notes and footnotes, see Page 10.

SIMOTICS SD 1LE1 Standard Motors

Supplements to order numbers and special versions

Standard delivery times:

10 working days	20 working days	On request

Options
Cast-iron series 1LE15 Basic Line, 1LE16 Performance Line

Special versions	Additional identification code **-Z** with order code and plain text if required	Motor category		Standard delivery time (colored area)									
		Motor version	**Motor type (cast-iron)**	**Motor type – Frame size** 100	112	132	160	180	200	225	250	280	315
		IE2 High Efficiency	1LE1501	**1LE1501 Basic Line** ①									
			1LE1601	**1LE1601 Performance Line** ②									
		IE3 Premium Efficiency	1LE1503					**1LE1503 Basic Line** ③					
			1LE1603					**1LE1603 Performance Line** ④					
		NEMA Energy Efficient	1LE1521	**1LE1521 Eagle Line Basic** ⑤									
			1LE1621	**1LE1621 Eagle Line Performance** ⑥									
		NEMA Premium Efficient	1LE1523	**1LE1523 Eagle Line Basic** ⑦									
			1LE1623	**1LE1623 Eagle Line Performance** ⑧									
1LE1. . . - . . . . . - . . . . -Z		Motor version	Motor type	Frame size 100	112	132	160	180	200	225	250	280	315
Colors and paint finish (continued)													
Special finish in other standard RAL colors: RAL 1002, 1013, 1015, 1019, 2003, 2004, 3000, 3007, 5007, 5009, 5010, 5012, 5015, 5017, 5018, 5019, 6011, 6019, 6021, 7000, 7001, 7004, 7011, 7016, 7022, 7031, 7032, 7033, 7035, 9001, 9002, 9005 (see Catalog D 81.1 · 2008 Part 0 "Introduction")	**Y54 •** and special finish RAL ….	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special finish in special RAL colors: For RAL colors, see "Special finish in special RAL colors" (see Catalog D 81.1 · 2008 Part 0 "Introduction")	**Y51 •** and special finish RAL ….	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Unpainted (only cast-iron parts primed)	**S00**	All	All	○	○	○	○	○	○	○	○	○	○
Unpainted, only primed	**S01**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Modular technology – Basic versions [3]													
Mounting of separat. driven fan	**F70**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mounting of brake [4]	**F01**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mounting of 1XP8012-10 (HTL) rotary pulse encoder [5] [6]	**G01**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mounting of 1XP8012-20 (TTL) rotary pulse encoder [5] [6]	**G02**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Modular technology – Additional versions													
Brake supply voltage 24 V DC	**F10**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Brake supply voltage 230 V AC	**F11**	All	All	○	○	○	○	○	○	○	○	○	○
Brake supply voltage 400 V AC	**F12**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mechanical manual brake release with lever (no locking)	**F50**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special technology [3]													
Mounting of LL 861 900 220 rotary pulse encoder [7]	**G04**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mounting of HOG 9 D 1024 I rotary pulse encoder [7]	**G05**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mounting of HOG 10 D 1024 I rotary pulse encoder [7]	**G06**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mechanical design and degrees of protection													
Protective cover [5] [7] [8]	**H00**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Next larger standard flange	**P01**	All	All	✓	✓	✓	–	–	–	–	–	–	–
Screwed-on (inst. of cast) feet	**H01**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Drive-end seal for flange-mounting motors, oil-tight to 0.1 bar [9]	**H23**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IP65 degree of protection [10]	**H20**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IP56 degree of protection [11]	**H22**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Condensation drainage holes	**H03**	All	All	□	□	□	□	□	□	□	□	□	□
Rust-resistant screws (externally)	**H07**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Coolant temperature and site altitude													
Coolant temperature –40 to +40 °C [12]	**D03**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

For legends, notes and footnotes, see Page 10.

SIMOTICS SD 1LE1 Standard Motors

Supplements to order numbers and special versions

Options
Cast-iron series 1LE15 Basic Line, 1LE16 Performance Line

Special versions	Additional identification code **-Z** with order code and plain text if required	Motor category		Standard delivery time (colored area)									
		Motor version	**Motor type (cast-iron)**	**Motor type – Frame size** 100	112	132	160	180	200	225	250	280	315
		IE2 High Efficiency	1LE1501	**1LE1501 Basic Line** ①									
			1LE1601	**1LE1601 Performance Line** ②									
		IE3 Premium Efficiency	1LE1503					**1LE1503 Basic Line** ③					
			1LE1603					**1LE1603 Performance Line** ④					
		NEMA Energy Efficient	1LE1521	**1LE1521 Eagle Line Basic** ⑤									
			1LE1621	**1LE1621 Eagle Line Performance** ⑥									
		NEMA Premium Efficient	1LE1523	**1LE1523 Eagle Line Basic** ⑦									
			1LE1623	**1LE1623 Eagle Line Performance** ⑧									

1LE1. . . - . . . . . - . . . . -Z		Motor version	Motor type	Frame size 100	112	132	160	180	200	225	250	280	315
Designs in accordance with standards and specifications													
Electrical according to NEMA MG1-12 [13]	**D30**	All; for Eagle Line ⑤, ⑥, ⑦ and ⑧ standard version		–	–	–	–	✓	✓	✓	✓	✓	✓
Design according to UL with "Recognition Mark" [13]	**D31**	All; for Eagle Line ⑤, ⑥, ⑦ and ⑧ standard version		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Canadian regulations (CSA) [14]	**D40**	All; for Eagle Line ⑤, ⑥, ⑦ and ⑧ standard version		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bearings and lubrication													
Measuring nipple for SPM shock pulse measurement for bearing inspection [15]	**Q01**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bearing design for increased cantilever forces	**L22**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special bearing for DE and NDE, bearing size 63 [16]	**L25**	All; standard version for Performance Line ②, ④, ⑥ and ⑧		✓	✓	✓	✓	✓	✓	✓	✓	□	□
Regreasing device [15]	**L23**	All; standard version for Performance Line from FS 160 ②, ④, ⑥ and ⑧		✓	✓	✓	✓	✓	✓	✓	✓	□	□
Located bearing DE	**L20**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bearing insulation DE	**L50** *New!*	All	All	–	–	–	–	–	–	✓	✓	✓	✓
Bearing insulation NDE	**L51** *New!*	All	All	–	–	–	–	–	–	✓	✓	✓	✓
Balance and vibration quantity													
Vibration quantity level A		All	All	□	□	□	□	□	□	□	□	□	□
Vibration quantity level B	**L00**	All	All	✓	✓	✓	✓	–	–	–	–	–	–
Half-key balancing (standard)		All	All	□	□	□	□	□	□	□	□	□	□
Shaft and rotor													
Concentricity of shaft extension, coaxiality and linear movement in accordance with DIN 42955 Tolerance R for flange-mounting motors	**L08**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Second standard shaft extension	**L05**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Concentricity of shaft extension in accordance with DIN 42955 Tolerance R	**L07**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Standard shaft made of stainless steel	**L06**	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓
Non-standard cylindrical shaft extension [17]	**Y55** • and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Heating and ventilation													
Metal external fan [18]	**F76**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Anti-conden. heating for 230 V	**Q02**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Anti-condensation heating for 115 V	**Q03**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sheet metal fan cover	**F74**	All; standard version for Performance Line ②, ④, ⑥ and ⑧		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rating plate and extra rating plates													
Extra rating plate for voltage tolerance [19]	**B07** *New!*	All, with the exception of 8-pole motors		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Second rating plate, loose	**M10**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rating plate, stainless steel	**M11**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Extra rating plate or rating plate with deviating rating plate data	**Y80** • and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

For legends, notes and footnotes, see Page 10.

SIMOTICS SD 1LE1 Standard Motors

Supplements to order numbers and special versions

Standard delivery times:

10 working days	20 working days	On request

Options
Cast-iron series 1LE15 Basic Line, 1LE16 Performance Line

Special versions	Additional identification code **-Z** with order code and plain text if required	Motor category		Standard delivery time (colored area)									
		Motor version	**Motor type (cast-iron)**	**Motor type – Frame size** 100	112	132	160	180	200	225	250	280	315
		IE2 High Efficiency	1LE1501	**1LE1501 Basic Line** ①									
			1LE1601	**1LE1601 Performance Line** ②									
		IE3 Premium Efficiency	1LE1503					**1LE1503 Basic Line** ③					
			1LE1603					**1LE1603 Performance Line** ④					
		NEMA Energy Efficient	1LE1521	**1LE1521 Eagle Line Basic** ⑤									
			1LE1621	**1LE1621 Eagle Line Performance** ⑥									
		NEMA Premium Efficient	1LE1523	**1LE1523 Eagle Line Basic** ⑦									
			1LE1623	**1LE1623 Eagle Line Performance** ⑧									
1LE1. . . - . . . . . - . . . . -Z		Motor version	Motor type	Frame size 100	112	132	160	180	200	225	250	280	315
Rating plate and extra rating plates (continued)													
Extra rating plate with identification codes	**Y82** • and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Additional information on rating plate and on package label (max. 20 characters)	**Y84** • and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Packaging, safety notes, documentation and test certificates													
Acceptance test certificate 3.1 in accordance with EN 10204 [20]	**B02**	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Printed German/English Operating Instructions (Compact) enclosed [21]		All	All	□	□	□	□	□	□	□	□	□	□

□ Standard version
○ Without additional charge
• This order code only determines the price of the version – Additional plain text is required.
O. R. Possible on request
✓ With additional charge
– Not possible

1) Evaluation with appropriate tripping unit (see Catalog IC 10) is recommended.

2) Cannot be used for motors in UL version (order code D31). The grease lifetime specified in Catalog D 81.1 · 2008 in Part 0 "Introduction" refers to CT 40 °C. When the coolant temperature rises by 10 K, the grease service lifetime or relubrication interval is halved.

3) A second shaft extension is not possible. Please inquire for mounted brakes.

4) For order codes F10, F11 and F12, the brake supply voltage must be specified or ordered.

5) The 1XP8 rotary pulse encoders are fitted with a protective cover as standard. The protective cover is omitted at the factory when a rotary pulse encoder is combined with a separately driven fan, because in this case the rotary pulse encoder is installed under the fan cover.

6) In combination with a separately driven fan (order code F70) the 1XP8032-10 rotary pulse encoder is used instead of 1XP8012-10 or 1XP8032-20 is used instead of 1XP8012-20.

7) The LL and HOG rotary pulse encoders up to frame size 160 are fitted with a protective cover as standard. The protective cover is omitted at the factory when a rotary pulse encoder is combined with a separately driven fan, because in this case the rotary pulse encoder is installed under the fan cover.

8) Order code H00 provides mechanical protection for encoders.

9) Not possible for type of construction IM V3.

10) Not possible in combination with rotary pulse encoder HOG 9 D 1024 I (order code G05) and/or brake 2LM8 (order code F01).

11) Not possible in combination with brake 2LM8 – order code F01.

12) In connection with mountings, the respective technical data must be observed, please inquire before ordering.

13) Possible up to 600 V max. The rated voltage is indicated on the rating plate without voltage range. Order codes D30 and D31 do not authorize importing into USA and Mexico. The North America export versions Eagle Line 1LE1521/1LE1621 NEMA Energy Efficient and 1LE1523/1LE1623 NEMA Premium Efficient are available for this purpose.

14) The rated voltage is indicated on the rating plate without voltage range. Order code D40 does not authorize importing into Canada. The North America export versions Eagle Line 1LE1521/1LE1621 NEMA Energy Efficient and 1LE1523/1LE1623 NEMA Premium Efficient are available for this purpose.

15) Up to frame size 160 not possible when brake is mounted.

16) For Performance Line motors (all frame sizes) and Basic Line motors (from frame size 280) in the standard version.

17) When motors are ordered that have a longer or shorter shaft extension than normal, the required position and length of the feather keyway must be specified in a sketch. It must be ensured that only feather keys in accordance with DIN 6885, Form A are permitted to be used. The feather keyway is positioned centrally on the shaft extension. The length is defined by the manufacturer normatively. Not valid for: Conical shafts, non-standard threaded journals, non-standard shaft tolerances, friction welded journals, extremely "thin" shafts, special geometry dimensions (e.g. square journals), hollow shafts. Valid for non-standard shaft extensions DE or NDE. The feather keys are supplied in every case. For order codes Y55 and L05:
– Dimensions D and DA ≤ inner diameter of roller bearing (see dimension tables under "Dimensions")
– Dimensions E and EA ≤ 2 x length E (normal) of the shaft extension.
For an explanation of the order codes, see Catalog D 81.1 · 2008 Part 0 "Introduction".

18) Converter-fed operation is permitted for 1LE1 motors with metal external fans.

19) Can be ordered for 230VΔ/400VY or 400VΔ/690VY (voltage code "22" or "34"). Not possible for pole-changing motors, naturally cooled 1PC1 motors, 8-pole motors and in combination with order code D34.

20) The delivery time for the factory test certificate may differ from the delivery time for the motor.

21) The Operating Instructions (Compact) are available in PDF format for all official EU languages at http://support.automation.siemens.com/WW/view/en/10803948/133300.