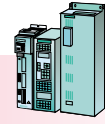


# SIMVERT MASTERDRIVES Vector Control

## Compact PLUS, Compact and Chassis Units



Recommended system components  
for converters

Compact PLUS units  
Compact and chassis units

### Selection and ordering data

Nominal power rating	Converter	Switch disconnector <sup>2)</sup>			Switch disconnector with fuse holders <sup>2)</sup>			Fuse switch disconnectors <sup>1)2)</sup>		Circuit-breakers for system and motor protection to IEC 947-4 <sup>3)4)</sup>	
		Order No.	Order No.	Rated current A	Order No.	Rated current A	Max. fuse size	Order No.	Rated current A	Max. fuse size	Order No.

### Compact PLUS units<sup>5)</sup>

#### Supply voltage 3-ph. 380 V to 480 V AC

##### 400 V

0.55	6SE7011-5EP60	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1021-1CA10	1.8- 2.5
1.1	6SE7013-0EP60	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1021-1FA10	3.5- 5.0
1.5	6SE7015-0EP60	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1021-1HA10	5.5- 8.0
3	6SE7018-0EP60	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1021-1KA10	9.0- 12.5
4	6SE7021-0EP60	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1021-1KA10	9.0- 12.5
5.5	6SE7021-4EP60	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1021-4AA10	11 - 16
7.5	6SE7022-1EP60	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1021-4BA10	14 - 20
11	6SE7022-7EP60	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1031-4EA10	22 - 32
15	6SE7023-4EP60	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1031-4FA10	28 - 40

### Compact and chassis units

#### Supply voltage 3-ph. 380 V to 480 V AC

##### 400 V

2.2	6SE7016-1EA61	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1021-1HA10	5.5- 8
3	6SE7018-0EA61	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1021-1KA10	9 - 12.5
4	6SE7021-0EA61	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1021-1KA10	9 - 12.5
5.5	6SE7021-3EB61	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1021-4AA10	11 - 16
7.5	6SE7021-8EB61	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1021-4BA10	14 - 20
11	6SE7022-6EC61	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1031-4EA10	22 - 32
15	6SE7023-4EC61	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1031-4FA10	28 - 40
18.5	6SE7023-8ED61	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1031-4HA10	40 - 50
22	6SE7024-7ED61	3KA50 30-1EE01	63	3KL50 30-1EB01	63	00	3NP40 10-0CH01	100	000	3RV1041-4JA10	45 - 63
30	6SE7026-0ED61	3KA51 30-1EE01	80	3KL52 30-1EB01	125	00	3NP40 10-0CH01	100	000	3RV1041-4KA10	57 - 75
37	6SE7027-2ED61	3KA51 30-1EE01	80	3KL52 30-1EB01	125	00	3NP40 10-0CH01	100	000	3RV1041-4LA10	70 - 90
45	6SE7031-0EE60	3KA53 30-1EE01	160	3KL52 30-1EB01	125	00	3NP40 70-0CA01	160	00	3VF3211-1BU41-0AA0	100 - 125
55	6SE7031-2EF60	3KA53 30-1EE01	160	3KL55 30-1EB01	250	0; 1; 2	3NP42 70-0CA01	250	0; 1	3VF3311-1BX41-0AA0	160 - 200
75	6SE7031-5EF60	3KA53 30-1EE01	160	3KL55 30-1EB01	250	0; 1; 2	3NP42 70-0CA01	250	0; 1	3VF3311-1BX41-0AA0	160 - 200
90	6SE7031-8EF60	3KA55 30-1EE01	250	3KL55 30-1EB01	250	0; 1; 2	3NP42 70-0CA01	250	0; 1	3VF4211-1BM41-0AA0	200 - 250
110	6SE7032-1EG60	3KA55 30-1EE01	250	3KL55 30-1EB01	250	0; 1; 2	3NP42 70-0CA01	250	0; 1	3VF5211-1BK41-0AA0	250 - 315
132	6SE7032-6EG60	3KA57 30-1EE01	400	3KL57 30-1EB01	400	1; 2	3NP43 70-0CA01	400	1; 2	3VF5211-1BK41-0AA0	250 - 315
160	6SE7033-2EG60	3KA57 30-1EE01	400	3KL57 30-1EB01	400	1; 2	3NP43 70-0CA01	400	1; 2	3VF5211-1BM41-0AA0	315 - 400
200	6SE7033-7EG60	3KA57 30-1EE01	400	3KL57 30-1EB01	400	1; 2	3NP43 70-0CA01	400	1; 2	3VF6211-1BK44-0AA0	400 - 500
250	6SE7035-1EK60	3KA58 30-1EE01	630	3KL61 30-1AB0	630	3	3NP44 70-0CA01	630	2; 3	3VF6211-1BM44-0AA0	500 - 600
315	6SE7036-0EK60	3KA58 30-1EE01	630	3KL61 30-1AB0	630	3	3NP44 70-0CA01	630	2; 3	3VF7111-1BK60-0AA0	630
400	6SE7037-0EK60	3KE45	1000	-	-	-	-	-	-	3VF7111-1BK60-0AA0	800

- 1) Fuse switch disconnectors:  
Please observe the size of the cable-protection fuses and semiconductor-protection fuses!
- 2) Can be optionally used depending on requirements. For further information, see catalog "Low-voltage switchgear".

- 3) See catalog "Low-voltage switchgear".  
Used for drive converters with a line supply inductance of  $\geq 3 \mu\text{s}$  referred to the drive converter impedance, i.e. so that the ratio of the system fault level to the converter output is 33 : 1 or 100 : 1 and an additional 2 % line reactor is used. For the 100 kA system fault level, it may be necessary to use a fuse, as listed in the catalog "Low-voltage switchgear".

$$\text{Unit impedance: } Z = \frac{V_{\text{supply}}}{\sqrt{3} \cdot I_{V \text{ supply}}}$$

- 4) Caution:  
Observe rated short-circuit breaking capacity  $I_{CN}$  and, if necessary, use the specified fuses.
- 5) The recommended system components are for a converter that acts as a single drive. If the converter supplies a multi-motor system, the supply current is larger than the current for a single drive by a factor of up to 1.6 (rated supply current = 1.76 x rated output current  $I_R$ ).  
In this case, system components with a corresponding current-carrying capacity are to be selected.



Compact PLUS units  
Compact and chassis units

# SIMOVERT MASTERDRIVES Vector Control Compact PLUS, Compact and Chassis Units

Recommended system components  
for converters

Cable-protection fuses Duty class gL <sup>1)3)</sup>			Semiconductor-protection fuses Duty class gR <sup>3)</sup> incl. cable protection			Radio-interference suppression filter			Main contactor/ AC contactor <sup>4)</sup>			Commutating reactor $v_D = 2\%$		
Rated current		Size	Rated current		Size	Class <sup>2)</sup> $P_V$ type		AC 1 duty at 40°C	Rated current		$P_V$ 50/60 Hz		Rated current	
Order No.	A		Order No.	A		Order No.	W	Order No.	A	Order No.	W	A		

## 400/480 V, 50/60 Hz

3NA3 803	10	00	3NE1 813-0	16	000	6SE7012-0EP87-0FB1 <sup>6)</sup>	B1 5	3RT10 15	18	4EP3200-4US00	8/ 10	1.5
3NA3 803	10	00	3NE1 813-0	16	000	6SE7016-0EP87-0FB1 <sup>6)</sup>	B1 13	3RT10 15	18	4EP3200-5US00	12/ 18	3.0
3NA3 803	10	00	3NE1 813-0	16	000	6SE7016-0EP87-0FB1 <sup>6)</sup>	B1 13	3RT10 15	18	4EP3200-2US00	23/ 35	5.0
3NA3 805	16	00	3NE1 813-0	16	000	6SE7021-2EP87-0FB1 <sup>6)</sup>	B1 23	3RT10 15	18	4EP3400-2US00	35/ 38	9.1
3NA3 805	16	00	3NE1 813-0	16	000	6SE7021-2EP87-0FB1 <sup>6)</sup>	B1 23	3RT10 15	18	4EP3400-1US00	35/ 38	11.2
3NA3 810	25	00	3NE1 814-0	20	000	6SE7021-8EP87-0FB1 <sup>6)</sup>	B1 26	3RT10 16	22	4EP3500-0US00	45/ 48	16
3NA3 810	25	00	3NE1 815-0	25	000	6SE7023-4ES87-0FB1 6SE7023-8EP87-0FB1 <sup>7)</sup>	B1 30	3RT10 16	22	4EP3600-4US00	52/ 57	18
3NA3 814	35	00	3NE1 803-0	35	000	6SE7023-4ES87-0FB1 6SE7023-8EP87-0FB1 <sup>7)</sup>	B1 30	3RT10 25	40	4EP3600-5US00	52/ 57	28
3NA3 817	40	00	3NE1 802-0	40	000	6SE7023-4ES87-0FB1 6SE7023-8EP87-0FB1 <sup>7)</sup>	B1 30	3RT10 34	50	4EP3700-2US00	57/ 60	35.5

## 400/480 V, 50/60 Hz

3NA3 803	10	00	-	-	-	6SE7021-0ES87-0FB1 <sup>5)</sup>	B1 15	3RT1015	18	4EP3200-1US00	23/ 35	6.3
3NA3 805	16	00	3NE1 813-0	16	000	6SE7021-0ES87-0FB1 <sup>5)</sup>	B1 15	3RT1015	18	4EP3400-2US00	35/ 38	9.1
3NA3 805	16	00	3NE1 813-0	16	000	6SE7021-0ES87-0FB1 <sup>5)</sup>	B1 15	3RT1015	18	4EP3400-1US00	35/ 38	11.2
3NA3 810	25	00	3NE1 814-0	20	000	6SE7021-8ES87-0FB1 <sup>5)</sup>	B1 20	3RT1016	22	4EP3500-0US00	45/ 48	16
3NA3 810	25	00	3NE1 815-0	25	000	6SE7021-8ES87-0FB1 <sup>5)</sup>	B1 20	3RT1016	22	4EP3600-4US00	52/ 57	18
3NA3 814	35	00	3NE1 803-0	35	000	6SE7023-4ES87-0FB1 <sup>5)</sup>	B1 30	3RT1025	40	4EP3600-5US00	52/ 57	28
3NA3 817	40	00	3NE1 802-0	40	000	6SE7023-4ES87-0FB1 <sup>5)</sup>	B1 30	3RT1034	50	4EP3700-2US00	57/ 60	35.5
3NA3 820	50	00	3NE1 817-0	50	000	6SE7027-2ES87-0FB1 <sup>5)</sup>	B1 40	3RT1034	50	4EP3700-5US00	57/ 60	40
3NA3 822	63	00	3NE1 818-0	63	000	6SE7027-2ES87-0FB1 <sup>5)</sup>	B1 40	3RT1035	60	4EP3800-2US00	67/ 71	50
3NA3 824	80	00	3NE1 820-0	80	000	6SE7027-2ES87-0FB1 <sup>5)</sup>	B1 40	3RT1044	100	4EP3800-7US00	67/ 71	63
3NA3 830	100	00	3NE1 021-0	100	00	6SE7027-2ES87-0FB1 <sup>5)</sup>	B1 40	3RT1044	100	4EP3900-2US00	82/ 87	80
3NA3 032	125	0	3NE1 021-0	100	00	6SE7031-2ES87-0FA1 <sup>5)</sup>	A1 50	3RT1045	120	4EP4000-2US00	96/103	100
3NA3 036	160	0	3NE1 224-0	160	1	6SE7031-8ES87-0FA1 <sup>5)</sup>	A1 70	3RT1446	140	4EP4000-6US00	96/103	125
3NA3 140	200	1	3NE1 225-0	200	1	6SE7031-8ES87-0FA1 <sup>5)</sup>	A1 70	3RT1055	185	4EU2452-2UA00-0AA0	154/163	160
3NA3 144	250	1	3NE1 227-0	250	1	6SE7031-8ES87-0FA1 <sup>5)</sup>	A1 70	3RT1056	215	4EU2552-4UA00-0AA0	187/201	200
3NA3 144	250	1	3NE1 227-0	250	1	6SE7033-2ES87-0FA1 <sup>5)</sup>	A1 100	3RT1456	275	4EU2552-8UA00-0AA0	187/201	224
3NA3 252	315	2	3NE1 230-0	315	1	6SE7033-2ES87-0FA1 <sup>5)</sup>	A1 100	3RT1065	330	4EU2752-0UB00-0AA0	253/275	280
3NA3 260	400	2	3NE1 332-0	400	2	6SE7033-2ES87-0FA1 <sup>5)</sup>	A1 100	3RT1065	330	4EU2752-7UA00-0AA0	253/275	315
3NA3 365	500	3	3NE1 333-0	450	2	6SE7036-0ES87-0FA1 <sup>5)</sup>	A1 120	3RT1075	430	4EU2752-8UA00-0AA0	253/275	400
3NA3 372	630	3	3NE1 435-0	560	3	6SE7036-0ES87-0FA1 <sup>5)</sup>	A1 120	3RT1076	610	4EU3052-5UA00-0AA0	334/367	560
3NA3 475	800	4	3NE1 436-0	630	3	6SE7036-0ES87-0FA1 <sup>5)</sup>	A1 120	2 x 3RT1075	774	4EU3052-6UA00-1BA0	334/367	630
3NA3 475	800	4	3NE1 438-1	800	3	6SE7041-0ES87-0FA1 <sup>5)</sup>	A1 200	3 x 3RT1075	774	4EU3652-8UA00-1BA0	450/495	720

1) Does not provide 100 % protection for the input rectifier of the unit.

2) Compliance with limit-value class according to EN 55 011 can only be ensured if a line commutating reactor with  $V_D = 2\%$  is used (line commutating reactor with  $V_D = 4\%$  also possible).

3) The cable cross-sections must be dimensioned according to DIN VDE 0100, VDE 0298 Part 4 and as a function of the rated fuse currents.

4) See catalog "Low-voltage switchgear".

5) Can only be used with TT and TN systems (earthed system).

6) Filter with integrated commutating reactor  $u_D = 2\%$  with UL certification.

7) Filter with integrated commutating reactor  $V_D = 2\%$  and UL certification. Available fall 2003.