

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

# SIMOTICS XP 1MA Explosion-Proof Motors

## Supplements to order numbers and special versions

Voltages  
Aluminum series 1MA7

### Selection and ordering data

Voltages	Voltage code 11th 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 (alum.)	Motor type – Frame size												
			Zone 1 Ex e II	1MA7	63	71	80	90	100	112	132	160	180	200	225		
<b>1MA7 . . . . . ■ .</b>			<b>1MA7</b>														
Voltage at 50 Hz and 50 Hz output			Motor version	Motor type	Frame size												
230 VΔ/400 VY	1	–	All	All	□	□	□	□	□	□	□	□	□	□	□	□	□
400 VΔ/690 VY	6	–	All	All	–	□	□	□	□	□	□	□	□	□	□	□	□
500 VY <sup>1)</sup>	3	–	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○
500 VΔ	5	–	All	All	–	–	–	–	○	○	○	○	○	○	○	○	○
220 VΔ/380 VY	9	L1R	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
230 VΔ	9	L1E	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○
380 VΔ/660 VY	9	L1L	All	All	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
415 VY <sup>1)</sup>	9	L1C	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
415 VΔ	9	L1D	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Voltage at 60 Hz and required output at 60 Hz <sup>2)</sup>																	
220 VΔ/380 VY; 50 Hz output	9	L2A	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
380 VΔ/660 VY; 50 Hz output <sup>3)</sup>	9	L2C	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
440 VY; 50 Hz output	9	L2Q	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
440 VΔ; 50 Hz output	9	L2R	All	All	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
460 VY; 50 Hz output <sup>1)</sup>	9	L2S	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
460 VΔ; 50 Hz output	9	L2T	All	All	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
575 VY; 50 Hz output <sup>3)</sup>	9	L2U	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
575 VΔ; 50 Hz output	9	L2V	All	All	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Non-standard voltage and/or frequencies																	
Non-standard winding <sup>4)</sup>	9	L1Y • 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.
- ✓ With additional charge
- Not possible

<sup>1)</sup> For motors 1MA7060-4 (motor series 1MA7 frame size 63, 4-pole) not possible.  
<sup>2)</sup> Special certification is required for 60 Hz.  
<sup>3)</sup> For motors 1MA7060-2, 1MA7060-4 and 1MA7063-4 (motor series 1MA7 frame size 63, 2-pole and 4-pole) not possible.

<sup>4)</sup> 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 in addition required rated output in kW.

# SIMOTICS XP 1MA Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

Voltages  
Cast-iron series 1MA6

### Selection and ordering data

Voltages	Voltage code 11th 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												
			Zone 1 Ex e II	1MA6	71	80	90	100	112	132	160	180	200	225	250	280	315
<b>1MA6 . . . . .</b>			Motor version	Motor type	Frame size												
					71	80	90	100	112	132	160	180	200	225	250	280	315
<b>Voltage at 50 Hz and 50 Hz output</b>																	
230 VΔ/400 VY <sup>1)</sup>	1	–	All	All	□	□	□	□	□	□	□	□	□	□	□	□	□
400 VΔ/690 VY	6	–	All	All	□	□	□	□	□	□	□	□	□	□	□	□	□
500 VY	3	–	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○
500 VΔ	5	–	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○
220 VΔ/380 VY	9	L1R	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
230 VΔ	9	L1E	All	All	○	○	○	○	○	○	○	○	○	○	○	○	–
380 VΔ/660 VY	9	L1L	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
415 VY	9	L1C	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
415 VΔ	9	L1D	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Voltage at 60 Hz and required output at 60 Hz<sup>2)</sup></b>																	
220 VΔ/380 VY; 50 Hz output	9	L2A	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
380 VΔ/660 VY; 50 Hz output	9	L2C	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
440 VY; 50 Hz output	9	L2Q	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
440 VΔ; 50 Hz output	9	L2R	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
460 VY; 50 Hz output	9	L2S	All	All	✓	✓	✓	✓	✓	✓	○	○	○	○	○	○	–
460 VΔ; 50 Hz output	9	L2T	All	All	✓	✓	✓	✓	✓	✓	○	○	○	○	○	○	–
575 VY; 50 Hz output	9	L2U	All	All	✓	✓	✓	✓	✓	✓	○	○	○	○	○	○	–
575 VΔ; 50 Hz output	9	L2V	All	All	✓	✓	✓	✓	✓	✓	○	○	○	○	○	○	○
<b>Non-standard voltage and/or frequencies</b>																	
Non-standard winding <sup>3)</sup>	9	L1Y • 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.
- ✓ With additional charge
- Not possible

<sup>1)</sup> Not possible for 1MA6 motors in frame size 315 L.

<sup>2)</sup> Special certification is required for 60 Hz.

<sup>3)</sup> 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 in addition required rated output in kW.

Standard delivery times:

10 working days	20 working days	On request
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# SIMOTICS XP 1MJ Explosion-Proof Motors

## Supplements to order numbers and special versions

Voltages  
Cast-iron series 1MJ6, 1MJ7

### Selection and ordering data

Voltages	Voltage code	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													
					71	80	90	100	112	132	160	180	200	225	250	280	315	
			Zone 1	1MJ6/1MJ7	1MJ6										1MJ7			
			Motor version	Motor type	Frame size													
					71	80	90	100	112	132	160	180	200	225	250	280	315	
<b>1MJ . . . . . ■ .</b>																		
<b>Voltage at 50 Hz and 50 Hz output</b>																		
230 VΔ/400 VY	1	–	All	All	□	□	□	□	□	□	□	□	□	□	□	□	□	
400 VΔ/690 VY	6	–	All	All	□	□	□	□	□	□	□	□	□	□	□	□	□	
500 VY	3	–	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○	
500 VΔ	5	–	All	All	–	○	○	○	○	○	○	○	○	○	○	○	○	
220 VΔ/380 VY	9	L1R	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
230 VΔ	9	L1E	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○	
380 VΔ/660 VY	9	L1L	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
415 VY	9	L1C	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
415 VΔ	9	L1D	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Voltage at 60 Hz and required output at 60 Hz</b>																		
220 VΔ/380 VY; 50 Hz output	9	L2A	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
220 VΔ/380 VY; 60 Hz output	9	L2B	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
380 VΔ/660 VY; 50 Hz output	9	L2C	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
380 VΔ/660 VY; 60 Hz output	9	L2D	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
440 VY; 50 Hz output	9	L2Q	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
440 VY; 60 Hz output	9	L2W	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
440 VΔ; 50 Hz output	9	L2R	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
440 VΔ; 60 Hz output	9	L2X	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
460 VY; 50 Hz output	9	L2S	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
460 VY; 60 Hz output	9	L2E	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	○	○	○	
460 VΔ; 50 Hz output	9	L2T	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
460 VΔ; 60 Hz output	9	L2F	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	○	○	○	
575 VY; 50 Hz output	9	L2U	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
575 VY; 60 Hz output	9	L2L	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
575 VΔ; 50 Hz output	9	L2V	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
575 VΔ; 60 Hz output	9	L2M	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	○	○	○	
<b>Non-standard voltage and/or frequencies</b>																		
Non-standard winding <sup>1)</sup>	9	L1Y • 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.
- ✓ With additional charge
- Not possible

<sup>1)</sup> 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 in addition required rated output in kW.

# SIMOTICS XP 1LA Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

Voltages  
Aluminum series 1LA7, 1LA5, 1LA9

### Selection and ordering data

Voltages	Voltage code 11th position of the Order No.	Additional identifica- tion code with order code and plain text if required	Motor category		Standard delivery time (colored area)											
			Motor version	Motor type (alum.)	Motor type – Frame size											
					63	71	80	90	100	112	132	160	180	200	225	
			Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA7	1LA7 ①								1LA5 ② ①			
			Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LA9	1LA9 ③											
			Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LA9	1LA9 ④											
			Motor version	Motor type	Frame size											
					63	71	80	90	100	112	132	160	180	200	225	
<b>Voltage at 50 Hz or 60 Hz</b>																
50 Hz 230 VΔ/400 VY, 60 Hz 460 VY	1	–	All	All	□	□	□	□	□	□	□	□	□	□	□	
50 Hz 400 VΔ/690 VY, 60 Hz 460 VΔ	6	–	All	All	□	□	□	□	□	□	□	□	□	□	□	
<b>Voltage at 50 Hz and 50 Hz output</b>																
500 VY	3	–	All	All	○	○	○	○	○	○	○	○	○	○	○	
500 VΔ	5	–	All	All	–	–	–	–	○	○	○	○	○	○	○	
220 VΔ/380 VY (440 VY at 60 Hz)	9	L1R	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
230 VΔ	9	L1E	All	All	○	○	○	○	○	○	○	○	○	○	○	
380 VΔ/660 VY (440 VΔ at 60 Hz)	9	L1L	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
415 VY	9	L1C	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
415 VΔ	9	L1D	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
400 VY	9	L1A	All	All	○	○	○	○	○	○	○	○	○	○	○	
400 VΔ	9	L1B	All	All	○	○	○	○	○	○	○	○	○	○	○	
400 VΔ (460 VΔ at 60 Hz)	9	L1U	All	All	○	○	○	○	○	○	○	○	○	○	○	
<b>Voltage at 87 Hz and 87 Hz output</b>																
400 VΔ ②	9	L3A	All; for ① and ② without additional charge	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	○	
<b>Voltage at 60 Hz and required output at 60 Hz</b>																
220 VΔ/380 VY; 50 Hz output	9	L2A	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
220 VΔ/380 VY; 60 Hz output	9	L2B	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
380 VΔ/660 VY; 50 Hz output	9	L2C	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
380 VΔ/660 VY; 60 Hz output	9	L2D	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
440 VY; 50 Hz output	9	L2Q	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
440 VY; 60 Hz output	9	L2W	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
440 VΔ; 50 Hz output	9	L2R	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
440 VΔ; 60 Hz output	9	L2X	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
460 VY; 50 Hz output	9	L2S	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
460 VY; 60 Hz output	9	L2E	All	All	○	○	○	○	○	○	○	○	○	○	○	
460 VΔ; 50 Hz output	9	L2T	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
460 VΔ; 60 Hz output	9	L2F	All	All	○	○	○	○	○	○	○	○	○	○	○	
575 VY; 50 Hz output	9	L2U	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
575 VY; 60 Hz output	9	L2L	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
575 VΔ; 50 Hz output	9	L2V	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
575 VΔ; 60 Hz output	9	L2M	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Non-standard voltage and/or frequencies</b>																
Non-standard winding ③	9	L1Y • and identifica- tion code	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

- Standard version
- Without additional charge
- This order code only determines the price of the version – Additional plain text is required.
- ✓ With additional charge
- Not possible

1) Zone 2 is not possible for motor series 1LA5.

2) 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. Only possible in combination with order codes M38, M39, M73 and M75. For motors 1LA5 and 1LA7 without additional charge.

3) 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 in addition required rated output in kW.

Standard delivery times:

10 working days	20 working days	On request
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# SIMOTICS XP 1LA/1LG Explosion-Proof Motors

## Supplements to order numbers and special versions

**Voltages**  
Cast-iron series 1LA6, 1LG4, 1LG6

### Selection and ordering data

Voltages	Voltage code 11th 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 S/M	315 L		
			Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA6/1LG4	1LA6					1LG4							
			Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LG6						1LG6							
			Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LG6						1LG6							
1L ..... ■ .			Motor version	Motor type	Frame size		100	112	132	160	180	200	225	250	280	315 S/M	315 L
<b>Voltage at 50 Hz or 60 Hz</b>																	
50 Hz 230 VΔ/400 VY, 60 Hz 460 VY	1	–	All	All	■	■	■	■	■	■	■	■	■	■	■	■	■
50 Hz 400 VΔ/690 VY, 60 Hz 460 VΔ	6	–	All	All	■	■	■	■	■	■	■	■	■	■	■	■	■
<b>Voltage at 50 Hz and 50 Hz output</b>																	
500 VY	3	–	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○
500 VΔ	5	–	All	All	–	–	–	–	○	○	○	○	○	○	○	○	○
220 VΔ/380 VY (440 VY at 60 Hz)	9	L1R	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
230 VΔ	9	L1E	All	All	○	○	○	○	○	○	○	○	○	○	○	○	–
380 VΔ/660 VY (440 VΔ at 60 Hz)	9	L1L	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
415 VY	9	L1C	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
415 VΔ	9	L1D	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
400 VY	9	L1A	All	All	○	○	○	○	○	○	○	○	○	○	○	○	–
400 VΔ	9	L1B	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○
400 VΔ (460 VΔ at 60 Hz)	9	L1U	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○
<b>Voltage at 87 Hz and 87 Hz output</b>																	
400 VΔ <sup>1)</sup>	9	L3A	All	All	○	○	○	○	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	–
<b>Voltage at 60 Hz and required output at 60 Hz</b>																	
220 VΔ/380 VY; 50 Hz output	9	L2A	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
220 VΔ/380 VY; 60 Hz output	9	L2B	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
380 VΔ/660 VY; 50 Hz output	9	L2C	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
380 VΔ/660 VY; 60 Hz output	9	L2D	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
440 VY; 50 Hz output	9	L2Q	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
440 VY; 60 Hz output	9	L2W	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
440 VΔ; 50 Hz output	9	L2R	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
440 VΔ; 60 Hz output	9	L2X	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
460 VY; 50 Hz output	9	L2S	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
460 VY; 60 Hz output	9	L2E	All	All	○	○	○	○	○	○	○	○	○	○	○	○	–
460 VΔ; 50 Hz output	9	L2T	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
460 VΔ; 60 Hz output	9	L2F	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○
575 VY; 50 Hz output	9	L2U	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
575 VY; 60 Hz output	9	L2L	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
575 VΔ; 50 Hz output	9	L2V	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
575 VΔ; 60 Hz output	9	L2M	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○
<b>Non-standard voltage and/or frequencies</b>																	
Non-standard winding <sup>2)</sup>	9	L1Y • 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
- Not possible

<sup>1)</sup> 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. Only possible in combination with order codes M38, M39, M73 and M75.

<sup>2)</sup> 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 in addition required rated output in kW.

# SIMOTICS XP 1MA Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:













10  
working  
days

20  
working  
days

On  
request

### Types of construction Aluminum series 1MA7

#### Selection and ordering data

Types of construction	Type of construction code 12th 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 (alum.)	Motor type – Frame size											
					63	71	80	90	100	112	132	160	180	200	225	
<b>1MA7</b> . . . . . ■			Zone 1 Ex e II	1MA7	<b>1MA7</b>											
			Motor version	Motor type	Frame size											
					63	71	80	90	100	112	132	160	180	200	225	
<b>Without flange</b>																
IM B3		0	–	All	All	□	□	□	□	□	□	□	□	□	□	
IM B6, IM B7, IM B8, IM V6 <sup>1)</sup>		0	–	All	All	□	□	□	□	□	□	□	□	□	□	
IM V6 <sup>1)</sup>		0	–	All	All	□	□	□	□	□	□	□	□	□	□	
IM V5 with protective cover <sup>1) 2)</sup>		9	<b>M1F</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>With flange</b>					acc. to DIN EN 50347 acc. to DIN 42948		FF115 A 140	FF130 A 160	FF165 A 200	FF165 A 200	FF215 A 250	FF215 A 250	FF265 A 300	FF300 A 350		
IM B5		1	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
IM V3 <sup>1)</sup>		1	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
IM V1 with protective cover <sup>1) 2)</sup>		4	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
IM B35		6	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>With standard flange</b>					acc. to DIN EN 50347 acc. to DIN 42948		FT75 C 90	FT85 C 105	FT100 C 120	FT115 C 140	FT130 C 160	FT130 C 160	FT165 C 200	FT215 C 250		
IM B14, IM V19 <sup>1)</sup>		2	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
IM B14, IM V19 <sup>1)</sup>		2	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
IM V18 with protective cover <sup>1) 2)</sup>		9	<b>M2A</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
IM B34		7	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

# SIMOTICS XP 1MA Explosion-Proof Motors

## Supplements to order numbers and special versions



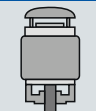

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

Types of construction  
Aluminum series 1MA7

Types of construction	Type of construction code 12th 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 (alum.)	Motor type – Frame size										
					63	71	80	90	100	112	132	160	180	200	225
<b>1MA7</b> ..... ■			Zone 1 Ex e II	1MA7	<b>1MA7</b>										
<b>With special flange</b>			acc. to DIN EN 50347 acc. to DIN 42948		Frame size										
			Motor version	Motor type	63	71	80	90	100	112	132	160	180	200	225
					FT100 C 120	FT115 C 140	FT130 C 160	FT130 C 160	FT165 C 200	FT165 C 200	FT215 C 250	FT265 C 300			
IM B14, IM V19 <sup>1)</sup>		3	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓		
IM B14, IM V19 <sup>1)</sup>		3	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓		
IM V18 with protective cover <sup>1) 2)</sup>		9	M2B	All	All	✓	✓	✓	✓	✓	✓	✓	✓		
IM B34		9	M2C	All	All	✓	✓	✓	✓	✓	✓	✓	✓		

- Standard version
- Without additional charge
- This order code only determines the price of the version – Additional plain text is required.
- ✓ With additional charge
- Not possible

<sup>1)</sup> The following applies for explosion-proof motors: In the case of the types of construction with shaft extension down, the version "with protective cover" is required. For types of construction with shaft extension pointing upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.

<sup>2)</sup> The "Second shaft extension" option, order code K16 is not possible.

# SIMOTICS XP 1MA Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:


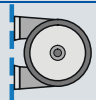
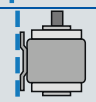
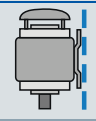

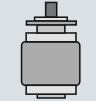
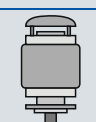
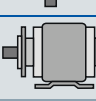

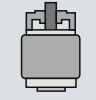
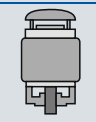

10  
working  
days

20  
working  
days

On  
request

Types of construction  
Cast-iron series 1MA6

### Selection and ordering data

Types of construction	Type of construction code	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														
					71	80	90	100	112	132	160	180	200	225	250	280	315 S/M	315 L 2-pole	315 L 4-pole, 6-pole, 8-pole
<b>1MA6 . . . . .</b>			Zone 1 Ex e II	1MA6	1MA6														
			Motor version	Motor type	Frame size														
					71	80	90	100	112	132	160	180	200	225	250	280	315 S/M	315 L 2-pole	315 L 4-pole, 6-pole, 8-pole
<b>Without flange</b>																			
IM B3		0	–	All	All														
IM B6, IM B7, IM B8 <sup>1) 2)</sup>		0	–	All	All														
IM V6 <sup>1) 2) 4)</sup>		0	–	All	All														
		9	<b>M1E</b>	All	All												✓	○	
IM V5 with protective cover <sup>1) 2) 3) 4)</sup>		9	<b>M1F</b>	All	All												✓	✓	
<b>With flange</b>																			
		acc. to DIN EN 50347 acc. to DIN 42948				FF215 A 250	FF215 A 250	FF265 A 300	FF300 A 350	FF300 A 350	FF350 A 400	FF400 A 450	FF500 A 550	FF500 A 550	FF600 A 660	FF600 A 660	FF600 A 660	FF600 A 660	
IM B5		1	–	All	All														
IM V3 <sup>1) 5)</sup>		1	–	All	All														
		9	<b>M1G</b>	All	All														
IM V1 with protective cover <sup>1) 3) 4) 5)</sup>		4	–	All	All														
IM B35		6	–	All	All														
<b>With standard flange</b>																			
		acc. to DIN EN 50347 acc. to DIN 42948				FT130 C 160	FT130 C 160	FT165 C 200	FT215 C 250										
IM B14, <sup>1)</sup> IM V19 <sup>1)</sup>		2	–	All	All														
IM B14, <sup>1)</sup> IM V19 <sup>1)</sup>		2	–	All	All														
IM V18 with protective cover <sup>1) 3)</sup>		9	<b>M2A</b>	All	All														
IM B34		7	–	All	All														




Standard delivery times:

10 working days	20 working days	On request
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# SIMOTICS XP 1MA Explosion-Proof Motors

## Supplements to order numbers and special versions

Types of construction  
Cast-iron series 1MA6

Types of construction	Type of construction code 12th position of 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															
			Zone 1 Ex e II	1MA6		71	80	90	100	112	132	160	180	200	225	250	280	315 S/M	315 L 2-pole	315 L 4-pole, 6-pole, 8-pole
			Motor version	Motor type	Frame size	71	80	90	100	112	132	160	180	200	225	250	280	315 S/M	315 L 2-pole	315 L 4-pole, 6-pole, 8-pole
<b>1MA6 . . . . .</b>																				
<b>With special flange</b>			acc. to DIN EN 50347 acc. to DIN 42948																	
IM B14, IM V19 <sup>1)</sup>			3	-	All	All														
IM B14, IM V19 <sup>1)</sup>			3	-	All	All														
IM V18 with protective cover <sup>1) 3)</sup>			9	M2B	All	All														
IM B34			9	M2C	All	All														

- Standard version
- Without additional charge
- This order code only determines the price of the version – Additional plain text is required.
- ✓ With additional charge
- Not possible

<sup>1)</sup> The following applies for explosion-proof motors: In the case of the types of construction with shaft extension down, the version "with protective cover" is required. For types of construction with shaft extension pointing upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.

<sup>2)</sup> If motors of frame sizes 180 M to 315 L are fixed to the wall, it is recommended that the motor feet are supported.

<sup>3)</sup> The "Second shaft extension" option, order code K16 is not possible.

<sup>4)</sup> 60 Hz version is available on request for 2-pole 1MA6 motors of frame size 315 L.

<sup>5)</sup> 1MA6 motors of frame sizes 225 S to 315 M are supplied with two screw-in eyebolts in accordance with IM B5, whereby one can be repositioned in accordance with IM V1 or IM V3. It is important to note that stress must not be applied perpendicular to the ring plane.

# SIMOTICS XP 1MJ Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:

10  
working  
days


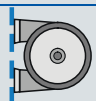
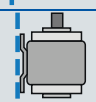
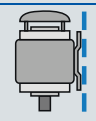

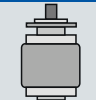

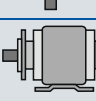

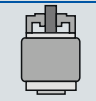
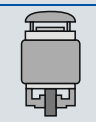

20  
working  
days

On  
request

### Types of construction

Cast-iron series 1MJ6, 1MJ7

### Selection and ordering data

Types of construction	Type of construction code	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													
					71	80	90	100	112	132	160	180	200	225	250	280	315	
1MJ.....■			Zone 1 Ex de IIC	1MJ6/1MJ7	1MJ6									1MJ7				
			Motor version	Motor type	Frame size													
					71	80	90	100	112	132	160	180	200	225	250	280	315	
<b>Without flange</b>																		
IM B3		0	–	All	All	□	□	□	□	□	□	□	□	□	□	□	□	
IM B6, IM B7, IM B8 <sup>1)2)</sup>		0	–	All	All	□	□	□	□	□	□	□	□	□	□	□	□	
IM V6 <sup>1)2)</sup>		0	–	All	All	□	□	□	□	□	□	□	□	□	□	□	□	
IM V5 with protective cover <sup>1)2)3)</sup>		9	<b>M1F</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>With flange</b>																		
		acc. to DIN EN 50347 acc. to DIN 42948				FF130	FF165	FF165	FF215	FF215	FF265	FF300	FF300	FF350	FF400	FF500	FF500	FF600
						A 160	A 200	A 200	A 250	A 250	A 300	A 350	A 350	A 400	A 450	A 550	A 550	A 660
IM B5		1	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
IM V3 <sup>1)4)</sup>		1	–	All	All	✓	✓	✓	✓	✓	✓	✓	–	–	–	–	–	
		9	<b>M1G</b>	All	All	–	–	–	–	–	–	–	✓	✓	✓	✓	✓	
IM V1 with protective cover <sup>1)3)4)</sup>		4	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
IM B35		6	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>With standard flange</b>																		
		acc. to DIN EN 50347 acc. to DIN 42948				FT85	FT100	FT115										
						C 105	C 120	C 140										
IM B14, IM V19 <sup>1)</sup>		2	–	All	All	✓	✓	✓	–	–	–	–	–	–	–	–	–	
IM B14, IM V19 <sup>1)</sup>		2	–	All	All	✓	✓	✓	–	–	–	–	–	–	–	–	–	
IM V18 with protective cover <sup>1)3)</sup>		9	<b>M2A</b>	All	All	✓	✓	✓	–	–	–	–	–	–	–	–	–	
IM B34		7	–	All	All	✓	✓	✓	–	–	–	–	–	–	–	–	–	



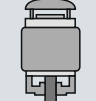

Standard delivery times:

<b>10 working days</b>	<b>20 working days</b>	<b>On request</b>
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# SIMOTICS XP 1MJ Explosion-Proof Motors

## Supplements to order numbers and special versions

Types of construction  
Cast-iron series 1MJ6, 1MJ7

Types of construction	Type of construction code	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												
			Zone 1 Ex de IIC	1MJ6/1MJ7	71	80	90	100	112	132	160	180	200	225	250	280	315
			Motor version	Motor type	Frame size												
<b>1MJ.....-.....</b>					71	80	90	100	112	132	160	180	200	225	250	280	315
<b>With special flange</b>			acc. to DIN EN 50347 acc. to DIN 42948		FT115 C 140	FT130 C 160											
IM B14, IM V19 <sup>1)</sup>		<b>3</b>	–	All	All	✓	✓	–	–	–	–	–	–	–	–	–	–
IM B14, IM V19 <sup>1)</sup>		<b>3</b>	–	All	All	✓	✓	–	–	–	–	–	–	–	–	–	–
IM V18 with protective cover <sup>1) 3)</sup>		<b>9</b>	<b>M2B</b>	All	All	✓	✓	–	–	–	–	–	–	–	–	–	–
IM B34		<b>9</b>	<b>M2C</b>	All	All	✓	✓	–	–	–	–	–	–	–	–	–	–

- Standard version
- Without additional charge
- This order code only determines the price of the version – Additional plain text is required.
- ✓ With additional charge
- Not possible

<sup>1)</sup> The following applies for explosion-proof motors: In the case of the types of construction with shaft extension down, the version "with protective cover" is required. For types of construction with shaft extension pointing upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.

<sup>2)</sup> If motors of frame sizes 180 M to 315 L are fixed to the wall, it is recommended that the motor feet are supported.

<sup>3)</sup> The "Second shaft extension" option, order code K16 is not possible.

<sup>4)</sup> 1MJ7 motors of frame sizes 225 S to 315 M are supplied with two screw-in eyebolts in accordance with IM B5, whereby one can be repositioned in accordance with IM V1 or IM V3. It is important to note that stress must not be applied perpendicular to the ring plane.

# SIMOTICS XP 1LA Explosion-Proof Motors

Supplements to order numbers and special versions

Standard delivery times:













10  
working  
days

20  
working  
days

On  
request

Types of construction  
Aluminum series 1LA7, 1LA5, 1LA9

## Selection and ordering data

Types of construction	Type of construction code	Additional identification code with order code and plain text if required	Motor category		Standard delivery time (colored area)												
			Motor version	Motor type (alum.)	Motor type – Frame size												
					63	71	80	90	100	112	132	160	180	200	225		
			Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA7	1LA7 ①								1LA5 ② ①				
			Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LA9	1LA9 ③												
			Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LA9	1LA9 ④												
1LA ..... ■			Motor version	Motor type	63	71	80	90	100	112	132	160	180	200	225		
<b>Without flange</b>																	
IM B3 ⑤		0	–	All except for ④	□	□	□	□	□	□	□	□	□	□	□		
IM B6, IM B7, IM B8, IM V6 ② ⑤		0	–	All except for ④	□	□	□	□	□	□	□	□	□	□	□		
IM V6 ② ⑤		0	–	All except for ④	□	□	□	□	□	□	□	□	□	□	□		
IM V5 with protective cover ② ③ ⑤		9	M1F	All except for ④	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<b>With flange</b>																	
		acc. to DIN EN 50347 acc. to DIN 42948			FF115 A 140	FF130 A 160	FF165 A 200	FF165 A 200	FF215 A 250	FF215 A 250	FF265 A 300	FF300 A 350	FF300 A 350	FF350 A 400	FF400 A 450		
IM B5		1	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
IM V3 ② ④		1	–	All	All	✓	✓	✓	✓	✓	✓	✓	–	–	–		
		9	M1G	All	All	–	–	–	–	–	–	–	✓	✓	✓		
IM V1 with protective cover ② ③ ④		4	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
IM B35 ⑤		6	–	All except for ④		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<b>With standard flange</b>																	
		acc. to DIN EN 50347 acc. to DIN 42948			FT75 C 90	FT85 C 105	FT100 C 120	FT115 C 140	FT130 C 160	FT130 C 160	FT165 C 200	FT215 C 250					
IM B14, IM V19 ②		2	–	All	All	✓	✓	✓	✓	✓	✓	✓	–	–	–		
IM B14, IM V19 ②		2	–	All	All	✓	✓	✓	✓	✓	✓	✓	–	–	–		
IM V18 with protective cover ② ③		9	M2A	All	All	✓	✓	✓	✓	✓	✓	✓	–	–	–		
IM B34 ⑤		7	–	All except for ④		✓	✓	✓	✓	✓	✓	✓	–	–	–		



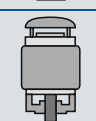

Standard delivery times:

<b>10 working days</b>	<b>20 working days</b>	<b>On request</b>
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# SIMOTICS XP 1LA Explosion-Proof Motors

## Supplements to order numbers and special versions

Types of construction  
Aluminum series 1LA7, 1LA5, 1LA9

Types of construction	Type of construction code	Additional identification code with order code and plain text if required	Motor category		Standard delivery time (colored area)													
			Motor version	Motor type (alum.)	Motor type – Frame size													
					63	71	80	90	100	112	132	160	180	200	225			
			Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA7	1LA7 ①										1LA5 ② ①			
			Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LA9	1LA9 ③													
			Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LA9	1LA9 ④													
1LA ..... ■					Motor version	Motor type	Frame size											
							63	71	80	90	100	112	132	160	180	200	225	
With special flange					acc. to DIN EN 50347 acc. to DIN 42948		FT100 C 120	FT115 C 140	FT130 C 160	FT130 C 160	FT165 C 200	FT165 C 200	FT215 C 250	FT265 C 300				
IM B14, IM V19 ②)		3	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	–	–	–	
IM B14, IM V19 ②)		3	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓	–	–	–		
IM V18 with protective cover ②) ③)		9	M2B	All	All	✓	✓	✓	✓	✓	✓	✓	✓	–	–	–		
IM B34 ⑤)		9	M2C	All except for ④		✓	✓	✓	✓	✓	✓	✓	✓	–	–	–		

- Standard version
- Without additional charge
- This order code only determines the price of the version – Additional plain text is required.
- ✓ With additional charge
- Not possible

1) Zone 2 is not possible for motor series 1LA5.

2) The following applies for explosion-proof motors: In the case of the types of construction with shaft extension down, the version "with protective cover" is required. For types of construction with shaft extension pointing upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.

3) The "Second shaft extension" option, order code K16 is not possible.

4) For frame sizes 180 M to 225 M, the 1LA5 motors can be supplied with two additional eyebolts; state identification code "-Z" and order code K32.

5) For the North America export version of 1LA9 motors with order code D42, types of construction with feet are not possible for 2-pole, 4-pole and 6-pole motors ≤ 200 hp NEMA Energy Efficient in accordance with NEMA MG1 Table 12-11.

# SIMOTICS XP 1LA/1LG Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:

10  
working  
days




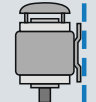


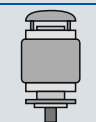

20  
working  
days

On  
request

### Types of construction

Cast-iron series 1LA6, 1LG4, 1LG6

### Selection and ordering data

Types of construction	Type of construction code	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 S/M	315 L 2-pole	315 L 4-pole, 6-pole, 8-pole				
			Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA6/1LG4	1LA6 ①				1LG4 ②									
			Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LG6					1LG6 ③									
			Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LG6					1LG6 ④									
			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				
<b>1L.....■</b>																		
Without flange																		
IM B3 <sup>6)</sup>		0 –	All except for ④ ≤ 200 hp		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐				
IM B6, IM B7, IM B8 <sup>1)2)6)</sup>		0 –	All except for ④ ≤ 200 hp		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐				
IM V6 <sup>1)2)4)6)</sup>		0 –	All except for ④ ≤ 200 hp		☐	☐	☐	☐	☐	☐	☐	☐	–	–				
		9 M1E	All except for ④ ≤ 200 hp		–	–	–	–	–	–	–	–	✓	○				
IM V5 with protective cover <sup>1)2)3)4)6)</sup>		9 M1F	All except for ④ ≤ 200 hp	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
With flange																		
		acc. to DIN EN 50347 acc. to DIN 42948			FF215 A 250	FF215 A 250	FF265 A 300	FF300 A 350	FF300 A 350	FF350 A 400	FF400 A 450	FF500 A 550	FF500 A 550	FF600 A 660	FF600 A 660			
IM B5		1 –	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	–	–			
IM V3 <sup>1)5)</sup>		1 –	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–			
		9 M1G	All	All	–	–	–	–	✓	✓	✓	✓	✓	–	–			
IM V1 with protective cover <sup>1)3)4)5)</sup>		4 –	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
IM B35 <sup>6)</sup>		6 –	All except for ④ ≤ 200 hp		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				








Standard delivery times:

10 working days	20 working days	On request
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# SIMOTICS XP 1LA/1LG Explosion-Proof Motors

## Supplements to order numbers and special versions

Types of construction  
Cast-iron series 1LA6, 1LG4, 1LG6

Types of construction	Type of construction code 12th position of 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 S/M	315 L 2-pole	315 L 4-pole, 6-pole, 8-pole	
			Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA6/1LG4	1LA6 ①				1LG4 ②								
			Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LG6					1LG6 ③								
			Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LG6					1LG6 ④								
1L.....■			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	
With standard flange			acc. to DIN EN 50347 acc. to DIN 42948				FT130 C 160 FT130 C 160 FT165 C 200 FT215 C 250										
IM B14, IM V19 <sup>1)</sup>		2	–	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–	
IM B14, IM V19 <sup>1)</sup>		2	–	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–	
IM V18 with protective cover <sup>1) 3)</sup>		9	M2A	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–	
IM B34 <sup>6)</sup>		7	–	All except for ④ ≤ 200 hp		✓	✓	✓	✓	–	–	–	–	–	–	–	
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, IM V19 <sup>1)</sup>		3	–	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–	
IM B14, IM V19 <sup>1)</sup>		3	–	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–	
IM V18 with protective cover <sup>1) 3)</sup>		9	M2B	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–	
IM B34 <sup>6)</sup>		9	M2C	All except for ④ ≤ 200 hp		✓	✓	✓	✓	–	–	–	–	–	–	–	

- Standard version
- Without additional charge
- This order code only determines the price of the version – Additional plain text is required.
- ✓ With additional charge
- Not possible

1) The following applies for explosion-proof motors: In the case of the types of construction with shaft extension down, the version "with protective cover" is required. For types of construction with shaft extension pointing upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.

2) If motors of frame sizes 180 M to 315 L are fixed to the wall, it is recommended that the motor feet are supported.

3) The "Second shaft extension" option, order code K16 is not possible.

4) 60 Hz version is available on request for 2-pole 1LG4/1LG6 motors of frame size 315 L.

5) 1LG4/1LG6 motors of frame sizes 225 S to 315 M are supplied with two screw-in eyebolts in accordance with IM B5, whereby one can be repositioned in accordance with IM V1 or IM V3. It is important to note that stress must not be applied perpendicular to the ring plane.

6) For the North America export version of 1LG6 motors with order code D42, types of construction with feet are not possible for 2-pole, 4-pole and 6-pole motors ≤ 200 hp NEMA Energy Efficient in accordance with NEMA MG1 Table 12-11.

# SIMOTICS XP 1MA Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:

10 working days	20 working days	On request
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### Options Aluminum series 1MA7

#### 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 (alum.)	Motor type – Frame size										
				63	71	80	90	100	112	132	160	180	200	225
<b>1MA7 . . . . . -Z</b>		Zone 1 Ex e II 1MA7	1MA7											
		Motor version	Motor type	Frame size										
				63	71	80	90	100	112	132	160	180	200	225
<b>Design for Zones according to ATEX</b>														
T1/T2 on rating plate <sup>1)</sup>	<b>C30</b>	All	All	–	–	–	–	–	–	○	○			
<b>Motor protection</b>														
Motor protection with PTC thermistors with 3 embedded temperature sensors for tripping <sup>2)</sup>	<b>A11</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Motor protection with PTC thermistors with 6 embedded temperature sensors for alarm and tripping <sup>2)</sup>	<b>A12</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
<b>Motor connection and connection box</b>														
Connection box on RHS	<b>K09</b>	All	All	–	–	✓	✓	✓	✓	✓	✓			
Connection box on LHS	<b>K10</b>	All	All	–	–	✓	✓	✓	✓	✓	✓			
Rotation of the connection box through 90°, entry from DE	<b>K83</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Rotation of the connection box through 90°, entry from NDE	<b>K84</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Rotation of the connection box through 180°	<b>K85</b>	All	All	✓	✓	✓	✓	○	○	○	○			
<b>Windings and insulation</b>														
Increased air humidity/temperature with 30 to 60 g water per m <sup>3</sup> of air	<b>C19</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 45 °C, derating approx. 4 % <sup>3)</sup>	<b>C22</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 50 °C, derating approx. 8 % <sup>3)</sup>	<b>C23</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 55 °C, derating approx. 13 % <sup>3)</sup>	<b>C24</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 60 °C, derating approx. 18 % <sup>3)</sup>	<b>C25</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Increased air humidity/temperature with 60 to 100 g water per m <sup>2</sup> of air	<b>C26</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
<b>Colors and paint finish</b>														
Special finish in RAL 7030 stone gray		All	All	□	□	□	□	□	□	□	□			
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")	<b>Y54 •</b> and special finish RAL .....	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Special finish in special RAL colors: For RAL colors, see "Special finish in special RAL colors" in Catalog D 81.1 · 2008 Part 0 "Introduction"	<b>Y51 •</b> and special finish RAL .....	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Special paint for use offshore	<b>M91</b>	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.			
Unpainted (only cast-iron parts primed)	<b>K23</b>	All	All	○	○	○	○	○	○	○	○			
Unpainted, only primed	<b>K24</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
<b>Mechanical design and degrees of protection</b>														
Drive-end seal for flange-mounting motors, oil-tight to 0.1 bar (not possible for IM V3 type of construction)	<b>K17</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Low-noise version for 2-pole motors with clockwise direction of rotation <sup>4)</sup>	<b>K37</b>	All	All	–	–	–	–	–	–	–	✓	✓		
Low-noise version for 2-pole motors with counter-clockwise direction of rotation <sup>4)</sup>	<b>K38</b>	All	All	–	–	–	–	–	–	–	✓	✓		
IP65 degree of protection	<b>K50</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
IP56 degree of protection	<b>K52</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Vibration-proof version	<b>L03</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Condensation drainage holes <sup>5)</sup>	<b>L12</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Rust-resistant screws (externally)	<b>M27</b>	All	All	–	–	✓	✓	✓	✓	✓	✓			



Standard delivery times:

10 working days	20 working days	On request
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# SIMOTICS XP 1MA Explosion-Proof Motors

## Supplements to order numbers and special versions

**Options**  
Aluminum series 1MA7

Special versions	Additional identification code <b>-Z</b> with order code and plain text if required	Motor category		Standard delivery time (colored area)										
		Motor version	Motor type (alum.)	Motor type – Frame size										
		Zone 1 Ex e II	1MA7	63	71	80	90	100	112	132	160	180	200	225
<b>1MA7.....-Z</b>		Motor version	Motor type	Frame size										
				63	71	80	90	100	112	132	160	180	200	225
<b>Coolant temperature and site altitude</b>														
Coolant temperature –40 to +40 °C for Ex motor <sup>6)</sup>	<b>D19</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
<b>Designs in accordance with standards and specifications</b>														
CCC China Compulsory Certification <sup>7)</sup>	<b>D01</b>	All	All	✓	✓	✓	✓	–	–	–	–			
Ex certification for Russia	<b>D35</b> <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
VIK version	<b>K30</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
<b>Bearings and lubrication</b>														
Bearing design for increased cantilever forces	<b>K20</b>	All	All	–	–	–	–	✓	✓	✓	✓			
Regreasing device	<b>K40</b>	All	All	–	–	–	–	✓	✓	✓	✓			
Located bearing DE	<b>K94</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Located bearing NDE	<b>L04</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	□		
<b>Balance and vibration quantity</b>														
Vibration quantity level A		All	All	□	□	□	□	□	□	□	□			
Vibration quantity level B	<b>K02</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Full-key balancing	<b>L68</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Balancing without key	<b>M37</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
<b>Shaft and rotor</b>														
Concentricity of shaft extension, coaxiality and linear movement in accordance with DIN 42955 Tolerance R for flange-mounting motors <sup>8)</sup>	<b>K04</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Second standard shaft extension <sup>9)</sup>	<b>K16</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Shaft extension with standard dimensions, without feather keyway	<b>K42</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Concentricity of shaft extension in accordance with DIN 42955 Tolerance R	<b>L39</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Non-standard cylindrical shaft extension <sup>10)</sup>	<b>Y55 •</b> and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
<b>Heating and ventilation</b>														
Metal external fan	<b>K35</b>	All	All	–	–	–	–	✓	✓	✓	✓			
<b>Rating plate and extra rating plates</b>														
Second lubrication plate, loose	<b>B06</b>	All	All	–	–	–	–	✓	✓	✓	✓			
Second rating plate, loose	<b>K31</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Extra rating plate or rating plate with deviating rating plate data	<b>Y80 •</b> and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Extra rating plate with identification codes	<b>Y82 •</b> and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Additional information on rating plate and on package label (max. 20 characters)	<b>Y84 •</b> and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
<b>Packaging, safety notes, documentation and test certificates</b>														
Acceptance test certificate 3.1 in accordance with EN 10204 <sup>11)</sup>	<b>B02</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Printed German/English Operating Instructions enclosed	<b>B23</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in English and German <sup>12)</sup>	<i>New!</i>	All	All	□	□	□	□	□	□	□	□			
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in French, Spanish, Italian and Czech <sup>12)</sup>	<b>B25</b> <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in Swedish, Danish, Dutch and Finnish <sup>12)</sup>	<b>B26</b> <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in other official EU languages <sup>12)</sup>	<b>Y98 •</b> <i>New!</i> and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Wire-lattice pallet	<b>L99</b>	All	All	○	○	○	○	○	○	○	○			

# SIMOTICS XP 1MA Explosion-Proof Motors

## Supplements to order numbers and special versions

### Options

#### Aluminum series 1MA7

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

- 1) 2-pole 1MA motors of frame size 132 to 160 are designed as standard with double rating plate (T1/T2 and T3). If the motors are designed to order codes A11/A12 or voltage code "9", the T3 output will be stamped on the rating plate as standard. Alternatively, the "T1/T2 output on the rating plate when ordered with order code C30" can be stamped.
- 2) Evaluation with appropriate 3RN1 tripping unit (see Catalog IC 10) is recommended. A certified tripping unit is necessary for use in hazardous areas. Motor protection by means of PTC thermistor as sole protection available on request.
- 3) The maximum possible certified output will be supplied. In the case of motors with T2/T3 output, T3 output will be supplied. The T2 output must be ordered with the order code C30.
- 4) 1MA7 motors are up to 80 mm longer than normal. A second shaft extension is not possible.
- 5) Supplied with the condensation drainage holes sealed at the drive end DE and non-drive end NDE for IP55, IP56 and IP65 degrees of protection. If condensation drainage holes are required in motors of the IM B6, IM B7 or IM B8 type of construction (feet located on side or top), it is necessary to relocate the bearing plates at the drive end (DE) and non-drive end (NDE) so that the condensation drainage holes situated between the feet on delivery are underneath.
- 6) Not possible in combination with vibration-proof version, order code L03.
- 7) CCC certification is required for:
  - 2-pole motors  $\leq 2.2$  kW
  - 4-pole motors  $\leq 1.1$  kW
  - 6-pole motors  $\leq 0.75$  kW
  - 8-pole motors  $\leq 0.55$  kW
- 8) Can be combined with deep-groove bearings of series 60.., 62.. and 63... Not possible in combination with parallel roller bearings (e.g. bearings for increased cantilever forces, order code K20).
- 9) Not possible for low-noise version (2-pole) for frame sizes 132 S to 160 L. Version with protective cover not possible.
- 10) 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 K16:
    - Dimensions D and DA  $\leq$  internal diameter of roller bearing (see dimension tables under "Dimensions")
    - Dimensions E and EA  $\leq 2 \times$  length E (normal) of the shaft extension
  - For an explanation of the order codes, see Catalog D 81.1 · 2008 Part 0 "Introduction".
- 11) The delivery time for the factory test certificate may differ from the delivery time for the motor.
- 12) 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>

Standard delivery times:

10 working days	20 working days	On request
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# SIMOTICS XP 1MA Explosion-Proof Motors

## Supplements to order numbers and special versions

Options  
Cast-iron series 1MA6

### 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												
		Zone 1 Ex e II	1MA6	71	80	90	100	112	132	160	180	200	225	250	280	315
1MA6 . . . . . -Z		Motor version	Motor type	Frame size												
				71	80	90	100	112	132	160	180	200	225	250	280	315
<b>Design for Zones according to ATEX</b>																
T1/T2 on rating plate <sup>1)</sup>	C30	All	All		–	–	○	○	–	–	–	–	–	–	–	–
<b>Motor protection</b>																
Motor protection with PTC thermistors with 3 embedded temperature sensors for tripping <sup>2)</sup>	A11	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Motor protection with PTC thermistors with 6 embedded temperature sensors for alarm and tripping <sup>2)</sup>	A12	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Installation of 2 PT100 screw-in resistance thermometers in basic circuit for rolling-contact bearings <sup>2)</sup>	A72	All	All		–	–	–	–	–	–	–	–	O. R.	O. R.	O. R.	O. R.
Installation of 2 PT100 screw-in resistance thermometers in 3-wire circuit for rolling-contact bearings <sup>2)</sup>	A78	All	All		–	–	–	–	–	–	–	–	O. R.	O. R.	O. R.	O. R.
<b>Motor connection and connection box</b>																
Connection box on RHS	K09	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Connection box on LHS	K10	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Connection box in cast-iron version	K15	All	All		□	□	□	□	□	□	□	□	□	□	□	□
Rotation of the connection box through 90°, entry from DE	K83	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the connection box through 90°, entry from NDE	K84	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the connection box through 180°	K85	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Next larger connection box	L00	All	All		–	–	–	–	–	–	–	–	–	–	–	–
Auxiliary connection box 1XB3020	L97	All	All		–	–	–	–	–	–	–	–	–	–	–	–
<b>Windings and insulation</b>																
Increased air humidity/temperature with 30 to 60 g water per m <sup>3</sup> of air	C19	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 45 °C, derating approx. 4 % <sup>3)</sup>	C22	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 50 °C, derating approx. 8 % <sup>3)</sup>	C23	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 55 °C, derating approx. 13 % <sup>3)</sup>	C24	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 60 °C, derating approx. 18 % <sup>3)</sup>	C25	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Increased air humidity/temperature with 60 to 100 g water per m <sup>2</sup> of air	C26	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Colors and paint finish</b>																
Standard finish in RAL 7030 stone gray		All	All		–	–	–	–	–	–	–	–	–	–	–	–
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 ....	All	All		–	–	–	–	–	–	–	–	–	–	–	–
Special finish in RAL 7030 stone gray <sup>4)</sup>	K26	All	All		□	□	□	□	□	□	□	□	□	□	□	□
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		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

# SIMOTICS XP 1MA Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

### Options Cast-iron series 1MA6

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												
				71	80	90	100	112	132	160	180	200	225	250	280	315
		Zone 1 Ex e II	1MA6		1MA6											
		Motor version	Motor type	Frame size												
				71	80	90	100	112	132	160	180	200	225	250	280	315
<b>Colors and paint finish (continued)</b>																
Special finish in special RAL colors: For RAL colors, see "Special finish in special RAL colors" in Catalog D 81.1 · 2008 Part 0 "Introduction"	Y51 • and special finish RAL ....	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special paint for use offshore	M91	All	All		O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
Special finish sea air resistant	M94	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Unpainted (only cast-iron parts primed)	K23	All	All		○	○	○	○	○	○	○	○	○	○	○	○
Unpainted, only primed	K24	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Mechanical design and degrees of protection</b>																
Drive-end seal for flange-mounting motors, oil-tight to 0.1 bar (not possible for IM V3 type of construction; frame size 180 M and above only available for 4-pole to 6-pole motors)	K17	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Low-noise version for 2-pole motors with clockwise direction of rotation <sup>5)</sup>	K37	All	All		–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Low-noise version for 2-pole motors with counter-clockwise direction of rotation <sup>5)</sup>	K38	All	All		–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IP65 degree of protection	K50	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IP56 degree of protection	K52	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Vibration-proof version	L03	All	All		✓	✓	✓	–	–	–	–	–	–	–	–	–
Condensation drainage holes <sup>6)</sup>	L12	All	All		✓	✓	✓	✓	✓	✓	✓	□	□	□	□	□
Rust-resistant screws (externally)	M27	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Coolant temperature and site altitude</b>																
Coolant temperature –40 to +40 °C for Ex motor <sup>7)</sup>	D19	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Designs in accordance with standards and specifications</b>																
Ex certification for Russia	D35 <i>New!</i>	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VIK version	K30	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Bearings and lubrication</b>																
Measuring nipple for SPM shock pulse measurement for bearing inspection	G50	All	All		–	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓
Bearing design for increased cantilever forces <sup>8)</sup>	K20	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Regreasing device	K40	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	□	□	□
Located bearing DE	K94	All	All		✓	✓	✓	✓	✓	✓	✓	–	–	–	–	–
Located bearing NDE	L04	All	All		✓	✓	✓	□	–	–	–	–	–	–	–	–
<b>Balance and vibration quantity</b>																
Vibration quantity level A		All	All		□	□	□	□	□	□	□	□	□	□	□	□
Vibration quantity level B	K02	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Full-key balancing	L68	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Balancing without key	M37	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Shaft and rotor</b>																
Concentricity of shaft extension, coaxiality and linear movement in accordance with DIN 42955 Tolerance R for flange-mounting motors <sup>9)</sup>	K04	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Second standard shaft extension <sup>10)</sup>	K16	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Shaft extension with standard dimensions, without feather keyway	K42	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Concentricity of shaft extension in accordance with DIN 42955 Tolerance R	L39	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Non-standard cylindrical shaft extension <sup>11)</sup>	Y55 • and identification code	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Heating and ventilation</b>																
Metal external fan	K35	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Anti-condensation heating for 230 V	K45	All	All		–	–	–	–	–	–	–	✓	✓	✓	✓	✓
Anti-condensation heating for 115 V	K46	All	All		–	–	–	–	–	–	–	✓	✓	✓	✓	✓
<b>Rating plate and extra rating plates</b>																
Second lubrication plate, loose	B06	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Second rating plate, loose	K31	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Standard delivery times:

10 working days	20 working days	On request
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# SIMOTICS XP 1MA Explosion-Proof Motors

## Supplements to order numbers and special versions

**Options**  
Cast-iron series 1MA6

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													
				71	80	90	100	112	132	160	180	200	225	250	280	315	
		Zone 1 Ex e II	1MA6		1MA6												
		Motor version	Motor type	Frame size													
				71	80	90	100	112	132	160	180	200	225	250	280	315	
<b>1MA6...-...-Z</b>																	
<b>Rating plate and extra rating plates (continued)</b>																	
Extra rating plate or rating plate with deviating rating plate data	Y80 • and identification code	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
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		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Packaging, safety notes, documentation and test certificates</b>																	
Acceptance test certificate 3.1 in accordance with EN 10204 <sup>12)</sup>	B02	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Printed German/English Operating Instructions enclosed	B23	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in English and German <sup>13)</sup>	<i>New!</i>	All	All		□	□	□	□	□	□	□	□	□	□	□	□	
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in French, Spanish, Italian and Czech <sup>13)</sup>	B25 <i>New!</i>	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in Swedish, Danish, Dutch and Finnish <sup>13)</sup>	B26 <i>New!</i>	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in other official EU languages <sup>13)</sup>	Y98 • <i>New!</i> and identification code	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Wire-lattice pallet	L99	All	All		○	○	○	○	○	○	○	○	○	○	○	○	

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

1) 2-pole 1MA motors of frame size 132 to 160 are designed as standard with a double rating plate (T1/T2 and T3). If the motors are designed to order codes A11/A12 or voltage code "9", the T3 output will be stamped on the rating plate as standard. Alternatively, the "T1/T2 output on the rating plate when ordered with order code C30" can be stamped.

2) Evaluation with appropriate 3RN1 tripping unit (see Catalog IC 10) is recommended. A certified tripping unit is necessary for use in hazardous areas. Motor protection with PTC thermistors is available as sole protection up to frame size 160 L on request. With frame size 180 M and above, it is not permitted as sole protection; motor protection switch is required.

3) The maximum possible certified output will be supplied. In the case of motors with T2/T3 output, T3 output will be supplied. The T2 output must be ordered with the order code C30.

4) For frame sizes 100 to 200, do not specify an order code. Order code is only necessary for frame sizes 225 to 315.

5) 1MA6 motors are up to 80 mm longer than normal. A second shaft extension is not possible.

6) Supplied with the condensation drainage holes sealed at the drive end DE and non-drive end NDE for IP55, IP56 and IP65 degrees of protection. If condensation drainage holes are required in motors of the IM B6, IM B7 or IM B8 type of construction (feet located on side or top), it is necessary to relocate the bearing plates at the drive end (DE) and non-drive end (NDE) so that the condensation drainage holes situated between the feet on delivery are underneath.

7) Not possible in combination with vibration-proof version, order code L03.

8) Not possible for 2-pole 1MA6 motors, frame size 315 L in vertical types of construction; bearings for increased cantilever forces at vibration quantity level B are available on request for 1MA6 motors of frame size 225 M and above. Not possible for 1MA6 motors of frame size 225 M and above in combination with concentricity of shaft extension, coaxiality and linear movement according to DIN 42955 Tolerance R for flange-mounting types.

9) Can be combined with deep-groove bearings of series 60.., 62.. and 63... Not possible in combination with parallel roller bearings (e.g. bearings for increased cantilever forces, order code K20).

10) For motors of frame size 180 M and above in vertical type of construction in version with second shaft extension on request. Not possible for low-noise version (2-pole) for frame sizes 132 S to 160 L. Version with protective cover not possible.

11) 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 K16:  
 – Dimensions D and DA ≤ internal diameter of roller bearing (see dimension tables under "Dimensions")  
 – Dimensions E and EA ≤ 2 × length E (normal) of the shaft extension  
 For an explanation of the order codes, see Catalog D 81.1 · 2008 Part 0 "Introduction".

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

13) 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>

# SIMOTICS XP 1MJ Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

Options  
Cast-iron series 1MJ6, 1MJ7

### 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												
		Zone 1 Ex de IIC	1MJ6/1MJ7	1MJ6	71	80	90	100	112	132	160	180	200	225	250	280
1MJ ..... - ..... -Z	Motor version	Motor type	Frame size													
			71	80	90	100	112	132	160	180	200	225	250	280	315	
<b>Design for Zones according to ATEX</b>																
Design (IP65) for Zone 1 and 21, as well as Zone 22 for conductive dust, for mains-fed operation <sup>1)</sup>	<b>M76</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Design (IP65) for Zone 1 and 21, as well as Zone 22 for conductive dust, for converter-fed operation – with derating <sup>1)</sup>	<b>M77</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Motor protection</b>																
Motor protection with PTC thermistors with 3 embedded temperature sensors for tripping <sup>2)3)</sup>	<b>A11</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Motor protection with PTC thermistors with 6 embedded temperature sensors for alarm and tripping <sup>2)3)4)</sup>	<b>A12</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Motor protection with PTC thermistors for converter-fed operation with 4 embedded temperature sensors for tripping <sup>2)3)</sup>	<b>A15</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Motor protection with PTC thermistors for converter-fed operation with 8 embedded temperature sensors for alarm and tripping <sup>2)3)4)</sup>	<b>A16</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Installation of 2 PT100 screw-in resistance thermometers in basic circuit for rolling-contact bearings <sup>2)</sup>	<b>A72</b>	All	All	–	–	–	–	–	–	–	–	–	–	–	–	–
Installation of 2 PT100 screw-in resistance thermometers in 3-wire circuit for rolling-contact bearings <sup>2)</sup>	<b>A78</b>	All	All	–	–	–	–	–	–	–	–	–	–	–	–	–
<b>Motor connection and connection box</b>																
Connection box on RHS	<b>K09</b>	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Connection box on LHS	<b>K10</b>	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Connection box in cast-iron version	<b>K15</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Explosion-proof connection box, Ex d IIC type of protection <sup>6)</sup>	<b>K53</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the connection box through 90°, entry from DE	<b>K83</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the connection box through 90°, entry from NDE	<b>K84</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the connection box through 180°	<b>K85</b>	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○
Auxiliary connection box 1XB3020 <sup>7)</sup>	<b>L97</b>	All	All	–	–	–	–	–	–	–	–	–	–	–	–	–
Saddle terminal for connection without cable lug, accessories pack (3 items of high saddle terminals)	<b>M47</b>	All	All	–	–	–	–	–	–	–	–	–	–	–	–	–
<b>Windings and insulation</b>																
Increased air humidity/temperature with 30 to 60 g water per m <sup>3</sup> of air <sup>8)9)10)</sup>	<b>C19</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 45 °C, derating approx. 4 % <sup>11)</sup>	<b>C22</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 50 °C, derating approx. 8 % <sup>11)</sup>	<b>C23</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Standard delivery times:

10 working days	20 working days	On request
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# SIMOTICS XP 1MJ Explosion-Proof Motors

## Supplements to order numbers and special versions

**Options**  
Cast-iron series 1MJ6, 1MJ7

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													
		71	80	90	100	112	132	160	180	200	225	250	280	315			
		Zone 1 Ex de IIC	1MJ6/1MJ7	1MJ6										1MJ7			
	<b>1MJ ..... -Z</b>	Motor version	Motor type	Frame size													
				71	80	90	100	112	132	160	180	200	225	250	280	315	
<b>Windings and insulation (continued)</b>																	
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 55 °C, derating approx. 13 % <sup>11)</sup>	<b>C24</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 60 °C, derating approx. 18 %	<b>C25</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Increased air humidity/temperature with 60 to 100 g water per m <sup>3</sup> of air <sup>9) 10)</sup>	<b>C26</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Temperature class 155 (F), used acc. to 130 (B), with higher coolant temperature and/or site altitude	<b>Y50 •</b> and specified output, CT .. °C or SA .... m above sea level	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Colors and paint finish</b>																	
Standard finish in RAL 7030 stone gray		All	All	–	–	–	–	–	–	–	–	–	–	–	–	–	
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")	<b>Y53 •</b> and standard finish RAL ....	All	All	–	–	–	–	–	–	–	–	–	–	–	–	–	
Special finish in RAL 7030 stone gray <sup>12)</sup>	<b>K26</b>	All	All	□	□	□	□	□	□	□	□	□	□	□	□	□	
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")	<b>Y54 •</b> and special finish RAL ....	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Special finish in special RAL colors: For RAL colors, see "Special finish in special RAL colors" in Catalog D 81.1 · 2008 Part 0 "Introduction"	<b>Y51 •</b> and special finish RAL ....	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Special paint for use offshore	<b>M91</b>	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	
Special finish sea air resistant	<b>M94</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Unpainted (only cast-iron parts primed)	<b>K23</b>	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○	
Unpainted, only primed	<b>K24</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Special technology</b>																	
Mounting of explosion-proof rotary pulse encoder for use on motors Ex d/de in Zone 1 <sup>13)</sup>	<b>H87</b>	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Mounting of explosion-proof separately driven fan Ex de for use in Zone 1 <sup>14)</sup>	<b>M98</b>	All	All	–	–	–	–	–	–	–	–	–	–	–	–	–	
<b>Mechanical design and degrees of protection</b>																	
Drive-end seal for flange-mounting motors, oil-tight to 0.1 bar (not possible for IM V3 type of construction; frame sizes 180 M and above only available for 4-pole to 8-pole motors)	<b>K17</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Low-noise version for 2-pole motors with clockwise direction of rotation <sup>15)</sup>	<b>K37</b>	All	All	–	–	–	–	–	–	–	–	–	–	–	–	–	

# SIMOTICS XP 1MJ Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:

10 working days	20 working days	On request
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### Options Cast-iron series 1MJ6, 1MJ7

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												
		71	80	90	100	112	132	160	180	200	225	250	280	315		
		Zone 1 Ex de IIC	1MJ6/1MJ7	1MJ6									1MJ7			
	<b>1MJ ..... -Z</b>	Motor version	Motor type	Frame size												
				71	80	90	100	112	132	160	180	200	225	250	280	315
<b>Mechanical design and degrees of protection (continued)</b>																
Low-noise version for 2-pole motors with counter-clockwise direction of rotation <sup>15)</sup>	<b>K38</b>	All	All	–	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓
IP65 degree of protection <sup>16)</sup>	<b>K50</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IP56 degree of protection <sup>17)</sup>	<b>K52</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Vibration-proof version	<b>L03</b>	All	All	✓	✓	✓	✓	✓	✓	✓	–	–	–	–	–	–
Mechanical protection for encoder <sup>18)</sup>	<b>M68</b>	All	All	–	–	–	–	–	–	–	✓	✓	✓	✓	✓	✓
<b>Designs in accordance with standards and specifications</b>																
CCC China Compulsory Certification <sup>20)</sup>	<b>D01</b>	All	All	✓	✓	✓	–	–	–	–	–	–	–	–	–	–
Ex certification for China <sup>20)</sup>	<b>D32</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
China Energy Efficiency Label <sup>20)</sup>	<b>D34</b> <i>New!</i>	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○
Ex certification for Russia	<b>D35</b> <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VIK version	<b>K30</b>	All	Only possible for 8-pole motors and motors < 0.75 kW	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Bearings and lubrication</b>																
Measuring nipple for SPM shock pulse measurement for bearing inspection	<b>G50</b>	All	All	–	–	–	–	–	–	–	✓	✓	✓	✓	✓	✓
Bearing design for increased cantilever forces <sup>21)</sup>	<b>K20</b>	All	All	–	–	–	–	–	–	–	✓	✓	✓	✓	–	–
Regreasing device	<b>K40</b>	All	All	–	–	–	–	–	–	–	✓	✓	✓	✓	□	□
Insulated bearing cartridge	<b>L27</b>	All	All	–	–	–	–	–	–	–	–	–	✓	✓	✓	✓
<b>Balance and vibration quantity</b>																
Vibration quantity level A		All	All	□	□	□	□	□	□	□	□	□	□	□	□	□
Vibration quantity level B	<b>K02</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Full-key balancing	<b>L68</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Balancing without key	<b>M37</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Shaft and rotor</b>																
Concentricity of shaft extension, coaxiality and linear movement in accordance with DIN 42955 Tolerance R for flange-mounting motors <sup>22)</sup>	<b>K04</b>	All	All	–	–	–	–	–	–	–	–	–	–	–	–	–
Second standard shaft extension <sup>23)</sup>	<b>K16</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Concentricity of shaft extension in accordance with DIN 42955 Tolerance R	<b>L39</b>	All	All	–	–	–	–	–	–	–	–	–	–	–	–	–
Non-standard cylindrical shaft extension <sup>24)</sup>	<b>Y55 •</b> and identification code	All	All	–	–	–	–	–	–	–	–	–	–	–	–	–
<b>Heating and ventilation</b>																
Metal external fan	<b>K35</b>	All	All	–	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Anti-condensation heating for 230 V <sup>8) 9)</sup>	<b>K45</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Anti-condensation heating for 115 V <sup>8) 9)</sup>	<b>K46</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Separately driven fan with non-standard voltage and/or frequency	<b>Y81 •</b> and identification code	All	All	–	–	–	–	–	–	–	–	–	–	–	–	–
<b>Rating plate and extra rating plates</b>																
Second lubrication plate, loose	<b>B06</b>	All	All	–	–	–	–	–	–	–	–	–	–	–	–	–
Second rating plate, loose	<b>K31</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Extra rating plate or rating plate with deviating rating plate data	<b>Y80 •</b> and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Extra rating plate with identification codes	<b>Y82 •</b> and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Additional information on rating plate and on package label (max. 20 characters)	<b>Y84 •</b> and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓



Standard delivery times:

10 working days	20 working days	On request
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# SIMOTICS XP 1MJ Explosion-Proof Motors

## Supplements to order numbers and special versions

**Options**  
Cast-iron series 1MJ6, 1MJ7

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												
		71	80	90	100	112	132	160	180	200	225	250	280	315		
		Zone 1 Ex de IIC	1MJ6/1MJ7	1MJ6										1MJ7		
	1MJ.....-.....-Z	Motor version	Motor type	Frame size												
				71	80	90	100	112	132	160	180	200	225	250	280	315
<b>Packaging, safety notes, documentation and test certificates</b>																
Acceptance test certificate 3.1 in acc. with EN 10204 25)	<b>B02</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Printed German/English Operating Instructions enclosed	<b>B23</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in English and German 26)	<i>New!</i>	All	All	□	□	□	□	□	□	□	□	□	□	□	□	□
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in French, Spanish, Italian and Czech 26)	<b>B25</b> <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in Swedish, Danish, Dutch and Finnish 26)	<b>B26</b> <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in other official EU languages 26)	<b>Y98</b> • <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wire-lattice pallet	<b>L99</b>	All	All	○	○	○	○	○	○	○	○	○	○	○	○	○

- Standard version
- Without additional charge
- This order code only determines the price of the version – Additional plain text is required.

- R. Possible on request
- ✓ With additional charge
- Not possible

- 1) Please inquire regarding combination with order code M98. Not possible in combination with order codes D32, K50 and K52.
- 2) Evaluation with appropriate 3RN1 tripping unit (see Catalog IC 10) is recommended. A certified tripping unit is necessary for use in hazardous areas.
- 3) For 1MJ6 motors, for a version with PTC thermistors, an anti-condensation heater (order code K45, K46) up to frame size 160 L is not possible.
- 4) For 1MJ6 motors frame sizes 180 to 200 and 1MJ7 motors, for a version with PTC thermistors, an anti-condensation heater (order code K45, K46) is not possible. Exception: 1MJ7 frame size 315.
- 5) For 1MJ6 motors frame size 160 L standard version.
- 6) Drilled holes for the cable glands are sealed with Ex d plugs for 1MJ motors as standard. On request, the Ex d cable entries can be supplied for 1MJ7 motors. When ordering, the number of cables and outer diameters must be specified so that the appropriate cable glands can be supplied.
- 7) Not possible in combination with order code K53, because the auxiliary connection box is only approved for Ex de.
- 8) For 1MJ6 motors, version with 3 or 4 PTC thermistors (order codes A11, A15) is only possible up to frame size 160 L with a star winding.
- 9) Not possible for version with 6 or 8 PTC thermistors (order codes A12, A16). Exception: 1MJ7 frame size 315.
- 10) Order codes C26 and C19 include order code K45 anti-condensation heating for 230 V.
- 11) There is no derating in combination with order codes L2A, L2C, L2Q, L2R, L2S, L2T, L2U and L2V.
- 12) For frame sizes 71 to 200, do not specify an order code. Order code is only necessary for frame sizes 225 to 315.
- 13) Please inquire regarding combination with order codes C19, C26 and M98. Not possible in combination with order codes C22 to C25 (frame sizes 90 to 160), D19, K16, K50, L27, M77. Combination with a protective cover is not possible. In the case of a vertical mounting position, therefore, a suitable cover must be implemented by the customer to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0).
- 14) Please inquire regarding combinations with order codes C19, C22 to C26, D19, H87, K50, K52, M76 and M77. Not possible in combination with order code K16.
- 15) The motors are up to 80 mm longer than normal. A second shaft extension is not possible.
- 16) Order code K50 (IP65 degree of protection) can only be ordered for Zone 1. For Zone 21, IP65 degree of protection is standard. Not possible for Zone 22, because only IP55 degree of protection is required.
- 17) Combination of order code K52, IP56 degree of protection, with M76 or M77 is not admissible.

- 18) 1MJ6 motors of frame sizes 90 to 160 feature the rugged, flange-mounted rotary pulse encoder Ex OG 9 which offers a high level of mechanical protection for itself. Mechanical protection for the encoder is not necessary 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.
- 19) CCC certification is required for:
  - 2-pole motors ≤ 2.2 kW
  - 4-pole motors ≤ 1.1 kW
  - 6-pole motors ≤ 0.75 kW
  - 8-pole motors ≤ 0.55 kW
- 20) Only admissible for converter-fed operation in combination with order codes A15, A16 or M77.
- 21) Bearings for increased cantilever forces at vibration quantity level B on request.
- 22) Can be combined with deep-groove bearings of series 60... 62... and 63... Not possible in combination with parallel roller bearings (e.g. bearings for increased cantilever forces, order code K20).
- 23) For 1MJ6/1MJ7 motors of frame size 180 M and above in vertical type of construction in version with second shaft extension on request. Not possible for low-noise version (2-pole). Version with protective cover not possible.
- 24) 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 K16:
  - Dimensions D and DA ≤ internal diameter of roller bearing (see dimension tables under "Dimensions")
  - Dimensions E and EA ≤ 2 × length E (normal) of the shaft extension
 For an explanation of the order codes, see Catalog D 81.1 · 2008 Part 0 "Introduction".
- 25) The delivery time for the factory test certificate may differ from the delivery time for the motor.
- 26) The Operating Instructions (Compact) are available in PDF format for all official EU languages at <http://support.automation.siemens.com/WWW/view/en/10803948/133300>

# SIMOTICS XP 1LA Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

Options  
Aluminum series 1LA7, 1LA5, 1LA9

### Selection and ordering data

Special versions	Additional identification code <b>-Z</b> with order code and plain text if required	Motor category		Standard delivery time (colored area)											
		Motor version	Motor type (alum.)	Motor type – Frame size											
				63	71	80	90	100	112	132	160	180	200	225	
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA7	1LA7 ①								1LA5 ② ①			
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LA9	1LA9 ③											
		Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LA9	1LA9 ④											
1LA ..... -Z		Motor version	Motor type	Frame size											
				63	71	80	90	100	112	132	160	180	200	225	
Design for Zones according to ATEX ②)															
Design for Zone 2 for mains-fed operation Ex nA II T3 according to IEC/EN 60079-15 ③)	<b>M72</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	–	–	–	
Design for Zone 2 for converter-fed operation, with derating Ex nA II T3 according to IEC/EN 60079-15 ③)4)5)	<b>M73</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	–	–	–	
Design (IP55) for Zone 2 and 22, for non-conductive dust, for mains-fed operation ⑥)	<b>M74</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	–	–	–	
Design (IP55) for Zone 2 and 22, for non-conductive dust, for converter-fed operation, with derating ④) 5) ⑥)	<b>M75</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	–	–	–	
Design for Zone 21, as well as Zone 22 for conductive dust (IP65) for mains-fed operation ⑦)	<b>M34</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Design for Zone 21, as well as Zone 22 for conductive dust (IP65) for converter-fed operation, with derating ③) 5) ⑦)	<b>M38</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Design for Zone 22 for non-conductive dust (IP55), for mains-fed operation	<b>M35</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Design for Zone 22 for non-conductive dust (IP55), for converter-fed operation, with derating ③) 5)	<b>M39</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
VIK version (comprises Zone 2 for mains-fed operation, without Ex nA II marking on rating plate) ⑧)	<b>K30</b>	Only possible for ③), ④), 8-pole motors and motors < 0.75 kW		✓	✓	✓	✓	✓	✓	✓	✓	–	–	–	
Ex nA II on VIK rating plate	<b>C27</b>	Only possible for ③), ④), 8-pole motors and motors < 0.75 kW		✓	✓	✓	✓	✓	✓	✓	✓	–	–	–	
Alternative converter (SIMOVERT MASTERDRIVES, SINAMICS G110, SINAMICS G120, SINAMICS S120 or ET 200S FC)	<b>Y68 •</b> and converter type ....	All	All	○	○	○	○	○	○	○	○	○	○	○	
Motor protection															
With PTC thermistors for alarm for converter-fed operation in Zones 2, 21, 22 ⑨)	<b>A10</b>	Only possible for ①), ③) and ④)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–	
Motor protection with PTC thermistors with 3 embedded temperature sensors for tripping ⑨)	<b>A11</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Motor protection with PTC thermistors with 6 embedded temperature sensors for alarm and tripping ⑨)	<b>A12</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Motor temperature detection with embedded temperature sensor KTY 84-130 ⑨)	<b>A23</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Motor temperature detection with embedded temperature sensors 2 x KTY 84-130 ⑨)	<b>A25</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Installation of 3 PT100 resistance thermometers ⑨) 10)	<b>A60</b>	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	

Standard delivery times:

<b>10 working days</b>	<b>20 working days</b>	<b>On request</b>
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# SIMOTICS XP 1LA Explosion-Proof Motors

## Supplements to order numbers and special versions

**Options**  
Aluminum series 1LA7, 1LA5, 1LA9

Special versions	Additional identification code <b>-Z</b> with order code and plain text if required	Motor category		Standard delivery time (colored area)										
		Motor version	Motor type (alum.)	Motor type – Frame size										
				63	71	80	90	100	112	132	160	180	200	225
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA7	1LA7 ①								1LA5 ② ①)		
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LA9	1LA9 ③										
		Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LA9	1LA9 ④										
1LA ..... -Z		Motor version	Motor type	Frame size										
				63	71	80	90	100	112	132	160	180	200	225
Motor connection and connection box														
Connection box on RHS	<b>K09</b>	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓
Connection box on LHS	<b>K10</b>	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓
One metal cable gland 11)	<b>K54</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
One metal cable gland, certified according to ATEX 8)	<b>J04</b> <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	–	–	–
Cable gland, max. configuration, certified according to ATEX	<b>K55</b>	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
Rotation of the connection box through 90°, entry from DE	<b>K83</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the connection box through 90°, entry from NDE	<b>K84</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the connection box through 180°	<b>K85</b>	All	All	✓	✓	✓	✓	○	○	○	○	✓	✓	✓
Next larger connection box	<b>L00</b>	All	All	–	–	–	–	–	–	–	–	✓	✓	✓
External grounding	<b>L13</b>	All	All	□	□	□	□	□	□	□	□	□	□	□
Windings and insulation														
Increased air humidity/temperature with 30 to 60 g water per m <sup>3</sup> of air	<b>C19</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 45 °C, derating approx. 4 % 12)	<b>C22</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 50 °C, derating approx. 8 % 12)	<b>C23</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 55 °C, derating approx. 13 % 12)	<b>C24</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 60 °C, derating approx. 18 %	<b>C25</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Increased air humidity/temperature with 60 to 100 g water per m <sup>3</sup> of air	<b>C26</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), with higher coolant temperature and/or site altitude	<b>Y50 •</b> and specified output, CT ... °C or SA ... m above sea level	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Colors and paint finish														
Special finish in RAL 7030 stone gray		All	All	□	□	□	□	□	□	□	□	□	□	□
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")	<b>Y54 •</b> and special finish RAL ...	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special finish in special RAL colors: For RAL colors, see "Special finish in special RAL colors" in Catalog D 81.1 · 2008 Part 0 "Introduction"	<b>Y51 •</b> and special finish RAL ...	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special finish sea air resistant	<b>M94</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

# SIMOTICS XP 1LA Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

### Options Aluminum series 1LA7, 1LA5, 1LA9

Special versions	Additional identification code <b>-Z</b> with order code and plain text if required	Motor category		Standard delivery time (colored area)											
		Motor version	Motor type (alum.)	Motor type – Frame size											
				63	71	80	90	100	112	132	160	180	200	225	
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA7	1LA7 ①								1LA5 ② ①)			
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LA9	1LA9 ③											
		Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LA9	1LA9 ④											
1LA ..... -Z		Motor version	Motor type	Frame size											
				63	71	80	90	100	112	132	160	180	200	225	
<b>Colors and paint finish (continued)</b>															
Unpainted (only cast-iron parts primed)	<b>K23</b>	All	All	○	○	○	○	○	○	○	○	○	○	○	
Unpainted, only primed	<b>K24</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Special technology</b>															
Mounting of explosion-proof rotary pulse encoder for use in Zones 2, 21, 22 ⑬)	<b>H86</b>	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	
Mounting of explosion-proof separately driven fan II 3D for use in Zone 22 ⑭)	<b>M97</b>	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	
<b>Mechanical design and degrees of protection</b>															
Drive-end seal for flange-mounting motors, oil-tight to 0.1 bar (not possible for IM V3 type of construction)	<b>K17</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With two additional eyebolts for IM V1/IM V3	<b>K32</b>	Only possible for ②		–	–	–	–	–	–	–	–	✓	✓	✓	
Low-noise version for 2-pole motors with clockwise direction of rotation	<b>K37</b>	All	All	–	–	–	–	–	–	✓	✓	✓	✓	✓	
Low-noise version for 2-pole motors with counter-clockwise direction of rotation	<b>K38</b>	All	All	–	–	–	–	–	–	✓	✓	✓	✓	✓	
IP65 degree of protection ⑮)	<b>K50</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
IP56 degree of protection ⑯)	<b>K52</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Vibration-proof version	<b>L03</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Condensation drainage holes ⑰)	<b>L12</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Rust-resistant screws (externally)	<b>M27</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Mechanical protection for encoder ⑱)	<b>M68</b>	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	
<b>Coolant temperature and site altitude</b>															
Coolant temperature –40 to +40 °C for explosion-proof motor ⑲)	<b>D19</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>Designs in accordance with standards and specifications</b>															
CCC China Compulsory Certification ⑳)	<b>D01</b>	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–	
Electrical according to NEMA MG1-12	<b>D30</b>	All; for ④ standard version		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Ex certification for China (only valid for Zone 2)	<b>D32</b>	Only possible for ③ and ④		✓	✓	✓	✓	✓	✓	✓	✓	–	–	–	
China Energy Efficiency Label	<b>D34</b> <i>New!</i>	Only possible for ③ and ④		○	○	○	○	○	○	○	○	○	○	○	
Ex certification for Russia	<b>D35</b> <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
NEMA Energy Efficient, North America version according to NEMA MG1, Table 12-11	<b>D42</b> <i>New!</i>	Only possible for ④		O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	–	
<b>Bearings and lubrication</b>															
Measuring nipple for SPM shock pulse measurement for bearing inspection	<b>G50</b>	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	
Bearing design for increased cantilever forces	<b>K20</b>	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	
Regreasing device	<b>K40</b>	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	
Located bearing DE	<b>K94</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Located bearing NDE	<b>L04</b>	All	All	✓	✓	✓	✓	✓	✓	✓	□	□	□	□	
<b>Balance and vibration quantity</b>															
Vibration quantity level A		All	All	□	□	□	□	□	□	□	□	□	□	□	
Vibration quantity level B	<b>K02</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Full-key balancing	<b>L68</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Balancing without key	<b>M37</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Standard delivery times:

10 working days	20 working days	On request
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# SIMOTICS XP 1LA Explosion-Proof Motors

## Supplements to order numbers and special versions

**Options**  
Aluminum series 1LA7, 1LA5, 1LA9

Special versions	Additional identification code <b>-Z</b> with order code and plain text if required	Motor category		Standard delivery time (colored area)											
		Motor version	Motor type (alum.)	Motor type – Frame size											
				63	71	80	90	100	112	132	160	180	200	225	
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA7	1LA7 ①								1LA5 ② ①)			
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LA9	1LA9 ③											
		Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LA9	1LA9 ④											
1LA ..... -Z		Motor version	Motor type	Frame size											
				63	71	80	90	100	112	132	160	180	200	225	
Shaft and rotor															
Concentricity of shaft extension, coaxiality and linear movement in accordance with DIN 42955 Tolerance R for flange-mounting motors 21)	K04	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Second standard shaft extension	K16	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Shaft extension with standard dimensions, without feather keyway	K42	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Concentricity of shaft extension in accordance with DIN 42955 Tolerance R	L39	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Standard shaft made of stainless steel	M65	Only possible for ① and ②		–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Non-standard cylindrical shaft extension 22)	Y55 • and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Heating and ventilation															
Fan cover for textile industry 23)	H17	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Metal external fan 24)	K35	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Anti-condensation heating, Ex. 115 V	M14	All	All	–	–	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	
Anti-condensation heating, Ex. 230 V	M15	All	All	–	–	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	
Rating plate and extra rating plates															
Second lubrication plate, loose	B06	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	
Second rating plate, loose	K31	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Rating plate, stainless steel	M40 <i>New!</i>	Only possible for ③ and ④		✓	✓	✓	✓	✓	✓	✓	✓	–	–	–	
Extra rating plate or rating plate with deviating rating plate data	Y80 • and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
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 acc. with EN 10204 25)	B02	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Printed German/English Operating Instructions enclosed	B23	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in English and German 26)	<i>New!</i>	All	All	□	□	□	□	□	□	□	□	□	□	□	
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in French, Spanish, Italian and Czech 26)	B25 <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in Swedish, Danish, Dutch and Finnish 26)	B26 <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in other official EU languages 26)	Y98 • <i>New!</i> and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Type test with heat run for horizontal motors, with acceptance	F83	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Wire-lattice pallet	L99	All	All	○	○	○	○	○	○	○	○	○	–	–	
Connected in star for dispatch	M32	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Connected in delta for dispatch	M33	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

# SIMOTICS XP 1LA Explosion-Proof Motors

## Supplements to order numbers and special versions

### Options

#### Aluminum series 1LA7, 1LA5, 1LA9

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

- 1) Zone 2 is not possible for motor series 1LA5. For Zone 2, instead of 1LA5 motors, 1LG4 motors are used.
- 2) Anti-condensation heating not possible up to frame size 71 M.
- 3) These motors do not have a rated voltage range stamped on the rating plate.
- 4) According to the standard, the motor and converter must be tested as a unit. A "Manufacturer test certificate" is available for a defined spectrum of Siemens motors (frame sizes 63 M to 315 L)/converters. Please inquire in the case of a non-Siemens converter (additional charge).
- 5) With this option, PTC thermistors for temperature class 130 (B) are included. For compliance with the admissible temperature class 130 (B), derating is necessary in the case of converter-fed operation in Zones 2, 21 and 22. The operating data for the MICROMASTER converter series from Siemens are specified on the rating plate as standard. Derating information is available on request. For converter-fed operation, voltage codes/ order codes are only admissible with one voltage only.
- 6) Please inquire regarding combination with order codes D19, K30 and M97. Not possible in combination with order codes D32, K50 and K52.
- 7) Zone 21 includes conductive and non-conductive dust.
- 8) Order code J04 cannot be combined with order codes M34, M38, M72, M73, M74 and M75, because they are already included as standard.
- 9) Evaluation with appropriate tripping unit (see Catalog IC 10) is recommended. A certified tripping unit is necessary for use in hazardous areas. KTY 84-130 and PT100 are not admissible as sole protection. For full motor protection under mains-fed operation implemented only with PTC thermistors, please inquire. Up to frame size 160 the combination A11 + A25 is available on request.
- 10) In combination with order code A60, for frame sizes 100 to 160 order codes A11, A12, A22, A25, M14 and M15 are not possible. It can only be supplied with a star or delta winding for direct switch-on (3 terminals).
- 11) For 1LA7, 1LA5 and 1LA9 motors, additional charge only applies to Zone 22. Designs for Zones 2 and 21 already have a certified metal cable gland in the standard version. For 1LA9 motors only possible for frame size 80 and above.
- 12) There is no derating in combination with order codes L2A, L2C, L2Q, L2R, L2S, L2T, L2U and L2V.
- 13) Please inquire regarding combination with order codes C19, C26, L27 and M97. Not possible in combination with order code K16. Combination with a protective cover is not possible. In the case of a vertical mounting position, therefore, a suitable cover must be implemented by the customer to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0).
- 14) Please inquire regarding combinations with order codes C19, C22, C23, C24, C25, C26, C27, D19, H86, K30, K50 and K52. Not possible in combination with order codes C27, K16, K30, M72, M73, M34, M38, M74 and M75.
- 15) Order code K50 (IP65 degree of protection) can only be ordered for Zone 2. For Zone 21, IP65 degree of protection is standard. Not possible for Zone 22, because only IP55 degree of protection is required.
- 16) Order code K52 IP56 degree of protection is only possible for Zone 2. Not admissible for Zone 21 (IP65 degree of protection) and Zone 22 (IP55 degree of protection).
- 17) Supplied with the condensation drainage holes sealed at the drive end DE and non-drive end NDE for IP55, IP56 and IP65 degrees of protection. If condensation drainage holes are required in motors of the IM B6, IM B7 or IM B8 type of construction (feet located on side or top), it is necessary to relocate the bearing plates at the drive end (DE) and non-drive end (NDE) so that the condensation drainage holes situated between the feet on delivery are underneath.
- 18) Not necessary 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.
- 19) Not possible in combination with order code L03. The mechanical limit speed for the 2-pole motors 1LA5 and 1LA9 in the version for Zone 21/22 is reduced for frame size 180 and above as compared to the values for converter-fed operation in Catalog section 2.7:

Frame size	2-pole, $n_{max}$ in rpm	$f_{max}$ in Hz
180	3300	55
200	3100	51
225	3000	50

This is especially important to consider for converter-fed operation and operation on 60 Hz line supplies. Alternative: 1LG4 and 1LG6 motors in the version for Zone 21/22.
- 20) CCC certification is required for:
  - 2-pole motors:  $\leq 2.2$  kW
  - 4-pole motors:  $\leq 1.1$  kW
  - 6-pole motors:  $\leq 0.75$  kW
  - 8-pole motors:  $\leq 0.55$  kW
- 21) Can be combined with deep-groove bearings of series 60... 62... and 63... Not possible with parallel roller bearings (e.g. bearings for increased cantilever forces, order code K20).
- 22) 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 K16:
  - Dimensions D and DA  $\leq$  internal diameter of roller bearing (see dimension tables under "Dimensions")
  - Dimensions E and EA  $\leq 2 \times$  length E (normal) of the shaft extensionFor an explanation of the order codes, see Catalog D 81.1 · 2008 Part 0 "Introduction".
- 23) The special requirements of the textile industry regarding the sheet metal cover open up the possibility that a finger may be inserted between the cover and enclosure. The customer must implement appropriate measures to ensure that the installed system is "finger-safe". For 1LA9 motors only possible for frame sizes 112 and 132.
- 24) For 1LA5/6/7/9 motors and 1LG with metal external fan, converter-fed operation is permitted. The metal external fan is standard for these motors in the version for Zone 21/22. The metal external fan is not possible in combination with the low-noise version – Order code K37 or K38.
- 25) The delivery time for the factory test certificate may differ from the delivery time for the motor.
- 26) 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>

Standard delivery times:

10 working days	20 working days	On request
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# SIMOTICS XP 1LA/1LG Explosion-Proof Motors

## Supplements to order numbers and special versions

Options  
Cast-iron series 1LA6, 1LG4, 1LG6

### Selection and ordering data

Special versions	Additional identification code <b>-Z</b> 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	
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA6/1LG4	1LA6 ①				1LG4 ②							
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LG6					1LG6 ③							
		Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LG6					1LG6 ④							
1L.....-.....-Z		Motor version	Motor type	100	112	132	160	180	200	225	250	280	315 S/M	315 L	
Design for Zones according to ATEX 1)															
Design for Zone 2 for mains-fed operation Ex nA II T3 according to IEC/EN 60079-15 2)	<b>M72</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Design for Zone 2 for converter-fed operation, with derating Ex nA II T3 according to IEC/EN 60079-15 2)3)4)	<b>M73</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Design (IP55) for Zone 2 and 22, for non-conductive dust, for mains-fed operation 5)	<b>M74</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Design (IP55) for Zone 2 and 22, for non-conductive dust, for converter-fed operation, with derating 3) 4) 5)	<b>M75</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Design for Zone 21, as well as Zone 22 for conductive dust (IP65) for mains-fed operation 6)	<b>M34</b>	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	
Design for Zone 21, as well as Zone 22 for conductive dust (IP65) for converter-fed operation, with derating 2) 4) 6)	<b>M38</b>	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	
Design for Zone 22 for non-conductive dust (IP55), for mains-fed operation	<b>M35</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Design for Zone 22 for non-conductive dust (IP55), for converter-fed operation, with derating 2) 4)	<b>M39</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
VIK version (comprises Zone 2 for mains-fed operation, without Ex nA II marking on rating plate) 7)	<b>K30</b>	Only possible for ③, ④ and 8-pole motors		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Ex nA II on VIK rating plate	<b>C27</b>	Only possible for ③, ④ and 8-pole motors		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Alternative converter (SIMOVERT MASTERDRIVES, SINAMICS G110, SINAMICS G120 (for 1LA motors), SINAMICS S120 or ET 200S FC)	<b>Y68 •</b> and converter type ....	All	All	○	○	○	○	○	○	○	○	○	○	○	
Motor protection															
With PTC thermistors for alarm for converter-fed operation in Zones 2, 21, 22 8)	<b>A10</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Motor protection with PTC thermistors with 3 embedded temperature sensors for tripping 8)	<b>A11</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Motor protection with PTC thermistors with 6 embedded temperature sensors for alarm and tripping 8)	<b>A12</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Motor temperature detection with embedded temperature sensor KTY 84-130 8)	<b>A23</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Motor temperature detection with embedded temperature sensors 2 x KTY 84-130 8)	<b>A25</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Installation of 3 PT100 resistance thermometers 8) 9)	<b>A60</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Installation of 6 PT100 resistance thermometers in stator winding 8)	<b>A61</b>	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	✓	

# SIMOTICS XP 1LA/1LG Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

### Options Cast-iron series 1LA6, 1LG4, 1LG6

Special versions	Additional identification code <b>-Z</b> 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
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA6/1LG4	1LA6 ①				1LG4 ②						
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LG6					1LG6 ③						
		Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LG6					1LG6 ④						
1L.....-Z		Motor version	Motor type	Frame size										
				100	112	132	160	180	200	225	250	280	315 S/M	315 L
Motor protection (continued)														
Installation of 2 PT100 screw-in resistance thermometers in basic circuit for rolling-contact bearings 8) 10)	<b>A72</b>	All	All	-	-	-	-	✓	✓	✓	✓	✓	✓	✓
Installation of 2 PT100 screw-in resistance thermometers in 3-wire circuit for rolling-contact bearings 8) 10)	<b>A78</b>	All	All	-	-	-	-	✓	✓	✓	✓	✓	✓	✓
Installation of 2 PT100 double screw-in resistance thermometers in 3-wire circuit for rolling-contact bearings 8)	<b>A80</b>	All	All	-	-	-	-	-	-	-	-	✓	✓	✓
Motor connection and connection box														
Connection box on RHS	<b>K09</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Connection box on LHS	<b>K10</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Connection box on top, feet screwed on	<b>K11</b>	All	All	-	-	-	-	✓	✓	✓	✓	✓	✓	✓
Connection box in cast-iron version	<b>K15</b>	All	All	-	-	-	-	✓	✓	✓	□	□	□	□
One metal cable gland 11)	<b>K54</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
One metal cable gland, certified according to ATEX 7)	<b>J04</b> <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cable gland, max. configuration, certified according to ATEX	<b>K55</b>	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
Rotation of the connection box through 90°, entry from DE	<b>K83</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the connection box through 90°, entry from NDE	<b>K84</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the connection box through 180°	<b>K85</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Next larger connection box	<b>L00</b>	All	All	-	-	-	-	✓	✓	✓	✓	✓	✓	✓
External grounding	<b>L13</b>	All	All	□	□	□	□	□	□	□	□	□	□	□
Auxiliary connection box 1XB3020	<b>L97</b>	All	All	-	-	-	-	✓	✓	✓	✓	✓	✓	✓
Saddle terminal for connection without cable lug, accessories pack (6 items) 12)	<b>M47</b>	All	All	-	-	-	-	-	-	-	✓	✓	✓	✓
Windings and insulation														
Increased air humidity/temperature with 30 to 60 g water per m <sup>3</sup> of air	<b>C19</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 45 °C, derating approx. 4 %	<b>C22</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 50 °C, derating approx. 8 %	<b>C23</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 55 °C, derating approx. 13 %	<b>C24</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 60 °C, derating approx. 18 %	<b>C25</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓



Standard delivery times:

10 working days	20 working days	On request
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# SIMOTICS XP 1LA/1LG Explosion-Proof Motors

## Supplements to order numbers and special versions

**Options**  
Cast-iron series 1LA6, 1LG4, 1LG6

Special versions	Additional identification code <b>-Z</b> 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
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA6/1LG4	1LA6 ①				1LG4 ②						
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LG6					1LG6 ③						
		Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LG6					1LG6 ④						
1L.....-Z		Motor version	Motor type	Frame size										
				100	112	132	160	180	200	225	250	280	315 S/M	315 L
Windings and insulation (continued)														
Increased air humidity/temperature with 60 to 100 g water per m <sup>3</sup> of air	<b>C26</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), with higher coolant temperature and/or site altitude	<b>Y50 •</b> and specified output, CT ... °C or SA .... m above sea level	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Colors and paint finish														
Standard finish in RAL 7030 stone gray		All	All	–	–	–	–	□	□	□	□	□	□	□
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")	<b>Y53 •</b> and standard finish RAL ....	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	✓
Special finish in RAL 7030 stone gray <sup>13)</sup>	<b>K26</b>	All	All	□	□	□	□	✓	✓	✓	✓	✓	✓	✓
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")	<b>Y54 •</b> and special finish RAL ....	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special finish in special RAL colors: For RAL colors, see "Special finish in special RAL colors" in Catalog D 81.1 · 2008 Part 0 "Introduction"	<b>Y51 •</b> and special finish RAL ....	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special paint for use offshore	<b>M91</b>	All	All	O. R.	O. R.	O. R.	O. R.	✓	✓	✓	✓	✓	✓	✓
Special finish sea air resistant	<b>M94</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Unpainted (only cast-iron parts primed)	<b>K23</b>	All	All	○	○	○	○	○	○	○	○	○	○	○
Unpainted, only primed	<b>K24</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special technology														
Mounting of explosion-proof rotary pulse encoder for use in Zones 2, 21, 22 <sup>14)</sup>	<b>H86</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mounting of explosion-proof separately driven fan Ex nA for use in Zone 2 <sup>15)</sup>	<b>M95</b>	All	All	–	–	–	–	–	–	✓	✓	✓	✓	✓
Mounting of explosion-proof separately driven fan II 2D for use in Zone 21 <sup>15)</sup>	<b>M96</b>	All	All	–	–	–	–	–	–	✓	✓	✓	✓	✓
Mounting of explosion-proof separately driven fan II 3D for use in Zone 22 <sup>15)</sup>	<b>M97</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mechanical design and degrees of protection														
Drive-end seal for flange-mounting motors, oil-tight to 0.1 bar (not possible for IM V3 type of construction) <sup>16)</sup>	<b>K17</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

# SIMOTICS XP 1LA/1LG Explosion-Proof Motors

## Supplements to order numbers and special versions

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

### Options Cast-iron series 1LA6, 1LG4, 1LG6

Special versions	Additional identification code <b>-Z</b> 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
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA6/1LG4	1LA6 ①				1LG4 ②						
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LG6					1LG6 ③						
		Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LG6					1LG6 ④						
1L.....-Z		Motor version	Motor type	Frame size										
				100	112	132	160	180	200	225	250	280	315 S/M	315 L
Mechanical design and degrees of protection (continued)														
Low-noise version for 2-pole motors with clockwise direction of rotation <sup>17)</sup>	<b>K37</b>	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓
Low-noise version for 2-pole motors with counter-clockwise direction of rotation <sup>17)</sup>	<b>K38</b>	All	All	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓
IP65 degree of protection <sup>18)</sup>	<b>K50</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IP56 degree of protection <sup>19)</sup>	<b>K52</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Vibration-proof version	<b>L03</b>	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–
Condensation drainage holes <sup>20)</sup>	<b>L12</b>	All	All	✓	✓	✓	✓	□	□	□	□	□	□	□
Rust-resistant screws (externally)	<b>M27</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mechanical protection for encoder <sup>21)</sup>	<b>M68</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Coolant temperature and site altitude														
Coolant temperature –40 to +40 °C for explosion-proof motor <sup>19)</sup>	<b>D19</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Designs in accordance with standards and specifications														
Electrical according to NEMA MG1-12	<b>D30</b>	All; for ④ standard version		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ex certification for China (only valid for Zone 2)	<b>D32</b>	Only possible for ③ and ④		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
China Energy Efficiency Label	<b>D34</b> <i>New!</i>	Only possible for ③ and ④		○	○	○	○	○	○	○	○	○	○	○
Ex certification for Russia	<b>D35</b> <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NEMA Energy Efficient, North America version according to NEMA MG1, Table 12-11	<b>D42</b> <i>New!</i>	Only possible for ④		–	–	–	–	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	–
Bearings and lubrication														
Measuring nipple for SPM shock pulse measurement for bearing inspection	<b>G50</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bearing design for increased cantilever forces <sup>23)</sup>	<b>K20</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Special bearing for DE and NDE, bearing size 63 <sup>24)</sup>	<b>K36</b>			–	–	–	–	✓	✓	✓	✓	✓	✓	✓
Regreasing device	<b>K40</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	□	□	□
Located bearing DE	<b>K94</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Located bearing NDE	<b>L04</b>	All	All	✓	✓	✓	□	□	□	□	□	□	□	□
Insulated bearing cartridge <sup>33)</sup>	<b>L27</b>			–	–	–	–	–	–	✓	✓	✓	✓	✓
Balance and vibration quantity														
Vibration quantity level A		All	All	□	□	□	□	□	□	□	□	□	□	□
Vibration quantity level B <sup>25)</sup>	<b>K02</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Full-key balancing	<b>L68</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Balancing without key	<b>M37</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Shaft and rotor														
Concentricity of shaft extension, coaxiality and linear movement in accordance with DIN 42955 Tolerance R for flange-mounting motors <sup>26)</sup>	<b>K04</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Second standard shaft extension <sup>27)</sup>	<b>K16</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Shaft extension with standard dimensions, without feather keyway	<b>K42</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Concentricity of shaft extension in accordance with DIN 42955 Tolerance R	<b>L39</b>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Standard delivery times:

10 working days	20 working days	On request
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# SIMOTICS XP 1LA/1LG Explosion-Proof Motors

## Supplements to order numbers and special versions

**Options**  
Cast-iron series 1LA6, 1LG4, 1LG6

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 S/M	315 L
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA6/1LG4	1LA6 ①				1LG4 ②						
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High Efficiency	1LG6					1LG6 ③						
		Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LG6					1LG6 ④						
1L.....-Z		Motor version	Motor type	Frame size										
				100	112	132	160	180	200	225	250	280	315 S/M	315 L
<b>Shaft and rotor (continued)</b>														
Standard shaft made of stainless steel	M65	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Non-standard cylindrical shaft extension <sup>28)</sup>	Y55 • and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Heating and ventilation</b>														
Fan cover for textile industry <sup>29)</sup>	H17	All	All	✓	✓	✓	✓	–	–	–	–	–	–	–
Metal external fan <sup>30)</sup>	K35	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Anti-condensation heating, Ex. 115 V <sup>31)</sup>	M14	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
Anti-condensation heating, Ex. 230 V <sup>31)</sup>	M15	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
Separately driven fan with non-standard voltage and/or frequency	Y81 • and identification code	All	All	–	–	–	–	–	–	✓	✓	✓	✓	✓
<b>Rating plate and extra rating plates</b>														
Second lubrication plate, loose	B06	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Second rating plate, loose	K31	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rating plate, stainless steel	M40 <i>New!</i>	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	✓
Extra rating plate or rating plate with deviating rating plate data	Y80 • and identification code	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Packaging, safety notes, documentation and test certificates</b>														
Acceptance test certificate 3.1 in acc. with EN 10204 <sup>32)</sup>	B02	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Printed German/English Operating Instructions enclosed	B23	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in English and German <sup>33)</sup>	<i>New!</i>	All	All	□	□	□	□	□	□	□	□	□	□	□
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in French, Spanish, Italian and Czech <sup>33)</sup>	B25 <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in Swedish, Danish, Dutch and Finnish <sup>33)</sup>	B26 <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in other official EU languages <sup>33)</sup>	Y98 • and identification code <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Type test with heat run for horizontal motors, with acceptance	F83	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wire-lattice pallet	L99	All	All	○	○	○	○	–	–	–	–	–	–	–
Connected in star for dispatch	M32	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Connected in delta for dispatch	M33	All	All	✓	✓	✓	✓	✓	✓	□	□	□	□	□

# SIMOTICS XP 1LA/1LG Explosion-Proof Motors

## Supplements to order numbers and special versions

### Options

#### Cast-iron series 1LA6, 1LG4, 1LG6

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

- 1) Only permitted for use in accordance with temperature class 130 (B).
- 2) These motors do not have a rated voltage range stamped on the rating plate.
- 3) According to the standard, the motor and converter must be tested as a unit. A "Manufacturer test certificate" is available for a defined spectrum of Siemens motors (frame sizes 63 M to 315 L)/converters. Please inquire in the case of a non-Siemens converter (additional charge).
- 4) With this option, PTC thermistors for temperature class 130 (B) are included. For compliance with the admissible temperature class 130 (B), derating is necessary in the case of converter-fed operation in Zones 2, 21 and 22. The operating data for the MICROMASTER converter series from Siemens are specified on the rating plate as standard. Derating information is available on request. For converter-fed operation, voltage codes/order codes are only admissible with one voltage only.
- 5) Please inquire regarding combination with order codes D19, K30, M95, M96 and M97. Not possible in combination with order codes D32, K50 and K52.
- 6) Zone 21 includes conductive and non-conductive dust.
- 7) Order code J04 cannot be combined with order codes M34, M38, M72, M73, M74 and M75, because they are already included as standard.
- 8) Evaluation with appropriate tripping unit (see Catalog IC 10) is recommended. A certified tripping unit is necessary for use in hazardous areas. KTY 84-130 and PT100 are not admissible as sole protection. For full motor protection under mains-fed operation implemented only with PTC thermistors, please inquire. Up to frame size 160 the combination A11 + A25 is available on request.
- 9) In combination with order code A60, for frame sizes 100 to 160 order codes A11, A12, A22, A25, M14 and M15 are not possible. It can only be supplied with a star or delta winding for direct switch-on (3 terminals).
- 10) Order codes A72 or A78 are not possible in combination with order code L27.
- 11) For 1LA6, 1LG4 and 1LG6 motors, additional charge only applies to Zone 22. Designs for Zones 2 and 21 already have a certified metal cable gland in the standard version. Standard with designs for Zone 2, Zone 21 and VIK.
- 12) Standard with designs for Zone 2, 21 and VIK.
- 13) For frame sizes 100 to 160, do not specify an order code. Order code is only necessary for frame sizes 180 to 315.
- 14) Please inquire regarding combination with order codes C19, C26, L27, M95, M96 and M97. Not possible in combination with order code K16. Combination with a protective cover is not possible. In the case of a vertical mounting position, therefore, a suitable cover must be implemented by the customer to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0).
- 15) Please inquire regarding combinations with order codes C19, C22, C23, C24, C25, C26, C27, D19, H86, K30, K50 and K52. Not possible in combination with order code K16. The type of protection of the separately driven fan must be selected to comply with that of the motor.
- 16) Not possible for motor series 1LG4 for 2-pole motors.
- 17) For 1LG4 motors, in the low-noise version, a second shaft extension is not possible. Not necessary for 1LG6 motors because these motors are already noise optimized.
- 18) Order code K50 (IP65 degree of protection) can only be ordered for Zone 2. For Zone 21, IP65 degree of protection is standard. Not possible for Zone 22, because only IP55 degree of protection is required.
- 19) Order code K52 IP56 degree of protection is only possible for Zone 2. Not admissible for Zone 21 (IP65 degree of protection) and Zone 22 (IP55 degree of protection).
- 20) For 1LA6 motors: Supplied with the condensation drainage holes sealed at the drive end DE and non-drive end NDE for IP55, IP56 and IP65 degrees of protection. If condensation drainage holes are required in motors of the IM B6, IM B7 or IM B8 type of construction (feet located on side or top), it is necessary to relocate the bearing plates at the drive end (DE) and non-drive end (NDE) so that the condensation drainage holes situated between the feet on delivery are underneath.
- 21) Not necessary 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.
- 22) Not possible in combination with order code L03.
- 23) Not possible for 2-pole 1LG4 and 1LG6 motors, frame size 315 L in vertical types of construction; bearings for increased cantilever forces at vibration quantity level B are available on request for 1LG4 motors. Not possible for 1LG4 and 1LG6 motors in the combination "Concentricity of the shaft extension, coaxiality and linear movement in accordance with DIN 42955 Tolerance R for flange-mounting motors" – Order code K04.
- 24) With 4-pole to 8-pole motors of frame size 280 and above, standard version.
- 25) Not possible in combination with parallel roller bearings (e.g. bearings for increased cantilever forces, order code K20).
- 26) Can be combined with deep-groove bearings of series 60.., 62.. and 63... Not possible in combination with parallel roller bearings (e.g. bearings for increased cantilever forces, order code K20).
- 27) Possible for motors of frame size 315 and above in vertical types of construction or 2-pole for version with second shaft extension on request. Version with protective cover not possible.
- 28) 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 K16:
  - Dimensions D and DA ≤ internal diameter of roller bearing (see dimension tables under "Dimensions")
  - Dimensions E and EA ≤ 2 x length E (normal) of the shaft extensionFor an explanation of the order codes, see Catalog D 81.1 · 2008 Part 0 "Introduction".
- 29) The special requirements of the textile industry regarding the sheet metal cover open up the possibility that a finger may be inserted between the cover and enclosure. The customer must implement appropriate measures to ensure that the installed system is "finger-safe".
- 30) For 1LA5/6/7/9 motors and 1LG with metal external fan, converter-fed operation is permitted. The metal external fan is standard for these motors in the version for Zone 21/22. The metal external fan is not possible in combination with the low-noise version – Order code K37 or K38.
- 31) For 1LG4/1LG6 motors in Zones 2, 21 and 22, order codes K45 and K46 for an anti-condensation heater are also possible.
- 32) The delivery time for the factory test certificate may differ from the delivery time for the motor.
- 33) The Operating Instructions (Compact) are available in PDF format for all official EU languages at <http://support.automation.siemens.com/WWW/view/en/10803948/133300>