Overview

The following overview explains the meaning of the individual positions of the Article No. The selection tables in Chapters 2 to 4 include the motors available as standard from this range.

Structure of the Article No.:	Position:	1	2	3	4	5	6	7	-	8	9	10	11	12	-	Z
1st to 4th positions: Motor design	• Standard version															
	- Self-ventilated	**1**	**L**	**A**	**4**											
	- Force ventilated	**1**	**P**	**Q**	**4**											
	- Water-jacket-cooled	**1**	**L**	**H**	**4**											
	• Explosion-protected version															
	- Ex eb	**1**	**M**	**A**	**4**											
	- Ex pxb	**1**	**M**	**G**	**4**											
	- Ex ec	**1**	**M**	**S**	**4**											
5th to 6th positions: Shaft height	• 315 mm					**3**	**1**									
	• 355 mm					**3**	**5**									
	• 400 mm					**4**	**0**									
	• 450 mm					**4**	**5**									
	• 500 mm					**5**	**0**									
	• 560 mm					**5**	**6**									
	• 630 mm					**6**	**3**									
7th position: Laminated core length	• Short							**0**								
	• Medium							**2**								
	• Long							**4**								
	• Extra long							**6**								
8th position: Pole number	• 2-pole									**2**						
	• 4-pole									**4**						
	• 6-pole									**6**						
	• 8-pole									**8**						
	• 10-pole									**3**						
	• 12-pole									**5**						
9th position: Rotor version	• Standard aluminum rotor										**A**					
	• Special aluminum rotor										**B**					
	• Standard copper rotor										**C**					
	• Special copper rotor										**D**					
	• Special version (CuSi,...)										**E**					
10th position: Character for operation with:	• Line supply, low voltage											**A**				
	• Line supply, high voltage											**N**				
	• LV drive converter											**M**				
	• MV drive converter											**V**				
	• Converters, others (e.g. SINAMICS PERFECT HARMONY)											**W**				

11th position: voltage code	**Line supply, high voltage**:	**MV drive converter**:	**LV drive converter**:	
	3.3 kV, 50 Hz	2.3 kV, 50 Hz	690 V, 50 Hz	**0**
	6.6 kV, 60 Hz	2.3 kV, 60 Hz	–	**1**
	–	3.3 kV, 50 Hz	–	**2**
	3.0 kV, 50 Hz	3.3 kV, 60 Hz	–	**3**
	4.0 kV, 60 Hz	4.16 kV, 50 Hz	–	**4**
	5.0 kV, 50 Hz	4.16 kV, 60 Hz	–	**5**
	6.0 kV, 50 Hz	6.0 kV, 50 Hz	–	**6**
	6.6 kV, 50 Hz	6.6 kV, 50 Hz	–	**7**
	10 kV, 50 Hz	–	–	**8**
	Other voltage/frequency (additional text data)			**9**

12th position: Type of construction			
	• IM B3		**0**
	• IM V1 with canopy		**4**
	• IM V1 without canopy		**8**
	• IM B35		**6**
	Options: Additional order codes required.		

Overview

The following overview explains the meaning of the individual positions of the Article No. The selection tables in Parts 2 to 4 include the motors available as standard from this range.

Structure of the Article No., shaft heights 450 mm to 630 mm			Position:	1	2	3	4	5	6	7	-	8	9	10	11	12	-	Z
1st to 4th position: Motor version	**Standard version**																	
	Degree of protection/cooling																	
	IEC	**NEMA**																
	Open-circuit ventilated	IP23/IC01	–	**1**	**R**	**A**	**4**											
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**R**	**Q**	**4**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**R**	**N**	**4**											
	Open-circuit ventilated	IP23/IC01	–	**1**	**R**	**A**	**6**											
	Open-circuit ventilated	IP24W/IC01	WPII	**1**	**R**	**P**	**6**											
	Air/air cooling	IP55/IC611 or IC616	TEAAC	**1**	**R**	**Q**	**6**											
	Air/water cooling	IP55/IC81W or IC86W	TEWAC	**1**	**R**	**N**	**6**											
	Ex eb version																	
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**S**	**J**	**4**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**S**	**N**	**4**											
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**S**	**J**	**6**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**S**	**N**	**6**											
	Ex ec version																	
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**S**	**G**	**4**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**S**	**L**	**4**											
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**S**	**G**	**6**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**S**	**L**	**6**											
	Ex pxb version																	
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**S**	**B**	**4**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**S**	**Q**	**4**											
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**S**	**B**	**6**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**S**	**Q**	**6**											
5th to 6th position: Shaft height	• 450 mm							**4**	**5**									
	• 500 mm							**5**	**0**									
	• 560 mm							**5**	**6**									
	• 630 mm							**6**	**3**									
7th position: Laminated core length	The laminated core length is coded in digits 0 to 9 (without fixed assignment)																	
8th position: Pole number	• 2-pole											**2**						
	• 4-pole											**4**						
	• 6-pole											**6**						
	• 8-pole											**8**						
	• 10-pole											**3**						
	• 12-pole											**5**						
	• 14-pole											**7**						
	• 16-pole			Additional order code H1A								**9**						

Overview (continued)

Structure of the Article No.:	Position:	1	2	3	4	5	6	7	-	8	9	10	11	12	-	Z
9th position: Cooling method for:	**IEC version:**	**Cooling method:**														
	• With shaft-mounted fan (basic version) or shaft-mounted fan for the inner and separately-driven fan for the outer cooling circuit	IC01/IC81W									**H**					
		IC616									**H**					
	• With shaft-mounted fan for the inner and outer cooling circuits	IC611									**J**					
	• With separately-driven fan for the inner or for the inner and outer cooling circuits	IC86W/IC666									**F**					
	NEMA version (only available for 1R.6 motors with shaft height 710; other shaft heights on request)	**Cooling method:**														
	• With separately-driven fan for the inner and outer cooling circuits	TEAAC									**A**					
	• With shaft-mounted fan	WPII or TEWAC									**B**					
	• With shaft-mounted fan for the inner and separately-drive fan for the outer cooling circuit	TEAAC									**B**					
	• With shaft-mounted fan for the inner and outer cooling circuits	TEAAC									**C**					

10th position: Rotor version or drive converter type	**Line operation**	**Letter**	**Converter operation**	**Letter**
	1R.4: Standard rotor with E-Cu	**E**	1R.4: MV drive converter	**V**
	1R.4: Standard rotor with CuSi	**S**	1R.4: LV drive converter	**M**
	1R.6: Standard rotor with E-Cu	**JKL** (power-dependent)	1R.6: LV drive converter; copper rotor	**P** (SINAMICS G/ SINAMCIS S)
				Q (other converters)
	1R.6: Standard rotor with CuSi	**MN** (power-dependent)	1R.6: MV drive converter; copper rotor	**S** (SINAMICS GM/ SINAMICS SM)
				T (SINAMICS PERFECT HARMONY)
				U (other converters)
	1R.4 and 1R.6: Special rotor with E-Cu	**X**		
	1R.4 and 1R.6: Special rotor with CuSi	**Y**		

11th position: Voltage code	**1R.4: Line operation:**	**1R.4: Operation with MV drive converter:**	**1R.4: Operation with LV drive converter**	**1R.6: Line operation**	**1R.6: Converter operation**	
	3.3 kV, 50 Hz	2.3 kV, 50 Hz	690 V, 50 Hz, on request	3.3 kV, 50 Hz	690 V, 50 Hz	**0**
	6.6 kV, 60 Hz	2.3 kV, 60 Hz	–	6.6 kV, 60 Hz	690 V, 60 Hz	**1**
	–	3.3 kV, 50 Hz	–	13.2 kV, 60 Hz	2,3 kV, 50 Hz	**2**
	3.0 kV, 50 Hz	3.3 kV, 60 Hz	–	4.16 kV, 60 Hz	4,16 kV, 60 Hz	**3**
	4.0 kV, 60 Hz	4.16 kV, 50 Hz	–	4.0 kV, 60 Hz	4,16 kV, 50 Hz	**4**
	5.0 kV, 50 Hz	4.16 kV, 60 Hz	–	2.3 kV, 60 Hz	3,3 kV, 50 Hz	**5**
	6.0 kV, 50 Hz	6.0 kV, 50 Hz	–	6.0 kV, 50 Hz	6,0 kV, 50 Hz	**6**
	6.6 kV, 50 Hz	6.6 kV, 50 Hz	–	6.6 kV, 50 Hz	6,6 k V, 50 Hz	**7**
	10 kV, 50 Hz	–	–	10 kV, 50 Hz	6,6 kV, 60 Hz	**8**
	Other voltage/frequency (additional text data)					**9**

12th position: Type of construction		
	• IM B3	**0**
	• IM V1 with canopy (for shaft height 630 mm, only in type of construction IM V10)	**4**
	• IM V1 without canopy (for shaft height 630 mm, only in type of construction IM V10)	**8**

Options: Additional order code required. Refer to section Options and tests in Chapter 2, Chapter 3 and Chapter 4.

Overview

The following overview explains the meaning of the individual positions of the Article No. The selection tables in Parts 2 to 4 include the motors available as standard from this range.

Structure of the Article No., shaft heights 710 mm to 800 mm	Position:	1	2	3	4	5	6	7	-	8	9	10	11	12	-	13	14	15	16	Z
1st to 3th position: Motor version, Ex-protection																				
	Ex-protection																			
	Air/air cooling, non Ex	**1**	**R**	**Q**																
	Air/air cooling, Ex ec	**1**	**S**	**G**																
	Air/air cooling, Ex pxb	**1**	**S**	**B**																
	Air/air cooling, Ex eb	**1**	**S**	**J**																
	Basic design, open-circuit ventilated, non Ex	**1**	**R**	**A**																
	Weather protected design, open-circuit ventilated, non ex	**1**	**R**	**P**																
	Air/water cooling, non Ex	**1**	**R**	**N**																
	Air/water cooling, Ex ec	**1**	**S**	**L**																
	Air/water cooling, Ex pxb	**1**	**S**	**Q**																
	Air/water cooling, Ex eb	**1**	**S**	**N**																
4th position: Motor series	SIMOTIC HV M (modular)				**7**															
5th to 6th position: Shaft height	• 710 mm					**7**	**1**													
	• 800 mm					**8**	**0**													
7th position: Laminated core length	The laminated core length is coded in digits 0 to 9 (without fixed assignment)																			
8th position: Pole number	• 2-pole									**2**										
	• 4-pole									**4**										
	• 6-pole									**6**										
	• 8-pole									**8**										
	• 10-pole									**3**										
	• 12-pole									**5**										
	• 14-pole									**7**										
	• 16-pole									**0**										
	• 18-pole									**1**										
	• Other pole numbers, Additional order code required									**9**										
9th position: Cooling method for:	**Cooling method:**																			
	• Open inner cooling air circuit, IC01										**F**									
	• Weather-protected design, open circuit, WPII										**H**									
	• Air/air cooling, TEAAC – IC611										**J**									
	• Air/air cooling with forced ventilation for outer air circuit, TEAAC – IC616										**K**									
	• Air/air cooling with forced ventilation for inner air circuit, TEAAC – IC661										**L**									
	• Air/air cooling with forced ventilation for inner and outer air circuit, TEAAC – IC666										**M**									
	• Air/water cooling, TEWAC – IC81W										**N**									
	• Air/water cooling with forced ventilation, TEWAC – IC86W										**P**									

Overview (continued)

Structure of the Article No.:	Position:	1	2	3	4	5	6	7	-	8	9	10	11	12	-	13	14	15	16	Z
10th position: Motor for line operation or for converter operation	**For line operation with**																			
	• High voltage motor											**A**								
	• Low voltage motor											**B**								
	For converter operation with																			
	• SINAMICS G150											**C**								
	• SINAMICS S120											**D**								
	• SINAMICS S150											**E**								
	• SINAMICS G180											**F**								
	• SINAMICS GM150											**R**								
	• SINAMICS SM150											**S**								
	• SINAMICS GH180											**T**								
	• SINAMICS GH150											**U**								
	• Other converters (additional text data)											**Z**								
11th position: Voltage code	**Line operation** / **Operation with MV drive converter** / **Line/converter operation**																			
	3.3 kV, 50 Hz / 7.2 kV, 50 Hz / 690 V, 60 Hz												**0**							
	6.6 kV, 60 Hz / 11 kV, 50 Hz / 690 V, 50 Hz												**1**							
	13.2 kV, 60 Hz / 2.3 kV, 50 Hz / –												**2**							
	4.16 kV, 60 Hz / 4.16 kV, 60 Hz / –												**3**							
	4 kV, 60 Hz / 4.16 kV, 50 Hz / 400 V												**4**							
	2.3 kV, 60 Hz / 3.3 kV, 50 Hz / 500V												**5**							
	6.0 kV, 50 Hz / 6 kV, 50 Hz / –												**6**							
	6.6 kV, 50 Hz / 6.6 kV, 50 Hz / 660 V												**7**							
	10 kV, 50 Hz / 6.6 kV, 60 Hz / –												**8**							
	Other voltages/frequency (additional text data)												**9**							
12th position: Type of construction	• IM B3 (IM 1001)													**0**						
	• IM V1, without protective hood (IM 3011)													**8**						
	• Other mounting types (additional text data)													**9**						
13th position: Temperature class (for explosion protection)	• Without temperature class															**0**				
	• Temperature class T2															**2**				
	• Temperature class T3															**3**				
	• Temperature class T4															**4**				
14th position: Rotor version	• Standard rotor – E-Cu																**C**			
	• Special rotor – E-Cu																**D**			
	• Standard rotor – CuSi																**E**			
	• Special rotor – CuSi																**F**			
	• Special rotor – with other material type																**G**			
15th position: Housing and bearing version	• Steel fabricated housing / anti-friction bearings																	**G**		
	• Steel fabricated housing / sleeve bearing																	**J**		
16th position: Category	• Standard series																		**0**	
Z position:	Options: Additional order code required. Refer to section Options and tests in Chapter 2, Chapter 3 and Chapter 4.																			**Z**