

## Four-quadrant operation

### Power section

Rated input voltage <sup>1)</sup> Armature power section	V	3-ph. 400 <sup>5)</sup> +15 %/-20 % <sup>4)</sup>	3-ph. 460 <sup>5)</sup> +15 %/-20 %	3-ph. 500 <sup>5)</sup> +10 %/-15 %	3-ph. 690 +10 %/-15 %	3-ph. 830 +10 %/-15 %
Rated input voltage Auxiliaries	V	–	–	3-ph. 400 V +15 %/-15 % <sup>4)</sup>		
Rated frequency <sup>1)</sup>	Hz	50	60	50		
Rated input current	A	13 to 1658	25 to 995	13 to 1658	(refer to selection and ordering data)	
Power loss	refer to selection and ordering data					

### DC connection, armature

Converter circuit	(B6)A (B6)C					
Rated DC voltage	V	420	480	520	725	875
Rated DC current	A	15 to 2000	30 to 1200	60 to 2000	760 to 2000	950 to 1900
Rated output	kW	6.3 to 840	14.4 to 576	31 to 1040	551 to 1450	831 to 1663
Closed-loop control stability <sup>2)</sup>	$\Delta_n$ 0.006 % of the rated speed when using pulse encoders and digital setpoint. $\Delta_n$ 0.1 % of the rated speed when using an analog tachometer and/or analog setpoint.					

### Field current connection





Field rectifier circuit	B2HZ					
Rated DC field voltage	V/DC	325	373	325		
DC field current (max., controlled)	A	5 to 40	5 to 30	10 to 40	30 to 40	

### Motor fan

Rated supply voltage <sup>3)</sup>	3-ph. 50 Hz 400 V		3-ph. 60 Hz 460 V	3-ph. 50 Hz 400 V		
Setting range of the motor protection circuit-breaker at the rated unit DC current 15 A	A	0.14 to 0.2				
30 A to 60 A	A	0.35 to 0.5				–
90 A to 280 A	A	0.9 to 1.25				–
400 A to 450 A	A	2.8 to 4				–
600 A to 850 A	A	7 to 10			–	
950 A to 1200 A	A	11 to 16				
1500 A to 2000 A	A	2 x (11 to 16)	–	2 x (11 to 16)		

### Cabinet unit cooling

Cooling type	Forced air cooling using a cabinet fan or equipment fan					
Cooling airflow requirement at the rated DC current						
15 A to 60 A	m <sup>3</sup> /h	120				
90 A to 280 A	m <sup>3</sup> /h	360				
400 A to 850 A	m <sup>3</sup> /h	650				
900 A to 2000 A	m <sup>3</sup> /h	1600				

Three-phase connection		DC connection, armature circuit		Field current connection		SIMOREG cabinet unit					
Rated input voltage V	Rated input current A	Rated DC voltage V	Rated DC current A	Rated output kW	DC field voltage	DC field current A	Order No.	Weight ca. kg			
<b>SIMOREG cabinet units for single-/two-quadrant operation B6C</b>											
 <b>3-ph. 400</b>	25	485	30	14.5	325	5	<b>6RM7018-6DS02</b>	120			
	50		60	29		10	<b>6RM7025-6DS02</b>	125			
	75		90	44		10	<b>6RM7028-6DS02</b>	185			
	104		125	61		10	<b>6RM7031-6DS02</b>	200			
	175		210	102		15	<b>6RM7075-6DS02</b>	205			
	233		280	136		15	<b>6RM7078-6DS02</b>	220			
	332		400	194		25	<b>6RM7081-6DS02</b>	270			
	498		600	291		25	<b>6RM7085-6DS02</b>	290			
	705		850	412		30	<b>6RM7087-6DS02</b>	455			
	995		1200	582		30	<b>6RM7091-6DS02</b>	495			
	1326		1600	776		40	<b>6RM7093-4DS02</b>	620			
1658	2000	970	40	<b>6RM7095-4DS02</b>	685						
 <b>3-ph. 460</b>	25	550	30	16.5	373	5	<b>6RM7018-6FS02</b>	120			
	50		60	33		10	<b>6RM7025-6FS02</b>	125			
	75		90	49.5		10	<b>6RM7028-6FS02</b>	185			
	104		125	68.7		10	<b>6RM7031-6FS02</b>	200			
	175		210	115		15	<b>6RM7075-6FS02</b>	205			
	233		280	154		15	<b>6RM7078-6FS02</b>	220			
	375		450	247		25	<b>6RM7082-6FS02</b>	270			
	498		600	330		25	<b>6RM7085-6FS02</b>	290			
	705		850	467		30	<b>6RM7087-6FS02</b>	455			
	995		1200	660		30	<b>6RM7091-6FS02</b>	495			
	 <b>3-ph. 500<sup>1)</sup></b>		50	600		60	36		10	<b>6RM7025-6GS02</b>	185
104		125	75		10	<b>6RM7031-6GS02</b>	275				
175		210	126		15	<b>6RM7075-6GS02</b>	305				
332		400	240		25	<b>6RM7081-6GS02</b>	415				
498		600	360		25	<b>6RM7085-6GS02</b>	480				
663		800	480		30	<b>6RM7087-6GS02</b>	650				
829		1000	600		30	<b>6RM7090-6GS02</b>	725				
1326		1600	960		40	<b>6RM7093-4GS02</b>	860				
1658		2000	1200		40	<b>6RM7095-4GS02</b>	870				
 <b>3-ph. 690</b>		597	830		720	598			30	<b>6RM7086-6KS02</b>	670
		788			950	789			30	<b>6RM7088-6KS02</b>	725
	1244	1500		1245	40	<b>6RM7093-4KS02</b>		855			
	1658	2000		1660	40	<b>6RM7095-4KS02</b>		870			
 <b>3-ph. 830</b>	746	1000	900	900		30	<b>6RM7088-6LS02</b>	760			
	1244		1500	1500		40	<b>6RM7093-4LS02</b>	875			
	1575		1900	1900		40	<b>6RM7095-4LS02</b>	900			

1) Optionally, max. 3-ph. 575 V and therefore 690 V DC for B6C and 600 V DC for (B6)A (B6)C possible.

2) With cable lugs acc. to DIN 57 295; greater cable sections optionally possible on request.

3) Max. permissible backup fuse provided by customer or – for data in kA – max. permissible short-circuit current at the incoming circuit-breaker of the cabinet unit. Maximum permissible short-circuit current 50 kA with a 3-ph. 400 V mains voltage and motor fan outputs greater than 12.5 A.

4) For option V47 (supply voltage 575 V) max. permissible short-circuit current 50 kA.

Max. possible connection cross-section for				Max. permissible fusing on the part of the customer (l.v.h.b.c. fuse gL/gG)		Power loss (at the rated DC current)
Three-phase connection <sup>2)</sup> mm <sup>2</sup>	DC connection <sup>2)</sup> mm <sup>2</sup>	DC field current connection mm <sup>2</sup>	Voltage connection auxiliaries mm <sup>2</sup>	Three-phase connection <sup>3)</sup> A	Voltage connection auxiliaries A	kW
1 x 6	1 x 95	1 x 4	–	32	–	0.30
1 x 25	1 x 95	1 x 4	–	63	–	0.35
1 x 35	1 x 95	1 x 4	–	125	–	0.50
1 x 120	1 x 95	1 x 4	–	160	–	0.60
1 x 150	1 x 150	1 x 4	–	250	–	0.90
1 x 150	1 x 240	1 x 4	–	350	–	1.10
2 x 185	2 x 240	1 x 6	–	400	–	1.65
2 x 185	2 x 240	1 x 6	–	630	–	2.10
2 x 240	4 x 185	1 x 10	–	1000	–	2.95
4 x 240	4 x 185	1 x 10	–	1000	–	5.20
4 x 240	8 x 185	1 x 10	–	65 kA	–	6.55
6 x 240	8 x 185	1 x 10	–	80 kA	–	7.90
1 x 6	1 x 95	1 x 4	–	32	–	0.30
1 x 25	1 x 95	1 x 4	–	63	–	0.35
1 x 35	1 x 95	1 x 4	–	125	–	0.50
1 x 120	1 x 95	1 x 4	–	160	–	0.60
1 x 150	1 x 150	1 x 4	–	250	–	0.90
1 x 150	1 x 240	1 x 4	–	350	–	1.10
2 x 185	2 x 240	1 x 6	–	400	–	1.65
2 x 185	2 x 240	1 x 6	–	630	–	2.10
2 x 240	4 x 185	1 x 10	–	1000	–	2.95
4 x 240	4 x 185	1 x 10	–	1000	–	5.20
1 x 25	1 x 95	1 x 4	4	63	16	0.75
1 x 120	1 x 95	1 x 4	4	160	16	1.05
1 x 150	1 x 150	1 x 4	4	250	20	1.45
2 x 185	2 x 240	1 x 6	16	400	35	2.40
2 x 185	2 x 240	1 x 6	16	630	50	2.95
2 x 240	4 x 185	1 x 10	16	1000	50	3.80
4 x 240	4 x 185	1 x 10	16	1000	50	5.65
4 x 240	8 x 185	1 x 10	16	65 kA	63	7.85
6 x 240	8 x 185	1 x 10	16	80 kA <sup>4)</sup>	63	9.40
2 x 240	4 x 185	1 x 10	16	630	50	3.90
4 x 240	4 x 185	1 x 10	16	1000	50	5.90
4 x 240	8 x 185	1 x 10	16	50 kA	63	8.75
6 x 240	8 x 185	1 x 10	16	50 kA	63	10.40
4 x 240	4 x 185	1 x 10	16	800	50	6.35
4 x 240	8 x 185	1 x 10	16	40 kA	63	8.95
6 x 240	8 x 185	1 x 10	16	40 kA	63	11.10

