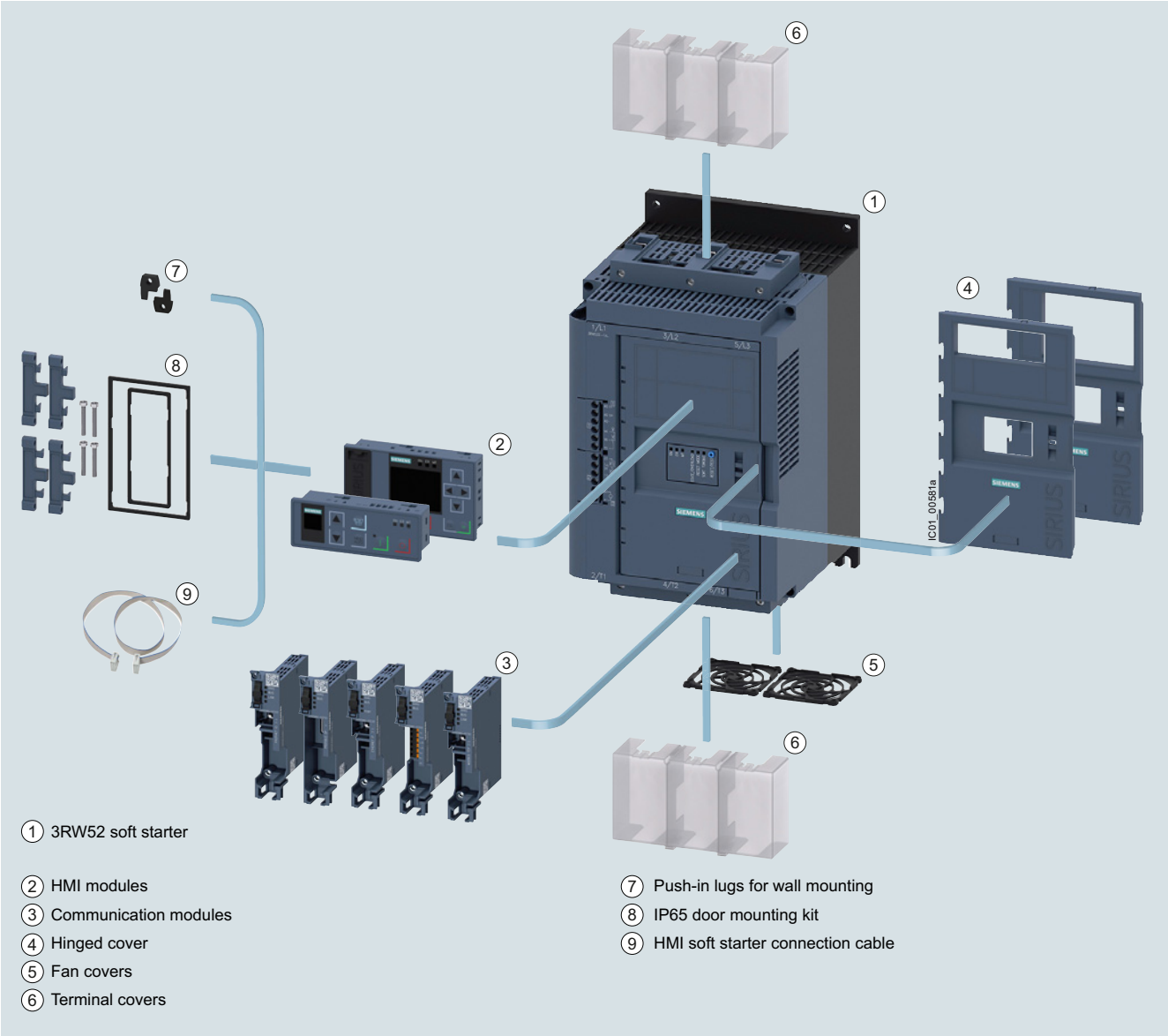
Overview

More information	
Homepage, see www.siemens.com/soft-starter	Industry Online Support (SIOS) topic page, see https://support.industry.siemens.com/cs/ww/en/view/109747404
Industry Mall, see www.siemens.com/product?3RW52	Simulation Tool for Soft Starters (STS), see page 6/8 or https://support.industry.siemens.com/cs/ww/en/view/101494917
TIA Selection Tool Cloud (TST Cloud), see https://www.siemens.com/tstcloud/?node=3rw52	SIRIUS Soft Starter ES (TIA Portal) for diagnostics, see page 14/5

SIRIUS 3RW52 General Performance soft starters are the ideal solution for standard applications. With ideal three-phase motor control, they cover the performance range from 5.5 kW to 560 kW (at 400 V).

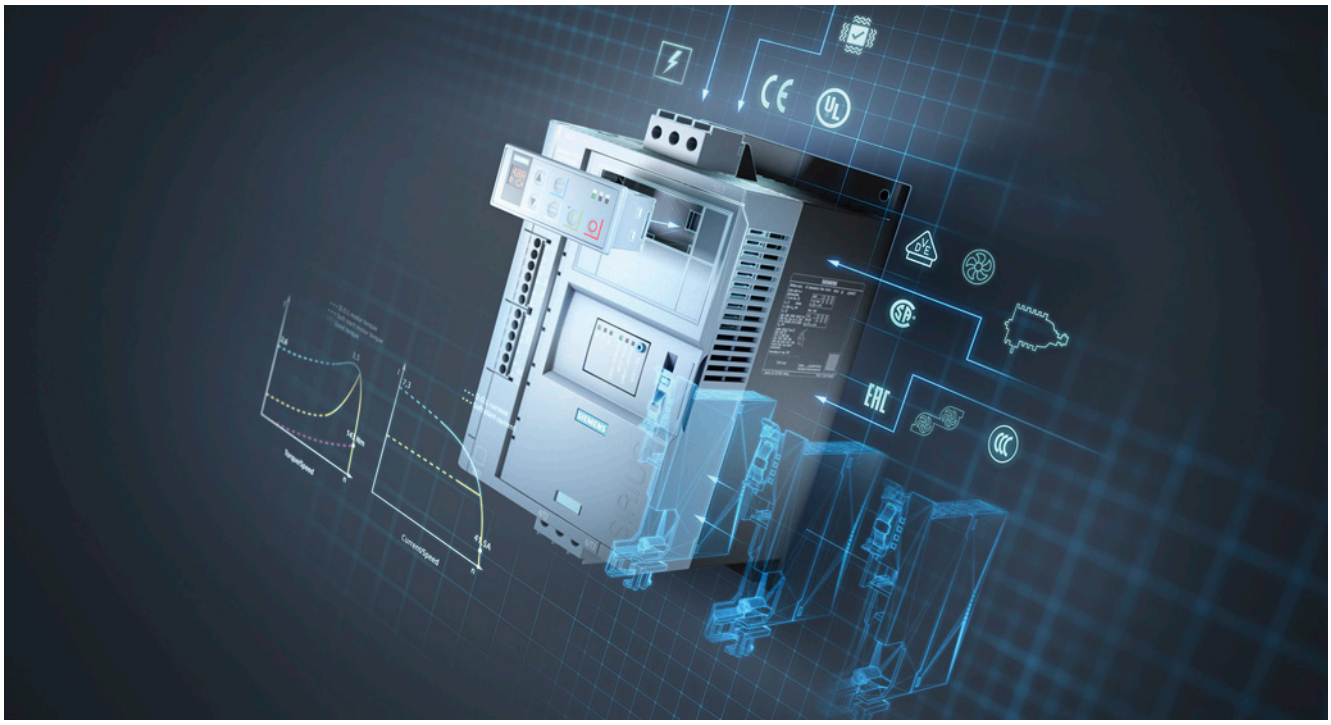
Optional HMI modules, plug-in communication modules (PROFINET, PROFIBUS, EtherNet/IP and Modbus) and either an analog output or thermistor motor protection ensure maximum flexibility. With their modern hybrid switching technology, the SIRIUS 3RW52 soft starters offer efficient switching for long-term, energy-saving use.



1 3RW52 soft starter
2 HMI modules
3 Communication modules
4 Hinged cover
5 Fan covers
6 Terminal covers
7 Push-in lugs for wall mounting
8 IP65 door mounting kit
9 HMI soft starter connection cable

3RW52 General Performance soft starters with accessories (see page 6/70), for expansion with HMI module or communication module

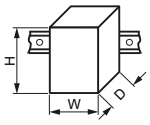
Benefits



Product characteristics / function	Performance features / benefits
Hybrid switching devices and three-phase motor control	Minimum power loss and optimum/symmetrical motor control
TIA-Integration – communication modules and HMI modules optional	Efficient configuration and maximum flexibility in automation engineering
Soft Torque	Reduced mechanical loading and optimum pump stop
Parameterization using potentiometers	Simple and fast commissioning
Wide range for control supply and main voltage	Low variance, high system availability even with weak supply networks

Technical specifications

More information	
Technical specifications, see https://support.industry.siemens.com/cs/ww/en/ps/25100/td Equipment Manual "SIRIUS 3RW52 Soft Starter", see https://support.industry.siemens.com/cs/ww/en/view/109753751	FAQs, see https://support.industry.siemens.com/cs/ww/en/ps/25100/faq Simulation Tool for Soft Starters (STS), see page 6/8 or https://support.industry.siemens.com/cs/ww/en/view/101494917

Type		**3RW5213 3RW5214 3RW5215**	**3RW5216 3RW5217**	**3RW5224 3RW5225**	**3RW5226 3RW5227 3RW5234 3RW5235 3RW5236**	**3RW5243 3RW5244 3RW5245 3RW5246 3RW5247 3RW5248**
Installation/fixing/dimensions						
Width x height x depth 	mm	170 × 275 × 152		185 × 306 × 203		210 × 393 × 203
Type of mounting		Screw fixing				
Mounting position		For vertical mounting surface can be rotated +/- 10° and tilted forward or backward	For vertical mounting surface can be rotated +/- 90°, for vertical mounting surface can be tilted +/- 22.5° forward or backward	For vertical mounting surface can be rotated +/- 10° and tilted forward or backward	For vertical mounting surface can be rotated +/- 90°, for vertical mounting surface can be tilted +/- 22.5° forward or backward	
Distance to be maintained with side-by-side mounting						
• Above	mm	100				
• At the side	mm	5				
• Below	mm	75				
Maximum installation altitude above sea level[1]	m	5 000				
Degree of protection		IP20	IP00			
Ambient conditions						
Ambient temperature						
• During operation[2]	°C	-25 ... +60				
• During storage and transport	°C	-40 ... +80				
Environmental category according to IEC 60721						
• During operation		3K6 (no ice formation, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6				
• During storage		1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not enter the devices), 1M4				
• During transport		2K2, 2C1, 2S1, 2M2 (max. height of fall 0.3 m)				

[1] Derating from 1 000 m, see characteristic curve on page 6/8.
[2] Note derating above 40 °C.

Type		3RW52..-..C0.	3RW52..-..C1.
Control circuit/control			
Control supply voltage			
• At AC/DC, rated value	V	24/24	--/--
• At AC	V	--	110 ... 250
• Relative negative tolerance/relative positive tolerance with AC	%	-20/20	-15/10
• Relative negative tolerance/relative positive tolerance with DC	%	-20/20	--/--
Frequency of the control supply voltage	Hz	50 ... 60	
• Relative negative tolerance/relative positive tolerance	%	-10/10	
Type of overvoltage protection		Varistors	
Type of short-circuit protection for control circuit[1]		Fuse 4 A gG (I_{cu} = 1 kA), fuse 6 A quick-response (I_{cu} = 1 kA), MCB C1 (I_{cu} = 600 A), MCB C6 (I_{cu} = 300 A)	

[1] Not included in scope of supply

Type		3RW52..-..C.4	3RW52..-..C.5
Power electronics			
Operational voltage, rated value	V	200 ... 480	200 ... 600
• Relative negative tolerance/relative positive tolerance	%	-15/10	
Operational voltage for inside-delta circuit, rated value	V	200 ... 480	200 ... 600
• Relative negative tolerance/relative positive tolerance	%	-15/10	
Operating frequency, rated value	Hz	50 ... 60	
• Relative negative tolerance/relative positive tolerance	%	-10/10	
Minimum load [% of I_M][1]	%	15	
Maximum cable length between soft starter and motor	m	800	

[1] Relative to the smallest adjustable I_e.

Type		3RW5213	3RW5214	3RW5215	3RW5216	3RW5217
Rated operational current I_e	A	13	18	25	32	38
Power electronics						
Load rating with rated operational current I_e						
IEC + UL/CSA, individual mounting at 40/50/60 °C, AC-53a	A	13/11.5/10.5	18/15.9/13.8	25/22.3/19.6	32/28.4/26	38/33.5/30.5
Permissible rated motor current and starts/h						
Normal starting (CLASS 10A)						
Rated motor current I_M, T_u = 40/50/60 °C ON period = 70%; motor protection activated	A	13/11.5/10.5	18/15.9/13.8	25/22.3/19.6	32/28.4/26	38/33.5/30.5
• 300% I_M						
- Start-up time 5 s	1/h	43	43	43	43	43
- Start-up time 10 s	1/h	18	18	18	18	18
• 350% I_M						
- Start-up time 5 s	1/h	28	28	28	28	28
- Start-up time 10 s	1/h	10	10	10	10	10
Normal starting (CLASS 10E)						
Rated motor current I_M, T_u = 40/50/60 °C ON period = 70%; motor protection activated	A	13/11.5/10.5	18/15.9/13.8	25/22.3/19.6	32/28.4/26	38/33.5/30.5
• 300% I_M						
- Start-up time 20 s	1/h	21	21	21	21	21
- Start-up time 40 s	1/h	8	8	8	8	8
• 350% I_M						
- Start-up time 20 s	1/h	13	13	13	13	13
- Start-up time 40 s	1/h	4	4	4	4	4
Heavy starting (CLASS 20E)						
Rated motor current I_M, T_u = 40/50/60 °C ON period = 70%; motor protection activated	A	13/11.5/10.5	18/15.9/13.8	25/22.3/19.6	29.6/27.2/23.6	33.5/30.5/27.5
• 300% I_M						
- Start-up time 20 s	1/h	10	10	10	10	10
- Start-up time 40 s	1/h	4	4	4	4	4
• 350% I_M						
- Start-up time 20 s	1/h	7	7	7	7	7
- Start-up time 40 s	1/h	2.5	2.5	2.5	2.5	2.5
Adjustable rated motor current I_M						
• Minimum/maximum	A	5.5/13	7.5/18	11.5/25	14/32	15.5/38
• Minimum/maximum in inside-delta circuits	A	9.5/22.5	13/31.2	19.9/43.3	24.2/55.4	26.8/65.8

Type		3RW5224	3RW5225	3RW5226	3RW5227
Rated operational current I_e	A	47	63	77	93
Power electronics					
Load rating with rated operational current I_e					
IEC + UL/CSA, individual mounting at 40/50/60 °C, AC-53a	A	47/41.6/36.2	63/55.5/50.5	77/68/62	93/82.5/75.5
Permissible rated motor current and starts/h					
Normal starting (CLASS 10A)					
Rated motor current I_M, T_u = 40/50/60 °C ON period = 70%; motor protection activated	A	47/41.6/36.2	63/55.5/50.5	77/68/62	93/82.5/75.5
• 300% I_M					
- Start-up time 5 s	1/h	43	43	43	43
- Start-up time 10 s	1/h	18	18	18	18
• 350% I_M					
- Start-up time 5 s	1/h	28	28	28	28
- Start-up time 10 s	1/h	10	10	10	10
Normal starting (CLASS 10E)					
Rated motor current I_M, T_u = 40/50/60 °C ON period = 70%; motor protection activated	A	47/41.6/36.2	63/55.5/50.5	77/68/62	93/82.5/75.5
• 300% I_M					
- Start-up time 20 s	1/h	21	21	21	21
- Start-up time 40 s	1/h	8	8	8	8
• 350% I_M					
- Start-up time 20 s	1/h	13	13	13	13
- Start-up time 40 s	1/h	4	4	4	4
Heavy starting (CLASS 20E)					
Rated motor current I_M, T_u = 40/50/60 °C ON period = 70%; motor protection activated	A	47/41.6/36.2	63/55.5/50.5	65/59/53	93/82.5/75.5
• 300% I_M					
- Start-up time 20 s	1/h	10	10	10	10
- Start-up time 40 s	1/h	4	3	4	4
• 350% I_M					
- Start-up time 20 s	1/h	7	4	7	7
- Start-up time 40 s	1/h	2	0	2.5	2.5
Adjustable rated motor current I_M					
• Minimum/maximum	A	20/47	25.5/63	32/77	40.5/93
• Minimum/maximum in inside-delta circuits	A	34.6/81.4	44.2/109	55.4/133	70.1/161

Type		3RW5234	3RW5235	3RW5236
Rated operational current I_e	A	113	143	171
Power electronics				
Load rating with rated operational current I_e				
IEC + UL/CSA, individual mounting at 40/50/60 °C, AC-53a	A	113/101/89	143/128/118	171/153/141
Permissible rated motor current and starts/h				
Normal starting (CLASS 10A)				
Rated motor current I_M, T_u = 40/50/60 °C ON period = 70%; motor protection activated	A	113/101/89	143/128/118	171/153/141
• 300% I_M				
- Start-up time 5 s	1/h	43	43	43
- Start-up time 10 s	1/h	18	18	18
• 350% I_M				
- Start-up time 5 s	1/h	28	27	20
- Start-up time 10 s	1/h	10	8	4
Normal starting (CLASS 10E)				
Rated motor current I_M, T_u = 40/50/60 °C ON period = 70%; motor protection activated	A	113/101/89	139/127/116	158/146/129
• 300% I_M				
- Start-up time 20 s	1/h	21	21	21
- Start-up time 40 s	1/h	8	8	8
• 350% I_M				
- Start-up time 20 s	1/h	13	12	12
- Start-up time 40 s	1/h	4	1	1
Heavy starting (CLASS 20E)				
Rated motor current I_M, T_u = 40/50/60 °C ON period = 70%; motor protection activated	A	109/97/85	113/103/93	129/117/105
• 300% I_M				
- Start-up time 20 s	1/h	10	10	10
- Start-up time 40 s	1/h	4	4	4
• 350% I_M				
- Start-up time 20 s	1/h	7	7	7
- Start-up time 40 s	1/h	2.5	2.5	2.5
Adjustable rated motor current I_M				
• Minimum/maximum	A	53/113	68/143	81/171
• Minimum/maximum in inside-delta circuits	A	91.8/196	118/248	140/296

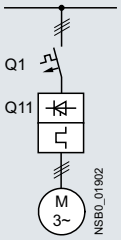
Type		3RW5243	3RW5244	3RW5245	3RW5246	3RW5247	3RW5248
Rated operational current I_e	A	210	250	315	370	470	570
Power electronics							
Load rating with rated operational current I_e							
IEC + UL/CSA, individual mounting at 40/50/60 °C, AC-53a	A	210/186/170	250/220/200	315/279/255	370/328/300	470/416/380	570/504/460
Permissible rated motor current and starts/h							
Normal starting (CLASS 10A)							
Rated motor current I_M, T_u = 40/50/60 °C ON period = 70%; motor protection activated	A	210/186/170	250/220/200	315/279/255	370/328/300	470/416/380	570/504/460
• 300% I_M							
- Start-up time 5 s	1/h	43	43	43	43	30	20
- Start-up time 10 s	1/h	18	18	14	18	11	6
• 350% I_M							
- Start-up time 5 s	1/h	28	28	16	28	17	9
- Start-up time 10 s	1/h	5	10	4	10	5	1
Normal starting (CLASS 10E)							
Rated motor current I_M, T_u = 40/50/60 °C ON period = 70%; motor protection activated	A	197/184/170	250/220/200	279/255/231	370/328/300	398/362/326	460/416/372
• 300% I_M							
- Start-up time 20 s	1/h	21	21	21	21	21	18
- Start-up time 40 s	1/h	8	8	8	8	8	7
• 350% I_M							
- Start-up time 20 s	1/h	12	13	12	13	13	11
- Start-up time 40 s	1/h	1	4	3	4	4	2
Heavy starting (CLASS 20E)							
Rated motor current I_M, T_u = 40/50/60 °C ON period = 70%; motor protection activated	A	162/146/130	200/180/160	195/171/147	258/230/202	272/236/218	284/262/240
• 300% I_M							
- Start-up time 20 s	1/h	10	10	10	10	10	10
- Start-up time 40 s	1/h	4	4	4	4	4	4
• 350% I_M							
- Start-up time 20 s	1/h	7	7	7	7	7	7
- Start-up time 40 s	1/h	2.5	2.5	2.5	2.5	2.5	2.5
Adjustable rated motor current I_M							
• Minimum/maximum	A	90/210	100/250	135/315	160/370	200/470	240/570
• Minimum/maximum in inside-delta circuits	A	156/364	173/433	234/546	277/641	346/814	416/987

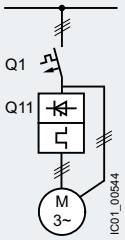
Motor feeders according to IEC with 3RV2/3VA motor starter protectors/circuit breakers (without semiconductor protection)

Type of coordination "1", CLASS 10,
short-circuit breaking capacity I_q in kA, see table

Note:

For general recommendations for constructing motor feeders
with soft starters, see page 6/10.





Soft starters	Motor starter protectors				Motor starter protectors			
	for 400 V systems		for 500 V systems		for 400 V systems		for 500 V systems	
Q11	Q1	I_q	Q1	I_q	Q1	I_q	Q1	I_q
Type	Type	kA	Type	kA	Type	kA	Type	kA
Type of coordination "1" ToC 1	**Inline circuit**				**Inside-delta circuit**			
3RW5213	3RV2032-4TA10	65	3RV2032-4TA10	18	3RV2032-4DA10	65	3RV2032-4DA10	18
3RW5214	3RV2032-4DA10	65	3RV2032-4DA10	15	3RV2032-4EA10	65	3RV2032-4EA10	15
3RW5215	3RV2032-4EA10	65	3RV2032-4EA10	15	3RV2032-4VA10	65	3RV2032-4VA10	15
3RW5216	3RV2032-4VA10	65	3RV2032-4VA10	10	3RV2032-4JA10	65	3RV2032-4JA10	10
3RW5217	3RV2032-4WA10	65	3RV2032-4WA10	10	3RV2032-4RA10	65	3RV2032-4RA10	10
3RW5224	3RV2032-4JA10	65	3RV2032-4JA10	10	3RV2032-4RA10	65	3RV2032-4RA10	10
3RW5225	3VA2163-7MN32-0AA0	65	3VA2163-7MN32-0AA0	20	3VA2110-7MN32-0AA0	65	3VA2110-7MN32-0AA0	20
3RW5226	3VA2110-7MN32-0AA0	65	3VA2110-7MN32-0AA0	20	3VA2216-7MN32-0AA0	65	3VA2216-7MN32-0AA0	20
3RW5227	3VA2216-7MN32-0AA0	15	3VA2216-7MN32-0AA0	10	3VA2220-7MN32-0AA0	15	3VA2220-7MN32-0AA0	10
3RW5234	3VA2216-7MN32-0AA0	65	--	--	3VA2220-7MN32-0AA0	65	--	--
3RW5235	3VA2220-7MN32-0AA0	65	--	--	3VA2325-7MN32-0AA0	65	--	--
3RW5236	3VA2325-7MN32-0AA0	30	3VA2325-7MN32-0AA0	10	3VA2440-7MN32-0AA0	30	3VA2440-7MN32-0AA0	10
3RW5243	3VA2325-7MN32-0AA0	65	3VA2325-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65
3RW5244	3VA2440-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65	3VA2450-7MN32-0AA0	65	3VA2450-7MN32-0AA0	65
3RW5245	3VA2440-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65	3VA2580-6HN32-0AA0	65	3VA2580-6HN32-0AA0	65
3RW5246	3VA2440-7MN32-0AA0	65	3VA2440-7MN32-0AA0	65	3VA2580-6HN32-0AA0	65	3VA2580-6HN32-0AA0	65
3RW5247	3VA2450-7MN32-0AA0	65	3VA2450-7MN32-0AA0	65	3VA2510-6HN32-0AA0	65	3VA2510-6HN32-0AA0	65
3RW5248	3VA2580-6HN32-0AA0	65	3VA2580-6HN32-0AA0	65	3VA2510-6HN32-0AA0	65	3VA2510-6HN32-0AA0	65

Note:

The service factor or measurement inaccuracies have been taken into account, for example, for the selection of the specified motor starter protectors/circuit breakers; the specified short-circuit breaking capacities I_q in kA are covered by combination tests. Smaller motor starter protectors/circuit breakers than those specified can be used at any time as smaller ones trip more quickly in the event of a short circuit (unchanged short-circuit breaking capacity) and thus protect the soft starter in any case. The dimensioning of the short-circuit components must, however, be suitable for the connected three-phase motor and the line protection for the cables used.

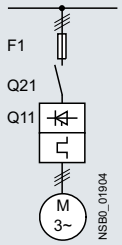
Motor feeders according to IEC with 3NA3 fuses

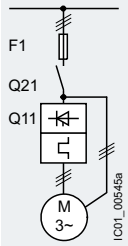
gG class full-range fuses for cable and line protection according to IEC 60269-2, without semiconductor protection

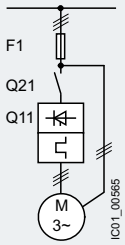
Type of coordination "1",
short-circuit breaking capacity I_q = 65 kA

Note:

For general recommendations for constructing motor feeders with soft starters, see page 6/10.







Soft starters	**gG class fuse**	**Line contactor (optional)**		**gG class fuse**	**Line contactor (optional)**			
	for systems up to 600 V	for systems up to 480 V	for systems up to 600 V	for systems up to 600 V	for systems up to 480 V in the supply cable	for systems up to 600 V in the supply cable	for systems up to 480 V in the delta	for systems up to 600 V in the delta
Q11	F1	Q21	Q21	F1	Q21	Q21	Q21	Q21
Type	Type	Type	Type	Type	Type	Type	Type	Type
Type of coordination "1" ToC 1	**Inline circuit**			**Inside-delta circuit**				
3RW5213	3NA3820-6	3RT2025	3RT2025	3NA3820-6	3RT2027	3RT2035	3RT2025	3RT2025
3RW5214	3NA3820-6	3RT2026	3RT2027	3NA3820-6	3RT2027	3RT2037	3RT2026	3RT2027
3RW5215	3NA3822-6	3RT2027	3RT2037	3NA3822-6	3RT2036	3RT2037	3RT2027	3RT2037
3RW5216	3NA3824-6	3RT2035	3RT2037	3NA3824-6	3RT2037	3RT2038	3RT2035	3RT2037
3RW5217	3NA3824-6	3RT2035	3RT2037	3NA3824-6	3RT2038	3RT2046	3RT2035	3RT2037
3RW5224	3NA3824-6	3RT2036	3RT2037	3NA3824-6	3RT2046	3RT2047	3RT2036	3RT2037
3RW5225	3NA3830-6	3RT2037	3RT2046	3NA3830-6	3RT2047	3RT1054	3RT2037	3RT2046
3RW5226	3NA3132-6	3RT2038	3RT2046	3NA3132-6	3RT1055	3RT1055	3RT2038	3RT2046
3RW5227	3NA3136-6	3RT2046	3RT2047	3NA3136-6	3RT1056	3RT1056	3RT2046	3RT2047
3RW5234	3NA3244-6	3RT1054	3RT1054	3NA3244-6	3RT1064	3RT1064	3RT1054	3RT1054
3RW5235	3NA3244-6	3RT1055	3RT1055	3NA3244-6	3RT1065	3RT1065	3RT1055	3RT1055
3RW5236	3NA3365-6	3RT1056	3RT1064	3NA3365-6	3RT1066	3RT1075	3RT1056	3RT1064
3RW5243	2 x 3NA3354-6	3RT1064	3RT1064	2 x 3NA3354-6	3RT1075	3RT1075	3RT1064	3RT1064
3RW5244	2 x 3NA3354-6	3RT1065	3RT1065	2 x 3NA3354-6	3RT1076	3RT1076	3RT1065	3RT1065
3RW5245	2 x 3NA3365-6	3RT1075	3RT1075	2 x 3NA3365-6	3TF68	3TF68	3RT1075	3RT1075
3RW5246	2 x 3NA3365-6	3RT1075	3RT1075	2 x 3NA3365-6	3TF69	3TF69	3RT1075	3RT1075
3RW5247	2 x 3NA3365-6	3RT1076	3RT1276	2 x 3NA3365-6	3TF69	3TF69	3RT1076	3RT1276
3RW5248	2 x 3NA3365-6	3TF68	3TF68	2 x 3NA3365-6	--	--	3TF68	3TF68

Note:

The specified short-circuit breaking capacities I_q in kA are covered by combination tests. Smaller fuses than those specified can be used at any time as smaller ones trip more quickly in the event of a short circuit (unchanged short-circuit breaking capacity) and thus protect the soft starter in any case. The dimensioning of the short-circuit components must, however, be suitable for the connected three-phase motor and the line protection for the cables used.

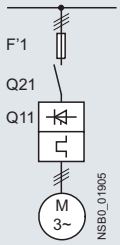
Motor feeders according to IEC with 3NE1 SITOR fuses

gR class full-range fuses for semiconductor protection, cable and line protection

Type of coordination "2",
short-circuit breaking capacity I_q = 65 kA

Note:

For general recommendations for constructing motor feeders with soft starters, see page 6/10.



Soft starters	**gG class fuse**	**Line contactor (optional)**	
	for systems up to 600 V	for systems up to 480 V	for systems up to 600 V
Q11	F'1	Q21	Q21
Type	Type	Type	Type
Type of coordination "2" ToC 2	**Inline circuit**		
3RW5213	3NE1815-0	3RT2025	3RT2025
3RW5214	3NE1802-0	3RT2026	3RT2027
3RW5215	3NE1817-0	3RT2027	3RT2037
3RW5216	3NE1818-0	3RT2035	3RT2037
3RW5217	3NE1820-0	3RT2035	3RT2037
3RW5224	3NE1021-2	3RT2036	3RT2037
3RW5225	3NE1022-0	3RT2037	3RT2046
3RW5226	3NE1224-0	3RT2038	3RT2046
3RW5227	3NE1224-0	3RT2046	3RT2047
3RW5234	3NE1225-0	3RT1054	3RT1054
3RW5235	3NE1227-0	3RT1055	3RT1055
3RW5236	3NE1230-0	3RT1056	3RT1064
3RW5243	3NE1230-2[1]	3RT1064	3RT1064
3RW5244	3NE1331-0	3RT1065	3RT1065
3RW5245	3NE1334-2	3RT1075	3RT1075
3RW5246	3NE1334-2	3RT1075	3RT1075
3RW5247	3NE1436-2	3RT1076	3RT1276
3RW5248	3NE1437-2	3TF68	3TF68

[1] For systems up to 500 V.

Note:

The specified short-circuit breaking capacities I_q in kA are covered by combination tests. Smaller fuses than those specified can be used at any time as smaller ones trip more quickly in the event of a short circuit (unchanged short-circuit breaking capacity) and thus protect the soft starter in any case. The dimensioning of the short-circuit components must, however, be suitable for the connected three-phase motor and the line protection for the cables used.

In inside-delta circuits, a gR class full-range fuse could not provide the semiconductor protection of the delta-connected soft starter with a short-circuit breaking capacity that is adequate for practical use. In this case, we recommend using aR class partial-range fuses for semiconductor protection for type of coordination "2" (see page 6/65).

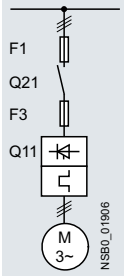
Motor feeders according to IEC with fuses 3NE8 / 3NE4 / 3NE3

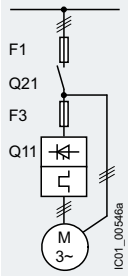
aR class partial-range fuses for semiconductor protection

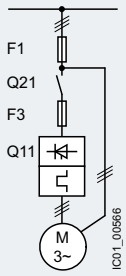
Type of coordination "2",
short-circuit breaking capacity I_q = 65 kA

Note:

For general recommendations for constructing motor feeders with soft starters, see page 6/10.







Soft starters	gG class fuse	aR class fuse	Line contactor (optional)		gG class fuse	aR class fuse	Line contactor (optional)			
	for systems up to 600 V	for systems up to 500 V	for systems up to 480 V	for systems up to 600 V	for systems up to 600 V	for systems up to 600 V	for systems up to 480 V in the supply cable	for systems up to 600 V in the supply cable	for systems up to 480 V in the delta	for systems up to 600 V in the delta
Q11	F1	F3	Q21	Q21	F1	F3	Q21	Q21	Q21	Q21
Type	Type	Type	Type	Type	Type	Type	Type	Type	Type	Type
Type of coordination "2" ToC 2	**Inline circuit**				**Inside-delta circuit**					
3RW5213	3NA3820-6	3NE8017-1	3RT2025	3RT2025	3NA3820-6	3NE8017-1	3RT2027	3RT2035	3RT2025	3RT2025
3RW5214	3NA3820-6	3NE8020-1	3RT2026	3RT2027	3NA3820-6	3NE8020-1	3RT2027	3RT2037	3RT2026	3RT2027
3RW5215	3NA3822-6	3NE8021-1	3RT2027	3RT2037	3NA3822-6	3NE8021-1	3RT2036	3RT2037	3RT2027	3RT2037
3RW5216	3NA3824-6	3NE8022-1	3RT2035	3RT2037	3NA3824-6	3NE8022-1	3RT2037	3RT2038	3RT2035	3RT2037
3RW5217	3NA3824-6	3NE8024-1	3RT2035	3RT2037	3NA3824-6	3NE8024-1	3RT2038	3RT2046	3RT2035	3RT2037
3RW5224	3NA3824-6	3NE8024-1	3RT2036	3RT2037	3NA3824-6	3NE8024-1	3RT2046	3RT2047	3RT2036	3RT2037
3RW5225	3NA3830-6	3NE8024-1	3RT2037	3RT2046	3NA3830-6	3NE8024-1	3RT2047	3RT1054	3RT2037	3RT2046
3RW5226	3NA3132-6	3NE8024-1	3RT2038	3RT2046	3NA3132-6	3NE8024-1	3RT1055	3RT1055	3RT2038	3RT2046
3RW5227	3NA3136-6	3NE4124	3RT2046	3RT2047	3NA3136-6	3NE4124	3RT1056	3RT1056	3RT2046	3RT2047
3RW5234	3NA3244-6	3NE3332-0B	3RT1054	3RT1054	3NA3244-6	3NE3332-0B	3RT1064	3RT1064	3RT1054	3RT1054
3RW5235	3NA3244-6	3NE3334-0B	3RT1055	3RT1055	3NA3244-6	3NE3334-0B	3RT1065	3RT1065	3RT1055	3RT1055
3RW5236	3NA3365-6	3NE3335	3RT1056	3RT1064	3NA3365-6	3NE3335	3RT1066	3RT1075	3RT1056	3RT1064
3RW5243	2 x 3NA3354-6	3NE3333	3RT1064	3RT1064	2 x 3NA3354-6	3NE3333	3RT1075	3RT1075	3RT1064	3RT1064
3RW5244	2 x 3NA3354-6	3NE3336	3RT1065	3RT1065	2 x 3NA3354-6	3NE3336	3RT1076	3RT1076	3RT1065	3RT1065
3RW5245	2 x 3NA3365-6	3NE3336	3RT1075	3RT1075	2 x 3NA3365-6	3NE3336	3TF68	3TF68	3RT1075	3RT1075
3RW5246	2 x 3NA3365-6	3NE3336	3RT1075	3RT1075	2 x 3NA3365-6	3NE3336	3TF69	3TF69	3RT1075	3RT1075
3RW5247	2 x 3NA3365-6	3NE3340-8	3RT1076	3RT1276	2 x 3NA3365-6	3NE3340-8	3TF69	3TF69	3RT1076	3RT1276
3RW5248	2 x 3NA3365-6	3NE3340-8	3TF68	3TF68	2 x 3NA3365-6	3NE3340-8	--	--	3TF68	3TF68

Note:

The specified short-circuit breaking capacities I_q in kA are covered by combination tests. Smaller fuses than those specified can be used at any time as smaller ones trip more quickly in the event of a short circuit (unchanged short-circuit breaking capacity) and thus protect the soft starter in any case. The dimensioning of the short-circuit components must, however, be suitable for the connected three-phase motor and the line protection for the cables used.

For CLASS 10 applications, as an alternative to the gG class full-range fuses for cable and line protection 3NA3 (F1), 3RV2/3VA motor starter protectors/circuit breakers can also be used, possibly with reduced short-circuit breaking capacity (see page 6/62). In these cases, optional line contactors can be dispensed with.

Selection and ordering data

For normal starting (CLASS 10A)


3RW521.


3RW522.


3RW523.


3RW524.

At 40 °C				At 50 °C					SD[1]	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors At 230 V	At 400 V	At 500 V	Operational current	Rating [hp] for three-phase motors At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V						
A	kW	kW	kW	A	hp	hp	hp	hp	d					
Operational voltage 200 ... 480 V														
13	3	**5.5**	--	11.5	2	3	**7.5**	--	5	**3RW5213-□□C□4**		1	1 unit	42S
18	4	**7.5**	--	15.9	3	5	**10**	--	5	**3RW5214-□□C□4**		1	1 unit	42S
25	5.5	**11**	--	22.3	5	7.5	**15**	--	5	**3RW5215-□□C□4**		1	1 unit	42S
32	7.5	**15**	--	28.4	7.5	10	**20**	--	5	**3RW5216-□□C□4**		1	1 unit	42S
38	11	**18.5**	--	33.5	10	10	**20**	--	5	**3RW5217-□□C□4**		1	1 unit	42S
47	11	**22**	--	41.6	10	10	**30**	--	5	**3RW5224-□□C□4**		1	1 unit	42S
63	18.5	**30**	--	55.5	15	20	**40**	--	5	**3RW5225-□□C□4**		1	1 unit	42S
77	22	**37**	--	68	20	25	**50**	--	5	**3RW5226-□□C□4**		1	1 unit	42S
93	22	**45**	--	82.5	25	30	**60**	--	5	**3RW5227-□□C□4**		1	1 unit	42S

Type of electrical connection for the control circuit
Screw terminals — **1**
Spring-loaded terminals — **3**

Product function
Analog output — **A**
Thermistor motor protection — **T**

Control supply voltage
24 V AC/DC — **0**
110 ... 250 V AC — **1**

[1] 3RW52 soft starter with screw terminals for operational voltage up to 480 V: Standard delivery time SD = 1 day (d).

Note:

For the constraints for the motor outputs specified here, see page 6/8.

At 40 °C				At 50 °C					SD[1]	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors At 230 V	At 400 V	At 500 V	Operational current	Rating [hp] for three-phase motors At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V						
A	kW	kW	kW	A	hp	hp	hp	hp	d					
Operational voltage 200 ... 480 V														
113	30	**55**	--	101	30	30	**75**	--	5	**3RW5234-□□C□4**		1	1 unit	42S
143	37	**75**	--	128	40	40	**100**	--	5	**3RW5235-□□C□4**		1	1 unit	42S
171	45	**90**	--	153	50	50	**100**	--	5	**3RW5236-□□C□4**		1	1 unit	42S
210	55	**110**	--	186	60	60	**150**	--	5	**3RW5243-□□C□4**		1	1 unit	42S
250	75	**132**	--	220	60	75	**150**	--	5	**3RW5244-□□C□4**		1	1 unit	42S
315	90	**160**	--	279	75	100	**200**	--	5	**3RW5245-□□C□4**		1	1 unit	42S
370	110	**200**	--	328	100	125	**250**	--	5	**3RW5246-□□C□4**		1	1 unit	42S
470	132	**250**	--	416	150	150	**350**	--	5	**3RW5247-□□C□4**		1	1 unit	42S
570	160	**315**	--	504	150	200	**400**	--	5	**3RW5248-□□C□4**		1	1 unit	42S

Type of electrical connection for the control circuit
Spring-loaded terminals — **2**
Screw terminals — **6**

Product function
Analog output — **A**
Thermistor motor protection — **T**

Control supply voltage
24 V AC/DC — **0**
110 ... 250 V AC — **1**

[1] 3RW52 soft starter with screw terminals for operational voltage up to 480 V: Standard delivery time SD = 1 day (d).

Note:

For the constraints for the motor outputs specified here, see page 6/8.

* You can order this quantity or a multiple thereof.
Illustrations are approximate

For normal starting (CLASS 10A)


3RW521.


3RW522.


3RW523.


3RW524.

At 40 °C				At 50 °C					SD[1]	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors At 230 V	At 400 V	At 500 V	Operational current	Rating [hp] for three-phase motors At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V						
A	kW	kW	kW	A	hp	hp	hp	hp	d					
Operational voltage 200 ... 600 V														
13	3	**5.5**	7.5	11.5	2	3	**7.5**	10	5	**3RW5213-□□C□5**		1	1 unit	42S
18	4	**7.5**	11	15.9	3	5	**10**	10	5	**3RW5214-□□C□5**		1	1 unit	42S
25	5.5	**11**	15	22.3	5	7.5	**15**	20	5	**3RW5215-□□C□5**		1	1 unit	42S
32	7.5	**15**	18.5	28.4	7.5	10	**20**	25	5	**3RW5216-□□C□5**		1	1 unit	42S
38	11	**18.5**	22	33.5	10	10	**20**	30	5	**3RW5217-□□C□5**		1	1 unit	42S
47	11	**22**	30	41.6	10	10	**30**	40	5	**3RW5224-□□C□5**		1	1 unit	42S
63	18.5	**30**	37	55.5	15	20	**40**	50	5	**3RW5225-□□C□5**		1	1 unit	42S
77	22	**37**	45	68	20	25	**50**	60	5	**3RW5226-□□C□5**		1	1 unit	42S
93	22	**45**	55	82.5	25	30	**60**	75	5	**3RW5227-□□C□5**		1	1 unit	42S

Type of electrical connection for the control circuit
Screw terminals — **1 3**
Spring-loaded terminals

Product function
Analog output — **A**
Thermistor motor protection — **T**

Control supply voltage
24 V AC/DC — **0**
110 ... 250 V AC — **1**

[1] 3RW52 soft starter with screw terminals for operational voltage up to 600 V: Standard delivery time SD = 2 days (d).

Note:

For the constraints for the motor outputs specified here, see page 6/8.

At 40 °C				At 50 °C					SD[1]	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors At 230 V	At 400 V	At 500 V	Operational current	Rating [hp] for three-phase motors At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V						
A	kW	kW	kW	A	hp	hp	hp	hp	d					
Operational voltage 200 ... 600 V														
113	30	**55**	75	101	30	30	**75**	100	5	**3RW5234-□□C□5**		1	1 unit	42S
143	37	**75**	90	128	40	40	**100**	125	5	**3RW5235-□□C□5**		1	1 unit	42S
171	45	**90**	110	153	50	50	**100**	150	5	**3RW5236-□□C□5**		1	1 unit	42S
210	55	**110**	132	186	60	60	**150**	150	5	**3RW5243-□□C□5**		1	1 unit	42S
250	75	**132**	160	220	60	75	**150**	200	5	**3RW5244-□□C□5**		1	1 unit	42S
315	90	**160**	200	279	75	100	**200**	250	5	**3RW5245-□□C□5**		1	1 unit	42S
370	110	**200**	250	328	100	125	**250**	300	5	**3RW5246-□□C□5**		1	1 unit	42S
470	132	**250**	315	416	150	150	**350**	450	5	**3RW5247-□□C□5**		1	1 unit	42S
570	160	**315**	355	504	150	200	**400**	500	5	**3RW5248-□□C□5**		1	1 unit	42S

Type of electrical connection for the control circuit
Spring-loaded terminals — **2 6**
Screw terminals

Product function
Analog output — **A**
Thermistor motor protection — **T**

Control supply voltage
24 V AC/DC — **0**
110 ... 250 V AC — **1**

[1] 3RW52 soft starter with screw terminals for operational voltage up to 600 V: Standard delivery time SD = 2 days (d).

Note:

For the constraints for the motor outputs specified here, see page 6/8.

Selection and ordering data

For normal starting (CLASS 10A)


3RW521.


3RW522.


3RW523.


3RW524.

At 40 °C for inside-delta circuit				At 50 °C for inside-delta circuit					SD[1]	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors At 230 V	At 400 V	At 500 V	Operational current	Rating [hp] for three-phase motors At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V						
A	kW	kW	kW	A	hp	hp	hp	hp	d					
Operational voltage 200 ... 480 V														
22.5	5.5	**11**	--	19.9	5	5	**10**	--	5	**3RW5213-□□C□4**		1	1 unit	42S
31.5	7.5	**15**	--	28	7.5	7.5	**20**	--	5	**3RW5214-□□C□4**		1	1 unit	42S
43.3	11	**18.5**	--	39	10	10	**25**	--	5	**3RW5215-□□C□4**		1	1 unit	42S
55.4	15	**22**	--	49	15	15	**30**	--	5	**3RW5216-□□C□4**		1	1 unit	42S
65.8	18.5	**30**	--	58	15	20	**40**	--	5	**3RW5217-□□C□4**		1	1 unit	42S
81.4	22	**45**	--	72	20	25	**50**	--	5	**3RW5224-□□C□4**		1	1 unit	42S
109	30	**55**	--	96	30	30	**75**	--	5	**3RW5225-□□C□4**		1	1 unit	42S
133	37	**75**	--	118	30	40	**75**	--	5	**3RW5226-□□C□4**		1	1 unit	42S
161	45	**90**	--	143	40	50	**100**	--	5	**3RW5227-□□C□4**		1	1 unit	42S

Type of electrical connection for the control circuit
Screw terminals — **1**
Spring-loaded terminals — **3**

Product function
Analog output — **A**
Thermistor motor protection — **T**

Control supply voltage
24 V AC/DC — **0**
110 ... 250 V AC — **1**

[1] 3RW52 soft starter with screw terminals for operational voltage up to 480 V: Standard delivery time SD = 1 day (d).

Note:

For the constraints for the motor outputs specified here, see page 6/8.

At 40 °C for inside-delta circuit				At 50 °C for inside-delta circuit					SD[1]	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors At 230 V	At 400 V	At 500 V	Operational current	Rating [hp] for three-phase motors At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V						
A	kW	kW	kW	A	hp	hp	hp	hp	d					
Operational voltage 200 ... 480 V														
196	55	**110**	--	175	50	60	**125**	--	5	**3RW5234-□□C□4**		1	1 unit	42S
248	75	**132**	--	222	75	75	**150**	--	5	**3RW5235-□□C□4**		1	1 unit	42S
296	90	**160**	--	265	75	100	**200**	--	5	**3RW5236-□□C□4**		1	1 unit	42S
364	110	**200**	--	322	100	125	**250**	--	5	**3RW5243-□□C□4**		1	1 unit	42S
433	132	**250**	--	381	125	150	**300**	--	5	**3RW5244-□□C□4**		1	1 unit	42S
546	160	**315**	--	483	150	200	**400**	--	5	**3RW5245-□□C□4**		1	1 unit	42S
641	200	**355**	--	568	200	200	**450**	--	5	**3RW5246-□□C□4**		1	1 unit	42S
814	250	**400**	--	721	250	250	**600**	--	5	**3RW5247-□□C□4**		1	1 unit	42S
987	315	**560**	--	873	300	350	**750**	--	5	**3RW5248-□□C□4**		1	1 unit	42S

Type of electrical connection for the control circuit
Spring-loaded terminals — **2**
Screw terminals — **6**

Product function
Analog output — **A**
Thermistor motor protection — **T**

Control supply voltage
24 V AC/DC — **0**
110 ... 250 V AC — **1**

[1] 3RW52 soft starter with screw terminals for operational voltage up to 480 V: Standard delivery time SD = 1 day (d).

Note:

For the constraints for the motor outputs specified here, see page 6/8.

* You can order this quantity or a multiple thereof.
Illustrations are approximate

For normal starting (CLASS 10A)


3RW521.


3RW522.


3RW523.


3RW524.

At 40 °C for inside-delta circuit				At 50 °C for inside-delta circuit					SD[1]	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors At 230 V	At 400 V	At 500 V	Operational current	Rating [hp] for three-phase motors At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V						
A	kW	kW	kW	A	hp	hp	hp	hp	d					
Operational voltage 200 ... 600 V														
22.5	5.5	**11**	15	19.9	5	5	**10**	15	5	**3RW5213-□□C□5**		1	1 unit	42S
31.5	7.5	**15**	18.5	28	7.5	7.5	**20**	25	5	**3RW5214-□□C□5**		1	1 unit	42S
43.3	11	**18.5**	22	39	10	10	**25**	30	5	**3RW5215-□□C□5**		1	1 unit	42S
55.4	15	**22**	30	49	15	15	**30**	40	5	**3RW5216-□□C□5**		1	1 unit	42S
65.8	18.5	**30**	37	58	15	20	**40**	50	5	**3RW5217-□□C□5**		1	1 unit	42S
81.4	22	**45**	45	72	20	25	**50**	60	5	**3RW5224-□□C□5**		1	1 unit	42S
109	30	**55**	55	96	30	30	**75**	75	5	**3RW5225-□□C□5**		1	1 unit	42S
133	37	**75**	90	118	30	40	**75**	100	5	**3RW5226-□□C□5**		1	1 unit	42S
161	45	**90**	110	143	40	50	**100**	125	5	**3RW5227-□□C□5**		1	1 unit	42S

Type of electrical connection for the control circuit
Screw terminals — **1**
Spring-loaded terminals — **3**

Product function
Analog output — **A**
Thermistor motor protection — **T**

Control supply voltage
24 V AC/DC — **0**
110 ... 250 V AC — **1**

[1] 3RW52 soft starter with screw terminals for operational voltage up to 600 V: Standard delivery time SD = 2 days (d).

Note:

For the constraints for the motor outputs specified here, see page 6/8.

At 40 °C for inside-delta circuit				At 50 °C for inside-delta circuit					SD[1]	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Operational current	Operating power for three-phase motors At 230 V	At 400 V	At 500 V	Operational current	Rating [hp] for three-phase motors At 200/208 V	At 220/230 V	At 460/480 V	At 575/600 V						
A	kW	kW	kW	A	hp	hp	hp	hp	d					
Operational voltage 200 ... 600 V														
196	55	**110**	132	175	50	60	**125**	150	5	**3RW5234-□□C□5**		1	1 unit	42S
248	75	**132**	160	222	75	75	**150**	200	5	**3RW5235-□□C□5**		1	1 unit	42S
296	90	**160**	200	265	75	100	**200**	250	5	**3RW5236-□□C□5**		1	1 unit	42S
364	110	**200**	250	322	100	125	**250**	300	5	**3RW5243-□□C□5**		1	1 unit	42S
433	132	**250**	315	381	125	150	**300**	350	5	**3RW5244-□□C□5**		1	1 unit	42S
546	160	**315**	355	483	150	200	**400**	500	5	**3RW5245-□□C□5**		1	1 unit	42S
641	200	**355**	450	568	200	200	**450**	600	5	**3RW5246-□□C□5**		1	1 unit	42S
814	250	**400**	500	721	250	250	**600**	800	5	**3RW5247-□□C□5**		1	1 unit	42S
987	315	**560**	630	873	300	350	**750**	950	5	**3RW5248-□□C□5**		1	1 unit	42S

Type of electrical connection for the control circuit
Spring-loaded terminals — **2**
Screw terminals — **6**

Product function
Analog output — **A**
Thermistor motor protection — **T**

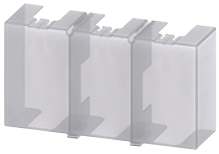
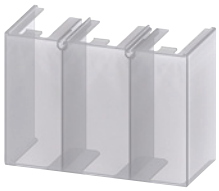
Control supply voltage
24 V AC/DC — **0**
110 ... 250 V AC — **1**

[1] 3RW52 soft starter with screw terminals for operational voltage up to 600 V: Standard delivery time SD = 2 days (d).

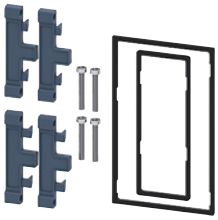
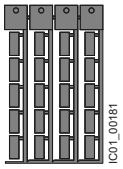
Note:

For the constraints for the motor outputs specified here, see page 6/8.

Selection and ordering data

	Product designation	Manufacturer's Article No. of the soft starter	Type of product	Application	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
					d					
Fan covers										
 3RW5983-0FC00	**Fan cover**	3RW5216/17 (1x), 3RW5226/27 (2x), 3RW523 (2x)	--	--	▶	**3RW5983-0FC00**		1	1 unit	42S
		3RW524 (1x)	--	--	▶	**3RW5984-0FC00**		1	1 unit	42S
Terminal covers										
 3RW5983-0TC20	**Terminal cover**	3RW522 (2x), 3RW523 (2x)	--	--	▶	**3RW5983-0TC20**		1	1 unit	42S
 3RW5984-0TC20		3RW524 (2x)	--	--	▶	**3RW5984-0TC20**		1	1 unit	42S
Enclosure components										
 3RW5950-0GL30	**Hinged cover**	3RW52	With cutout for High Feature HMI module	--	▶	**3RW5950-0GL30**		1	1 unit	42S
 3RW5950-0GL40			With cutout for Standard HMI module	--	▶	**3RW5950-0GL40**		1	1 unit	42S
Communication modules										
 3RW5980-0CS00	**Communication module**	3RW52	PROFINET Standard	--	▶	**3RW5980-0CS00**		1	1 unit	42S
			PROFIBUS	--	▶	**3RW5980-0CP00**		1	1 unit	42S
			EtherNet/IP	--	▶	**3RW5980-0CE00**		1	1 unit	42S
 3RW5980-0CR00			Modbus RTU	--	▶	**3RW5980-0CR00**		1	1 unit	42S
			Modbus TCP	--	▶	**3RW5980-0CT00**		1	1 unit	42S

*** You can order this quantity or a multiple thereof.**
Illustrations are approximate

	Product designation	Manufacturer's Article No. of the soft starter	Type of product	Application	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
					d					
HMI modules										
 3RW5980-0HF00	**HMI module**	3RW52	High Feature	--	▶	**3RW5980-0HF00**		1	1 unit	42S
 3RW5980-0HS00			Standard	--	▶	**3RW5980-0HS00**		1	1 unit	42S
 3RW5980-0HD00	**IP65 door mounting kit for HMI modules**	3RW52	IP65	For HMI modules	▶	**3RW5980-0HD00**		1	1 unit	42S
Connecting cables										
 3UF793.-0BA00-0	**HMI connection cable**	3RW52	5 m, round	For door mounting	▶	**3RW5980-0HC60**		1	1 unit	42S
			2.5 m, round		▶	**3UF7933-0BA00-0**		1	1 unit	42J
			1.0 m, round		▶	**3UF7937-0BA00-0**		1	1 unit	42J
			0.5 m, round		▶	**3UF7932-0BA00-0**		1	1 unit	42J
 3UF7931-0AA00-0			0.1 m, flat	for mounting in the device	▶	**3UF7931-0AA00-0**		1	1 unit	42J
Further accessories										
 3ZY1311-0AA00	**Push-in lugs for wall mounting**	--	Two lugs are required per device	For HMI modules and communica-tion modules	2	**3ZY1311-0AA00**		1	10 units	41L
Blank labels										
 3RT2900-1SB20	**Unit labeling plates**[1]	--	20 mm x 7 mm, titanium gray	For SIRIUS devices	20	**3RT2900-1SB20**		100	340 units	41B

[1] PC labeling systems for individual inscription of unit labeling plates are available from: murrplastik Systemtechnik GmbH (see page 16/15).