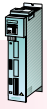


# SIMOVERT MASTERDRIVES Vector Control

## Compact PLUS Units

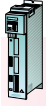
Recommended system components  
for converters and inverters

Compact PLUS units



### Selection and ordering data

Nominal power rating	Converter	Inverter	Output sinusoidal filter	$f_{max.}$	$P_v$ max.	Output reactor Iron-core reactor $f_{max.} = 300$ Hz	$P_v$ max.
kW	Order No.	Order No.	Order No.	Hz	W	Order No.	W
<b>Supply voltage 3-ph. 380 V to 480 V AC</b>							
<b>400 V</b>							
			$f_{pulse} = 6$ kHz			$f_{pulse} \leq 3$ kHz	
0.55	6SE7011-5EP60	-	-	-	-	6SE7013-0ES87-1FE0	50
1.1	6SE7013-0EP60	-	-	-	-	6SE7013-0ES87-1FE0	50
1.5	6SE7015-0EP60	-	6SE7016-1EA87-1FC0	400	150	6SE7015-0ES87-1FE0	60
3	6SE7018-0EP60	-	6SE7021-0EB87-1FC0	400	200	6SE7021-0ES87-1FE0	80
4	6SE7021-0EP60	-	6SE7021-0EB87-1FC0	400	200	6SE7021-0ES87-1FE0	80
5.5	6SE7021-4EP60	-	6SE7021-8EB87-1FC0	400	250	6SE7021-8ES87-1FE0	95
7.5	6SE7022-1EP60	-	6SE7022-6EC87-1FC0	400	300	6SE7022-6ES87-1FE0	110
11	6SE7022-7EP60	-	6SE7022-6EC87-1FC0	400	300	6SE7022-6ES87-1FE0	110
15	6SE7023-4EP60	-	6SE7023-4EC87-1FC0	400	400	6SE7023-4ES87-1FE0	130
<b>Supply voltage 510 V to 650 V DC</b>							
<b>400 V</b>							
			$f_{pulse} = 6$ kHz			$f_{pulse} \leq 3$ kHz	
0.75	-	6SE7012-0TP60	-	-	-	6SE7013-0ES87-1FE0	50
1.5	-	6SE7014-0TP60	-	-	-	6SE7015-0ES87-1FE0	60
2.2	-	6SE7016-0TP60	6SE7016-1EA87-1FC0	400	150	6SE7016-1ES87-1FE0	80
4	-	6SE7021-0TP60	6SE7021-0EB87-1FC0	400	200	6SE7021-0ES87-1FE0	80
5.5	-	6SE7021-3TP60	6SE7021-8EB87-1FC0	400	250	6SE7021-8ES87-1FE0	95
7.5	-	6SE7021-8TP60	6SE7021-8EB87-1FC0	400	250	6SE7021-8ES87-1FE0	95
11	-	6SE7022-6TP60	6SE7022-6EC87-1FC0	400	300	6SE7022-6ES87-1FE0	110
15	-	6SE7023-4TP60	6SE7023-4EC87-1FC0	400	400	6SE7023-4ES87-1FE0	130
18.5	-	6SE7023-8TP60	6SE7024-7ED87-1FC0	400	500	6SE7024-7ES87-1FE0	190



Compact PLUS units

# SIMOVERT MASTERDRIVES Vector Control Compact PLUS Units

Recommended system components  
for converters and inverters

Output filter reactor Ferrite-core reactor			Output dv/dt filter	
Order No.	$f_{\max.}$ Hz	$P_v$ max. W	$f_{\max.} = 300$ Hz Order No.	$P_v$ max. W
$f_{\text{pulse}} \leq 6$ kHz			$f_{\text{pulse}} \leq 3$ kHz	
–	–	–	–	–
6SE7016-1ES87-1FF1	600	96	6SE7016-2FB87-1FD0	100
6SE7021-0ES87-1FF1	600	96	6SE7021-5FB87-1FD0	150
6SE7021-0ES87-1FF1	600	96	6SE7021-5FB87-1FD0	150
6SE7021-8ES87-1FF1	600	96	6SE7021-5FB87-1FD0	150
6SE7022-6ES87-1FF0	600	100	6SE7022-2FC87-1FD0	170
6SE7022-6ES87-1FF0	600	100	6SE7022-2FC87-1FD0	170
6SE7023-4ES87-1FF0	600	115	6SE7023-4FC87-1FD0	170
$f_{\text{pulse}} \leq 6$ kHz			$f_{\text{pulse}} \leq 3$ kHz	
–	–	–	–	–
6SE7016-1ES87-1FF1	600	96	6SE7016-2FB87-1FD0	100
6SE7021-0ES87-1FF1	600	96	6SE7021-5FB87-1FD0	150
6SE7021-8ES87-1FF1	600	96	6SE7021-5FB87-1FD0	150
6SE7021-8ES87-1FF1	600	96	6SE7021-5FB87-1FD0	150
6SE7022-6ES87-1FF0	600	100	6SE7022-2FC87-1FD0	170
6SE7023-4ES87-1FF0	600	115	6SE7023-4FC87-1FD0	170
6SE7024-7ES87-1FF0	600	170	6SE7024-7FC87-1FD0	200

# SIMOVERT MASTERDRIVES Vector Control

## Compact and Chassis Units

Recommended system components  
for converters and inverters

Compact and chassis units



### Selection and ordering data

Nominal power rating	Converter	Inverter	Output sinusoidal filter <sup>1)</sup>	$f_{max.}$	$P_v$ max.	Output reactor <sup>1)</sup>	$P_v$ max.
kW	Order No.	Order No.	Order No.	Hz	W	Iron-core reactor $f_{max.} = 300$ Hz Order No.	W
<b>Supply voltage 3-ph. 380 V to 480 V and DC voltage 510 V to 650 V DC</b>							
<b>400 V</b>			$f_{pulse} = 6$ kHz	$f_{pulse} \leq 3$ kHz			
2.2	6SE7016-1EA61	6SE7016-1TA61	6SE7016-1EA87-1FC0	400	150	6SE7016-1ES87-1FE0	80
3	6SE7018-0EA61	6SE7018-0TA61	6SE7021-0EB87-1FC0	400	200	6SE7021-0ES87-1FE0	80
4	6SE7021-0EA61	6SE7021-0TA61	6SE7021-0EB87-1FC0	400	200	6SE7021-0ES87-1FE0	80
5.5	6SE7021-3EB61	6SE7021-3TB61	6SE7021-8EB87-1FC0	400	250	6SE7021-8ES87-1FE0	95
7.5	6SE7021-8EB61	6SE7021-8TB61	6SE7021-8EB87-1FC0	400	250	6SE7021-8ES87-1FE0	95
11	6SE7022-6EC61	6SE7022-6TC61	6SE7022-6EC87-1FC0	400	300	6SE7022-6ES87-1FE0	110
15	6SE7023-4EC61	6SE7023-4TC61	6SE7023-4EC87-1FC0	400	400	6SE7023-4ES87-1FE0	130
18.5	6SE7023-8ED61	6SE7023-8TD61	6SE7024-7ED87-1FC0	400	500	6SE7024-7ES87-1FE0	190
22	6SE7024-7ED61	6SE7024-7TD61	6SE7024-7ED87-1FC0	400	500	6SE7024-7ES87-1FE0	190
30	6SE7026-0ED61	6SE7026-0TD61	6SE7027-2ED87-1FC0	400	600	6SE7027-2ES87-1FE0	130
37	6SE7027-2ED61	6SE7027-2TD61	6SE7027-2ED87-1FC0	400	600	6SE7027-2ES87-1FE0	130
45	6SE7031-0EE60	6SE7031-0TE60	6SE7031-0EE87-1FH0	200	450	6SE7031-0ES87-1FE0	190
55	6SE7031-2EF60	6SE7031-2TF60	6SE7031-5EF87-1FH0	200	600	6SE7031-5ES87-1FE0	220
75	6SE7031-5EF60	6SE7031-5TF60	(6SE7031-5EF87-1FH0 <sup>8)</sup> )	200	600	6SE7031-5ES87-1FE0	220
90	6SE7031-8EF60	6SE7031-8TF60	6SE7031-5EF87-1FH0 <sup>2)</sup> )	200	600	6SE7031-8ES87-1FE0	300
110	6SE7032-1EG60	6SE7032-1TG60	6SE7031-8EF87-1FH0 <sup>3)</sup> )	200	750	6SE7032-6ES87-1FE0	300
132	6SE7032-6EG60	6SE7032-6TG60	6SE7031-8EF87-1FH0 <sup>4)</sup> )	200	750	6SE7032-6ES87-1FE0	300
160	6SE7033-2EG60	6SE7033-2TG60	6SE7032-6EG87-1FH0 <sup>5)</sup> )	200	900	6SE7033-2ES87-1FE0	370
200	6SE7033-7EG60	6SE7033-7TG60	6SE7032-6EG87-1FH0 <sup>6)</sup> )	200	900	6SE7033-7ES87-1FE0	380
250	6SE7035-1EK60	6SE7035-1TJ60	-	-	-	6SE7035-1ES87-1FE0	460
315	6SE7036-0EK60	6SE7036-0TJ60	-	-	-	6SE7037-0ES87-1FE0	620
400	6SE7037-0EK60	6SE7037-0TJ60	-	-	-	6SE7037-0ES87-1FE0	620
500	-	6SE7038-6TK60	-	-	-	6SE7038-6ES87-1FE0	740
630	-	6SE7041-1TK60	-	-	-	6SE7041-1ES87-1FE0	860
710	-	6SE7041-3TL60	-	-	-	7)	-
900	-	without interphase transformer chassis 6SE7041-6TQ60	-	-	-	6SE7038-6ES87-1FE0 (2x)	740 (2x)
900	-	with interphase transformer chassis 6SE7041-6TM60	-	-	-	6SE7038-6ES87-1FE0 (2x)	740 (2x)
1300	-	without interphase transformer chassis 6SE7042-5TN60	-	-	-	7)	-

Attention!  
Please observe foot notes 2 to 6.

1) Observe foot notes 2 to 6.

2) Rated current of the units with sinusoidal filter due to derating at a pulse frequency of 6 kHz,  $I_S = 140$  A.

3) Rated current of the units with sinusoidal filter due to derating at a pulse frequency of 6 kHz,  $I_S = 158$  A.

4) Rated current of the units with sinusoidal filter due to derating at a pulse frequency of 6 kHz,  $I_S = 195$  A.

5) Rated current of the units with sinusoidal filter due to derating at a pulse frequency of 6 kHz,  $I_S = 236$  A.

6) Rated current of the units with sinusoidal filter due to derating at a pulse frequency of 6 kHz,  $I_S = 278$  A.

7) No reactor required. Maximum cable length 800 m shielded, 1200 m unshielded.

8) Rated current of the units with sinusoidal filter due to derating at a pulse frequency of 6 kHz,  $I_S = 110$  A and therefore lower than for the units with 55 kW (no derating at 6 kHz).



# SIMOVERT MASTERDRIVES Vector Control Compact and Chassis Units

Compact and chassis units

Recommended system components  
for converters and inverters

Output filter reactor Ferrite-core reactor	$f_{\max.}$	$P_v$ max.	Output dV/dt filter $f_{\max.} = 300$ Hz	$P_v$ max.
Order No.	Hz	W	Order No.	W
$f_{\text{pulse}} \leq 6$ kHz		$f_{\text{pulse}} \leq 3$ kHz		
6SE7016-1ES87-1FF1	600	96	6SE7016-2FB87-1FD0	100
6SE7021-0ES87-1FF1	600	96	6SE7021-5FB87-1FD0	150
6SE7021-0ES87-1FF1	600	96	6SE7021-5FB87-1FD0	150
6SE7021-8ES87-1FF1	600	96	6SE7021-5FB87-1FD0	150
6SE7021-8ES87-1FF1	600	96	6SE7021-5FB87-1FD0	150
6SE7022-6ES87-1FF0	600	100	6SE7022-2FC87-1FD0	170
6SE7023-4ES87-1FF0	600	115	6SE7023-4FC87-1FD0	170
6SE7024-7ES87-1FF0	600	170	6SE7024-7FC87-1FD0	200
6SE7024-7ES87-1FF0	600	170	6SE7024-7FC87-1FD0	200
6SE7027-2ES87-1FF0	600	135	6SE7026-0HE87-1FD0	230
6SE7027-2ES87-1FF0	600	135	6SE7028-2HE87-1FD0	300
6SE7031-0ES87-1FF0	500	170	6SE7031-2HS87-1FD0	390
6SE7031-5ES87-1FF0	500	300	6SE7031-7HS87-1FD0	480
6SE7031-5ES87-1FF0	500	300	6SE7031-7HS87-1FD0	480
6SE7031-8ES87-1FF0	500	300	6SE7032-3HS87-1FD0	500
6SE7032-6ES87-1FF0	500	350	6SE7033-0HS87-1FD0	700
6SE7032-6ES87-1FF0	500	350	6SE7033-0HS87-1FD0	700
6SE7033-2ES87-1FF0	500	350	6SE7033-5HS87-1FD0	800
6SE7033-7ES87-1FF0	500	350	6SE7034-5HS87-1FD0	950
6SE7035-1ES87-1FF0	500	400	6SE7035-7HS87-1FD0	1300
6SE7037-0ES87-1FF0	500	480	6SE7036-5HS87-1FD0	1500
6SE7037-0ES87-1FF0	500	480	6SE7038-6HS87-1FD0	1800
6SE7038-6ES87-1FF0	500	530	6SE7038-6HS87-1FD0	1800
-			-	
-			-	
-			6SE7038-6HS87-1FD0 (2x)	1800 (2x)
-			-	
-			-	

# SIMOVERT MASTERDRIVES Vector Control

## Compact and Chassis Units

Recommended system components  
for converters and inverters

Compact and chassis units



### Selection and ordering data

Nominal power rating	Converter	Inverter	Output sinusoidal filter	Output reactor		Output dv/dt filter	
				Iron-core reactor	Output reactor		
kW	Order No.	Order No.	Order No.	$f_{max.}$	$P_v$ max.	$f_{max.} = 300$ Hz	$P_v$ max.
				Hz	W	Order No.	W
<b>Supply voltage 3-ph. 500 V to 600 V AC and DC voltage 675 V to 810 V DC</b>							
<b>500 V</b>							
			$f_{pulse} \leq 3$ kHz			$f_{pulse} \leq 3$ kHz	$f_{pulse} \leq 3$ kHz
2.2	6SE7014-5FB61	6SE7014-5UB61	6SE7016-2FB87-1FH0	200	200	6SE7016-2FS87-1FE0	130 6SE7016-2FB87-1FD0 100
3	6SE7016-2FB61	6SE7016-2UB61	6SE7016-2FB87-1FH0	200	200	6SE7016-2FS87-1FE0	130 6SE7016-2FB87-1FD0 100
4	6SE7017-8FB61	6SE7017-8UB61	6SE7021-5FC87-1FH0	200	300	6SE7021-5FS87-1FE0	190 6SE7021-5FB87-1FD0 150
5.5	6SE7021-1FB61	6SE7021-1UB61	6SE7021-5FC87-1FH0	200	300	6SE7021-5FS87-1FE0	190 6SE7021-5FB87-1FD0 150
7.5	6SE7021-5FB61	6SE7021-5UB61	6SE7021-5FC87-1FH0	200	300	6SE7021-5FS87-1FE0	190 6SE7021-5FB87-1FD0 150
11	6SE7022-2FC61	6SE7022-2UC61	6SE7022-2FD87-1FH0	200	400	6SE7022-2FS87-1FE0	220 6SE7022-2FC87-1FD0 170
18.5	6SE7023-0FD61	6SE7023-0UD61	6SE7023-4FD87-1FH0	200	500	6SE7023-4FS87-1FE0	190 6SE7023-4FC87-1FD0 170
22	6SE7023-4FD61	6SE7023-4UD61	6SE7023-4FD87-1FH0	200	500	6SE7023-4FS87-1FE0	190 6SE7023-4FC87-1FD0 170
30	6SE7024-7FD61	6SE7024-7UD61	6SE7024-7FE87-1FH0	200	600	6SE7024-7FS87-1FE0	220 6SE7024-7FC87-1FD0 200
37	6SE7026-1FE60	6SE7026-1UE60	6SE7026-1FF87-1FH0	100	450	6SE7026-0HS87-1FE0	300 6SE7026-0HE87-1FD0 230
45	6SE7026-6FE60	6SE7026-6UE60	6SE7028-0FF87-1FH0	100	600	6SE7028-2HS87-1FE0	370 6SE7028-2HE87-1FD0 300
55	6SE7028-0FF60	6SE7028-0UF60	6SE7028-0FF87-1FH0	100	600	6SE7028-2HS87-1FE0	370 6SE7028-2HE87-1FD0 300
75	6SE7031-1FF60	6SE7031-1UF60	6SE7031-3FG87-1FH0	100	750	6SE7031-2HS87-1FE0	500 6SE7031-2HS87-1FD0 390
90	6SE7031-3FG60	6SE7031-3UG60	6SE7031-3FG87-1FH0	100	750	6SE7031-2HS87-1FE0	500 6SE7031-2HS87-1FD0 390
110	6SE7031-6FG60	6SE7031-6UG60	6SE7031-6FG87-1FH0	100	900	6SE7031-7HS87-1FE0	620 6SE7031-7HS87-1FD0 480
132	6SE7032-0FG60	6SE7032-0UG60	-	-	-	6SE7032-3HS87-1FE0	620 6SE7032-3HS87-1FD0 500
160	6SE7032-3FG60	6SE7032-3UG60	-	-	-	6SE7032-3HS87-1FE0	620 6SE7032-3HS87-1FD0 500
200	6SE7033-0FK60	6SE7033-0UJ60	-	-	-	6SE7033-0GS87-1FE0	870 6SE7033-0HS87-1FD0 700
250	6SE7033-5FK60	6SE7033-5UJ60	-	-	-	6SE7033-5GS87-1FE0	1050 6SE7033-5HS87-1FD0 800
315	6SE7034-5FK60	6SE7034-5UJ60	-	-	-	6SE7034-5GS87-1FE0	1270 6SE7034-5HS87-1FD0 950
400	-	6SE7035-7UK60	-	-	-	6SE7035-7GS87-1FE0	1840 6SE7035-7HS87-1FD0 1300
450	-	6SE7036-5UK60	-	-	-	6SE7036-5GS87-1FE0	1980 6SE7036-5HS87-1FD0 1500
630	-	6SE7038-6UK60	-	-	-	6SE7038-6GS87-1FE0	2350 6SE7038-6HS87-1FD0 1800
800	-	6SE7041-1UL60	-	-	-	6SE7041-2GS87-1FE0	on request <sup>1)</sup>
900	-	6SE7041-2UL60	-	-	-	6SE7041-2GS87-1FE0	on request <sup>1)</sup>
1000	-	without interphase transformer chassis 6SE7041-4UQ60	-	-	-	6SE7038-6GS87-1FE0 (2x)	2350 (2x) 6SE7038-6HS87-1FD0 (2x) 1800 (2x)
1100	-	6SE7041-6UQ60	-	-	-	6SE7038-6GS87-1FE0 (2x)	2350 (2x) 6SE7038-6HS87-1FD0 (2x) 1800 (2x)
1000	-	with interphase transformer chassis 6SE7041-4UM60	-	-	-	-	-
1100	-	6SE7041-6UM60	-	-	-	-	-
1500	-	without interphase transformer chassis 6SE7042-1UN60	-	-	-	6SE7041-2GS87-1FE0 (2x)	2350 (2x) on request
1700	-	without interphase transformer chassis 6SE7042-3UN60	-	-	-	6SE7041-2GS87-1FE0 (2x)	2350 (2x) on request

1) The following cable lengths are permissible in combination with the TG 31024-05 limiting network and output filter reactor:  
30 m shielded/50 m unshielded; with 1 supplementary reactor (i.e. 2 output filter reactors)  
100 m shielded/150 m unshielded.



Compact and chassis units

# SIMOVERT MASTERDRIVES Vector Control Compact and Chassis Units

Recommended system components  
for converters and inverters

Nominal power rating	Converter	Inverter	Output reactor Iron-core reactor $f_{max.} = 300$ Hz	$P_v$ max. W	Output dv/dt filter $f_{max.} = 300$ Hz	$P_v$ max. W
kW	Order No.	Order No.	Order No.		Order No.	
<b>Supply voltage 3-ph. 660 V to 690 V AC and DC voltage 890 V to 930 V DC</b>						
<b>690 V</b>			$f_{pulse} \leq 3$ kHz		$f_{pulse} \leq 3$ kHz	
55	6SE7026-0HF60	6SE7026-0WF60	6SE7026-0HS87-1FE0	300	6SE7026-0HE87-1FD0	230
75	6SE7028-2HF60	6SE7028-2WF60	6SE7028-2HS87-1FE0	370	6SE7028-2HE87-1FD0	300
90	6SE7031-0HG60	6SE7031-0WG60	6SE7031-2HS87-1FE0	500	6SE7031-2HS87-1FD0	390
110	6SE7031-2HG60	6SE7031-2WG60	6SE7031-2HS87-1FE0	500	6SE7031-2HS87-1FD0	390
132	6SE7031-5HG60	6SE7031-5WG60	6SE7031-7HS87-1FE0	620	6SE7031-7HS87-1FD0	480
160	6SE7031-7HG60	6SE7031-7WG60	6SE7031-7HS87-1FE0	620	6SE7031-7HS87-1FD0	480
200	6SE7032-1HG60	6SE7032-1WG60	6SE7032-3HS87-1FE0	620	6SE7032-3HS87-1FD0	500
250	6SE7033-0HK60	6SE7033-0WJ60	6SE7033-0GS87-1FE0	870	6SE7033-0HS87-1FD0	700
315	6SE7033-5HK60	6SE7033-5WJ60	6SE7033-5GS87-1FE0	1050	6SE7033-5HS87-1FD0	800
400	6SE7034-5HK60	6SE7034-5WJ60	6SE7034-5GS87-1FE0	1270	6SE7034-5HS87-1FD0	950
500	-	6SE7035-7WK60	6SE7035-7GS87-1FE0	1840	6SE7035-7HS87-1FD0	1300
630	-	6SE7036-5WK60	6SE7036-5GS87-1FE0	1980	6SE7036-5HS87-1FD0	1500
800	-	6SE7038-6WK60	6SE7038-6GS87-1FE0	2350	6SE7038-6HS87-1FD0	1800
1000	-	6SE7041-1WL60	6SE7041-2GS87-1FE0		on request <sup>1)</sup>	
1200	-	6SE7041-2WL60	6SE7041-2GS87-1FE0		on request <sup>1)</sup>	
1300	-	without interphase transformer chassis 6SE7041-4WQ60	6SE7038-6GS87-1FE0 (2x)	2350 (2x)	6SE7038-6HS87-1FD0 (2x)	1800 (2x)
1500	-	6SE7041-6WQ60	6SE7038-6GS87-1FE0 (2x)	2350 (2x)	6SE7038-6HS87-1FD0 (2x)	1800 (2x)
1300	-	with interphase transformer chassis 6SE7041-4WM60	-	-	-	-
1500	-	6SE7041-6WM60	-	-	-	-
1900	-	without interphase transformer chassis 6SE7042-1WN60	6SE7041-2GS87-1FE0 (2x)	-	-	-
2300	-	without interphase transformer chassis 6SE7042-3WN60	6SE7041-2GS87-1FE0 (2x)	-	-	-

1) The following cable lengths are permissible in combination with the TG 31024-05 limiting network and output filter reactor:  
30 m shielded/50 m unshielded; with 1 supplementary reactor (i.e. 2 output filter reactors)  
100 m shielded/150 m unshielded.