

SIMOTICS DP Application-Specific Motors

Marine motors

Special versions · Options · Aluminum series 1LE10

Selection and ordering data

Special versions	Additional identification code -Z with order code and plain text if required	Motor category									
		Motor version	Motor type (alum.)	Motor type – frame size							
				80	90	100	112	132	160	180	200
		IE2 High Efficiency	1LE1001	1LE1001							
		IE3 Premium Efficiency	1LE1003	1LE1003							
		IE1 Standard Efficiency	1LE1002	1LE1002							
		IE4 Super Premium Efficiency	1LE1004	1LE1004							
		NEMA Energy Efficient	1LE1021	1LE1021 Eagle Line							
		NEMA Premium Efficient	1LE1023	1LE1023 Eagle Line							
		Pole-changing	1LE1011	1LE1011							
			1LE1012	1LE1012							
1LE10...-...-...-Z Order code		Motor version	Motor type	Frame size							
				80	90	100	112	132	160	180	200
Marine version – Basic version											
With type test certificate according to Germanischer Lloyd (GL), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E11	All	All	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to Lloyds Register (LR), CT45 °C, temperature class 155 (F), utilized according to 155 (F)	E21	All	All	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to Bureau Veritas (BV), CT45 °C, temperature class 155 (F), utilized according to 155 (F)	E31	All	All	✓	✓	✓	✓	✓	✓	–	–
With type test certificate according to Registro Italiano Navale (RINA), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E41	All	All	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to Russian Maritime Register (RS), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E46	All	All	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to Det Norske Veritas (DNV), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E51	All	All	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to American Bureau of Shipping (ABS), CT50 °C, temperature class 155 (F) utilized according to 155 (F)	E52	All	All	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to Korean Register of Shipping (KR), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E54	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Marine version – Acceptance/certification											
Individual acceptance by marine classification society	B10	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Type test with warm run for horizontal motors, with acceptance	B83	All	All	✓	✓	✓	✓	✓	✓	✓	✓

- ✓ With additional charge
 – Not possible

SIMOTICS DP Application-Specific Motors

Marine motors

Special versions · Options · Cast-iron series 1LE15/1LE16 Basic/Performance Line

Selection and ordering data

Special versions	Additional identification code -Z with order code and plain text if required	Motor category																
		Motor version	Motor type (cast-iron)	Motor type – frame size														
				71	80	90	100	112	132	160	180	200	225	250	280	315		
		IE2 High Efficiency	1LE1501	1LE1501 Basic Line														
			1LE1601	1LE1601 Performance Line														
		IE3 Premium Efficiency	1LE1503	1LE1503 Basic Line														
			1LE1603	1LE1603 Performance Line														
		IE4 Super Premium Efficiency	1LE1504	1LE1504 Basic Line														
			1LE1604	1LE1604 Performance Line														
NEMA Energy Efficient	1LE1521	1LE1521 Eagle Line Basic																
	1LE1621	1LE1621 Eagle Line Performance																
NEMA Premium Efficient	1LE1523	1LE1523 Eagle Line Basic																
	1LE1623	1LE1623 Eagle Line Performance																
1LE15 -Z 1LE16 -Z		Motor version	Motor type	Frame size														
				71	80	90	100	112	132	160	180	200	225	250	280	315		
Marine version – Basic version																		
With type test certificate according to Germanischer Lloyd (GL), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E11	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
With type test certificate according to Lloyds Register (LR), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E21	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
With type test certificate according to Bureau Veritas (BV), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E31	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
With type test certificate according to Registro Italiano Navale (RINA), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E41	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
With type test certificate according to Russian Maritime Register (RS), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E46	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
With type test certificate according to Det Norske Veritas (DNV), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E51	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
With type test certificate according to American Bureau of Shipping (ABS), CT50 °C, temperature class 155 (F) utilized according to 155 (F)	E52	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
With type test certificate according to Korean Register of Shipping (KR), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E54	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Marine version – Acceptance/certification																		
Individual acceptance by marine classification society	B10	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Type test with warm run for horizontal motors, with acceptance	B83	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

✓ With additional charge

SIMOTICS DP Application-Specific Motors

Marine motors

Special versions · Options · Aluminum series 1MB10, cast-iron series 1MB15/1MB16

Selection and ordering data

Special versions	Additional identification code -Z with order code and plain text if required	Motor category															
		Motor version	Motor type (alum./ cast-iron)	Motor type – frame size													
				80	90	100	112	132	160	180	200	225	250	280	315		
		Ex t (Zone 21/22)	1MB10.2	1MB10.2													
		Ex n (Zone 2)															
		IE1 Standard Efficiency															
		Ex t (Zone 21/22)	1MB10.1	1MB10.1													
		Ex n (Zone 2)															
		IE2 High Efficiency															
		Ex t (Zone 21/22)	1MB10.3	1MB10.3													
Ex n (Zone 2)																	
IE3 Premium Efficiency																	
Ex t (Zone 21/22)	1MB15.1		1MB15.1														
Ex n (Zone 2)	1MB16.1		1MB16.1														
IE2 High Efficiency																	
Ex t (Zone 21/22)	1MB15.3		1MB15.3														
Ex n (Zone 2)	1MB16.3		1MB16.3														
IE3 Premium Efficiency																	
1MB1.....-.....-Z		Order code	Motor version	Motor type	Frame size												
					80	90	100	112	132	160	180	200	225	250	280	315	
Marine version – Basic version																	
With type test certificate according to Germanischer Lloyd (GL), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E11	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to Lloyds Register (LR), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E21	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to Bureau Veritas (BV), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E31	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to Registro Italiano Navale (RINA), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E41	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to Russian Maritime Register (RS), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E46	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to Det Norske Veritas (DNV), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E51	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to American Bureau of Shipping (ABS), CT50 °C, temperature class 155 (F) utilized according to 155 (F)	E52	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to Korean Register of Shipping (KR), CT45 °C, temperature class 155 (F) utilized according to 155 (F)	E54	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Marine version – Acceptance/certification																	
Individual acceptance by marine classification society	B10	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Type test with warm run for horizontal motors, with acceptance	B83	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

✓ With additional charge

SIMOTICS DP Application-specific Motors

Marine motors

Special versions – SIMOTICS GP Standard Motors
Aluminum series 1LA7/5/9, 1LP7/5, 1PP7/5

Standard delivery times:

10
working
days

20
working
days

On
request

Selection and ordering data

Options

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Standard delivery time (colored area)												
		Motor version	Motor type (alum.)	Motor type – Frame size												
				63	71	80	90	100	112	132	160	180	200	225		
		IE2/NEMA Energy Efficient	1LA9	1LA9												
		IE1	1LA7/1LA5	1LA7								1LA5				
			1LA9	1LA9 with increased output												
			1PP7/1PP5	1PP7								1PP5				
			1LP7/1LP5	1LP7								1LP5				
		Pole-changing	1LA7/1LA5	1LA7								1LA5				
		For converter-fed operation only	1LA7/1LA5						1LA7			1LA5				
1PP-Z 1L-Z		Motor version	Motor type	Frame size		63	71	80	90	100	112	132	160	180	200	225
Marine version – Basic version ¹⁾																
Without type test certificate according to ABS 50 °C/ CCS 45 °C/RINA 45 °C, temperature class 155 (F) used according to 155 (F) (if acceptance test certificate 3.1 according to EN 10204 is required, this must be ordered with order code B02) ²⁾	E00	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to GL (Germanischer Lloyd), Germany, CT 45 °C, temperature class 155 (F), used according to 155 (F) ³⁾	E11	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to LR (Lloyds Register), Great Britain, CT 45 °C, temperature class 155 (F), used according to 155 (F) ³⁾	E21	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to BV (Bureau Veritas), France, CT 45 °C, temperature class 155 (F), used according to 155 (F) ³⁾	E31	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to RS (Russian Maritime Register of Shipping), Russia, CT 45 °C, temperature class 155 (F), used according to 155 (F) ³⁾	E46 <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to DNV (Det Norske Veritas), Norway, CT 45 °C, temperature class 155 (F), used according to 155 (F) ³⁾	E51	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Marine version – Acceptance/certification																
Individual acceptance by marine classification society	E10	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Type test with warm run for horizontal motors, with acceptance ⁴⁾	F83	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Type test with warm run for vertical motors, with acceptance ⁴⁾	Plain text data	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.

O. R. Possible on request

✓ With additional charge

¹⁾ Motor for use in shipping for higher ambient temperature and/or used as 155 (F) according to 130 (B), order with details in plain text. The order codes for the basic marine version (E00, E11, E21, E31, E51) cannot be combined with each other. For the 1LA9 motor series with increased output, for order codes E11, E31 and E51 derating of 4 % is required and for order codes E00 and E21 derating of 8 % is required.

²⁾ The delivery time for the factory test certificate may differ from the delivery time for the motor.

³⁾ For 1LP7 and 1LP5 motors, certification is possible on request in accordance with the classification societies GL, LR, BV, RS and DNV.

⁴⁾ Option or plain text data only necessary for one motor when ordering several motors of the same type.

SIMOTICS DP Application-specific Motors

Marine motors

Standard delivery times:

10 working days	20 working days	On request
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Special versions – SIMOTICS SD Standard Motors
Cast-iron series 1LA6, 1LG4/6, 1LP4, 1PP4

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Standard delivery time (colored area)										
		Motor version	Motor type (cast-iron)	Motor type – Frame size										
				100	112	132	160	180	200	225	250	280	315	
		IE2/NEMA Energy Efficient	1LG6					1LG6 ¹⁾						
		IE3	1LG6											1LG6 ¹⁾
		IE1	1LA6/1LG4	1LA6				1LG4						
			1PP4					1PP4						
			1LP4					1LP4						
	Pole-changing	1LG4					1LG4							
	For converter-fed operation only	1LG6					1LG6							
1L -Z		Motor version	Motor type	Frame size				180	200	225	250	280	315	
Marine version – Basic version ²⁾														
Without type test certificate according to ABS 50 °C/ CCS 45 °C/RINA 45 °C, temperature class 155 (F) used according to 155 (F) (if acceptance test certificate 3.1 according to EN 10204 is required, this must be ordered with order code B02) ³⁾	E00	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to GL (Germanischer Lloyd), Germany, CT 45 °C, temperature class 155 (F), used according to 155 (F) ⁴⁾	E11	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to LR (Lloyds Register), Great Britain, CT 45 °C, temperature class 155 (F), used according to 155 (F) ⁴⁾	E21	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to BV (Bureau Veritas), France, CT 45 °C, temperature class 155 (F), used according to 155 (F) ⁴⁾	E31	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to RS (Russian Maritime Register of Shipping), Russia, CT 45 °C, temperature class 155 (F), used according to 155 (F) ⁴⁾	E46 <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to DNV (Det Norske Veritas), Norway, CT 45 °C, temperature class 155 (F), used according to 155 (F) ⁴⁾	E51	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Marine version – Acceptance/certification														
Individual acceptance by marine classification society	E10	All	All	–	–	–	–	✓	✓	✓	✓	✓	✓	
	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	–	–	–	–	–	–	
Type test with warm run for horizontal motors, with acceptance ⁵⁾	F83	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Type test with warm run for vertical motors, with acceptance ⁵⁾	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	

O. R. Possible on request
✓ With additional charge
– Not possible

- ¹⁾ Identically priced predecessor type for 2-pole motors 1LG6...2AA../1LG6...2AB.. or 4-pole motors 1LG6...4AA.. to be ordered using options for marine certificates. For increased output of motors 1LG6 ■■■-■M■ .. from 160 kW to 315 kW, a marine version is not possible.
- ²⁾ Motor for use in shipping for higher ambient temperature and/or used as 155 (F) according to 130 (B), order with details in plain text. The order codes for the basic marine version (E00, E11, E21, E31, E51) cannot be combined with each other.

- ³⁾ The delivery time for the factory test certificate may differ from the delivery time for the motor.
- ⁴⁾ For 1LP4 motors, certification is possible on request in accordance with the classification societies GL, LR, BV, RS and DNV.
- ⁵⁾ Option or plain text data only necessary for one motor when ordering several motors of the same type.

5.6

SIMOTICS DP Application-specific Motors

Marine motors

Special versions – SIMOTICS XP Explosion-Proof Motors
Aluminum series 1MA7

Standard delivery times:

10
working
days

20
working
days

On
request

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Standard delivery time (colored area)											
		Motor version	Motor type (alum.)	Motor type – Frame size											
				63	71	80	90	100	112	132	160	180	200	225	
		Zone 1 Ex e II	1MA7	1MA7											
1MA7 -Z		Motor version	Motor type	Frame size	63	71	80	90	100	112	132	160	180	200	225
Marine version – Basic version ¹⁾															
Without type test certificate according to ABS 50 °C/ CCS 45 °C/RINA 45 °C, temperature class 155 (F) used according to 155 (F) (if acceptance test certificate 3.1 according to EN 10204 is required, this must be ordered with order code B02) ²⁾	E00	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓			
With type test certificate according to GL (Germanischer Lloyd), Germany, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E11	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓			
With type test certificate according to LR (Lloyds Register), Great Britain, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E21	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓			
With type test certificate according to BV (Bureau Veritas), France, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E31	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓			
With type test certificate according to RS (Russian Maritime Register of Shipping), Russia, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E46 <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓			
With type test certificate according to DNV (Det Norske Veritas), Norway, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E51	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Marine version – Acceptance/certification															
Individual acceptance by marine classification society	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.			
Type test with warm run for horizontal motors, with acceptance ³⁾	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.			
Type test with warm run for vertical motors, with acceptance ³⁾	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.			

O. R. Possible on request
✓ With additional charge

¹⁾ Motor for use in shipping for higher ambient temperature and/or used as 155 (F) according to 130 (B), order with details in plain text. The order codes for the basic marine version (E00, E11, E21, E31, E51) cannot be combined with each other. For the 1LA9 motor series with increased output, for order codes E11, E31 and E51 derating of 4 % is required and for order codes E00 and E21 derating of 8 % is required.

²⁾ The delivery time for the factory test certificate may differ from the delivery time for the motor.

³⁾ Option or plain text data only necessary for one motor when ordering several motors of the same type.

SIMOTICS DP Application-specific Motors

Marine motors

Standard delivery times:

10 working days	20 working days	On request
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Special versions – SIMOTICS XP Explosion-Proof Motors
Aluminum series 1LA7/5/9

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Standard delivery time (colored area)													
		Motor version	Motor type (alum.)	Motor type – Frame size													
				63	71	80	90	100	112	132	160	180	200	225			
				Zone 2 Ex nA II, Zone 21/22 Ex tD IE1	1LA7	1LA7										1LA5 ¹⁾	
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2/ NEMA Energy Efficient	1LA9	1LA9 ²⁾													
1LA -Z		Motor version	Motor type	Frame size													
				63	71	80	90	100	112	132	160	180	200	225			
Marine version – Basic version ³⁾																	
Without type test certificate according to ABS 50 °C/ CCS 45 °C/RINA 45 °C, temperature class 155 (F) used according to 155 (F) (if acceptance test certificate 3.1 according to EN 10204 is required, this must be ordered with order code B02) ⁴⁾	E00	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
With type test certificate according to GL (Germanischer Lloyd), Germany, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E11	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
With type test certificate according to LR (Lloyds Register), Great Britain, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E21	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
With type test certificate according to BV (Bureau Veritas), France, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E31	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
With type test certificate according to RS (Russian Maritime Register of Shipping), Russia, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E46 <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
With type test certificate according to DNV (Det Norske Veritas), Norway, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E51	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Marine version – Acceptance/certification																	
Individual acceptance by marine classification society	E10	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Type test with warm run for horizontal motors, with acceptance ⁵⁾	F83	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Type test with warm run for vertical motors, with acceptance ⁵⁾	Plain text data	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. Possible on request
✓ With additional charge

- ¹⁾ Zone 2 Ex nA II is not possible for 1LA5 motors; for Zone 2 Ex nA II, 1LG4 motors are available.
- ²⁾ Zone 2 Ex nA II is not possible for 1LA9 motors in frame sizes 180 and 200.
- ³⁾ Motor for use in shipping for higher ambient temperature and/or used as 155 (F) according to 130 (B), order with details in plain text. The order codes for the basic marine version (E00, E11, E21, E31, E51) cannot be combined with each other. For the 1LA9 motor series with increased output, for order codes E11, E31 and E51 derating of 4 % is required and for order codes E00 and E21 derating of 8 % is required.

⁴⁾ The delivery time for the factory test certificate may differ from the delivery time for the motor.

⁵⁾ Option or plain text data only necessary for one motor when ordering several motors of the same type.

SIMOTICS DP Application-specific Motors

Marine motors

Special versions – SIMOTICS XP Explosion-Proof Motors
Cast-iron series 1MA6, 1MJ6/7

Standard delivery times:

10
working
days

20
working
days

On
request

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Standard delivery time (colored area)													
		Motor version	Motor type (cast-iron)	Motor type – Frame size													
				71	80	90	100	112	132	160	180	200	225	250	280	315	
		Zone 1 Ex e II	1MA6	1MA6													
		Zone 1 Ex de IIC	1MJ6/1MJ7	1MJ6									1MJ7				
1M -Z		Motor version	Motor type	Frame size													
				71	80	90	100	112	132	160	180	200	225	250	280	315	
Marine version – Basic version ¹⁾																	
Without type test certificate according to ABS 50 °C/CCS 45 °C/ RINA 45 °C, temperature class 155 (F) used according to 155 (F) (if acceptance test certificate 3.1 according to EN 10204 is required, this must be ordered with order code B02) ²⁾	E00	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to GL (Germanischer Lloyd), Germany, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E11	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to LR (Lloyds Register), Great Britain, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E21	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to BV (Bureau Veritas), France, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E31	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to RS (Russian Maritime Register of Shipping), Russia, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E46 <i>New!</i>	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
With type test certificate according to DNV (Det Norske Veritas), Norway, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E51	All	All	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Marine version – Acceptance/certification																	
Individual acceptance by marine classification society	Plain text data	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.	
Type test with warm run for horizontal motors, with acceptance ³⁾	Plain text data	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.	
Type test with warm run for vertical motors, with acceptance ³⁾	Plain text data	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.	

O. R. Possible on request

✓ With additional charge

¹⁾ Motor for use in shipping for higher ambient temperature and/or used as 155 (F) according to 130 (B), order with details in plain text. The order codes for the basic marine version (E00, E11, E21, E31, E51) cannot be combined with each other.

²⁾ The delivery time for the factory test certificate may differ from the delivery time for the motor.

³⁾ Option or plain text data only necessary for one motor when ordering several motors of the same type.

SIMOTICS DP Application-specific Motors

Marine motors

Standard delivery times:

10 working days	20 working days	On request
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Special versions – SIMOTICS XP Explosion-Proof Motors
Cast-iron series 1LA6, 1LG4/6

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Standard delivery time (colored area)												
		Motor version	Motor type (cast-iron)	Motor type – Frame size												
				71	80	90	100	112	132	160	180	200	225	250	280	315
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE1	1LA6/1LG4				1LA6 ¹⁾				1LG4					
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2/ NEMA Energy Efficient	1LG6								1LG6 ²⁾					
1L.....-Z		Motor version	Motor type	Frame size												
				71	80	90	100	112	132	160	180	200	225	250	280	315
Marine version – Basic version ³⁾																
Without type test certificate according to ABS 50 °C/ CCS 45 °C/RINA 45 °C, temperature class 155 (F) used according to 155 (F) (if acceptance test certificate 3.1 according to EN 10204 is required, this must be ordered with order code B02) ⁴⁾	E00	All	All				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to GL (Germanischer Lloyd), Germany, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E11	All	All				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to LR (Lloyds Register), Great Britain, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E21	All	All				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to BV (Bureau Veritas), France, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E31	All	All				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to RS (Russian Maritime Register of Shipping), Russia, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E46 <i>New!</i>	All	All				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
With type test certificate according to DNV (Det Norske Veritas), Norway, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E51	All	All				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Marine version – Acceptance/certification																
Individual acceptance by marine classification society	E10	All	All				–	–	–	–	✓	✓	✓	✓	✓	✓
	Plain text data	All	All				O. R.	O. R.	O. R.	O. R.	–	–	–	–	–	–
Type test with warm run for horizontal motors, with acceptance ⁵⁾	F83	All	All				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Type test with warm run for vertical motors, with acceptance ⁵⁾	Plain text data	All	All				O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.

O. R. Possible on request
 ✓ With additional charge
 – Not possible

¹⁾ Zone 21 Ex tD is not possible for 1LA6 motors.

²⁾ Identically priced predecessor type for 2-pole motors 1LG6...2AA../1LG6...2AB.. or 4-pole motors 1LG6...4AA../1LG6...4AB.. to be ordered using options for marine certificates and Ex-version. For increased output of motors 1LG6...M... from 160 kW to 315 kW, a marine version and Ex-version are not possible.

³⁾ Motor for use in shipping for higher ambient temperature and/or used as 155 (F) according to 130 (B), order with details in plain text. The order codes for the basic marine version (E00, E11, E21, E31, E51) cannot be combined with each other.

⁴⁾ The delivery time for the factory test certificate may differ from the delivery time for the motor.

⁵⁾ Option or plain text data only necessary for one motor when ordering several motors of the same type.

SIMOTICS DP Application-specific Motors

Marine motors

Special versions – SIMOTICS N-compact Non-Standard Motors
Cast-iron series 1LA8, 1LL8, 1PQ8

Standard delivery times:

10 working days	20 working days	On request
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Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Standard delivery time (colored area)				
		Motor version	Motor type (cast-iron)	Motor type – Frame size				
				315	355	400	450	
		Mains-fed operation	1LA8	1LA8				
			1LL8	1LL8				
		Converter-fed operation	1LA8	1LA8				
1LL8	1LL8							
		1PQ8	1PQ8					
		Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	1LA8				
1PQ8 . . . - -Z		Motor version	Motor type	Frame size				
1L -Z				315	355	400	450	
Marine version – Non-Essential Service								
Technical design								
Designed in accordance with ABS (American Bureau of Shipping), USA, Non-Essential Service	X00	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
				1PQ8	✓	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓
Designed in accordance with BV (Bureau Veritas), France, Non-Essential Service	X01	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
				1PQ8	✓	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓
Designed in accordance with CCS (Chinese Classification Society), China, Non-Essential Service Note: Non-Essential Service must be handled by CCS as an Essential Service.	–		Mains-fed operation	1LA8	–	–	–	–
				1LL8	–	–	–	–
			Converter-fed operation	1LA8	–	–	–	–
				1LL8	–	–	–	–
				1PQ8	–	–	–	–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	–	–	–	–
Designed in accordance with DNV (Det Norske Veritas), Norway, Non-Essential Service	X03	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
				1PQ8	✓	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓
Designed in accordance with GL (Germanischer Lloyd), Germany, Non-Essential Service	X04	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
				1PQ8	✓	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓
Designed in accordance with KR (Korean Register of Shipping), Korea, Non-Essential Service	X05	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
				1PQ8	✓	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓
Designed in accordance with LR (Lloyds Register), Great Britain, Non-Essential Service	X06	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
				1PQ8	✓	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓

For legend, see Page 5/19.

SIMOTICS DP Application-specific Motors

Marine motors

Standard delivery times:

10
working
days20
working
daysOn
requestSpecial versions – SIMOTICS N-compact Non-Standard Motors
Cast-iron series 1LA8, 1LL8, 1PQ8

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Standard delivery time (colored area)			
		Motor version	Motor type (cast-iron)	Motor type – Frame size			
				315	355	400	450
		Mains-fed operation	1LA8	1LA8			
			1LL8	1LL8			
		Converter-fed operation	1LA8	1LA8			
			1LL8	1LL8			
			1PQ8	1PQ8			
		Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	1LA8			
	1PQ8 -Z	Motor version	Motor type	Frame size	315	400	450
	1L -Z						
Marine version – Essential Service							
Technical design							
Designed in accordance with ABS (American Bureau of Shipping), USA, Essential Service	X10	New!	Mains-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
				1PQ8	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓
Designed in accordance with BV (Bureau Veritas), France, Essential Service	X11	New!	Mains-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
				1PQ8	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓
Designed in accordance with CCS (Chinese Classification Society), China, Essential Service	X12	New!	Mains-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
				1PQ8	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓
Designed in accordance with DNV (Det Norske Veritas), Norway, Essential Service	X13	New!	Mains-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
				1PQ8	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓
Designed in accordance with GL (Germanischer Lloyd), Germany, Essential Service	X14	New!	Mains-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
				1PQ8	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓
Designed in accordance with KR (Korean Register of Shipping), Korea, Essential Service	X15	New!	Mains-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
				1PQ8	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓
Designed in accordance with LR (Lloyds Register), Great Britain, Essential Service	X16	New!	Mains-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓
				1LL8	✓	✓	✓
				1PQ8	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓
Certification							
Certification for first motor according to ABS (American Bureau of Shipping), USA, Essential Service	J70	New!	All	All	✓	✓	✓
Certification for additional motors according to ABS (American Bureau of Shipping), USA, Essential Service	J71	New!	All	All	✓	✓	✓
Certification for first motor according to BV (Bureau Veritas), France, Essential Service	J72	New!	All	All	✓	✓	✓
Certification for additional motors according to BV (Bureau Veritas), France, Essential Service	J73	New!	All	All	✓	✓	✓
Certification for first motor according to CCS (Chinese Classification Society), China, Essential Service	J74	New!	All	All	✓	✓	✓

For legend, see Page 5/19.

SIMOTICS DP Application-specific Motors

Marine motors

Special versions – SIMOTICS N-compact Non-Standard Motors
Cast-iron series 1LA8, 1LL8, 1PQ8

Standard delivery times:

10 working days	20 working days	On request
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Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Standard delivery time (colored area)				
		Motor version	Motor type (cast-iron)	Motor type – Frame size				
				315	355	400	450	
		Mains-fed operation	1LA8	1LA8				
			1LL8	1LL8				
		Converter-fed operation	1LA8	1LA8				
			1LL8	1LL8				
			1PQ8	1PQ8				
		Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	1LA8				
		Motor version	Motor type	Frame size	315	355	400	450
Marine version – Essential Service (continued)								
Certification (continued)								
Certification for additional motors according to CCS (Chinese Classification Society), China, Essential Service	J75	New!	All	All	✓	✓	✓	✓
Certification for first motor according to DNV (Det Norske Veritas), Norway, Essential Service	J76	New!	All	All	✓	✓	✓	✓
Certification for additional motors according to DNV (Det Norske Veritas), Norway, Essential Service	J77	New!	All	All	✓	✓	✓	✓
Certification for first motor according to GL (Germanischer Lloyd), Germany, Essential Service	J78	New!	All	All	✓	✓	✓	✓
Certification for additional motors according to GL (Germanischer Lloyd), Germany, Essential Service	J79	New!	All	All	✓	✓	✓	✓
Certification for first motor according to KR (Korean Register of Shipping), Korea, Essential Service	J80	New!	All	All	✓	✓	✓	✓
Certification for additional motors according to KR (Korean Register of Shipping), Korea, Essential Service	J81	New!	All	All	✓	✓	✓	✓
Certification for first motor according to LR (Lloyds Register), Great Britain, Essential Service	J82	New!	All	All	✓	✓	✓	✓
Certification for additional motors according to LR (Lloyds Register), Great Britain, Essential Service	J83	New!	All	All	✓	✓	✓	✓
Tests								
Tests for first motor according to ABS (American Bureau of Shipping), USA, Essential Service	X30	New!	All	All	✓	✓	✓	✓
Tests for additional motors according to ABS (American Bureau of Shipping), USA, Essential Service	X31	New!	All	All	✓	✓	✓	✓
Tests for first motor according to BV (Bureau Veritas), France, Essential Service	X32	New!	All	All	✓	✓	✓	✓
Tests for additional motors according to BV (Bureau Veritas), France, Essential Service	X33	New!	All	All	✓	✓	✓	✓
Tests for first motor according to CCS (Chinese Classification Society), China, Essential Service	X34	New!	All	All	✓	✓	✓	✓
Tests for additional motors according to CCS (Chinese Classification Society), China, Essential Service	X35	New!	All	All	✓	✓	✓	✓
Tests for first motor according to DNV (Det Norske Veritas), Norway, Essential Service	X36	New!	All	All	✓	✓	✓	✓
Tests for additional motors according to DNV (Det Norske Veritas), Norway, Essential Service	X37	New!	All	All	✓	✓	✓	✓
Tests for first motor according to GL (Germanischer Lloyd), Germany, Essential Service	X38	New!	All	All	✓	✓	✓	✓
Tests for additional motors according to GL (Germanischer Lloyd), Germany, Essential Service	X39	New!	All	All	✓	✓	✓	✓
Tests for first motor according to KR (Korean Register of Shipping), Korea, Essential Service	X40	New!	All	All	✓	✓	✓	✓
Tests for additional motors according to KR (Korean Register of Shipping), Korea, Essential Service	X41	New!	All	All	✓	✓	✓	✓
Tests for first motor according to LR (Lloyds Register), Great Britain, Essential Service	X42	New!	All	All	✓	✓	✓	✓
Tests for additional motors according to LR (Lloyds Register), Great Britain, Essential Service	X43	New!	All	All	✓	✓	✓	✓
Marine version – Essential Service for Propulsion								
Technical design								
Designed in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	X20	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
				1PQ8	✓	✓	✓	✓
Designed in accordance with BV (Bureau Veritas), France, Essential Service for Propulsion	X21	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
				1PQ8	✓	✓	✓	✓
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓

For legend, see Page 5/19.

SIMOTICS DP Application-specific Motors

Marine motors

Standard delivery times:

10 working days	20 working days	On request
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Special versions – SIMOTICS N-compact Non-Standard Motors
Cast-iron series 1LA8, 1LL8, 1PQ8

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Standard delivery time (colored area)				
		Motor version	Motor type (cast-iron)	Motor type – Frame size				
				315	355	400	450	
		Mains-fed operation	1LA8	1LA8				
			1LL8	1LL8				
			1PQ8	1PQ8				
Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	1LA8						
1PQ8 . . . - -Z 1L -Z		Motor version	Motor type	Frame size	315	355	400	450
Marine version – Essential Service for Propulsion (continued)								
Technical design (continued)								
Designed in accordance with CCS (Chinese Classification Society), China, Essential Service for Propulsion	X22	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			1PQ8	✓	✓	✓	✓	
				Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓
Designed in accordance with DNV (Det Norske Veritas), Norway, Essential Service for Propulsion	X23	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			1PQ8	✓	✓	✓	✓	
				Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓
Designed in accordance with GL (Germanischer Lloyd), Germany, Essential Service for Propulsion	X24	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			1PQ8	✓	✓	✓	✓	
				Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓
Designed in accordance with KR (Korean Register of Shipping), Korea, Essential Service for Propulsion	X25	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			1PQ8	✓	✓	✓	✓	
				Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓
Designed in accordance with LR (Lloyds Register), Great Britain, Essential Service for Propulsion	X26	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			1PQ8	✓	✓	✓	✓	
				Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓
Certification								
Certification for first motor according to ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	N40	New!	All	All	✓	✓	✓	✓
Certification for additional motors according to ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	N41	New!	All	All	✓	✓	✓	✓
Certification for first motor according to BV (Bureau Veritas), France, Essential Service for Propulsion	N42	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			1PQ8	✓	✓	✓	✓	
Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓			
Certification for additional motors according to BV (Bureau Veritas), France, Essential Service for Propulsion	N43	New!	Mains-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			Converter-fed operation	1LA8	✓	✓	✓	✓
				1LL8	✓	✓	✓	✓
			1PQ8	✓	✓	✓	✓	
Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓			

5.6

SIMOTICS DP Application-specific Motors

Marine motors

Special versions – SIMOTICS N-compact Non-Standard Motors
Cast-iron series 1LA8, 1LL8, 1PQ8

Standard delivery times:

10 working days	20 working days	On request
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Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Standard delivery time (colored area)					
		Motor version	Motor type (cast-iron)	Motor type – Frame size					
				315	355	400	450		
				Mains-fed operation	1LA8	1LA8			
					1LL8	1LL8			
Converter-fed operation	1LA8			1LA8					
	1LL8			1LL8					
		1PQ8	1PQ8						
		Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	1LA8					
1PQ8-Z 1L-Z		Motor version	Motor type	Frame size	315	355	400	450	
Marine version – Essential Service for Propulsion (continued)									
Certification (continued)									
Certification for first motor according to CCS (Chinese Classification Society), China, Essential Service for Propulsion	N44	New!	All	All	✓	✓	✓	✓	
Certification for additional motors according to CCS (Chinese Classification Society), China, Essential Service for Propulsion	N45	New!	All	All	✓	✓	✓	✓	
Certification for first motor according to DNV (Det Norske Veritas), Norway, Essential Service for Propulsion	N46	New!	Mains-fed operation	1LA8	✓	✓	✓	✓	
				1LL8	✓	✓	✓	✓	
			Converter-fed operation	1LA8	✓	✓	✓	✓	
				1LL8	✓	✓	✓	✓	
			1PQ8	✓	✓	✓	✓		
Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓				
Certification for additional motors according to DNV (Det Norske Veritas), Norway, Essential Service for Propulsion	N47	New!	Mains-fed operation	1LA8	✓	✓	✓	✓	
				1LL8	✓	✓	✓	✓	
			Converter-fed operation	1LA8	✓	✓	✓	✓	
				1LL8	✓	✓	✓	✓	
			1PQ8	✓	✓	✓	✓		
Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓				
Certification for first motor according to GL (Germanischer Lloyd), Germany, Essential Service for Propulsion	N48	New!	Mains-fed operation	1LA8	✓	✓	✓	✓	
				1LL8	✓	✓	✓	✓	
			Converter-fed operation	1LA8	✓	✓	✓	✓	
				1LL8	✓	✓	✓	✓	
			1PQ8	✓	✓	✓	✓		
Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓				
Certification for additional motors according to GL (Germanischer Lloyd), Germany, Essential Service for Propulsion	N49	New!	Mains-fed operation	1LA8	✓	✓	✓	✓	
				1LL8	✓	✓	✓	✓	
			Converter-fed operation	1LA8	✓	✓	✓	✓	
				1LL8	✓	✓	✓	✓	
			1PQ8	✓	✓	✓	✓		
Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓				
Certification for first motor according to KR (Korean Register of Shipping), Korea, Essential Service for Propulsion	N50	New!	All	All	✓	✓	✓	✓	
Certification for additional motors according to KR (Korean Register of Shipping), Korea, Essential Service for Propulsion	N51	New!	All	All	✓	✓	✓	✓	
Certification for first motor according to LR (Lloyds Register), Great Britain, Essential Service for Propulsion	N52	New!	Mains-fed operation	1LA8	✓	✓	✓	✓	
				1LL8	✓	✓	✓	✓	
			Converter-fed operation	1LA8	✓	✓	✓	✓	
				1LL8	✓	✓	✓	✓	
			1PQ8	✓	✓	✓	✓		
Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓				
Certification for additional motors according to LR (Lloyds Register), Great Britain, Essential Service for Propulsion	N53	New!	Mains-fed operation	1LA8	✓	✓	✓	✓	
				1LL8	✓	✓	✓	✓	
			Converter-fed operation	1LA8	✓	✓	✓	✓	
				1LL8	✓	✓	✓	✓	
			1PQ8	✓	✓	✓	✓		
Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓				

For legend, see Page 5/19.

SIMOTICS DP Application-specific Motors

Marine motors

Standard delivery times:

10 working days	20 working days	On request
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Special versions – SIMOTICS N-compact Non-Standard Motors
Cast-iron series 1LA8, 1LL8, 1PQ8

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Standard delivery time (colored area)					
		Motor version	Motor type (cast-iron)	Motor type – Frame size					
				315	355	400	450		
		Mains-fed operation	1LA8	1LA8					
			1LL8	1LL8					
			1PQ8	1PQ8					
Converter-fed operation	1LA8	1LA8							
	1LL8	1LL8							
Zone 2 Ex nA II, Zone 22 Ex tD	1PQ8	1PQ8							
	1LA8	1LA8							
1PQ8 -Z 1L -Z		Motor version	Motor type	Frame size		315	355	400	450
Marine version – Essential Service for Propulsion (continued)									
Tests									
Tests for first motor according to ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	X60	New!	All	All	✓	✓	✓	✓	
Tests for additional motors according to ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	X61	New!	All	All	✓	✓	✓	✓	
Tests for first motor according to BV (Bureau Veritas), France, Essential Service for Propulsion	X62	New!	All	All	✓	✓	✓	✓	
Tests for additional motors according to BV (Bureau Veritas), France, Essential Service for Propulsion	X63	New!	All	All	✓	✓	✓	✓	
Tests for first motor according to CCS (Chinese Classification Society), China, Essential Service for Propulsion	X64	New!	All	All	✓	✓	✓	✓	
Tests for additional motors according to CCS (Chinese Classification Society), China, Essential Service for Propulsion	X65	New!	All	All	✓	✓	✓	✓	
Tests for first motor according to DNV (Det Norske Veritas), Norway, Essential Service for Propulsion	X66	New!	All	All	✓	✓	✓	✓	
Tests for additional motors according to DNV (Det Norske Veritas), Norway, Essential Service for Propulsion	X67	New!	All	All	✓	✓	✓	✓	
Tests for first motor according to GL (Germanischer Lloyd), Germany, Essential Service for Propulsion	X68	New!	All	All	✓	✓	✓	✓	
Tests for additional motors according to GL (Germanischer Lloyd), Germany, Essential Service for Propulsion	X69	New!	All	All	✓	✓	✓	✓	
Tests for first motor according to KR (Korean Register of Shipping), Korea, Essential Service for Propulsion	X70	New!	All	All	✓	✓	✓	✓	
Tests for additional motors according to KR (Korean Register of Shipping), Korea, Essential Service for Propulsion	X71	New!	All	All	✓	✓	✓	✓	
Tests for first motor according to LR (Lloyds Register), Great Britain, Essential Service for Propulsion	X72	New!	All	All	✓	✓	✓	✓	
Tests for additional motors according to LR (Lloyds Register), Great Britain, Essential Service for Propulsion	X73	New!	All	All	✓	✓	✓	✓	
Marine version – Additional options for Essential Service and Essential Service for Propulsion									
Tests in presence of representatives of the customer (in addition to the inspector of the classification society)	X99	New!	All	All	✓	✓	✓	✓	
Motor for use in shipping, higher ambient temperature and/or use of temperature class 155 (F) according to 130 (B)	E80 • and identification code	Mains-fed operation	1LA8	✓	✓	✓	✓		
			1LL8	✓	✓	✓	✓		
		Converter-fed operation	1LA8	✓	✓	✓	✓		
			1LL8	✓	✓	✓	✓		
		1PQ8	✓	✓	✓	✓			
		Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	✓	✓	✓	✓		

- This order code only determines the price of the version – Additional plain text is required.
- ✓ With additional charge
- Not possible

SIMOTICS DP Application-specific Motors

Marine motors

Special versions – SIMOTICS N-compact Non-Standard Motors Cast-iron series 1LA8, 1LL8, 1PQ8

Ordering example:

Selection criteria	Requirement	Structure of the Order No.
1st ordering example: 5 motors for Non-Essential Service according to GL (Germanischer Lloyd), Germany		
Motor type	Non-standard motor specially designed for mains-fed operation, self-ventilated, cast-iron version, IP55 degree of protection	1LA8■■■■-■■■■■
Motor frame size/No. of poles/Speed	400/8-pole/750 rpm	1LA8405-8AB■■■
Rated output	400 kW	
Voltage and frequency	500 VΔ, 50 Hz	1LA8405-8AB5■
Type	IM B3	1LA8405-8AB50
Special versions	Technical design in accordance with GL (Germanischer Lloyd), Germany, Non-Essential Service	1LA8405-8AB50-Z X04
	Order No. for each of the 5 motors	1LA8405-8AB50-Z X04
2nd ordering example: 7 motors for Essential Service according to BV (Bureau Veritas), France		
Motor type	Non-standard motor especially for converters, self-ventilated with through-ventilation, cast-iron version, IP23 degree of protection	1LL8■■■■-■■■■■
Motor frame size/No. of poles/Speed	400/2-pole/3000 rpm	1LL8405-2PD■■■
Rated output	1000 kW	
Voltage and frequency	400 VΔ/690 VY, 50 Hz	1LL8405-2PD8■
Type	IM V1 with canopy	1LL8405-2PD84
Special versions		
1st motor	Technical design in accordance with BV (Bureau Veritas), France, Essential Service	1LL8405-2PD84-Z X11
	Necessary certification for first motor ordered in accordance with BV (Bureau Veritas), France, Essential Service	1LL8405-2PD84-Z X11+J72
	Necessary tests for first motor ordered in accordance with BV (Bureau Veritas), France, Essential Service	1LL8405-2PD84-Z X11+J72+X32
	Order No. for 1st motor	1LL8405-2PD84-Z X11+J72+X32
Additional 6 motors (additional motors)	Technical design in accordance with BV (Bureau Veritas), France, Essential Service	1LL8405-2PD84-Z X11
	Necessary certification for additional motors ordered in accordance with BV (Bureau Veritas), France, Essential Service	1LL8405-2PD84-Z X11+J73
	Necessary tests for additional motors ordered in accordance with BV (Bureau Veritas), France, Essential Service	1LL8405-2PD84-Z X11+J73+X33
	Order No. for the additional 6 motors	1LL8405-2PD84-Z X11+J73+X33
3rd ordering example: 3 motors for Essential Service for Propulsion according to ABS (American Bureau of Shipping), USA		
Motor type	Non-standard motor specially designed for mains-fed operation, self-ventilated, cast-iron version, IP55 degree of protection	1LA8■■■■-■■■■■
Motor frame size/No. of poles/Speed	400/8-pole/750 rpm	1LA8405-8AB■■■
Rated output	400 kW	
Voltage and frequency	500 VΔ, 50 Hz	1LA8405-8AB5■
Type	IM B3	1LA8405-8AB50
Special versions		
1st motor	Technical design in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	1LA8405-8AB50-Z X20
	Necessary certification for first motor ordered in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	1LA8405-8AB50-Z X20+N40
	Necessary tests for first motor ordered in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	1LA8405-8AB50-Z X20+N40+X60
	Order No. for 1st motor	1LA8405-8AB50-Z X20+N40+X60
Additional 2 motors (additional motors)	Technical design in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	1LA8405-8AB50-Z X20
	Necessary certification for additional motors ordered in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	1LA8405-8AB50-Z X20+N41
	Necessary tests for additional motors ordered in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	1LA8405-8AB50-Z X20+N41+X61
	Order No. for the additional 2 motors	1LA8405-8AB50-Z X20+N41+X61
4th ordering example: 1 motor for Essential Service according to ABS (American Bureau of Shipping), USA, coolant temperature 60 °C:		
Motor type	Non-standard motor specially designed for mains-fed operation, self-ventilated, cast-iron version, IP55 degree of protection	1LA8■■■■-■■■■■
Motor frame size/No. of poles/Speed	400/8-pole/750 rpm	1LA8405-8AB■■■
Rated output	400 kW	
Voltage and frequency	500 VΔ, 50 Hz	1LA8405-8AB5■
Type	IM B3	1LA8405-8AB50
Special versions		
	Technical design in accordance with ABS (American Bureau of Shipping), USA, Essential Service	1LA8405-8AB50-Z X10
	Necessary certification for first motor ordered in accordance with ABS (American Bureau of Shipping), USA, Essential Service	1LA8405-8AB50-Z X10+J70
	Necessary tests for first motor ordered in accordance with ABS (American Bureau of Shipping), USA, Essential Service	1LA8405-8AB50-Z X10+J70+X30
	Motor for use in shipping, higher ambient temperature and/or use of temperature class 155 (F) according to 130 (B) - coolant temperature 60 °C	1LA8405-8AB50-Z X10+J70+X30+E80 Plain text: COOLANT TEMP CT60
	Order No. for the motor	1LA8405-8AB50-Z X10+J70+X30+E80 Plain text: COOLANT TEMP CT60