10 working days

20 working days

On request

# SIMOTICS XP 1MA Explosion-Proof Motors Supplements to order numbers and special versions

Aluminum series 1MA7

### Selection and ordering data

Voltages	Voltage	Additional	Motor category	/	Standa	rd deliv	ery time	(colore	d area)						
	code 11th	identifica- tion code	Motor version	Motor	Motor t	ype – F	rame s	ize							
	position of the	with order code and		type (alum.)	63	71	80	90	100	112	132	160	180	200	225
	Order No.		Zone 1 Ex e II	1MA7	1MA7										
		if required	Motor	Motor	Frame	size							•		
1MA7			version	type	63	71	80	90	100	112	132	160	180	200	225
Voltage at 50 Hz and 50 Hz outp	ut														
230 VΔ/400 VY	1	-	All	All											
400 VΔ/690 VY	6	-	All	All	_							0			
500 VY <sup>1)</sup>	3	-	All	All	0	0	0	0	0	0	0	0			
500 VΔ	5	-	All	All	_	-	-	-	0	0	0	0			
220 VΔ/380 VY	9	L1R	All	All	1	1	✓	1	1	1	1	1			
230 VΔ	9	L1E	All	All	0	0	0	0	0	0	0	0			
380 VΔ/660 VY	9	L1L	All	All	_	1	✓	✓	✓	✓	1	1			
415 VY <sup>1)</sup>	9	L1C	All	All	1	1	1	1	1	1	1	1			
415 VΔ	9	L1D	All	All	1	1	✓	✓	1	1	1	1			
Voltage at 60 Hz and required o	utput at 60	Hz <sup>2)</sup>													
220 VΔ/380 VY; 50 Hz output	9	L2A	All	All	1	1	✓	✓	✓	✓	1	1			
380 V∆/660 VY; 50 Hz output <sup>3)</sup>	9	L2C	All	All	✓	✓	✓	✓	1	1	✓	✓			
440 VY; 50 Hz output	9	L2Q	All	All	1	1	✓	✓	✓	✓	1	1			
440 V∆; 50 Hz output	9	L2R	All	All	_	1	✓	✓	1	1	1	1			
460 VY; 50 Hz output 1)	9	L2S	All	All	1	1	✓	✓	1	1	1	1			
460 V∆; 50 Hz output	9	L2T	All	All	_	1	✓	✓	✓	✓	1	1			
575 VY; 50 Hz output 3)	9	L2U	All	All	✓	✓	✓	✓	1	1	✓	✓			
575 V∆; 50 Hz output	9	L2V	All	All	-	✓	✓	1	1	✓	✓	1			
Non-standard voltage and/or fre	equencies														
Non-standard winding 4)	9	L1Y • and identifica-	All	All	✓	1	1	1	1	1	1	1			

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

tion code

- With additional charge
- Not possible

<sup>1)</sup> For motors 1MA7060-4 (motor series 1MA7 frame size 63, 4-pole) not

Special certification is required for 60 Hz.

For motors 1MA7060-2, 1MA7060-4 and 1MA7063-4 (motor series 1MA7 frame size 63, 2-pole and 4-pole) not possible.

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

Cast-iron series 1MA6

Standard delivery times:

10 working days

20 working days

On reauest

### Selection and ordering data

Voltages	Voltage	Additional	Motor category	y	Standard de	elivery	time (	colore	d area	)					
	code 11th	identifica- tion code	Motor version	Motor	Motor type	– Fra	me siz	е							
	position	with order		type (cast-											
	of the	code and plain text		iron)	71 80 90	100	112	132	160	180	200	225	250	280	315
	Order No.	if required	Zone 1 Ex e II	1MA6	11 00 50	1MA		102	100	100	200	LLU	200	200	013
			Motor	Motor	Frame size										
1MA6	. ■ .		version	type	71 80 90	100	112	132	160	180	200	225	250	280	315
Voltage at 50 Hz and 50 Hz outp	out														
230 VΔ/400 VY <sup>1)</sup>	1	-	All	All			_	_	_	_	_	_	_	_	
400 VΔ/690 VY	6	-	All	All						_					
500 VY	3	-	All	All		0	0	0	0	0	0	0	0	0	0
500 VΔ	5	-	All	All		0	0	0	0	0	0	0	0	0	0
220 VΔ/380 VY	9	L1R	All	All		1	✓	✓	✓	1	✓	1	✓	✓	-
230 VΔ	9	L1E	All	All		0	0	0	0	0	0	0	0	0	-
380 VΔ/660 VY	9	L1L	All	All		1	✓	✓	✓	✓	✓	1	✓	✓	✓
415 VY	9	L1C	All	All		1	✓	1	✓	1	✓	1	/	✓	-
415 VΔ	9	L1D	All	All		1	✓	1	✓	✓	✓	1	✓	✓	✓
Voltage at 60 Hz and required o	utput at 60	Hz <sup>2)</sup>													
220 VΔ/380 VY; 50 Hz output	9	L2A	All	All		1	✓	✓	✓	✓	✓	✓	✓	✓	-
380 VΔ/660 VY; 50 Hz output	9	L2C	All	All		1	✓	✓	✓	✓	✓	1	✓	✓	1
440 VY; 50 Hz output	9	L2Q	All	All		1	✓	✓	✓	✓	✓	1	✓	✓	-
440 VΔ; 50 Hz output	9	L2R	All	All		1	✓	✓	✓	✓	✓	1	✓	✓	1
460 VY; 50 Hz output	9	L2S	All	All		1	✓	✓	✓	✓	0	0	0	0	-
460 VΔ; 50 Hz output	9	L2T	All	All		1	✓	✓	✓	✓	0	0	0	0	0
575 VY; 50 Hz output	9	L2U	All	All		1	✓	✓	✓	✓	0	0	0	0	-
575 V∆; 50 Hz output	9	L2V	All	All		1	✓	1	1	1	0	0	0	0	0
Non-standard voltage and/or fre															
Non-standard winding 3)	9	L1Y • and identifica-	All	All		1	✓	/	1	1	1	1	1	1	1

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

tion code

- With additional charge
- Not possible

 $<sup>^{1)}\,\,</sup>$  Not possible for 1MA6 motors in frame size 315 L.

Special certification is required for 60 Hz.

 $<sup>^{\</sup>rm 3)}$  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.

10 working days

20 working days

On request

# SIMOTICS XP 1MJ Explosion-Proof Motors Supplements to order numbers and special versions

Cast-iron series 1MJ6. 1MJ7

### Selection and ordering data

Voltages	Voltage		Motor ca	tegory	Stan	dard de	elivery	time (c	olored	area)							
	code 11th position		Motor version	Motor type (cast-	Moto	r type	– Frai	ne size	9								
	of the Order	code and plain text		iron)	71	80	90	100	112	132	160	180	200	225	250	280	315
	No.	if required	Zone 1 Ex de II0	1MJ6/ 2 1MJ7	1MJ									1MJ7			
1MJ			Motor version	Motor type	Fram 71	e size 80	90	100	112	132	160	180	200	225	250	280	315
Voltage at 50 Hz and 50 Hz ou	ıtput																
230 VΔ/400 VY	1	_	All	All													
400 VΔ/690 VY	6	-	All	All													
500 VY	3	-	All	All	0	0	0	0	0	0	0	0	0	0	0	0	0
500 V∆	5	-	All	All	-	0	0	0	0	0	0	0	0	0	0	0	0
220 VΔ/380 VY	9	L1R	All	All	1	✓	1	1	✓	✓	1	✓	✓	1	/	/	1
230 VΔ	9	L1E	All	All	0	0	0	0	0	0	0	0	0	0	0	0	0
380 VΔ/660 VY	9	L1L	All	All	1	✓	1	1	✓	✓	1	✓	✓	1	/	/	1
415 VY	9	L1C	All	All	1	✓	1	1	✓	✓	1	✓	✓	1	/	/	1
415 V∆	9	L1D	All	All	1	✓	1	1	✓	✓	1	✓	✓	1	1	/	1
Voltage at 60 Hz and required	output a	t 60 Hz															
220 VΔ/380 VY; 50 Hz output	9	L2A	All	All	1	1	1	1	1	1	✓	1	✓	1	✓	/	✓
220 VΔ/380 VY; 60 Hz output	9	L2B	All	All	1	✓	✓	✓	✓	✓	✓	✓	✓	1	✓	✓	✓
380 VΔ/660 VY; 50 Hz output	9	L2C	All	All	1	1	✓	✓	1	1	✓	✓	✓	1	✓	✓	✓
380 VΔ/660 VY; 60 Hz output	9	L2D	All	All	1	✓	1	1	✓	✓	1	✓	✓	1	/	/	1
440 VY; 50 Hz output	9	L2Q	All	All	1	1	✓	1	1	1	✓	1	✓	1	✓	✓	✓
440 VY; 60 Hz output	9	L2W	All	All	1	1	1	✓	✓	1	1	✓	✓	1	✓	1	✓
440 VΔ; 50 Hz output	9	L2R	All	All	1	1	✓	/	/	1	✓	✓	✓	1	✓	✓	✓
440 VΔ; 60 Hz output	9	L2X	All	All	1	✓	1	1	✓	✓	✓	✓	✓	1	✓	✓	✓
460 VY; 50 Hz output	9	L2S	All	All	1	1	✓	1	1	1	✓	1	✓	1	✓	✓	✓
460 VY; 60 Hz output	9	L2E	All	All	1	1	✓	1	1	1	✓	1	✓	0	0	0	0
460 V∆; 50 Hz output	9	L2T	All	All	1	1	✓	1	✓	1	✓	✓	✓	1	✓	✓	✓
460 VΔ; 60 Hz output	9	L2F	All	All	1	1	✓	1	1	1	✓	1	✓	0	0	0	0
575 VY; 50 Hz output	9	L2U	All	All	1	✓	1	1	✓	✓	✓	✓	✓	1	✓	✓	✓
575 VY; 60 Hz output	9	L2L	All	All	1	✓	✓	✓	✓	✓	✓	✓	✓	1	✓	✓	✓
575 VΔ; 50 Hz output	9	L2V	All	All	1	✓	1	✓	✓	✓	1	✓	✓	1	✓	1	1
575 VΔ; 60 Hz output	9	L2M	All	All	1	1	1	1	1	1	1	1	✓	0	0	0	0
Non-standard voltage and/or	frequenc																
Non-standard winding 1)	9	L1Y • and identifica-	All	All	1	1	1	1	1	1	1	1	1	1	1	1	1

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

tion code

- 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

Aluminum series 1LA7, 1LA5, 1LA9

Standard delivery times:

10 working days

20 working days

On reauest

### Selection and ordering data

Selection and ordering dat	a														
Voltages	Voltage	Additional	Motor category		Stand	ard de	livery ti	me (co	lored a	ırea)					
9	code	identifica-	Motor	Motor	Motor	type -	- Fram	e size							
	11th position	tion code with order	version	type (alum.)											
	of the	code and				71	80	90	100	112	132	160	180	200	225
	Order No.	plain text if required	Zone 2 Ex nA II, Zone 21/22 Ex tD	1LA7	1LA7	1							1LA5		
		·	IE1 Standard												
			Efficiency	41.40	41.40										
			Zone 2 Ex nA II, Zone 21/22 Ex tD	1LA9	1LA9	(3)									
			IE2 High												
			Efficiency Zone 2 Ex nA II,	1LA9	1LA9	<u> </u>									
			Zone 21/22 Ex tD	11.710	ILAS										
			NEMA Energy Efficient												
			Motor	Motor	Frame	size									
1LA	•		version	type	63	71	80	90	100	112	132	160	180	200	225
Voltage at 50 Hz or 60 Hz															
50 Hz 230 VΔ/400 VY,	1	-	All	All											
60 Hz 460 VY			All	All		_									
50 Hz 400 VΔ/690 VY, 60 Hz 460 VΔ	6	-	All	All	_	_		_	_		_			_	
Voltage at 50 Hz and 50 Hz outp	ut														
500 VY	3	_	All	All	0	0	0	0	0	0	0	0	0	0	0
500 VΔ	5	_	All	All	-	-	-	-	0	0	0	0	0	0	0
220 VΔ/380 VY (440 VY at 60 Hz)	9	L1R	All	All	1	1	✓	✓	/	1	✓	1	1	1	1
230 VΔ	9	L1E	All	All	0	0	0	0	0	0	0	0	0	0	0
380 VΔ/660 VY (440 VΔ at 60 Hz)	9	L1L	All	All	1	1	1	✓	1	1	✓	✓	1	✓	1
415 VY	9	L1C	All	All	1	1	✓	✓	1	✓	✓	1	1	1	1
415 VΔ	9	L1D	All	All	✓	1	✓	✓	1	✓	✓	✓	1	✓	1
400 VY	9	L1A	All	All	0	0	0	0	0	0	0	0	0	0	0
400 VΔ	9	L1B	All	All	0	0	0	0	0	0	0	0	0	0	0
400 VΔ (460 VΔ at 60 Hz)	9	L1U	All	All	0	0	0	0	0	0	0	0	0	0	0
Voltage at 87 Hz and 87 Hz outp															
400 VΔ <sup>2)</sup>	9	L3A			✓	1	1	1	1	✓	✓	✓	1	✓	0
Voltage at 60 Hz and required o	utput at 6	60 Hz	Without additional												
220 VΔ/380 VY; 50 Hz output	9	L2A	All	All	1	/	/	/	/	/	/	/	1	/	1
220 VΔ/380 VY; 60 Hz output	9	L2B	All	All	1	/	1	1	/	/	/	/	1	/	1
380 VΔ/660 VY; 50 Hz output	9	L2C	All	All	1	1	1	/	/	1	/	1	1	1	1
380 VΔ/660 VY; 60 Hz output	9	L2D	All	All	1	1	/	<b>√</b>	1	1	/	1	1	1	1
440 VY; 50 Hz output	9	L2Q	All	All	1	1	✓	✓	/	1	✓	1	1	1	1
440 VY; 60 Hz output	9	L2W	All	All	1	1	1	✓	1	1	✓	✓	1	✓	1
440 VΔ; 50 Hz output	9	L2R	All	All	1	/	✓	✓	1	/	✓	/	1	1	1
440 VΔ; 60 Hz output	9	L2X	All	All	✓	✓	✓	✓	✓	✓	✓	✓	1	✓	1
460 VY; 50 Hz output	9	L2S	All	All	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	1
460 VY; 60 Hz output	9	L2E	All	All	0	0	0	0	0	0	0	0	0	0	0
460 VΔ; 50 Hz output	9	L2T	All	All	✓	✓	✓	✓	✓	✓	✓	✓	1	✓	1
460 VΔ; 60 Hz output	9	L2F	All	All	0	0	0	0	0	0	0	0	0	0	0
575 VY; 50 Hz output	9	L2U	All	All	<b>√</b>	<b>√</b>	1	1	/	1	<b>√</b>	<b>√</b>	1	<b>√</b>	1
575 VY; 60 Hz output	9	L2L	All	All	<b>√</b>	<b>√</b>	1	1	1	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	1	1
575 VΔ; 50 Hz output	9	L2V	All All	All	√ √	1	1	1	√ √	√ ✓	1	1	√	1	√ √
575 VΔ; 60 Hz output	9	L2M	All	All	7	<b>/</b>	/	/	7	/	/	7	7	/	<b>/</b>
Non-standard voltage and/or fre	equencie:		All	ΔII	1	1	1	/	1	/	/	1	1	1	1
Non-standard winding 97	9	L1Y • and identifica-	All	All	1	1	/	/	•	/	/	1	1	/	1
		tion code													

- 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> Zone 2 is not possible for motor series 1LA5.

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.

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.

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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

10 working days 20 working days

On request

Selection and ordering data Additional Voltages Standard delivery time (colored area) Voltage Motor category code identifica-Motor Motor type – Frame size tion code type (cast-iron) 315 L position with order of the code and Order plain text No if required 1LG6 Motor Motor Frame size version type 100 112 132 160 180 200 225 250 280 315 315 L S/M 1L . . . . . - . . . ■ . 50 Hz 230 VΔ/400 VY, 1 п п п п п п п п п п п 60 Hz 460 VY 50 Hz 400 VA/690 VY 6 ΔΙΙ ΔΙΙ п п п п п п п п п 60 Hz 460 VA Voltage at 50 Hz and 50 Hz output 500 VY 3 0 0 0 0 0 0 0 0 0 0 0 500 VA 5 ΑII 0 0 0 0 0 0 0 L1R 220 VΔ/380 VY (440 VY at 60 Hz) 9 All All 230 VA 9 L1E 0 0 0 0 0 0 0 0 0 380 VΔ/660 VY (440 VΔ at 60 Hz) 1 11 ΑII ΑII J 415 VY 9 L1C All All / / 415 V∆ 9 L1D / / 400 VY 9 L1A All All 0 0 0 0 0 0 0 0 0 ΔΙΙ 400 VA 9 L<sub>1</sub>B AII 0 0 0 0 0 0 All 400 VΔ (460 VΔ at 60 Hz) 9 L1U ΔII 0 0 0 0 0 0 0 0 0 0 0 Voltage at 87 Hz and 87 Hz output 400 VΔ <sup>1)</sup> 0 9 L3A AII 0 0 O.R. O. R. O. R. O. R. O.R. ORut at 60 Hz 220 VΔ/380 VY; 50 Hz output L2A 9 ΔΙΙ ΔΙΙ 220 VΔ/380 VY; 60 Hz output 9 All / L2B / / 380 VΔ/660 VY; 50 Hz output 9 1.2C ΑII ΔΙΙ 9 ΑII ΑII 380 VΔ/660 VY; 60 Hz output ח פ ו 440 VY; 50 Hz output 9 L2Q All All All All 440 VY: 60 Hz output 9 L2W 440 VA: 50 Hz output 9 L2R ΑII ΑII 9 440 VΔ; 60 Hz output 1 2X 460 VY: 50 Hz output 9 L2S 460 VY; 60 Hz output 9 L2E ΑII All 0 0 0 0 0 0 0 0 0 0 460 V∆; 50 Hz output 9 L2T ΑII All 460 VΔ; 60 Hz output 9 L2F All ΑII 0 0 0 0 0 0 0 0 0 575 VY; 50 Hz output 9 L2U

Standard version

575 VY; 60 Hz output

575 VΔ; 50 Hz output

575 VΔ; 60 Hz output

Non-standard voltage a Non-standard winding 23

Without additional charge

 This order code only determines the price of the version – Additional plain text is required.

9

9

9

L2L

L2V

L2M

L1Y • and

identification code All

All

ΑI

All

0

0

0

0

1

O. R. Possible on request

✓ With additional charge

Not possible

/

0

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0

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1

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.

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

Types of construction Aluminum series 1MA7

10 working days

20 working days

Standard delivery times:

On request

### Selection and ordering data Type of construction code tion code 12th Additional identification code Types of construction Additional Motor category Standard delivery time (colored area) Motor Motor type – Frame size type

		12th position	with order code and	version	(alum.)	63	71	80	90	100	112	132	160	180	200	225
		of the	plain text	Zone 1 Ex e II		1MA7								100		
		Order No.	if required	Motor	Motor	Frame	size									
11	MA7			version	type	63	71	80	90	100	112	132	160	180	200	225
Without flange																
IM B3		0	-	All	All	0		0	0			0	0			
IM B6, IM B7, IM B8, IM V6 1)		0	-	All	All	0	0	0	0	0		0	0			
IM V6 <sup>1)</sup>		0	-	All	All	0	0	0	0			0	0			
IM V5 with protective cover 1) 2)		9	M1F	All	All	<b>√</b>	<b>V</b>	<b>√</b>	<b>√</b>	<b>V</b>	<b>/</b>	<b>√</b>	<b>√</b>			
With flange		acc. to DI acc. to DI	N EN 50347 N 42948			FF115 A 140		FF165 A 200	FF165	FF215 A 250	FF215 A 250	FF265 A 300				
IM B5		1	-	All	All	1	✓ ·	✓ ·	✓	✓ ·	✓	✓ ·	✓			
IM V3 <sup>1)</sup>		1	-	All	All	1	<b>√</b>	1	1	<b>√</b>	<b>√</b>	1	1			
IM V1 with protective cover 1) 2)		4	-	All	All	<b>√</b>	1	<b>V</b>	<b>V</b>	1	1	<b>V</b>	<b>V</b>			
IM B35		6	-	All	All	1	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	<b>√</b>	<b>√</b>			
With standard	flange	acc. to DI acc. to DI	N EN 50347 N 42948			FT75 C 90	FT85				FT130 C 160					
IM B14, IM V19 1)	£	2	- -	All	All	✓ <b>3</b> 0	✓ Tus	✓ 120	✓ ·	✓ Too	✓ T00	✓ <b>200</b>	✓ <b>230</b>			
IM B14, IM V19 <sup>1)</sup>		2	-	All	All	V	1	<b>√</b>	<b>√</b>	1	✓	✓	✓			
IM V18 with protective cover 1) 2)		9	M2A	All	All	<b>√</b>	1	1	1	1	1	1	<b>√</b>			
IM B34		7	-	All	All	1	1	1	1	1	✓	1	1			

10 working days

20 working days

On request

# SIMOTICS XP 1MA Explosion-Proof Motors Supplements to order numbers and special versions

**Types of construction** Aluminum series 1MA7

Types of constru	uction	Type of	Additional	Motor category	У	Standa	rd delive	ery time	(colored	d area)						
			identifica- tion code with order	Motor version	Motor type		type – F	rame s	ize							
		position	code and		(alum.)	63	71	80	90	100	112	132	160	180	200	225
		of the	plain text	Zone 1 Ex e II	1MA7	1MA7										
		Order No.	if required	Motor	Motor	Frame	size									
11	MA7			version	type	63	71	80	90	100	112	132	160	180	200	225
With special fla	ange	acc. to DI acc. to DI	N EN 50347 N 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 1)		3	-	All	All	1	1	1	1	1	✓	✓	✓			
IM B14, IM V19 1)		3	-	All	All	1	1	1	1	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>			
IM V18 with protective cover 1) 2)		9	M2B	All	All	<b>√</b>	1	1	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>			
IM B34		9	M2C	All	All	1	1	1	1	1	✓	1	1			

- 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

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.

# SIMOTICS XP 1MA Explosion-Proof Motors Supplements to order numbers and special versions

Types of construction Cast-iron series 1MA6 Standard delivery times:

10 working davs

20 working davs

On reauest

### Selection and ordering data Addi-tional Types of construction Motor category Standard delivery time (colored area) Motor Motor type - Frame size conidentifi-315 L 315 L 2-pole 4-pole, 6-pole, 8-pole 71 80 90 100 112 struccation tion code code 12th order posicode tion of and plain Order text if Motor Motor Frame size required version type 315 L 2-pole 71 80 90 100 315 S/M 112 132 160 180 200 225 250 280 315 L 4-pole, 6-pole, 8-pole 1MA6 . . . - . . . . . Without flange IM B3 0 IM B6, IM B7 IM B8 1) 2) 0 ΑII п п п 0 IM V6 1) 2) 4) 0 All 9 M1E 0 IM V5 with M1F ΑII 9 protective cover 1) 2) 3) 4) acc. to DIN EN 50347 acc. to DIN 42948 With flange IM B5 ΑII IM V3 1) 5) 9 ΑI M1G IM V1 with 4 ΑII protective cover 1) 3) 4) 5) IM B35 All All 6 acc. to DIN EN 50347 With standard flange FT165 FT215 IM B14, IM V19 1) 2 IM B14, IM V19<sup>(1)</sup> 2 IM V18 with M2A All All protective cover 년년 IM B34 All All

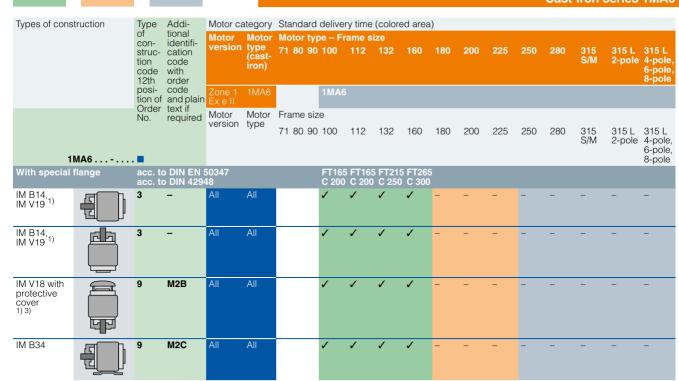
10 working davs

20 working davs

On request

## SIMOTICS XP 1MA Explosion-Proof Motors Supplements to order numbers and special versions

Types of construction Cast-iron series 1MA6



- 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

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.

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

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

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

<sup>1</sup>MA6 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

Types of construction Cast-iron series 1MJ6, 1MJ7 Standard delivery times:

10 working days

20 working days

On request

Ī	Selection a	nd ordering	data																
	Types of const		Туре	Addi-	Motor cat	egory	Standa	ard del	iverv tin	ne (colo	ored are	ea)							
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		of con-	tional identifi-	Motor version	Motor						,							
			tion code	cation code with		type (cast- iron)	71	80	90	100	112	132	160	180	200	225	250	280	315
			12th posi-	order code	Zone 1 Ex de IIC	1MJ6/ 1MJ7	1MJ6									1MJ7			
			tion of Order	and plain text if	Motor version	Motor type	Frame	size											
	1	MJ	No.	required	VOIGIGIT	туро	71	80	90	100	112	132	160	180	200	225	250	280	315
	Without flang	je	0		All	All	0	_	_	_	_	_	0	_	_	_	_	_	0
	IIWI DO		Ü		All	All				_		_		_			_	_	_
	IM B6, IM B7, IM B8 <sup>1) 2)</sup>		0	-	All	All	0	0	0	0	0	0	0	0	0	0	0	0	0
	IM V6 <sup>1) 2)</sup>		0	-	All	All	0	0	0	0	0	0	0	0	0	0	0	0	
	IM V5 with protective cover <sup>1) 2) 3)</sup>		9	M1F	All	All	1	✓	<b>√</b>	1	1	✓	<b>√</b>	<b>√</b>	<b>√</b>	1	1	<b>√</b>	1
	With flange			DIN EN 5 DIN 4294									FF300 A 350			FF400 A 450		FF500 A 550	
	IM B5		1	-	All	All	1	<b>√</b>	✓	1	1	✓	1	✓	1	1	✓	✓	<b>✓</b>
	IM V3 <sup>1) 4)</sup>	<b>-</b>	9	- M1G	All	All All	✓	1	✓	✓	1	✓	1		- _	-	- /	- /	- 1
			9	WIG	All	All	_	-	-	_	-	-	-	•	•	•	•	•	
	IM V1 with protective cover 1) 3) 4)		4	-	All	All	1	<b>√</b>	✓	<b>/</b>	<b>√</b>	<b>/</b>	<b>√</b>	<b>√</b>	✓	1	<b>√</b>	<b>√</b>	<b>/</b>
	IM B35		6	-	All	All	1	1	1	1	1	1	1	✓	1	1	1	✓	1
	With standard	d flange	A 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	DIN EN 5 DIN 4294	50347 18		FT85 C 105	C 100	FT115 C 140										
	IM B14, IM V19 1)	£	2	-	All	All	1	1	1	-	-	-	-	-	-	-	-	-	-
	IM B14, IM V19 1)		2	-	All	All	1	1	1	-	-	-	-	-	-	-	-	-	-
	IM V18 with protective cover <sup>1) 3)</sup>		9	M2A	All	All	1	✓	<b>√</b>	-	-	-	-	-	-	-	-	-	_
	IM B34		7	-	All	All	<b>√</b>	✓	<b>√</b>	-	_	-	-	_	-	-	-	-	-

10 working days

20 working davs

On request

## SIMOTICS XP 1MJ Explosion-Proof Motors Supplements to order numbers and special versions

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

Type	es of cons	truction	Type	Addi-	Motor cat	egory	Stand	ard del	ivery tir	ne (col	ored are	ea)							
			of con- struc- tion	code	Motor version	Motor type (cast- iron)													
			code	with			71	80	90	100	112	132	160	180	200	225	250	280	315
			12th posi-	order code and plain	Zone 1 Ex de IIC	1MJ7	1MJ6									1MJ7			
			Order No.		Motor version	Motor type	Frame	e size											
	1	MJ					71	80	90	100	112	132	160	180	200	225	250	280	315
With	special <sup>•</sup>	flange		DIN EN				FT130 C 160											
IM B	314, ′19 <sup>1)</sup>		3	-	All	All	<b>√</b>	1	-	-	-	-	-	-	-	-	-	-	-
IM B IM V	314, '19 <sup>'1)</sup>		3	-	All	All	<b>√</b>	<b>√</b>	-	-	-	-	-	-	-	-	-	-	-
prote	(18 with ective er 1) 3)		9	M2B	All	All	1	1	-	-	-	-	-	-	-	_	-	-	-
IM B	334	£	9	M2C	All	All	V	1	-	-	-	-	-	-	-	-	-	-	_

- 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

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.

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>1</sup>MJ7 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

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

Standard delivery times:

10 working days 20 working days

On request

### Selection and ordering data Types of construction Addi-Motor category Standard delivery time (colored area) tional Motor Motor type - Frame size conidentifitype (alum.) struccation ลก an 200 tion code code 1LA5 ② <sup>1)</sup> 1LA7 (1) 12th order posicode tion of and plain Order text if 1LA9 ③ required 1LA9 (4) Motor Motor Frame size version tvpe 1LA . . . . ■ 63 71 80 90 100 112 132 160 180 200 225 Without flange IM B3 <sup>5)</sup> 0 0 0 п IM B6, IM B7, n п п п п п п п п п п IM B8, IM V6 IM V6<sup>2)5)</sup> 0 п п п п п п п п п п п IM V5 with M1E 9 protective cover 2) 3) 5) With flange All IM B5 IM V3 <sup>2) 4)</sup> All 9 ΑII All M1G IM V1 with 4 ΔII AII protective cover 2) 3) 4) IM B35 <sup>5)</sup> 6 acc. to DIN EN 50347 With standard flange IM B14, IM V19<sup>(2)</sup> IM B14, IM V19<sup>(2)</sup> 2 All All IM V18 with M2A All 9 ΑII protective cover 2) 3) 日日 IM B34 <sup>5)</sup>

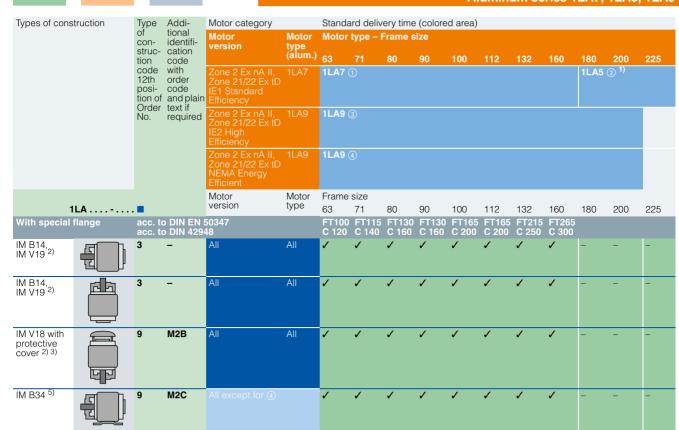
10 working days 20 working days

On request

## **SIMOTICS XP 1LA Explosion-Proof Motors**

Supplements to order numbers and special versions

Types of construction 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.
- ✓ With additional charge
- Not possible

Zone 2 is not possible for motor series 1LA5.

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

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.

<sup>5)</sup> 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

Types of construction Cast-iron series 1LA6, 1LG4, 1LG6 Standard delivery times:

10 working days

20 working days

On request

Selection a	nd ordering	g data															
Types of const	truction	Type	Addi-	Motor category		Stand	ard de	livery ti	me (co	olored a	area)						
		of	tional	Motor	Motor	Motor	type -	- Fram	e size								
		con- struc- tion code 12th	identifi- cation code with order	version	type (cast- iron)	100	112	132	160	180	200	225	250	280	315 S/M	315 L 2- pole	315 L 4-pole, 6-pole, 8-pole
		posi- tion of Order No.	code and plain text if required	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							
				Motor version	Motor type			132	160	180	200	225	250	280	315 S/M	315 L 2- pole	315 L 4-pole, 6-pole,
	L																8-pole
Without flang IM B3 <sup>6)</sup>	e	0					_		_	0	_	_	_	_	_	_	
IIVI D3 %		0	-							_			U		u		
IM B6, IM B7, IM B8 1) 2) 6)		0	-			_		_	_				_		0	0	
IM V6 1)2)4)6)	I A	0	-	All except for 4 ≤	200 hp											-	-
		9	M1E			_	-	-	-	-	-	-	-	-	-	<b>√</b>	0
IM V5 with protective cover 1) 2) 3) 4) 6)		9	M1F	All except for 4 ≤	200 hp	<b>√</b>	<b>√</b>	1	1	<b>√</b>	<b>√</b>	<b>√</b>	✓	✓	✓	1	1
With flange			DIN EN 5											FF500 A 550		FF600 A 660	FF600 A 660
IM B5		1	- -	All	All	✓	√ Z30	✓	✓	✓ ×	✓ ·	√ ·	✓ ×	√ ×	✓	-	-
IM V3 <sup>1) 5)</sup>		1	_	All	All	1	1	1	1	_	_	_	_	_	_	_	_
		9	M1G	All	All	-	-	-	-	1	✓	✓	1	✓	<b>√</b>	-	-
IM V1 with protective cover 1) 3) 4) 5)		4	-	All	All	1	<b>√</b>	<b>√</b>	<b>√</b>	1	✓	1	<b>√</b>	✓	<b>√</b>	1	<b>√</b>
IM B35 <sup>6)</sup>		6	-	All except for ④ ≤	200 hp	1	1	1	1	1	1	1	1	1	1	1	1

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

andard delivery times:

Supplements to order numbers and special versions

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

10 20 On working days request

Type Types of construction Addi-Motor category Standard delivery time (colored area) tional Motor type - Frame size identificonstruccation 180 250 280 tion code iron) code with 12th orde nosicode 1LA6 ① tion of and plain Order text if No required 1LG6 ③ Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy 1LG6 (4) Motor Motor Frame size version type 100 112 132 160 180 200 225 250 280 315 315 L 315 L S/M 2. 4-pole, pole 6-pole, 8-pole 1L . . . . . - . . . . . With standard flange IM B14, IM V19<sup>(1)</sup> IM B14, IM V19<sup>(1)</sup> 2 ΑII ΑII IM V18 with М2Δ ΛⅡ ΑII a protective cover 1) 3) 년년 IM B34 <sup>6)</sup> With special flange IM B14, IM V19<sup>(1)</sup> 3 All IM B14. 3 ΑII IM V19<sup>'1)</sup> IM V18 with M2B ΔII q protective cover 1) 3) 너닌

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

M2C

9

- ✓ With additional charge
- Not possible

IM B34 <sup>6)</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.
- 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.
- 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

Aluminum series 1MA7

Standard delivery times:

10 working days

20 working days

On request

### Selection and ordering data

Selection and ordering data														
Special versions	Additional	Motor catego	ry	Stand	ard deli	ivery tim	e (colo	red area	a)					
	identification code <b>-Z</b> with	Motor	Motor	Moto	r type –	Frame	size							
	order code	version	type (alum.)	63	71	80	90	100	112	132	160	180	200	225
	and plain text if required	Zone 1 Ex e I		1MA7		00	30	100	112	102	100	100	200	ZZJ
		Motor	Motor	Frame										
1MA7	Z	version	type	63	71	80	90	100	112	132	160	180	200	225
Design for Zones according to ATEX	(			_										
T1/T2 on rating plate 1)	C30	All	All	-	-	-	-	-	-	0	0			
Motor protection	0.44	All	All	,	,	,	,	,	,	,	,			
Motor protection with PTC thermistors with 3 embedded temperature sensors for tripping <sup>2)</sup>		All	All	<b>√</b>	✓ 	<b>√</b>	•	✓ 	<b>√</b>	<b>√</b>	<b>√</b>			
Motor protection with PTC thermistors with 6 embedded temperature sensors for alarm and tripping <sup>2)</sup>	A12	All	All	<b>√</b>	1	<b>√</b>	1	1	1	<b>√</b>	1			
Motor connection and connection b	ох													
Connection box on RHS	K09	All	All	-	-	✓	✓	✓	✓	✓	✓			
Connection box on LHS	K10	All	All	-	-	✓	✓	✓	✓	✓	✓			
Rotation of the connection box through 90°, entry from DE	K83	All	All	✓	✓	1	✓	✓	✓	✓	✓			
Rotation of the connection box through 90°, entry from NDE	K84	All	All	1	1	1	✓	1	1	1	✓			
Rotation of the connection box through 180°	K85	All	All	✓	✓	✓	<b>√</b>	0	0	0	0			
Windings and insulation														
Increased air humidity/temperature with 30 to 60 g water per m <sup>3</sup> of air	C19	All	All	1	1	1	1	1	1	1	✓			
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 45 °C, derating approx. 4 % 3)	C22	All	All	1	1	1	✓	1	1	1	1			
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 50 °C, derating approx. 8 % 3)	C23	All	All	1	1	1	✓	1	1	1	1			
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 55 °C, derating approx. 13 % <sup>3)</sup>	C24	All	All	<b>√</b>	<b>√</b>	✓	1	1	<b>√</b>	<b>√</b>	<b>✓</b>			
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 60 °C, derating approx. 18 % <sup>3)</sup>	C25	All	All	1	1	1	✓	<b>√</b>	1	✓	1			
Increased air humidity/temperature with 60 to 100 g water per m <sup>3</sup> of air	C26	All	All	✓	1	1	1	1	1	✓	1			
Colors and paint finish		A.U.	All		_	_	_	_	_	_	_			
Special finish in RAL 7030 stone gray Special finish in other standard RAL	<b>Y54 •</b> and	All All	All							<u> </u>				
Special limits 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")	special finish RAL	All	All	V	•	•	<b>V</b>	•	V	•	•			
Special finish in special RAL colors: For RAL colors, see "Special finish in special RAL colors" in Catalog	Y51 • and special finish RAL	All	All	1	1	1	1	1	1	1	1			
D 81.1 · 2008 Part 0 "Introduction"	M91	All	All	O D	O B	O D	O. R.	O D	O. R.	O. R.	O. R.			
Special paint for use offshore Unpainted (only cast-iron parts	M91 K23	All	All	O. R.	O. R.	0. R.	0. R.	0. R.	O. R.	O. R.	0. R. 0			
primed)														
Unpainted, only primed	K24	All	All	✓	✓	✓	✓	✓	✓	✓	✓			
Mechanical design and degrees of p	K17	All	All	1	,	,	/	,	/	,	-			
Drive-end seal for flange-mounting motors, oil-tight to 0.1 bar (not possible for IM V3 type of construction)				<b>V</b>	✓ 	<b>√</b>	•	✓ 	•	<b>√</b>	<b>/</b>			
Low-noise version for 2-pole motors with clockwise direction of rotation <sup>4)</sup>	K37	All	All	-	-	-	-	-	-	✓	✓		_	
Low-noise version for 2-pole motors with counter-clockwise direction of rotation <sup>4)</sup>	K38	All	All	-	-	-	-	-	-	1	1			
IP65 degree of protection	K50	All	All	<b>√</b>	✓	✓	1	✓	✓	✓	1			
IP56 degree of protection	K52	All	All	1	✓	✓	✓	✓	✓	✓	✓			
Vibration-proof version	L03	All	All	1	<b>✓</b>	/	1	<b>✓</b>	<b>✓</b>	<b>√</b>	/			
Condensation drainage holes 5)	L12	All	All	1	✓	<b>√</b>	1	<b>√</b>	<b>√</b>	√ 	1			
Rust-resistant screws (externally)	M27	All	All		-	✓	✓	✓	✓	✓	✓			

10 working days

20 working days

On request

# SIMOTICS XP 1MA Explosion-Proof Motors Supplements to order numbers and special versions

Options Aluminum series 1MA7

Special versions	Additional identification	Motor categ					,	ored area	a)					
	code -Z with	Motor version	Motor type	Moto	r type -	- Frame	e size							
	order code		(alum.)	63	71	80	90	100	112	132	160	180 2	200	225
	and plain text if required	Zone 1 Ex e		1MA		00	90	100	112	132	100	100 2	200	225
	roquou	Motor	Motor		e size									
1MA7	-7	version	type	63	71	80	90	100	112	132	160	180 2	200	225
Coolant temperature and site altitude		_	71	03	7 1	00	90	100	112	132	100	100 2	200	223
Coolant temperature –40 to +40 °C	D19	All	All	1	/	/	/	/	/	/	/			
for Ex motor <sup>6)</sup>	Dia	All	All	ľ	•	•	•	•	•	•	•			
Designs in accordance with standar	rds and specifi	cations												
CCC China Compulsory Certification 7)	D01	All	All	1	1	1	1	_	_	_	_			
Ex certification for Russia	D35 New!	All	All	1	1	/	1	1	1	1	/			
VIK version	K30	All	All	1	1	1	1	1	1	1	1			
Bearings and lubrication														
Bearing design for increased	K20	All	All	-	_	_	_	1	1	1	1			_
cantilever forces														
Regreasing device	K40	All	All	-	-	-	-	1	1	1	1			
Located bearing DE	K94	All	All	1	1	1	1	1	1	1	1			
Located bearing NDE	L04	All	All	1	✓	1	1	1	✓	1				
Balance and vibration quantity														
Vibration quantity level A		All	All								_			
Vibration quantity level B	K02	All	All	1	✓	✓	✓	1	✓	✓	✓			
Full-key balancing	L68	All	All	1	1	1	1	1	1	1	1			
Balancing without key	M37	All	All	1	✓	1	/	1	✓	✓	1			
Shaft and rotor														
Concentricity of shaft extension,	K04	All	All	1	1	1	1	1	1	1	1			
coaxiality and linear movement in														
accordance with DIN 42955 Tolerance R for flange-mounting motors 8)														
Second standard shaft extension 9)	K16	All	All	1	1	1	1	1	1	1	1			
Shaft extension with standard	K42	All	All	1	1		1	1	1	1	1			
dimensions, without feather keyway					•	•								
Concentricity of shaft extension in	L39	All	All	1	1	✓	✓	✓	1	1	✓			
accordance with DIN 42955 Tolerance R														
Non-standard cylindrical shaft	<b>Y55 •</b> and	All	All	1							/			
extension 10)	identification	7 (II	7 MI		•	•	•	•	•	•	•			
	code													
Heating and ventilation												_		
Metal external fan	K35	All	All	-	-	-	-	✓	1	1	1			
Rating plate and extra rating plates												_		
Second lubrication plate, loose	B06	All	All	-	-	-	-	✓	✓	✓	✓			
Second rating plate, loose	K31	All	All	1	1	1	1	1	1	1	1			
Extra rating plate or rating plate with	<b>Y80</b> • and	All	All	1	1	1	1	1	1	1	1			
deviating rating plate data	identification code													
Extra rating plate with identification	<b>Y82</b> • and	All	All	1	/	/	/	/	1	1	1			
codes	identification		. ""											
	code													
Additional information on rating plate and on package label	Y84 • and identification	All	All	1	✓	✓	✓	1	✓	✓	1			
(max. 20 characters)	code													
Packaging, safety notes, documenta		certificates												
Acceptance test certificate 3.1 in	B02	All	All	1	1	1	/	1	/	/	1			
accordance with EN 10204 11)														
Printed German/English Operating	B23	All	All	1	✓	✓	✓	1	✓	✓	1			
Instructions enclosed	4/	A II	A.II					_	_	_				
Printed Operating Instructions (Compact) for explosion-proof motors	New!	All	All											
enclosed in English and German 12)														
Printed Operating Instructions	B25 New!	All	All	1	1	1	/	1	/	1	1			
(Compact) for explosion-proof motors														
enclosed in French, Spanish, Italian and Czech <sup>12</sup> )														
Printed Operating Instructions	B26 New!	All	All	1	/	/	/	/	/	/	/			
(Compact) for explosion-proof motors	Ivew!	- "	7 111				·							
enclosed in Swedish, Danish, Dutch and Finnish <sup>12)</sup>														
Printed Operating Instructions	Y98 • New!	ΔII	All	1	1	/	/	1	1	1	1			
(Compact) for explosion-proof motors		All	All		•	•	•	•	•	•	•			
enclosed in other official EU lan-	identification													
guages 12)	code													
Wire-lattice pallet	L99	All	All	0	0	0	0	0	0	0	0			

## 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.
- O. 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.
- 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 ≤ 2.2 kW
  - 4-pole motors ≤ 1.1 kW
  - 6-pole motors ≤ 0.75 kW8-pole motors ≤ 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).
- 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 ≤ internal diameter of roller bearing (see dimension tables under "Dimensions")

- Dimensions E and EA  $\leq$  2 x length E (normal) of the shaft extension For an explanation of the order codes, see Catalog D 81.1  $\cdot$  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

10 working days

20 working days

On request

# SIMOTICS XP 1MA Explosion-Proof Motors Supplements to order numbers and special versions

Cast-iron series 1MA6

### Selection and ordering data

Selection and ordering data														
Special versions	Additional	Motor cate	egory	Standard	delive	ry time	(color	ed area	ι)					
	identification code <b>-Z</b> with	Motor version	Motor type	Motor typ	oe – Fr	ame s	ize							
	order code and plain text if	Version	(cast- iron)	71 80 90	100	112	132	160	180	200	225	250	280	315
	required	Zone 1 Ex e II	1MA6		1MA6	5								
	_	Motor version	Motor type	Frame siz										
1MA6		VEISIOIT	туре	71 80 90	100	112	132	160	180	200	225	250	280	315
Design for Zones according to ATEX T1/T2 on rating plate 1)	C30	All	All				0	0	_					
Motor protection	C30	All	All		_	_	O	U	_	_	_	_	_	_
Motor protection with PTC thermistors with 3 embedded temperature sensors for tripping <sup>2)</sup>	A11	All	All		✓	1	1	1	1	1	1	1	1	<b>✓</b>
Motor protection with PTC thermistors with 6 embedded temperature sensors for alarm and tripping 2)	A12	All	All		1	1	1	✓	<b>√</b>	1	1	1	1	✓
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.
Motor connection and connection b														
Connection box on RHS	K09	All	All		✓	✓	✓	✓	✓	✓	✓	1	1	1
Connection box on LHS	K10	All	All		✓	<b>√</b>	<b>√</b>	✓	/	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Connection box in cast-iron version	K15	All	All						<b>√</b>	<u>√</u>		<u> </u>		
Rotation of the connection box through 90°, entry from DE	K83	All	All		✓	1	1	1	1	1	1	✓	1	✓
Rotation of the connection box through 90°, entry from NDE	K84	All	All		1	1	1	1	1	1	1	1	<b>√</b>	1
Rotation of the connection box through 180°	K85	All	All		✓	✓	✓	1	✓	✓	✓	1	✓	✓
Next larger connection box	L00	All	All		-	-	-	-	✓	✓	<b>✓</b>	1	✓	<b>√</b>
Auxiliary connection box 1XB3020	L97	All	All		-	-	-	-	-	-	/	1	1	1
Windings and insulation	010	All	AII		,	,	,	,	,	,				
Increased air humidity/temperature with 30 to 60 g water per m³ of air  Temperature class 155 (F), used acc.	C19	All	All		1	1	1	1	√ √	1	1	1	1	√ √
to 130 (B), coolant temperature 45 °C, derating approx. 4 % 3)					•	•	•	•	•		•	•		
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 50 °C, derating approx. 8 % <sup>3)</sup>	C23	All	All		✓	✓	✓	1	1	<b>√</b>	✓	✓	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 55 °C, derating approx. 13 % 3)	C24	All	All		1	1	1	1	✓	1	1	1	✓	✓
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 60 °C, derating approx. 18 % 3)	C25	All	All		1	1	1	1	<b>√</b>	1	1	1	1	<b>√</b>
Increased air humidity/temperature with 60 to 100 g water per m <sup>3</sup> of air	C26	All	All		1	✓	✓	1	1	<b>√</b>	1	✓	✓	✓
Colors and paint finish														
Standard finish in RAL 7030 stone gray		All	All		-	-	-	-	-	-	0	_	_	_
	Y53 • and standard finish RAL	All	All		-	-	-	_	_	-	✓	✓	<b>√</b>	✓
Special finish in RAL 7030 stone gray 4)	K26	All	All		0	0	0	0	0	0	✓	1	✓	1
2003, 2004, 3000, 3007, 5007, 5009,	<b>Y54 •</b> and special finish RAL	All	All		<b>√</b>	/	/	<b>√</b>	<b>√</b>	<b>√</b>	✓	<b>✓</b>	<b>√</b>	<b>/</b>

SIMOTICS XP 1MA Explosion-Proof Motors
Supplements to order numbers and special versions

Options Cast-iron series 1MA6

Standard delivery times:

10 working days

20 working days

On request

Cust non series final														
Special versions	Additional identification	Motor cat	· ,	Standard		_	`	ed area	a)					
	code -Z with	Motor version	Motor type	Motor typ	e – Fr	ame s	ize							
	order code and plain		(cast-	71 80 90	100	112	132	160	180	200	225	250	280	315
	text if	Zone 1	iron) 1MA6		1MA6									
	required	Ex e II	1101/10		TIVIAC									
		Motor	Motor	Frame siz	е									
1MA6	Z	version	type	71 80 90	100	112	132	160	180	200	225	250	280	315
Colors and paint finish (continued)														
Special finish in special RAL colors: For RAL colors, see "Special finish in	Y51 • and special	All	All		/	/	/	/	/	/	1	1	1	1
special RAL colors" in Catalog	finish													
D 81.1 · 2008 Part 0 "Introduction"	RAL	All	A II		0.0	O D	O D	0.0	O D	O D	0.0	0.0	0.0	0.0
Special paint for use offshore  Special finish sea air resistant	M91 M94	All All	All All		O. R. ✓	O. R. ✓	O. R. ✓	O. R. ✓	O. R. ✓	O. R. ✓	O. R. ✓	O. R. ✓	O. R. ✓	O. R. ✓
Unpainted (only cast-iron parts	K23	All	All		0	0	0	0	0	0	0	0	0	0
primed)	N25	Δ"	ΔII			O	O	0	J	O	O	O	O	O
Unpainted, only primed	K24	All	All		✓	✓	✓	✓	✓	✓	✓	✓	✓	1
Mechanical design and degrees of														
Drive-end seal for flange-mounting motors, oil-tight to 0.1 bar (not	K17	All	All		✓	✓	1	✓	1	1	1	1	✓	1
possible for IM V3 type of construc-														
tion; frame size 180 M and above only available for 4-pole to 6-pole motors)														
	K37	All	All		_	_	1	1	1	/	1	1	1	1
Low-noise version for 2-pole motors with clockwise direction of rotation <sup>5)</sup>		***	7 (11							·			•	
Low-noise version for 2-pole motors	K38	All	All		-	-	1	1	1	1	1	1	1	1
with counter-clockwise direction of rotation <sup>5)</sup>														
IP65 degree of protection	K50	All	All		/	/	/	/	1	1	1	1	1	1
IP56 degree of protection	K52	All	All		1	1	1	1	1	1	1	1	1	1
Vibration-proof version	L03	All	All		✓	1	1	-	-	-	-	-	-	-
Condensation drainage holes 6)	L12	All	All		✓	✓	✓	✓	✓	✓				
Rust-resistant screws (externally)	M27	All	All		1	1	1	✓	✓	✓	✓	1	✓	1
Coolant temperature and site altitude														
Coolant temperature -40 to +40 °C for Ex motor 7)	D19	All	All		✓	✓	1	/	✓	✓	✓	1	1	1
Designs in accordance with standa	rds and sneci	fications												
Ex certification for Russia	D35 New!	All	All		/	/	/	/	/	/	/	/	/	/
VIK version	K30	All	All		1	1	1	1	1	1	1	1	1	1
Bearings and lubrication														
Measuring nipple for SPM shock	G50	All	All		-	-	_	-	/	/	1	1	1	/
pulse measurement for bearing inspection														
Bearing design for increased	K20	All	All		1	/	/	/	1	/	/	/	/	/
cantilever forces 8)	0	<i>.</i>	<i>,</i>			•	•	•	•	•	•	•	•	•
Regreasing device	K40	All	All		✓	✓	✓	✓	✓	✓	✓	✓		
Located bearing DE	K94	All	All		✓	✓	✓	✓	✓	✓	-	-	-	-
Located bearing NDE	L04	All	All		/	✓	✓		-	-	-	-	-	-
Balance and vibration quantity		All	All		_	_	_	_	_	_	_	_	_	_
Vibration quantity level A Vibration quantity level B	K02	All All	All All			<u>□</u> ✓	<u>□</u>	<u>□</u> ✓	<u>□</u>		<u>□</u>	<u>□</u>	<u>□</u>	
Full-key balancing	L68	All	All		1	✓ ✓	✓ ✓	<b>✓</b>	✓ ✓	✓ ✓	✓ ✓	✓ ✓	<b>✓</b>	✓ ✓
Balancing without key	M37	All	All		1	<u>/</u>	<u>√</u>	<u>√</u>	<b>√</b>	<b>✓</b>	<u> </u>	1	1	1
Shaft and rotor	11107	7 (1)	7 (1)		•	•	•	•	•	•	•	•	•	•
Concentricity of shaft extension,	K04	All	All		1	/	/	/	/	/	/	1	1	/
coaxiality and linear movement in accordance with DIN 42955 Toler-														
ance R for flange-mounting motors 9)														
Second standard shaft extension 10)	K16	All	All		✓	1	1	✓	✓	✓	1	1	1	/
Shaft extension with standard	K42	All	All		✓	✓	✓	1	✓	1	1	1	1	1
dimensions, without feather keyway	1.20	All	AII		,	,	,	,	,	,	,	,	,	,
Concentricity of shaft extension in accordance with DIN 42955 Tolerance F	L39	All	All		✓	1	✓	1	1	1	1	✓	✓	✓
Non-standard cylindrical shaft	<b>Y55</b> • and	All	All		1	1	1	1	1	1	1	1	1	1
extension 11)	identification code													
Heating and ventilation	COGC													
Metal external fan	K35	All	All		/	/	/	1	1	/	1	/	1	/
Anti-condensation heating for 230 V	K45	All	All		_	-	-	-	_	_	1	<b>√</b>	<b>✓</b>	<b>✓</b>
Anti-condensation heating for 115 V	K46	All	All		-	-	-	-	-	_	1	1	1	1
Rating plate and extra rating plates														
Second lubrication plate, loose	B06	All	All		1	1	1	✓	1	1	1	1	1	1
Second rating plate, loose	K31	All	All		1	✓	✓	1	1	1	1	1	1	1
For legends and footnotes, see	Page 21.													
-	-													

10 working days 20 working days On request

## **SIMOTICS XP 1MA Explosion-Proof Motors**

## Supplements to order numbers and special versions

Options
Cast-iron series 1MA6

Special versions	Additional	Motor cat	egory	Standard	delive	ry time	e (colo	red are	a)					
	identification code <b>-Z</b> with	Motor version	Motor	Motor typ	e – F	rame s	size							
	order code and plain text if	version	type (cast- iron)	71 80 90	100	112	132	160	180	200	225	250	280	315
	required	Zone 1 Ex e II	1MA6		1MA	6								
1MA6	-Z	Motor version	Motor type	Frame size 71 80 90	_	112	132	160	180	200	225	250	280	315
Rating plate and extra rating plates				7 . 00 00	100		102	100	100	200	220	200	200	
Extra rating plate or rating plate with deviating rating plate data	<b>Y80</b> • and identification code	All	All		✓	✓	✓	1	1	1	1	1	✓	✓
Extra rating plate with identification codes	Y82 • and identification code	All	All		✓	1	1	1	1	1	1	✓	1	✓
Additional information on rating plate and on package label (max. 20 characters)	Y84 • and identification code	All	All		1	✓	✓	✓	1	1	1	✓	✓	✓
Packaging, safety notes, document	ation and test		es											
Acceptance test certificate 3.1 in accordance with EN 10204 12)	B02	All	All		✓	1	1	✓	✓	✓	✓	1	✓	✓
Printed German/English Operating Instructions enclosed	B23	All	All		✓	1	1	✓	✓	✓	✓	1	✓	✓
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in English and German <sup>13)</sup>	New!	All	All		-	_	_	_	-	-	0	0	0	0
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in French, Spanish, Italian and Czech <sup>13)</sup>	B25 New!	All	All		1	1	1	1	1	1	1	<b>√</b>	✓	<b>/</b>
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in Swedish, Danish, Dutch and Finnish 13)	B26 New!	All	All		1	1	1	✓	1	1	1	<b>√</b>	<b>√</b>	7
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in other official EU lan- guages <sup>13)</sup>	Y98 • New! and identification code	All	All		1	1	1	✓	1	1	1	<b>√</b>	✓	<b>/</b>
Wire-lattice pallet	L99	All	All		0	0	0	0	0	0	-	-	-	-

- Standard version
- Without additional charge
- This order code only determines the price of the version Additional plain text is required.
- O. R. Possible on request
- With additional charge
- Not possible
- 1) 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.
- 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.
- 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).
- 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 lownoise version (2-pole) for frame sizes 132 S to 160 L. Version with protective cover not possible.
- 1) 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 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

Cast-iron series 1MJ6, 1MJ7

10 working days

20 working days

Standard delivery times:

On request

### Coloction and ordering date

Selection and ordering	data															
Special versions	Additional	Motor ca					,	lored ar	ea)							
	identifica- tion	Motor version	Motor type	Moto	r type	– Fran	ne size									
	code <b>-Z</b> with order		(cast- iron)		00	00	400	440	100	100	400	000	005	050	000	0.45
	code and plain text if	Zone 1	1MJ6/	71 1MJ6	80	90	100	112	132	160	180	200	225 1MJ7	250	280	315
	required	Ex de IIC	1MJ7	111100									111107			
1MJ	-Z	Motor version	Motor type	Fram 71	e size 80	90	100	112	132	160	180	200	225	250	280	315
Design for Zones according							.00		102		100	200		200	200	0.0
Design (IP65) for Zone 1 and 21, as well as Zone 22 for conductive dust, for mainsfed operation 1)		All	All	1	✓	1	<b>✓</b>	1	1	1	1	<b>✓</b>	✓	✓	✓	✓
Design (IP65) for Zone 1 and 21, as well as Zone 22 for conductive dust, for converter-fed operation – with derating 1)  Motor protection	M77	All	All	<b>√</b>	<b>✓</b>	/	<b>√</b>	<b>✓</b>	✓	/	✓	<b>√</b>	1	<b>✓</b>	<b>√</b>	<b>√</b>
Motor protection with PTC	A11	All	All	1	1	1	1	1	1	1	1	1	1	1	<b>√</b>	1
thermistors with 3 embedded temperature sensors for tripping <sup>2)3)</sup>																
Motor protection with PTC thermistors with 6 embedded temperature sensors for alarm and tripping <sup>2) (3) (4)</sup>	A12	All	All	1	✓	1	<b>✓</b>	1	1	1	1	<b>✓</b>	✓	<b>√</b>	✓	✓
Motor protection with PTC thermistors for converter-fed operation with 4 embedded temperature sensors for tripping <sup>2) 3)</sup>	A15	All	All	<b>√</b>	✓	<b>√</b>	<b>√</b>	1	<b>√</b>	1	<b>√</b>	<b>√</b>	1	1	<b>√</b>	✓
Motor protection with PTC thermistors for converter-fed operation with 8 embedded temperature sensors for alarm and tripping 2) 3) 4)	A16	All	All	V	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	<b>√</b>	<b>√</b>	1	<b>√</b>	<b>√</b>
Installation of 2 PT100 screw- in resistance thermometers in basic circuit for rolling-con- tact 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-con- tact bearings <sup>2)</sup>	A78	All	All	-	-	-	-	-	-	-	-	-	O. R.	O. R.	O. R.	O. R.
Motor connection and connection		AII	AII			,	,				,	,		,		
Connection box on RHS Connection box on LHS	K09 K10	All All	All All	_	_	1	1	1	1	1	1	1	√ √	1	√ √	√ ✓
Connection box in cast-iron	K15	All	All	1	1	<b>√</b>	✓	<b>✓</b>	<b>√</b>	<b>√</b>	1	<b>√</b>	0	<u> </u>		
Explosion-proof connection box, Ex d IIC type of protec-	K53	All	All	1	1	1	1	1	1	1	1	1	1	<b>✓</b>	<b>✓</b>	<b>√</b>
Rotation of the connection box through 90°, entry from	K83	All	All	1	1	<b>√</b>	1	<b>√</b>	<b>√</b>	<b>√</b>	1	1	1	<b>✓</b>	1	1
DE Rotation of the connection box through 90°, entry from NDE	K84	All	All	<b>√</b>	✓	✓	<b>√</b>	<b>√</b>	<b>√</b>	✓	1	1	1	<b>✓</b>	1	<b>✓</b>
Rotation of the connection	K85	All	All	0	0	0	0	0	0	0	0	0	0	0	0	0
box through 180°  Auxiliary connection box 1XB3020 7)	L97	All	All	-	-	-	-	-	-	-	-	-	✓	✓	✓	✓
Saddle terminal for	M47	All	All	-	_	_	_	_	_	_	_	_	_	<b>√</b>	<b>√</b>	<b>√</b>
connection without cable lug, accessories pack (3 items of high saddle terminals) Windings and insulation																
Increased air humidity/	C19	All	All	1	1	1	1	1	/	1	1	1	1	1	1	✓
temperature with 30 to 60 g water per m <sup>3</sup> of air <sup>8) 9) 10) Temperature class 155 (F),</sup>	C22	All	All	1	J	ſ	/	1	1	1	1	<b>√</b>	1	1	1	1
used acc. to 130 (B), coolant temperature 45 °C, derating approx. 4 % 11)						•	•									
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 50 °C, derating approx. 8 % 11)	C23	All	All	✓	<b>√</b>	✓	1	✓	<b>√</b>	<b>√</b>	✓	/	1	<b>√</b>	<b>√</b>	<b>√</b>

10 working days

20 working days

On request

SIMOTICS XP 1MJ Explosion-Proof Motors
Supplements to order numbers and special versions

uays												Cas	st-iron	series	1MJ6	, 1MJ7
Special versions	Additional	Motor ca	ategory	Stanc	lard de	elivery t	time (cc	lored a	rea)							
	identifica- tion	Motor	Motor	_			ne size									
	code <b>-Z</b> with order	version	(cast-													
	code and plain text if	Zone 1	iron) 1MJ6/	71 1MJ6	80	90	100	112	132	160	180	200	225 1MJ7	250	280	315
	required	Ex de	1MJ7	TIVIJO												
		Motor	Motor	Frame	e size											
1MJ		version	type	71	80	90	100	112	132	160	180	200	225	250	280	315
Windings and insulation (co Temperature class 155 (F),	c24	All	All	1	/	/	/	/	/	/	/	/	1	/	/	1
used acc. to 130 (B), coolant temperature 55 °C, derating approx. 13 % 11)																
Temperature class 155 (F), used acc. to 130 (B), coolant temperature 60 °C, derating approx. 18 %	C25	All	All	1	1	1	✓	1	1	1	✓	1	✓	<b>√</b>	<b>√</b>	<b>✓</b>
Increased air humidity/ temperature with 60 to 100 g water per m <sup>3</sup> of air 8) 9) 10)	C26	All	All	✓	1	✓	✓	1	✓	✓	✓	1	1	✓	<b>√</b>	✓
Temperature class 155 (F), used acc. to 130 (B), with higher coolant temperature and/or site altitude	Y50 • and specified output, CT °C or SA m above sea level	All	All	<b>V</b>	1	√	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	1	<b>√</b>	<b>√</b>	1
Colors and paint finish Standard finish in RAL 7030		All	All	-	-	-	-	-	-	-	-	-	0	0	0	0
Standard finish in other	<b>Y53</b> • and	All	All	-	-	-	-	-	-	-	-	-	1	1	1	<b>✓</b>
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")	standard finish RAL															
Special finish in RAL 7030 stone gray <sup>12</sup> )	K26	All	All	_		0	0	_	_	0		_	1	1	1	✓
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	<i>y</i>	<b>√</b>	1	<b>V</b>	1	1	/	<b>y</b>	1	<b>✓</b>	1	<b>√</b>	<b>✓</b>
Special finish in special RAL colors: For RAL colors, see "Special finish in special RAL colors" in Catalog D 81.1	Y51 • and special finish RAL	All	All	√	1	<b>√</b>	1	1	1	1	1	1	✓	✓	1	<b>√</b>
2008 Part 0 "Introduction"  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.	O. R.
Special finish sea air resistant	M94	All	All	1	1	1	✓	1	1	1	1	✓	1	1	1	✓
Unpainted (only cast-iron parts primed)	K23	All	All	0	0	0	0	0	0	0	0	0	0	0	0	0
Unpainted, only primed	K24	All	All	✓	✓	✓	1	/	1	1	1	1	1	1	1	✓
Mounting of explosion-proof rotary pulse encoder for use on motors Ex d/de in Zone 1 13)	H87	All	All	-	-	1	1	1	✓	1	1	✓	✓	<b>✓</b>	✓	<b>✓</b>
Mounting of explosion-proof separately driven fan Ex de for use in Zone 1 14)	M98	All	All	-	-	-	-	-	-	-	-	-	<b>√</b>	<b>√</b>	1	✓
Mechanical design and degree 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)	K17	ection All	All	<b>✓</b>	<b>✓</b>	1	<b>√</b>	1	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>√</b>	1	<b>√</b>	<b>√</b>
Low-noise version for 2-pole motors with clockwise direction of rotation <sup>15)</sup>	K37	All	All	-	-	-	-	-	1	1	1	1	✓	1	1	<b>√</b>

SIMOTICS XP 1MJ Explosion-Proof Motors
Supplements to order numbers and special versions

Options Cast-iron series 1MJ6, 1MJ7

Standard delivery times:

10 working days 20 working days

On request

Special versions	Additional	Motor ca	ategory	Stan	dard d	elivery	time (co	olored a	ırea)							
•	identifica- tion	Motor version	Motor	_			me size		,							
	code <b>-Z</b> with order		(cast-iron)	-4	00	00	400	440	400	400	400	000	005	050	000	045
	code and plain text if	Zone 1	1MJ6/	71 1MJ	<b>80</b> 6	90	100	112	132	160	180	200	225 1MJ7	250	280	315
	required	Ex de IIC	1MJ7													
4M I	-	Motor version	Motor type	Fram 71	ne size 80	00	100	110	100	100	100	200	005	050	200	015
1MJ Mechanical design and deg					80	90	100	112	132	160	180	200	225	250	280	315
Low-noise version for 2-pole motors with counter-clock-	K38	All	All	-	-	-	-	-	1	1	1	1	1	✓	✓	✓
wise direction of rotation <sup>15)</sup>																
IP65 degree of protection <sup>16)</sup> IP56 degree of protection <sup>17)</sup>	K50 K52	All All	All	√ √	1	1	✓ ✓	1	1	1	1	1	1	1	1	√ √
Vibration-proof version	L03	All	All	<b>√</b>	✓ ✓	1	✓ ✓	✓ ✓	<b>✓</b>	<b>✓</b>	_	_	_	_	_	_
Mechanical protection for encoder 18)	M68	All	All	-	-	-	-	-	-	-	1	1	1	✓	✓	✓
Designs in accordance with	standards		ificatio	ns												
CCC China Compulsory Certification <sup>20)</sup>	D01	All	All	✓	1	1	-	-	-	-	-	-	-	-	-	-
Ex certification for China <sup>20)</sup>	D32	All	All	<b>√</b>	1	1	✓	✓	1	1	✓	✓	<b>√</b>	✓	✓	1
China Energy Efficiency Label <sup>20)</sup>	D34 New!	All	All	0	0	0	0	0	0	0	0	0	0	0	0	0
Ex certification for Russia	D35 New!	All	All	1	1	1	✓	1	✓	1	1	1	1	✓	✓	1
VIK version	K30			✓	1	1	✓	✓	✓	✓	✓	✓	1	✓	1	<b>√</b>
Bearings and lubrication																
Measuring nipple for SPM shock pulse measurement for bearing inspection	G50	All	All	-	-	-	-	-	-	-	1	1	✓	1	1	1
Bearing design for increased cantilever forces <sup>21</sup> )	K20	All	All	-	-	-	-	-	-	-	1	1	1	<b>√</b>	-	-
Regreasing device	K40	All	All	-	-	-	-	-	-	-	1	1	1	<b>√</b>	0	
Insulated bearing cartridge	L27	All	All	-	-	-	-	-	-	-	-	-	✓	✓	✓	1
Balance and vibration quan Vibration quantity level A	tity	All	All		_	_	_	_	_	_	_	_		_	_	_
Vibration quantity level B	K02	All	All	<u></u>	/	<i>-</i>	<i>-</i>	/	/	/	/	/	<b>√</b>	_ ✓	_ ✓	<u> </u>
Full-key balancing	L68	All	All	1	/	/	<b>√</b>	/	/	✓	/	/	1	✓	<b>√</b>	<b>√</b>
Balancing without key Shaft and rotor	M37	All	All	✓	✓	✓	<b>√</b>	<b>✓</b>	✓	/	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>	✓	✓
Concentricity of shaft extension, coaxiality and linear movement in accordance with DIN 42955 Tolerance R for flange-mounting motors <sup>22</sup> )	K04	All	All	-	-	-	-	-	-	-	1	1	1	1	1	1
Second standard shaft extension <sup>23</sup> )	K16	All	All	1	<b>√</b>	<b>√</b>	1	1	1	1	1	1	1	1	<b>✓</b>	✓
Concentricity of shaft	L39	All	All	-	-	-	-	-	-	-	1	1	1	<b>√</b>	<b>√</b>	<b>√</b>
extension in accordance with DIN 42955 Tolerance R		All	A.II.										0.0	0.0	0.0	0.0
Non-standard cylindrical shaft extension <sup>24</sup> )	Y55 • and identification code	All	All	_	_	_	_	_	_	_	_	_	O. R.	O. R.	O. R.	O. R.
Heating and ventilation  Metal external fan	K35	All	All				,	,	,	,	,	,	1		,	,
Anti-condensation heating	K45	All	All	<u>-</u> ✓			✓ ✓	1	1	1	1	1	√ √	✓ ✓	✓ ✓	✓ ✓
for 230 V <sup>8) 9)</sup> Anti-condensation heating	K46	All	All	1	/	<b>/</b>	/	/	1	1	/	/	1	1	1	<b>√</b>
for 115 V 8) 9) Separately driven fan with	<b>Y81</b> • and	All	All	_	_	_	_	_	_	_	_	_	1	1	1	J
non-standard voltage and/or frequency  Rating plate and extra rating	identifica- tion code	· '''	· · · ·													
Second lubrication plate,	B06	All	All	-	_	_	_	_	_	_	/	/	1	1	/	1
loose Second rating plate, loose	K31	All	All	1	/	<b>√</b>	1	1	1	1	1	1	1	<b>√</b>	1	<b>√</b>
Extra rating plate or rating plate with deviating rating	Y80 • and identifica-	All	All	1	1	1	1	1	1	1	1	1	1	1	1	1
plate data  Extra rating plate with	tion code	All	All	<b>√</b>	/	/	/	/	/	/	/	/	1	/	1	<b>/</b>
identification codes	identifica- tion code									•						
Additional information on rating plate and on package label (max. 20 characters)	tion code	All	All	1	✓	1	1	1	1		1	1	1	/	1	✓
For legends and footnote	es, see Pa	ge 25.														

10 working days 20 working days On request

## **SIMOTICS XP 1MJ Explosion-Proof Motors**

Supplements to order numbers and special versions

Options Cast-iron series 1MJ6. 1MJ7

O 'alia	A =1 =150	· · · · - 1	* 4 - 4 - 11 - 1		04	Level et	C			- \							
Special versions	Addit		Motor ca	0 ,				,	lored ar	ea)							
	tion code with c	-Z	Motor version	Motor type (cast- iron)						100	100		200				
	code plain requir	text if	Zone 1 Ex de IIC	1MJ6/ 1MJ7	71 1MJ6	<b>80</b> 6	90	100	112	132	160	180	200	225 1MJ7	250	280	315
1MJ			Motor version	type	71	80	90	100	112	132	160	180	200	225	250	280	315
Packaging, safety notes, do					cates												
Acceptance test certificate 3.1 in acc. with EN 10204 <sup>25</sup> )	B02		All	All	1	1	1	1	1	1	1	1	1	1	1	1	✓
Printed German/English Operating Instructions enclosed	B23		All	All	<b>√</b>	1	<b>√</b>	1	1	1	1	1	1	1	1	1	1
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in English and German <sup>26</sup> )		New!	All	All	_	0	0	0	0	0	0	0	0	0	0	0	0
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in French, Spanish, Italian and Czech <sup>26</sup> )		New!	All	All	1	1	<b>√</b>	√	1	1	1	1	1	<b>√</b>	1	<b>√</b>	<b>√</b>
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in Swedish, Danish, Dutch and Finnish <sup>26</sup> )		New!		All	1	J	<b>√</b>	1	1	1	1	1	1	✓	<b>√</b>	<b>√</b>	<b>✓</b>
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in other official EU languages <sup>26</sup> )			All	All	1	J	<b>√</b>	1	1	1	1	1	<b>√</b>	✓	<b>√</b>	<b>√</b>	<b>✓</b>
Wire-lattice pallet	L99		All	All	0	0	0	0	0	0	0	0	0	-	-	-	-

- Standard version
- Without additional charge
- This order code only determines the price of the version Additional plain text is required.
- Please inquire regarding combination with order code M98. Not possible in combination with order codes D32, K50 and K52.
- Evaluation with appropriate 3RN1 tripping unit (see Catalog IC 10) is recommended. A certified tripping unit is necessary for use in hazardous areas.
- 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.
- 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 codes 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.

- O. R. Possible on request
- ✓ With additional charge
- Not possible
- 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 x 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/WW/view/en/10803948/133300

SIMOTICS XP 1LA Explosion-Proof Motors
Supplements to order numbers and special versions

Aluminum series 1LA7, 1LA5, 1LA9

Standard delivery times:

10 working days

20 working days

On request

### Coloction and audoring data

Selection and ordering da	ata													
Special versions	Additional identification	Motor category					,	ored are	a)					
	code <b>-Z</b> with order code	Motor version	Motor type	Motor 63	r type - 71	- Frame 80	e size 90	100	112	132	160	180	200	225
	and plain text if required	Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	<b>(alum.)</b> 1LA7	1LA7								1LA5		
		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	4									
1LA	Z	Motor version	Motor type	Frame	e size 71	80	90	100	112	132	160	180	200	225
Design for Zones according to	ATEX <sup>2)</sup>													
Design for Zone 2 for mains-fed operation Ex nA II T3 according to IEC/EN 60079-15 3)	M72	All	All	<b>√</b>	1	✓	✓	✓	1	1	1	-	-	-
Design for Zone 2 for converter- fed operation, with derating Ex nA II T3 according to IEC/EN 60079-15 3)4)5)	M73	All	All	<b>√</b>	<b>√</b>	1	1	<b>√</b>	1	1	1	-	-	-
Design (IP55) for Zone 2 and 22, for non-conductive dust, for mains-fed operation 6)	M74	All	All	1	1	1	1	1	1	1	1	-	-	-
Design (IP55) for Zone 2 and 22, for non-conductive dust, for converter-fed operation, with derating 4) 5) 6)	M75	All	All	✓	1	1	1	<b>V</b>	1	1	√	-	-	-
Design for Zone 21, as well as Zone 22 for conductive dust (IP65) for mains-fed operation 7)	M34	All	All	1	✓	1	1	1	1	1	1	1	1	1
Design for Zone 21, as well as Zone 22 for conductive dust (IP65) for converter-fed operation, with derating 3) 5) 7)	M38	All	All	V	1	1	1	1	1	1	1	1	1	1
Design for Zone 22 for non- conductive dust (IP55), for mains-fed operation	M35	All	All	1	<b>√</b>	1	1	1	1	1	✓	1	1	1
Design for Zone 22 for non- conductive dust (IP55), for converter-fed operation, with derating <sup>3) 5)</sup>	M39	All	All	<b>✓</b>	1	1	1	✓	1	1	1	1	1	<b>√</b>
VIK version (comprises Zone 2 for mains-fed operation, without Ex nA II marking on rating plate)	K30	Only possible for 8-pole motors an < 0.75 kW		1	✓	1	1	1	1	1	1	-	-	-
Ex nA II on VIK rating plate	C27	Only possible for 8-pole motors an < 0.75 kW		1	1	1	1	1	1	1	✓	-	-	-
Alternative converter (SIMOVERT MASTERDRIVES, SINAMICS G110, SINAMICS G120, SINAMICS S120 or ET 200S FC)	Y68 • and converter type	All	All	0	0	0	0	0	0	0	0	0	0	0
Motor protection	A40	0-1												
With PTC thermistors for alarm for converter-fed operation in Zones 2, 21, 22 9)	A10	Only possible for 4		<i>y</i>	<b>√</b>	<i>\</i>	<b>√</b>	✓	1	1	<i>\</i>	√	<i>\</i>	_
Motor protection with PTC thermistors with 3 embedded temperature sensors for tripping <sup>9)</sup>	A11	All	All	<b>V</b>	1	1	<b>√</b>	<b>√</b>	1	1	1	1	1	<b>/</b>
Motor protection with PTC thermistors with 6 embedded temperature sensors for alarm and tripping <sup>9)</sup>	A12	All	All	<b>√</b>	<b>√</b>	1	<b>V</b>	<b>√</b>	1	1	1	√	1	<b>√</b>
Motor temperature detection with embedded temperature sensor KTY 84-130 9)	A23	All	All	✓	1	<b>√</b>	<b>√</b>	1	1	1	✓	<b>√</b>	1	1
Motor temperature detection with embedded temperature sensors 2 x KTY 84-130 9)	A25	All	All	1	1	1	1	1	1	1	1	1	1	1
Installation of 3 PT100 resistance thermometers <sup>9) 10)</sup>	A60	All	All	-	-	-	-	1	1	1	✓	1	1	1

10 working days 20 working days On request

## **SIMOTICS XP 1LA Explosion-Proof Motors**

Supplements to order numbers and special versions

Options
Aluminum series 1LA7, 1LA5, 1LA9

Special versions Additional Motor category Standard delivery time (colored area) identification Motor Motor Motor type - Frame size code **-Z** with type (alum.) 160 RΠ 100 180 200 225 order code and plain text Zone 2 Ex nA II, Zone 21/22 Ex tD E1 Standard 1LA7 ① 1LA5 ② <sup>1)</sup> if required 1LA9 ③ Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy 1LA9 (4) Motor Motor Frame size version type 1LA . . . . - . . . . - Z 63 71 an 160 225 RΛ 100 112 132 180 200 Motor connection and connection box Connection box on RHS K09 ΔII Connection box on LHS K10 ΑII One metal cable gland 11) ΑII ΑII K54 One metal cable gland, certified according to ATEX 8) J04 ΑII Cable gland, max. configura-K55 ΔII O. R O B O. R. O. R. O. R. O. R O. R. O. R. O. R  $\cap$  R O. R tion, certified according to ATEX AII All Rotation of the connection box through 90°, entry from DE All Rotation of the connection box K84 through 90°, entry from NDE Rotation of the connection box K85 All ΔΙΙ  $\cap$ 0 through 180° ΑII Next larger connection box L00 ſ All ΑII External grounding L13 п п Windings and insulation Increased air humidity/ C19 All / temperature with 30 to 60 g water per m<sup>3</sup> of air Temperature class 155 (F). C22 All All used acc. to 130 (B), coolant temperature 45 °C, derating approx. 4 % <sup>12)</sup> Temperature class 155 (F), C23 ΔII ΔII used acc. to 130 (B), coolant temperature 50 °C, derating approx. 8 % <sup>12)</sup> C24 Temperature class 155 (F) All ΑII used acc. to 130 (B), coolant temperature 55 °C, derating approx. 13 % <sup>12)</sup> Temperature class 155 (F). C25 All used acc. to 130 (B), coolant temperature 60 °C, derating approx. 18 % Increased air humidity/ C26 All All temperature with 60 to 100 g water per m<sup>3</sup> of air All Temperature class 155 (F) **Y50** • and ΑII used acc. to 130 (B), with higher specified coolant temperature and/or site output, CT .. °C or SA .... altitude m above sea level Colors and paint finish Special finish in RAL 7030 ΔΙΙ п п п п п п п п п stone gray Special finish in other standard **Y54** • and ΔII RAL colors: RAL 1002, 1013 special RAL colors: HAL 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") finish RAL Special finish in special RAL Y51 • and special fincolors: For RAL colors, see ish RAL ... "Special finish in special RAI colors" in Catalog D 81.1 · 2008 Part 0 "Introduction" Special finish sea air resistant ΑI

SIMOTICS XP 1LA Explosion-Proof Motors
Supplements to order numbers and special versions

Aluminum series 1LA7, 1LA5, 1LA9

10 working days

20 working days

Standard delivery times:

On request

Special versions	Additional	Motor category		Standa	ard deli	very tim	e (color	ed area	a)					
	identification code <b>-Z</b> with	Motor version	Motor type	Motor 63	type – 71	Frame 80	size 90	100	112	132	160	180	200	225
	order code and plain text		(alum.)			<b>6</b> U	90	100	112	132	100	1LA5		225
	if required	Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard	1LA7	1LA7								ILA5		
		Efficiency Zone 2 Ex nA II,	1LA9	1LA9	<u> </u>									
		Zone 21/22 Ex tD IE2 High Efficiency												
		Zone 2 Ex nA II,	1LA9	1LA9	4									
		Zone 21/22 Ex tD NEMA Energy Efficient												
	_	Motor version	Motor type	Frame				400		400	400	400		
Colors and paint finish (contin		VCIGIOII	турс	63	71	80	90	100	112	132	160	180	200	225
Unpainted (only cast-iron parts	K23	All	All	0	0	0	0	0	0	0	0	0	0	0
primed) Unpainted, only primed	K24	All	All	1	/	/	1	1	1	1	1	1	1	<b>√</b>
Special technology	1421	7 (1)	7 111											
Mounting of explosion-proof rotary pulse encoder for use in Zones 2, 21, 22 13)	H86	All	All	-	-	-	-	✓	1	1	1	✓	1	✓
Mounting of explosion-proof separately driven fan II 3D for use in Zone 22 14)	M97	All	All	-	-	-	-	1	1	1	1	1	1	✓
Mechanical design and degree	s of protection	n												
Drive-end seal for flange-mount ing motors, oil-tight to 0.1 bar	K17	All	All	1	1	1	1	1	1	1	1	1	1	✓
(not possible for IM V3 type of construction)  With two additional eyebolts for	K32	Only possible for	<u></u>									1	1	1
IM V1/IM V3  Low-noise version for 2-pole	K37	All	All								- ✓	<i>y</i>	1	1
motors with clockwise direction of rotation														
Low-noise version for 2-pole motors with counter-clockwise direction of rotation	K38	All	All	-	-	-	-	-	-	1	/	✓	1	✓
IP65 degree of protection <sup>15)</sup>	K50	All	All	1	1	1	1	1	✓	1	1	1	1	<b>√</b>
Vibration proof version	K52 L03	All	All	√ √	1	1	1	√ √	1	√ √	1	1	1	√ √
Vibration-proof version  Condensation drainage holes 177		All	All	√ √	1	√ √	✓ ✓	√ √	✓ ✓	√ √	✓ ✓	√ √	√ √	1
Rust-resistant screws (externally		All	All	√ -	1	1	√	1	1	1	1	1	1	1
Mechanical protection for encoder 18)	M68	All	All	-	-	-	-	1	✓	1	✓	1	1	✓
Coolant temperature and site	altitude													
Coolant temperature –40 to +40 °C for explosion-proof motor <sup>19)</sup>	D19	All	All	√ .	1	1	1	1	1	1	1	1	1	✓
Designs in accordance with st														
CCC China Compulsory Certification <sup>20)</sup>	D01	All	All	✓	✓	/	✓	-	-	-	-	-	-	-
Electrical according to NEMA MG1-12	D30	All; for 4 standar		1	✓	✓	1	✓	1	1	1	✓	1	✓
Ex certification for China (only valid for Zone 2)	D32	Only possible for	3 and 4	1	1	1	1	1	1	1	1	-	-	-
China Energy Efficiency Label		Only possible for	<u> </u>	0	0	0	0	0	0	0	0	0	0	0
Ex certification for Russia	D35 New!		All	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓
NEMA Energy Efficient, North America version according to NEMA MG1, Table 12-11	D42 New!	Only possible for		O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	_
Bearings and lubrication  Measuring nipple for SPM shock	GEO	All	All					<b>√</b>	1	1	/	<b>√</b>	1	1
pulse measurement for bearing inspection											/			/
Bearing design for increased cantilever forces	K20	All	All	-	-	-	-	<b>√</b>	1	1	1	✓	1	✓
Regreasing device	K40 K94	All All	All	-	-	-	-	√ √	1	1	1	1	1	√ √
Located bearing DE  Located bearing NDE	K94	All	All	√ √	1	1	1	1	1	√ √	<ul><li>✓</li><li>□</li></ul>	✓ □	<ul><li>✓</li><li>□</li></ul>	<b>✓</b>
Balance and vibration quantity	-													
Vibration quantity level A	1400	All	All	<u> </u>			<u> </u>		<u> </u>		<u> </u>			
Vibration quantity level B Full-key balancing	K02 L68	All All	All	√ √	√ √	1	✓ ✓	√ ✓	√ √	1	1	1	1	√ √
Balancing without key	M37	All	All	√ √	1	1	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	1	✓ ✓	✓ ✓
For legends and footnotes,	see Page 3	0.												

10 working days

20 working days

On request

# SIMOTICS XP 1LA Explosion-Proof Motors Supplements to order numbers and special versions

Options Aluminum series 1LA7, 1LA5, 1LA9

uuys								Al	uminu	um se	ries 1	LA7,	1LA5	5, 1LA9
Special versions	Additional	Motor category		Standa	ard del	livery tim	ne (colo	red are	a)					
Special versions	identification	Motor	Motor			- Frame	,	eu aice	1)					
	order code	version	type (alum.)	63	71	80	90	100	112	132	160	180	200	225
	and plain text if required	Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA7	1LA7 (	D							1LA5 (	② 1)	
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High		1LA9 (	3									
		Efficiency  Zone 2 Ex nA II,  Zone 21/22 Ex tD  NEMA Energy  Efficient		1LA9 (	4)									
1LA	-7		Motor type	Frame 63	size 71	80	90	100	112	132	160	180	200	225
Shaft and rotor						00	50	100	112	102	100	100	200	220
Concentricity of shaft extension, coaxiality and linear movement in accordance with DIN 42955 Tolerance R for flange-mounting motors <sup>21)</sup>		All	All	V	✓	<b>√</b>	<b>√</b>	<b>√</b>	✓	✓	✓	<b>✓</b>	<b>√</b>	✓
Second standard shaft extension		All	All	✓	✓	✓	✓	✓	✓	✓	✓	1	✓	✓
Shaft extension with standard dimensions, without feather keyway	K42	All	All	✓	1	1	1	✓	✓	✓	✓	1	✓	1
Concentricity of shaft extension in accordance with DIN 42955 Tolerance R	,	All	All	<b>√</b>	1	1	1	1	1	1	1	1	1	1
Standard shaft made of stainless steel	M65	Only possible for	① and ②	-	-	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	<b>√</b>	<b>√</b>	1
Non-standard cylindrical shaft extension <sup>22)</sup>	Y55 • and identification code	All	All	1	1	1	1	1	1	1	√	1	1	1
Heating and ventilation														
Fan cover for textile industry <sup>23</sup> Metal external fan <sup>24</sup> )		All	All	-	-	√ 	√ 	<b>√</b>	√ /	<b>√</b>	√ /	1	√ /	1
Metal external fan <sup>24</sup> Anti-condensation heating,	K35	All	All	<b>√</b>	✓ -	<b>✓</b> O. R.	<b>√</b> 0. R.	<b>√</b> O. R.	<b>√</b> O. R.	<b>✓</b> O. R.	<b>√</b> O. R.	<b>✓</b> O. R.	<b>✓</b> O. R.	<b>√</b> O. R.
Ex. 115 V														J
Anti-condensation heating, Ex. 230 V	M15	All	All			O. R.								
Rating plate and extra rating p		All	All					,	,	,	1	1	1	1
Second lubrication plate, loose Second rating plate, loose	K31	All	All	- ✓	- ✓	- ✓	<i>-</i> ✓	√ ✓	1	1	1	√ √	√ ✓	1
Rating plate, stainless steel		Only possible for		<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>	_		_
Extra rating plate or rating plate with deviating rating plate data	<b>Y80 •</b> and	All	All	1	1	1	1	1	1	1	1	1	1	1
Extra rating plate with identification codes	<ul> <li>Y82 • and identification code</li> </ul>	All	All	<b>√</b>	<b>√</b>	1	<b>✓</b>	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	1	1	<b>√</b>
Additional information on rating plate and on package label (max. 20 characters)	Y84 • and identification code	All	All	<b>V</b>	1	1	1	1	1	1	1	1	<b>/</b>	<b>√</b>
Packaging, safety notes, document	mentation an													
Acceptance test certificate 3.1 in acc. with EN 10204 <sup>25)</sup>	B02	All	All	✓	1	✓	✓	✓	✓	✓	✓	✓	✓	1
Printed German/English Operating Instructions enclosed	B23	All	All	✓	✓	✓	<b>√</b>	<b>✓</b>	1	<b>✓</b>	✓	1	✓	1
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in English and German <sup>26</sup> )	New!	All	All		0	0	0	0	0	0	0	0	0	0
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in French, Spanish, Italian and Czech <sup>26</sup> )	B25 New!		All	1	<b>✓</b>	1	1	1	1	1	1	1	1	1
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in Swedish, Danish, Dutch and Finnish <sup>26</sup> )	B26 New!		All	<b>/</b>	<b>√</b>	✓	<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	1	1	<b>✓</b>
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in other official EU languages <sup>26</sup> )	code	n	All	<b>√</b>	✓	1	1	<b>√</b>	√	<b>√</b>	<b>√</b>	1	✓	<b>√</b>
Type test with heat run for horizontal motors, with acceptance		All	All	✓	✓	1	1	✓	1	1	1	✓	1	1
Wire-lattice pallet  Connected in star for dispatch	L99 M32	All All	All	<ul><li>○</li><li>✓</li></ul>	0	0	0	0	0	0	0	0		-
(CONNECTED IN STAL FOR DISPARCE		A All	All	4 ./	/	/	/	1	/	/	/	1	/	1
Connected in delta for dispatch		All	All	√ ✓	1	1	/	1	1	/	/	1	1	1

## 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.
- O. 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.
- 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.
- 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).
- 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.
- Please inquire regarding combination with order codes D19, K30 and M97. Not possible in combination with order codes D32, K50 and K52.
- 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<sub>max</sub> in rpm f<sub>max</sub> 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.

- <sup>20)</sup> CCC certification is required for:
  - 2-pole motors: ≤ 2.2 kW
  - 4-pole motors: ≤ 1.1 kW
  - 6-pole motors: ≤ 0.75 kW8-pole motors: ≤ 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).
- 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 extension
  - Dimensions E and EA ≤ 2 x length E (normal) of the shaft extension
     For an explanation of the order codes, see Catalog D 81.1 · 2008 Part 0 "Introduction".
- 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.
- <sup>24)</sup> 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

10 working days 20 working days

On request

# SIMOTICS XP 1LA/1LG Explosion-Proof Motors Supplements to order numbers and special versions

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

Selection and ordering of	lata													
Special versions	Additional	Motor category		Standa	ard del	very tim	ne (colo	red area	a)					
	identification code <b>-Z</b> with order code	Motor version	Motor type (cast-	Motor 100	type – 112	Frame 132	size 160	180	200	225	250	280	315 S/M	315 L
	and plain text if required	Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard	iron) 1LA6/	1LA6	①			1LG4	2				3/W	
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2 High	1LG6					1LG6						
		Efficiency  Zone 2 Ex nA II,  Zone 21/22 Ex tD  NEMA Energy  Efficient	1LG6					1LG6						
14	<b>-7</b>	Motor version	Motor type	Frame 100	size 112	132	160	180	200	225	250	280	315 S/M	315 L
Design for Zones according t													S/IVI	
Design for Zone 2 for mains-fed operation Ex nA II T3 according to IEC/EN 60079-15 2)		All	All	✓	1	1	1	1	✓	1	✓	✓	✓	✓
Design for Zone 2 for converter-fed operation, with derating Ex nA II T3 according to IEC/EN 60079-15 2)3)4)	M73	All	All	1	✓	1	1	1	1	✓	1	✓	1	<b>√</b>
Design (IP55) for Zone 2 and 22, for non-conductive dust, for mains-fed operation 5)	M74	All	All	<b>√</b>	1	1	1	1	1	1	<b>√</b>	1	✓	✓
Design (IP55) for Zone 2 and 22, for non-conductive dust, for converter-fed operation, with derating 3) 4) 5)	M75	All	All	1	1	<b>√</b>	1	1	1	<b>√</b>	1	<b>√</b>	<b>√</b>	✓
Design for Zone 21, as well as Zone 22 for conductive dust (IP65) for mains-fed operation <sup>6</sup>	<b>M34</b>	All	All	-	-	-	-	✓	✓	1	1	1	1	<b>√</b>
Design for Zone 21, as well as Zone 22 for conductive dust (IP65) for converter-fed operation, with derating 2) 4) 6)		All	All	-	-	-	-	1	✓	<b>✓</b>	✓	<b>√</b>	<b>√</b>	<b>√</b>
Design for Zone 22 for non- conductive dust (IP55), for mains-fed operation	M35	All	All	✓	1	1	1	1	1	1	✓	1	✓	✓
Design for Zone 22 for non- conductive dust (IP55), for converter-fed operation, with derating <sup>2) 4)</sup>	M39	All	All	1	<b>√</b>	1	1	1	<b>√</b>	✓	1	<b>√</b>	1	<b>√</b>
VIK version (comprises Zone 2 for mains-fed operation, without Ex nA II marking on rating plate) 7)	K30	Only possible for and 8-pole motor		✓	1	<b>√</b>	1	1	1	<b>√</b>	✓	✓	✓	✓
Ex nA II on VIK rating plate	C27	Only possible for and 8-pole motor		✓	1	1	✓	✓	✓	✓	1	✓	1	✓
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	0	0	0	0	0	0	0	0	0	0	0
Motor protection  With PTC thermistors for alarm for converter-fed operation in	A10	All	All	1	✓	✓	<b>✓</b>	✓	✓	1	1	✓	1	✓
Zones 2, 21, 22 8)  Motor protection with PTC thermistors with 3 embedded temperature sensors for tripping 8)	A11	All	All	1	1	<b>√</b>	1	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	1	1	<b>√</b>
Motor protection with PTC thermistors with 6 embedded temperature sensors for alarm and tripping <sup>8)</sup>	A12	All	All	1	1	1	1	1	<b>√</b>	✓	<b>V</b>	1	1	<b>✓</b>
Motor temperature detection with embedded temperature sensor KTY 84-130 8)	A23	All	All	1	1	1	1	1	1	1	✓	1	1	✓
Motor temperature detection with embedded temperature sensors 2 x KTY 84-130 8)	A25	All	All	1	1	1	1	1	1	1	✓	1	1	✓
Installation of 3 PT100 resistance thermometers 8) 9)	A60	All	All	1	1	1	1	1	1	<b>√</b>	✓	✓	1	1
Installation of 6 PT100 resistance thermometers in stator winding <sup>8)</sup>	A61	All	All	-	-	-	-	1	1	1	1	1	1	✓

# SIMOTICS XP 1LA/1LG Explosion-Proof Motors Supplements to order numbers and special versions

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

Standard delivery times:

10 working days

20 working days

On request

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

SIMOTICS XP 1LA/1LG Explosion-Proof Motors
Supplements to order numbers and special versions

10 working working

days working days	request								Cas	t-iron	series	1LA6,		ptions , 1LG6
Charielyersians	A dditional	Matar antonomi		Ctand	عدما مامان	a.v tima	م (ممامه		- \					
Special versions	Additional identification	Motor category	Motor			very tim	e (color	ed area	1)					
	order code and plain text	version	type (cast- iron)	100	112	132	160	180	200	225	250	280	315 S/M	315 L
	if required	Zone 2 Ex nA II, Zone 21/22 Ex tD IE1 Standard Efficiency	1LA6/	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		400		400		205	050		0.45	0.45
1L	Z	VOIGIGIT	typo	100	112	132	160	180	200	225	250	280	315 S/M	315 L
Windings and insulation (con	tinued)													
Increased air humidity/ temperature with 60 to 100 g water per m <sup>3</sup> of air	C26	All	All	1	1	1	1	1	<b>√</b>	<b>√</b>	<b>√</b>	1	<b>√</b>	<b>/</b>
Temperature class 155 (F), used acc. to 130 (B), with	Y50 • and specified	All	All	✓	✓	1	1	✓	✓	✓	✓	✓	✓	1
higher coolant temperature and/or site altitude	output, CT °C or SA m above sea level													
Colors and paint finish	30a iovoi													
Standard finish in RAL 7030 stone gray		All	All	-	-	-	-		_		_	_		
Standard finish in other		All	All	-	-	-	_	✓	<b>√</b>	✓	<b>√</b>	✓	✓	<b>✓</b>
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")	standard finish RAL													
Special finish in RAL 7030 stone gray 13)	K26	All	All	0	_	0	_	1	1	✓	1	1	✓	✓
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")	special finish	All	All	<b>√</b>	✓	/	<b>√</b>	✓	✓	<b>√</b>	✓	/	<b>√</b>	<b>√</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"	special finish	All	All	1	1	√	✓	1	✓	<b>√</b>	<b>√</b>	✓	✓	<b>√</b>
Special paint for use offshore	M91	All	All	0. R.	O. R.	O. R.	O. R.	1	1	<b>√</b>	1	1	1	<b>✓</b>
Special finish sea air resistant	M94	All	All	1	1	✓	1	1	1	<b>√</b>	✓	<b>√</b>	1	<b>√</b>
Unpainted (only cast-iron parts primed)	K23	All	All	0	0	0	0	0	0	0	0	0	0	0
Unpainted, only primed	K24	All	All	1	1	✓	1	1	1	✓	1	1	✓	✓
Special technology  Mounting of explosion-proof	H86	All	All	1	/	/	1	1	/	1	/	/	/	<b>✓</b>
rotary pulse encoder for use in Zones 2, 21, 22 <sup>14)</sup>								•						
Mounting of explosion-proof separately driven fan Ex nA for use in Zone 2 15)	M95	All	All	-	-	-	-	-	-	<b>√</b>	<b>√</b>	<b>✓</b>	/	<b>✓</b>
Mounting of explosion-proof separately driven fan II 2D for use in Zone 21 15)	M96	All	All	-	-	-	-	-	-	1	✓	✓	1	✓
Mounting of explosion-proof separately driven fan II 3D for use in Zone 22 15)	M97	All	All	<b>√</b>	✓	1	<b>√</b>	<b>√</b>	✓	1	1	1	1	<b>√</b>
Mechanical design and degre	es of protecti	on												
Drive-end seal for flange- mounting motors, oil-tight to 0.1 bar (not possible for IM V3 type of construction) <sup>16</sup> )	K17	All	All	1	1	1	1	✓	1	1	1	1	1	<b>√</b>

SIMOTICS XP 1LA/1LG Explosion-Proof Motors
Supplements to order numbers and special versions

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

Standard delivery times:

10 working days

20 working days

On request

Special versions	Additional	Motor category Standard delivery time (colored area)												
	identification code <b>-Z</b> with	Motor version	Motor type		type –			400						0.001
	order code and plain text		(cast- iron)	100	112	132	160	180	200	225	250	280	315 S/M	315 L
	if required	Zone 2 Ex nA II,	1LA6/	1LA6	1			1LG4	2					
		Zone 21/22 Ex tD IE1 Standard	1LG4											
		Efficiency	41.00					41.00						
		Zone 2 Ex nA II, Zone 21/22 Ex tD	1LG6					1LG6						
		IE2 High Efficiency												
		Zone 2 Ex nA II, Zone 21/22 Ex tD	1LG6					1LG6						
		NEMA Energy												
		Efficient Motor	Motor	Frame	size									
	_	version	type	100	112	132	160	180	200	225	250	280	315	315 L
1L		on (continued)											S/M	
Low-noise version for 2-pole	K37	All	All	_	_	/	/	1	/	/	/	/	/	/
motors with clockwise direction of rotation <sup>17)</sup>														
Low-noise version for 2-pole	K38	All	All	_	_	1	1	1	1	<b>✓</b>	<b>√</b>	<b>√</b>	<b>✓</b>	<b>✓</b>
motors with counter-clockwise direction of rotation <sup>17</sup> )														
IP65 degree of protection <sup>18)</sup>	K50	All	All	1	1	1	1	1	<b>√</b>	✓	<b>√</b>	1	<b>√</b>	1
IP56 degree of protection <sup>19)</sup>	K52	All	All	✓	✓	✓	✓	1	✓	1	1	✓	1	1
Vibration-proof version	L03	All	All	✓	✓	✓	✓	-	-	-	-	-	-	-
Condensation drainage holes <sup>20)</sup>		All	All	✓	✓	1	✓							
Rust-resistant screws (externally		All	All	<b>√</b>	1	<b>√</b>	/	1	1	/	/	/	/	/
Mechanical protection for encoder <sup>21)</sup>	M68	All	All	<b>/</b>	1	✓	1	/	✓	✓	/	•	✓	1
Coolant temperature and site	altitude													
Coolant temperature –40 to +40 °C for explosion-proof motor <sup>19)</sup>	D19	All	All	1	1	✓	✓	1	✓	✓	✓	✓	✓	✓
Designs in accordance with s	tandards and	specifications												
Electrical according to NEMA MG1-12	D30	All; for ④ standa version		1	1	✓	✓	1	✓	1	✓	1	1	✓
Ex certification for China	D32	Only possible for		1	1	1	1	1	<b>✓</b>	✓	✓	1	<b>✓</b>	<b>✓</b>
(only valid for Zone 2) China Energy Efficiency Label	D34 New!	Only possible for		0	0	0	0	0	0	0	0	0	0	0
	Doc // /	4	All		,	,	,	,	,	,				
Ex certification for Russia  NEMA Energy Efficient, North	D35 New!	All Only possible for	All	<b>√</b> -	<b>√</b>	<u>√</u>	<b>√</b>	<b>√</b> O. R.	<b>√</b> O. R.	<b>√</b> O. R.	<b>√</b> O. R.	<b>✓</b> O. R.	<b>√</b> O. R.	<b>√</b>
America version according to	D-12 //ew;							0.11.	0.11.	0.11.	0.71.	0.11.	0.11.	
NEMA MG1, Table 12-11 Bearings and lubrication														
Measuring nipple for SPM	G50	All	All	1	/	1	/	1	/	1	1	/	/	/
shock pulse measurement for bearing inspection														
Bearing design for increased cantilever forces <sup>23</sup> )	K20	All	All	1	1	1	1	1	1	✓	1	✓	1	✓
Special bearing for DE and NDE, bearing size 63 <sup>24)</sup>	K36			-	-	-	-	1	1	1	1	1	1	1
Regreasing device	K40	All	All	1	1	1	1	1	1	<b>√</b>	<b>√</b>	0		
Located bearing DE	K94	All	All	1	1	✓	1	1	1	✓	1	1	1	1
Located bearing NDE	L04	All	All	✓	✓	✓								
Insulated bearing cartridge 33)	L27			-	-	-	-	-	-	✓	✓	✓	✓	✓
Balance and vibration quanti	ty	All	AIL	_		_			_				_	
Vibration quantity level A Vibration quantity level B <sup>25)</sup>	K02	All	All All	<b>□</b> ✓				<b>□</b> ✓		<u> </u>				
Full-key balancing	L68	All	All	√ √	✓ ✓	✓ ✓	✓ ✓	1	✓ ✓	√ √	✓ ✓	✓ ✓	√ √	√ √
Balancing without key	M37	All	All	1	1	<u>✓</u>	1	1	1	<b>√</b>	1	<b>√</b>	<b>√</b>	<b>√</b>
Shaft and rotor														
Concentricity of shaft extension, coaxiality and linear movement in accordance with DIN 42955 Tolerance R for	K04	All	All	✓	1	✓	1	<b>√</b>	1	<b>√</b>	✓	✓	<b>√</b>	<b>√</b>
flange-mounting motors <sup>26</sup> ) Second standard shaft extension <sup>27</sup> )	K16	All	All	<b>√</b>	✓	✓	✓	1	✓	<b>✓</b>	<b>✓</b>	<b>√</b>	<b>✓</b>	✓
sion 27) Shaft extension with standard dimensions, without feather	K42	All	All	1	<b>✓</b>	1	1	1	✓	<b>✓</b>	✓	✓	✓	<b>✓</b>
keyway Concentricity of shaft exten-	L39	All	All	1	1	/	/	1	1	1	/	1	1	1
sion in accordance with DIN 42955 Tolerance R			All		•	•	•	•	•		•	•	•	•
For legends and footnotes	s, see Page	36.												

SIMOTICS XP 1LA/1LG Explosion-Proof Motors
Supplements to order numbers and special versions

10 20 On working working

request

days days	request								Cas	t-iron	series	1LA6		ptions , 1LG6
Special versions	Additional	Motor catagory		Standa	ord doliv	ory tim	ıo (oolor	rod area			001100	12.10		, 120.0
Special versions	identification	Motor category Standard delivery time (colored area)  Motor Motor type – Frame size												
	code -Z with order code and plain text if required	version	type (cast- iron)	100	112	132	160	180	200	225	250	280	315 S/M	315 L
		Zone 2 Ex nA II, Zone 21/22 Ex tD	1LA6/	1LA6	①			1LG4	2					
		IE1 Standard Efficiency Zone 2 Ex nA II,	1LG6					1LG6						
		Zone 21/22 Ex tD IE2 High Efficiency												
		Zone 2 Ex nA II, Zone 21/22 Ex tD NEMA Energy Efficient	1LG6					1LG6						
		Motor version	Motor type	Frame 100	size 112	132	160	180	200	225	250	280	315	315 L
1L	-Z												S/M	
Shaft and rotor (continued)	Mor	All	All		,	,	,		,	,			,	
stainless steel	<b>M65 Y55</b> • and	All	All	1	1	√ √	1	1	1	1	1	1	1	1
extension <sup>28)</sup>	identification code	7 (1)	7 (11											
Heating and ventilation	U17	All	ΛII	1	/	/	1							
Fan cover for textile industry 29)	H17	All	All	1	1	1	<b>/</b>						_	_
Metal external fan 30)	K35	All	All	1	1	1	1	✓	✓	✓	<b>√</b>	<b>√</b>	✓	1
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.
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.
non-standard voltage and/or frequency	<b>Y81</b> • and identification code	All	All	_			_		_	✓	<b>✓</b>	<b>7</b>	<b>,</b>	<b>√</b>
Rating plate and extra rating p	olates													
Second lubrication plate, loose		All	All	✓	✓	✓	✓	✓	✓	1	✓	✓	✓	✓
01 ,	K31	All	All	✓	✓	✓	1	✓	✓	1	1	1	✓	✓
01 ,	M40 New!	All	All	-	-	-	-	✓	<b>√</b>	/	/	/	<b>√</b>	<b>✓</b>
plate with deviating rating	<b>Y80</b> • and identification code	All	All	<b>√</b>	✓	✓	1	1	✓	/	<b>/</b>	<b>/</b>	/	/
identification codes	Y82 • and identification code	All	All	1	1	✓	1	1	1	✓	✓	✓	1	✓
	<b>Y84</b> • and identification code	All	All	1	1	1	1	1	1	✓	1	1	<b>✓</b>	✓
Packaging, safety notes, docu		nd test certificate	s											
Acceptance test certificate 3.1 in acc. with EN 10204 32)		All	All	1	1	1	1	1	1	1	1	1	/	1
Printed German/English Operating Instructions	B23	All	All	1	1	1	1	1	1	<b>✓</b>	<b>√</b>	1	<b>✓</b>	1
enclosed Printed Operating Instructions	New!	All	All		_	_		_						
(Compact) for explosion-proof motors enclosed in English and German <sup>33</sup> )	/ vew!													
Printed Operating Instructions (Compact) for explosion-proof motors enclosed in French,	B25 New!	All	All	1	1	1	1	1	1	1	<b>√</b>	<b>√</b>	1	✓
Spanish, Italian and Czech 33) Printed Operating Instructions	B26 New!	All	All	1	<b>✓</b>	<b>✓</b>	1	1	1	<b>√</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
(Compact) for explosion-proof motors enclosed in Swedish, Danish, Dutch and Finnish <sup>33)</sup>														
(Compact) for explosion-proof motors enclosed in other	and identification	All	All	<b>√</b>	1	1	1	1	1	✓	✓	✓	1	✓
0 0	F83	All	All	<b>√</b>	<b>✓</b>	✓	1	1	1	1	1	1	1	<b>√</b>
acceptance														
Wire-lattice pallet	L99	All	All	0	0	0	0	-	-	-	-	-	-	-
											-	-		
Connected in star for dispatch Connected in delta for	M32 M33	All	All	1	1	1	1	1	1	✓ □	✓ □	✓ □	✓ □	✓ □

## 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.
- O. 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
- 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).
- 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.
- 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.
- 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
- <sup>11)</sup> 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.
- 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.
- (IP55 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.
- <sup>22)</sup> 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.
- <sup>25)</sup> 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.
- 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 extension For 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".
- O) 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.
- 11) 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/WW/view/en/10803948/133300