

Overview



A Braking Module and the matching external braking resistor are required to bring drives to a controlled standstill in the event of a power failure (e.g. emergency retraction or EMERGENCY OFF category 1) or limit the DC link voltage for brief periods of generator operation, e.g. when the regenerative feedback capability of the Line Module is deactivated. The Braking Module houses the power electronics and the associated control circuit. During operation, the DC link energy is converted to heat loss in an external braking resistor. Braking Modules function autonomously. A number of braking modules can be operated in parallel. In this case, each Braking Module must have its own braking resistor.

Braking Modules in booksize format can also be used for rapid discharge of the DC link.

Design

The Braking Module in booksize format features the following interfaces as standard:

- 2 DC link connections via integrated DC link busbars
- 2 electronics power supply connections via integrated 24 V DC bars
- Terminals for connecting the braking resistor
- 2 digital inputs (disable Braking Module/acknowledge faults and rapid discharge of DC link)
- 2 digital outputs (Braking Module disabled and prewarning – *brt* monitoring)
- 2 PE (protective earth) connections

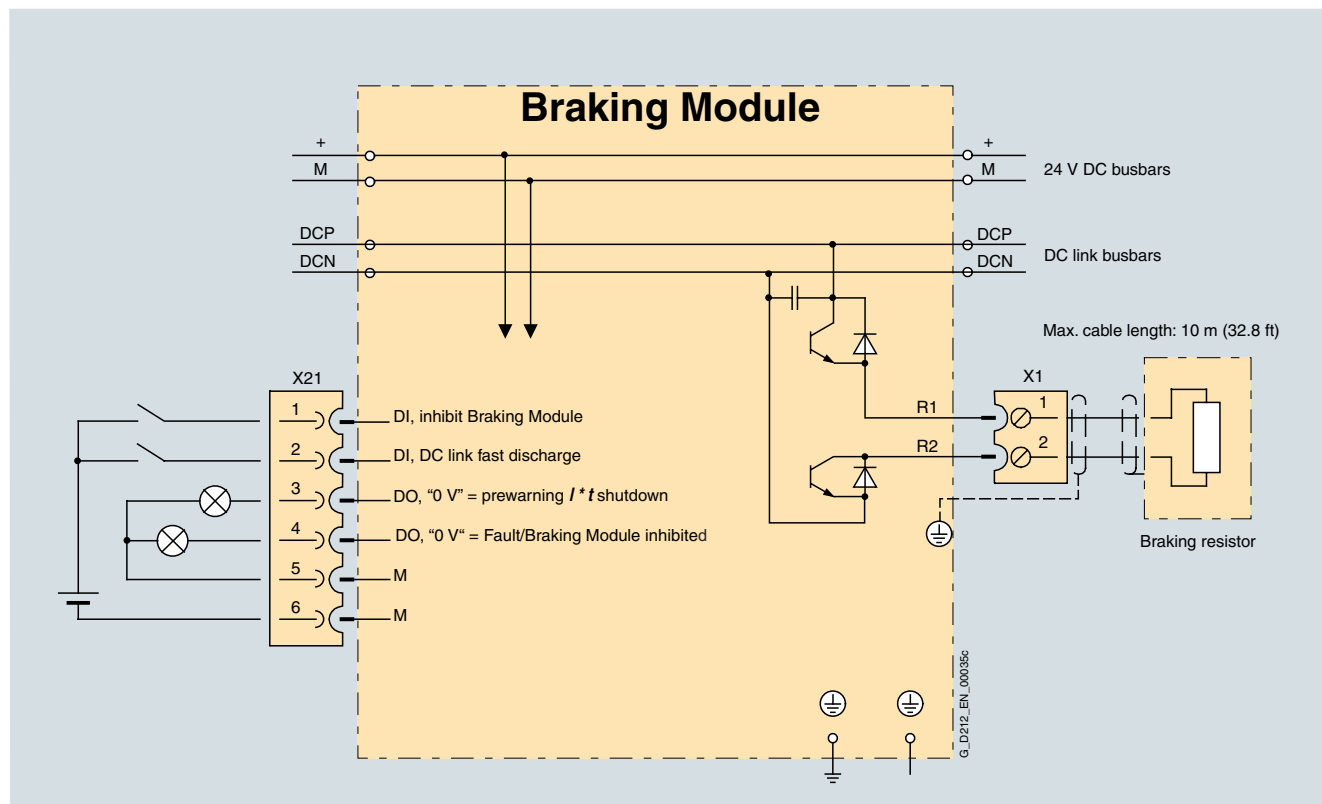
The status of the Braking Module is indicated via two 2-color LEDs.

Selection and ordering data

Description	Order No.
DC link voltage 510 V to 720 V DC	
Braking Module in booksize format (varnished) 1.5 kW/100 kW	6SL3100-1AE31-0AB0

Accessories

Description	Order No.
Warning signs in foreign languages This set of foreign language warning signs can be placed on top of the standard German or English signs. One sign in each of the following languages is provided in each set: Chinese, Danish, Dutch, Finnish, French, Greek, Italian, Japanese, Korean, Portuguese, Spanish and Swedish.	6SL3166-3AB00-0AA0

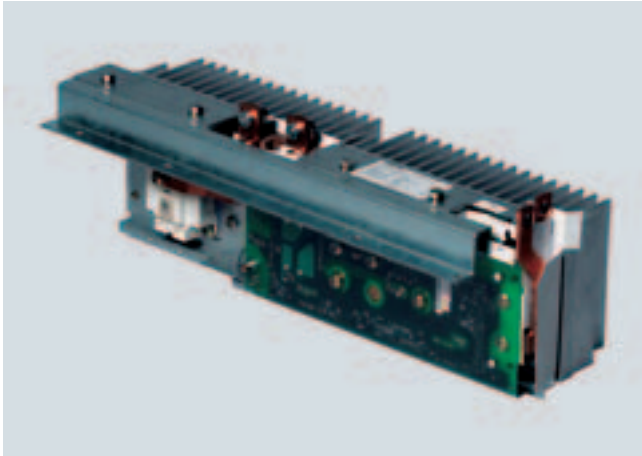


Connection example of Braking Module in booksize format

Technical data

DC link voltage 510 V to 720 V DC	Braking Module in booksize format (varnished)
Rated power P_{DB}	1.5 kW
Peak power P_{max}	100 kW
Activation threshold	770 V
Max. permissible cable length to braking resistor	10 m (32.8 ft)
DC link capacitance	110 μ F
Max. current requirements at 24 V DC	0.5 A
Digital inputs	
• Voltage	– 3 V to + 30 V
• Low level (an open digital input is interpreted as "low")	– 3 V to + 5 V
• High level	15 V to 30 V
• Current consumption (typ. at 24 V DC)	10 mA
• Max. connectable cross section	1.5 mm ²
Digital outputs (continued-short-circuit-proof)	
• Voltage	24 V DC
• Max. load current per digital output	100 mA
• Max. connectable cross section	1.5 mm ²
24 V DC busbar current capacity	20 A
DC link busbar current capacity	100 A
PE connection	On housing with M5 screw
Width	50 mm (1.97 in)
Height	380 mm (14.96 in)
Depth, with spacer (included in scope of supply)	270 mm (10.63 in)
Weight, approx.	4.1 kg (9 lb)

Overview



A Braking Module and the matching external braking resistor are required to bring drives to a controlled standstill in the event of a power failure (e.g. emergency retraction or EMERGENCY OFF category 1) or limit the DC link voltage for brief periods of generator operation, e.g. when the regenerative feedback capability of the Line Module is deactivated. The Braking Module houses the power electronics and the associated control circuit. During operation, the DC link energy is converted to power loss in an external braking resistor. Braking Modules function autonomously. A number of braking modules can be operated in parallel. In this case, each Braking Module must have its own braking resistor.

The Braking Module in chassis format is inserted in a mounting location inside the Motor Module, Line Module or Power Module and is force cooled by the fan. The supply voltage for the electronics is drawn from the DC link. The Braking Module is connected to the DC link by means of the busbar sets and flexible cables, which are supplied as standard.

The activation threshold of the Braking Module can be adjusted by means of a DIP switch. The braking power values specified in the technical data apply to the upper activation threshold.

Design

The Braking Modules in chassis format feature the following interfaces as standard:

- 1 DC link connection
- 1 braking resistor connection
- 1 digital input (inhibit Braking Module/acknowledge error)
- 1 digital output (Braking Module inhibited)
- 1 DIP switch for adjusting the application threshold

Selection and ordering data

Description	Order No.
DC link voltage 510 V to 720 V DC	
Braking Module in chassis format	
• Frame size FX, 25 kW/125 kW	6SL3300-1AE31-3AA0
• Frame size GX, 50 kW/250 kW	6SL3300-1AE32-5AA0
• Frame sizes HX and JX, 50 kW/250 kW	6SL3300-1AE32-5BA0
DC link voltage 890 V to 1035 V DC	
Braking Module in chassis format	
• Frame size FX, 25 kW/125 kW	6SL3300-1AH31-3AA0
• Frame size GX, 50 kW/250 kW	6SL3300-1AH32-5AA0
• Frame sizes HX and JX, 50 kW/250 kW	6SL3300-1AH32-5BA0

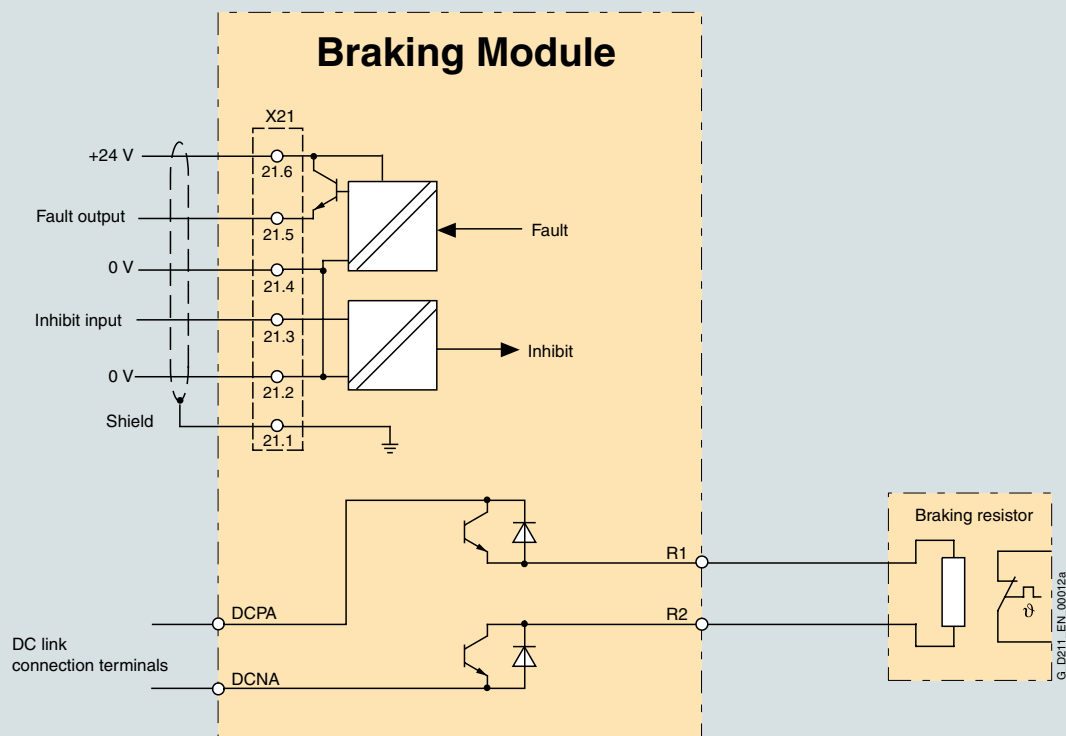
Warning signs in foreign languages

Warning signs in other languages can be placed on top of the standard warning signs in German or English.

The following signs are supplied with chassis format units: Chinese, Danish, Finnish, French, Greek, Italian, Japanese, Korean, Dutch, Polish, Portuguese, Russian, Swedish, Spanish, Czech and Turkish.

Accessories

Description	Order No.
Cable harness set for mounting of Braking Modules frame size GX into a Basic Line Module frame size GB	6SL3366-2NG00-0AA0



Connection example of Braking Module in chassis format

Technical data

DC link voltage 510 V to 720 V DC		Braking Module in chassis format		
		6SL3300-1AE31-3AA0	6SL3300-1AE32-5AA0	6SL3300-1AE32-5BA0
P_{DB} rated power	kW	25	50	50
P_{15} peak power	kW	125	250	250
P_{20} power	kW	100	200	200
P_{40} power	kW	50	100	100
Activation thresholds (adjustable via DIP switch)	V	774 (factory setting) or 673	774 (factory setting) or 673	774 (factory setting) or 673
Max. permissible cable length to braking resistor	m (ft)	50 (164)	50 (164)	50 (164)
Digital inputs				
• Voltage	V	– 3 to + 30	– 3 to + 30	– 3 to + 30
• Low level (an open digital input is interpreted as "low")	V	– 3 to + 5	– 3 to + 5	– 3 to + 5
• High level	V	15 to 30	15 to 30	15 to 30
• Current consumption (typ. at 24 V DC)	mA	10	10	10
• Max. connectable cross section	mm ²	1.5	1.5	1.5
Digital outputs (continued-short-circuit-proof)				
• Voltage	V	DC 24	DC 24	DC 24
• Max. load current per digital output	mA	500	500	500
• Max. connectable cross section	mm ²	1.5	1.5	1.5
Terminal/screw R1/R2		M8	M8	M8
Max. connectable cross section R1/R2	mm ²	35	50	50
Weight, approx.	kg (lb)	3.6 (8)	7.3 (16)	7.5 (17)
Suitable for installation in a Moto Module/Active Line Module/Basic Line Module frame size	Frame size	FX/FB	GX/GB ¹⁾	HX/JX

DC link voltage 890 V to 1035 V DC		Braking Module in chassis format		
		6SL3300-1AH31-3AA0	6SL3300-1AH32-5AA0	6SL3300-1AH32-5BA0
P_{DB} rated power	kW	25	50	50
P_{15} peak power	kW	125	250	250
P_{20} power	kW	100	200	200
P_{40} power	kW	50	100	100
Activation thresholds (adjustable via DIP switch)	V	1153 (factory setting) or 1070	1153 (factory setting) or 1070	1153 (factory setting) or 1070
Max. permissible cable length to braking resistor	m (ft)	50 (164)	50 (164)	50 (164)
Digital inputs				
• Voltage	V	– 3 to + 30	– 3 to + 30	– 3 to + 30
• Low level (an open digital input is interpreted as "low")	V	– 3 to + 5	– 3 to + 5	– 3 to + 5
• High level	V	15 to 30	15 to 30	15 to 30
• Current consumption (typ. at 24 V DC)	mA	10	10	10
• Max. connectable cross section	mm ²	1.5	1.5	1.5
Digital outputs (continued-short-circuit-proof)				
• Voltage	V	DC 24	DC 24	DC 24
• Max. load current per digital output	mA	500	500	500
• Max. connectable cross section	mm ²	1.5	1.5	1.5
Terminal/screw R1/R2		M8	M8	M8
Max. connectable cross section R1/R2	mm ²	35	50	50
Weight, approx.	kg (lb)	3.6 (8)	7.3 (16)	7.5 (17)
Suitable for installation in a Motor Module/Active Line Module/Basic Line Module frame size	Frame size	FX/FB	GX/GB ¹⁾	HX/JX

¹⁾ Cable harness set 6SL3366-2NG00-0AA0 is required to connect the Braking Module to a Basic Line Module of frame size GB.

Braking resistors for blocksize format

Overview



Braking resistor for blocksize format, frame sizes FSA and FSC

The PM340 Power Modules cannot regenerate into the line supply. For regenerative operation, e.g. the braking of a rotating mass, a braking resistor must be connected to convert the resulting energy into heat.

The braking resistor is connected at terminals DCP/R1 and R2.

The braking resistors can be installed at the side next to the PM340 Power Modules. The braking resistors for the FSA and FSB frame sizes are designed as base components. If the PM340 Power Modules of the FSA or FSB frame size are operated without line reactor, the braking resistors can also be installed under the Power Modules.

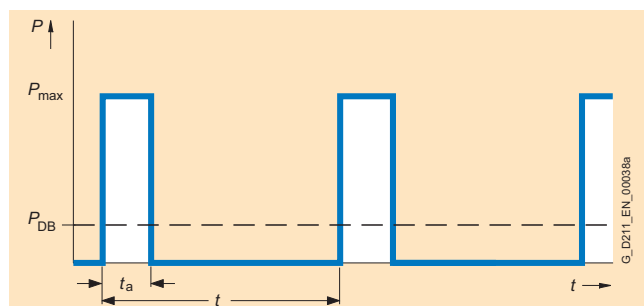
The braking resistors for the Power Modules of the FSC to FSF frame sizes should be placed outside the control cabinet or the switchgear room in order to direct the resulting heat loss away from the Power Modules, thereby allowing a corresponding reduction in the level of air conditioning required.

The braking resistors are designed with a temperature switch. The temperature switch must be evaluated to prevent consequential damage if the braking resistor overheats.

Selection and ordering data

Description	Suitable for Power Module, blocksize format	Order No.
DC link voltage 240 V to 360 V DC (line voltage 200 V to 240 V 1 AC)		
Braking resistor		
• 180 ohm	Frame size FSA	6SE6400-4BC05-0AA0
DC link voltage 510 V to 720 V DC (line voltage 380 V to 480 V 3 AC)		
Braking resistor		
• 390 ohm	Frame size FSA	6SE6400-4BD11-0AA0
• 160 ohm	Frame size FSB	6SL3201-0BE12-0AA0
• 56 ohm	Frame size FSC	6SE6400-4BD16-5CA0
• 27 ohm	Frame size FSD	6SE6400-4BD21-2DA0
• 15 ohm	Frame size FSE	6SE6400-4BD22-2EA0
• 8.2 ohm	Frame size FSF	6SE6400-4BD24-0FA0

Characteristics



Load diagram for braking resistors in blocksize format

$t_a = 12 \text{ s}$

$t = 240 \text{ s}$

Q_D211_EN_00038a

Technical data

DC link voltage 240 V to 360 V DC		Braking resistor for Power Modules in blocksize format 6SE6400-4BC05-0AA0
Resistor		180 ohm
Rated power P_{DB}		0.05 kW
Peak power P_{max}		1 kW
Degree of protection ¹⁾		IP20
Power connections		3 × 1.5 mm ² (shielded) length 0.5 m (1.64 ft)
Thermostatic switch (NC contact)		
• Switching capacity		250 V AC/max. 2.5 A
• Connectable cable cross section		0.5 mm ² to 2.5 mm ²
Width		72 mm (2.83 in)
Height		230 mm (9.05 in)
Depth		43.5 mm (1.71 in)
Weight, approx.		1.0 kg (2)

DC link voltage 510 V to 720 V DC		Braking resistors for Power Modules in blocksize format					
		6SE6400-4BD11-0AA0	6SL3201-0BE12-0AA0	6SE6400-4BD16-5CA0	6SE6400-4BD21-2DA0	6SE6400-4BD22-2EA0	6SE6400-4BD24-0FA0
Resistor	Ohm	390	160	56	27	15	8.2
Rated power P_{DB}	kW	0.1	0.2	0.65	1.2	2.2	4.0
Peak power P_{max}	kW	1.7	4.1	12	24	44	80
Degree of protection ¹⁾		IP20	IP20	IP20	IP20	IP20	IP20
Power connections		3 × 1.5 mm ² (shielded) length 0.5 m (1.64 ft)	3 × 1.5 mm ² (shielded) length 0.5 m (1.64 ft)	3 × 1.5 mm ² (shielded) length 0.9 m (2.95 ft)	M6 screw studs	M6 screw studs	M6 screw studs
Thermostatic switch (NC contact)							
• Switching capacity		250 V AC/ max. 2.5 A	250 V AC/ max. 2.5 A	250 V AC/ max. 2.5 A	250 V AC/ max. 2.5 A	250 V AC/ max. 2.5 A	250 V AC/ max. 0.2 A
• Connectable cable cross section		0.5 mm ² to 2.5 mm ²	0.5 mm ² to 2.5 mm ²	0.5 mm ² to 2.5 mm ²	0.5 mm ² to 2.5 mm ²	0.5 mm ² to 2.5 mm ²	0.5 mm ² to 2.5 mm ²
Width	mm (inch)	72 (2.83)	153 (6.02)	185 (7.28)	270 (10.63)	270 (10.63)	400 (15.75)
Height	mm (inch)	230 (9.05)	329 (12.95)	285 (11.22)	515 (20.28)	645 (25.39)	650 (25.59)
Depth	mm (inch)	43.5 (1.71)	43.5 (1.71)	150 (5.9)	175 (6.89)	175 (6.89)	315 (12.4)
Weight, approx.	kg (lb)	1.0 (2)	1.6 (3)	3.8 (8)	7.4 (16)	10.6 (23)	16.7 (37)

¹⁾ With correctly connected load connection cable.

SINAMICS S120

DC link components

Braking resistors for booksize format

Overview



The excess energy of the DC link is dissipated via the braking resistor.

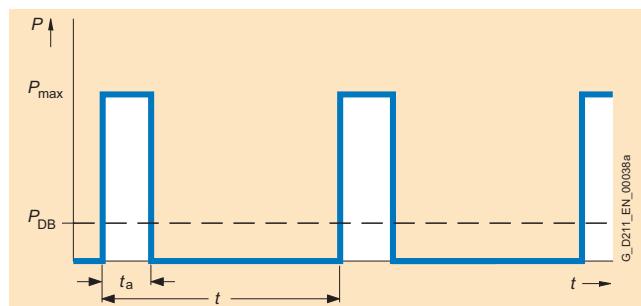
The braking resistor is connected to a Braking Module. The braking resistor is positioned outside the cabinet or switchgear room. This arrangement enables the resulting heat loss around the Line Modules / Motor Modules to be dissipated, thereby allowing a corresponding reduction in the level of air conditioning required.

2 braking resistors with different rated and peak power values are available for booksize format units.

Selection and ordering data

Description	Order No.
DC link voltage 510 V to 720 V DC	
Braking resistor	
• 0.3 kW/25 kW	6SN1113-1AA00-0DA0
• 1.5 kW/100 kW	6SL3100-1BE31-0AA0

Characteristics



Load diagram for Braking Module and braking resistor in booksize format

The braking resistor is monitored on the basis of the mark-space ratio.

Technical data

DC link voltage 510 V to 720 V DC		Braking resistors for Braking Modules in booksize format			
		6SN1113-1AA00-0DA0		6SL3100-1BE31-0AA0	
Resistor	Ohm	17		5.7	
Rated power P_{DB}	kW	0.3		1.5	
Peak power P_{max}	kW	25		100	
In-service period for peak power t_a	s	0.1	0.4	1	2
Period duration of braking duty cycle t	s	11.5	210	68	460
Degree of protection		IP54 Braking resistor with connected 1.5 mm ² cable (shielded), 3 m (9.84 ft) long		IP20	
Width	mm (inch)	80 (3.15)		193 (7.6)	
Height	mm (inch)	210 (8.27)		410 (16.14)	
Depth	mm (inch)	53 (2.09)		240 (9.45)	
Weight, approx.	kg (lb)	3.4 (8)		5.6 (12)	

Overview



The excess energy of the DC link is dissipated via the braking resistor.

The braking resistor is connected to a Braking Module. The braking resistor is positioned outside the cabinet or switchgear room. This arrangement enables the resulting heat loss around the Line Modules / Motor Modules to be dissipated, thereby allowing a corresponding reduction in the level of air conditioning required.

2 braking resistors with different rated and peak power values are available for chassis format units.

The braking resistor is monitored on the basis of the mark-space ratio. A temperature switch (NC contact) is also fitted. This responds when the maximum permissible temperature is exceeded and can be evaluated by a controller.

Technical data

DC link voltage 510 V to 720 V DC		Braking resistors for Braking Modules in chassis format	
		6SL3000-1BE31-3AA0	6SL3000-1BE32-5AA0
Resistor	Ohm	4.4	2.2
Rated power P_{DB}	kW	25	50
Peak power P_{max}	kW	125	250
In-service period for peak power	s	15	15
Period duration of braking duty cycle	s	90	90
Max. current	A	189	378
Cable entry		via M50 cable gland	via M50 cable gland
Power connection		via M10 stud terminal	via M10 stud terminal
Max. connectable cross section	mm ²	50	70
Degree of protection		IP20	IP20
Width	mm (inch)	740 (29.13)	810 (31.89)
Height	mm (inch)	605 (23.82)	1325 (52.17)
Depth	mm (inch)	485 (19.09)	485 (19.09)
Weight, approx.	kg (lb)	50 (110)	120 (265)

DC link voltage 890 V to 1035 V DC		Braking resistors for Braking Modules in chassis format	
		6SL3000-1BH31-3AA0	6SL3000-1BH32-5AA0
Resistor	Ohm	9.8	4.9
Rated power P_{DB}	kW	25	50
Peak power P_{max}	kW	125	250
In-service period for peak power	s	15	15
Period duration of braking duty cycle	s	90	90
Max. current	A	125	255
Cable entry		via M50 cable gland	via M50 cable gland
Power connection		via M10 stud terminal	via M10 stud terminal
Max. connectable cross section	mm ²	50	70
Degree of protection		IP20	IP20
Width	mm (inch)	740 (29.13)	810 (31.89)
Height	mm (inch)	605 (23.82)	1325 (52.17)
Depth	mm (inch)	485 (19.09)	485 (19.09)
Weight, approx.	kg (lb)	50 (110)	120 (265)

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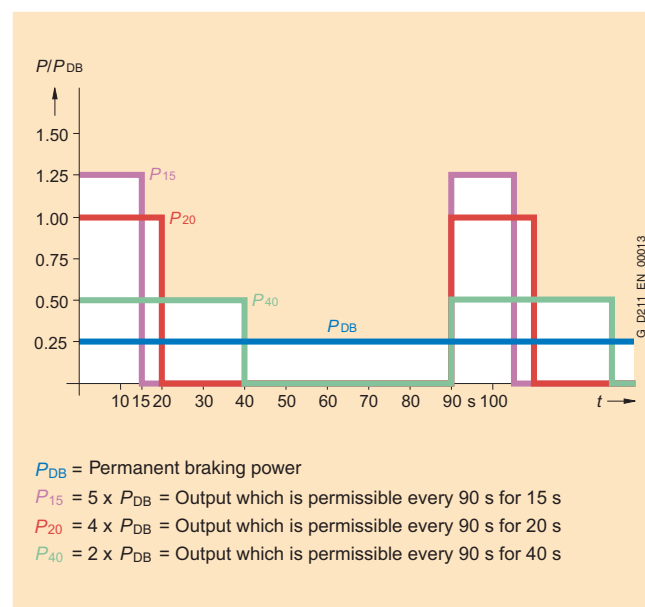
DC link components

Braking resistors for chassis format

Selection and ordering data

Description	Suitable for Braking Module in chassis format	Order No.
DC link voltage 510 V to 720 V DC		
Braking resistor		
• 25 kW/125 kW	6SL3300-1AE31-3AA0	6SL3000-1BE31-3AA0
• 50 kW/250 kW	6SL3300-1AE32-5 . A0	6SL3000-1BE32-5AA0
DC link voltage 890 V to 1035 V DC		
Braking resistor		
• 25 kW/125 kW	6SL3300-1AH31-3AA0	6SL3000-1BH31-3AA0
• 50 kW/250 kW	6SL3300-1AH32-5 . A0	6SL3000-1BH32-5AA0

Characteristics



Load diagram for Braking Module and braking resistor in chassis format

Capacitor Modules in booksize format

Overview



Capacitor Modules are used to increase the DC link capacitance to bridge momentary power losses.

Capacitor Modules are connected to the DC link voltage via the integrated DC link busbars. Capacitor Modules function autonomously.

Several Capacitor Modules can be operated in parallel.

Design

Capacitor Modules feature the following interfaces as standard:

- 2 DC link connections via integrated DC link busbars
- 2 PE (protective earth) connections

Selection and ordering data

Description	Order No.
Capacitor Module in booksize format	6SL3100-1CE14-0AA0

Accessories

Description	Order No.
Warning signs in foreign languages This set of foreign language warning signs can be placed on top of the standard German or English signs. One sign in each of the following languages is provided in each set: Chinese, Danish, Dutch, Finnish, French, Greek, Italian, Japanese, Korean, Portuguese, Spanish and Swedish.	6SL3166-3AB00-0AA0

Technical data

DC link voltage 510 V to 720 V DC	Capacitor Module
Capacitance	4000 µF
24 V DC busbar current capacity	20 A
DC link busbar current capacity	100 A
PE connection	On housing with M5 screw
Width	100 mm (3.94 in)
Height	380 mm (14.96 in)
Depth, with spacer (included in scope of supply)	270 mm (10.63 in)
Weight, approx.	7.2 kg (16 lb)

Overview



The Control Supply Module in booksize format provides a 24 V DC power supply via the line or DC link. This makes it possible, for example, to make emergency retraction movements in the event of a supply failure, provided that the DC link voltage is available.

Design

Control Supply Modules feature the following interfaces as standard:

- 1 power connection
- 2 DC link connections via integrated DC link busbars
- 2 electronics power supply connections via integrated 24 V DC bars
- 1 connection for the electronics power supply for Control Units, Terminal Modules, Sensor Modules, etc., via the 24 V terminal adapter provided in the scope of supply (max. cross section 6 mm², max. fuse protection 20 A)
- 2 PE (protective earth) connections

The status of the Control Supply Modules is indicated via two multi-color LEDs.

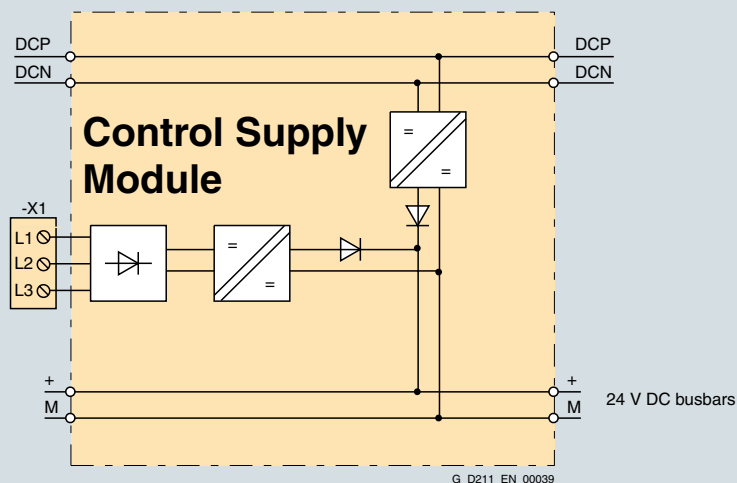
Selection and ordering data

Description	Order No.
Control Supply Module in booksize format	6SL3100-1DE22-0AA0

Accessories

Description	Order No.
Warning signs in foreign languages	6SL3166-3AB00-0AA0
This set of foreign language warning signs can be placed on top of the standard German or English signs. One sign in each of the following languages is provided in each set: Chinese, Danish, Dutch, Finnish, French, Greek, Italian, Japanese, Korean, Portuguese, Spanish and Swedish.	

Integration



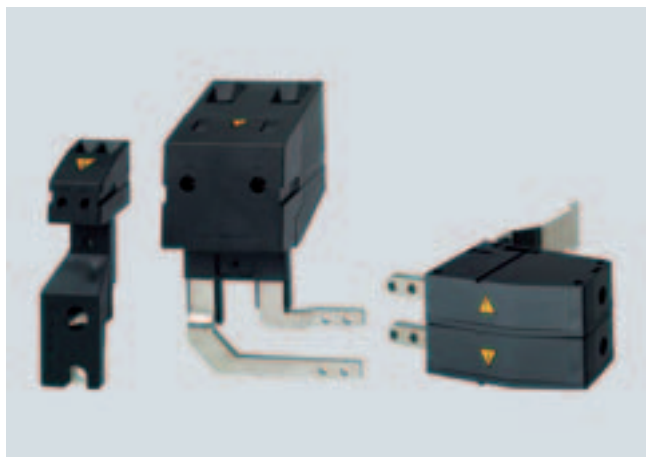
Connection example of Control Supply Module

Technical data

DC link voltage 510 V to 720 V DC Line voltage 380 V to 480 V 3 AC	Control Supply Module in booksize format
Rated input current	
• at 400 V 3 AC	2.2 A
• at 600 V DC	1.1 A
Radio interference suppression (standard)	Class A1 to EN 55011 and Category C2 to EN 61800-3
Rated output voltage	26 V DC
Rated output current	20 A
24 V DC busbar current capacity	20 A
DC link busbar current capacity	100 A
Power connection L1, L2, L3 (X1)	Screw-type terminals 0.2 mm ² to 4.0 mm ²
PE connection	On housing with M5 screw
Width	50 mm (1.97 in)
Height	380 mm (14.96 in)
Depth, with spacer (included in scope of supply)	270 mm (10.63 in)
Weight, approx.	4.8 kg (11 lb)

DC link supply adapter for booksize format

Overview



If the internal Motor Module DC link busbars are not to be used, the DC link voltage can be provided externally via a DC link power supply adapter. Two versions are available depending on cable cross section. The DC link power supply adapter is mounted on the DC link busbars of the Motor Module. The DC link cables are routed from above.

If a multi-tier Motor Module configuration is used, a DC link power supply adapter set can be provided for linking the DC links of two drive groups. The DC link power supply adapters are mounted on the DC link busbars of the Motor Modules to the far right of each group. The DC link cables are routed from behind.

Technical data

DC link supply adapter for booksize format				
		6SL3162-2BD00-0AA0	6SL3162-2BM00-0AA0	6SL3162-2BM01-0AA0
Connectable cross section (screw-type terminals)	mm ²	0.5 to 10	35 to 95	35 to 95
Current carrying capacity	A	36	240	240
Weight, approx.	kg (lb)	0.06 (0.1)	0.48 (1.1)	0.76 (1.7)

Selection and ordering data

Description	Order No.
DC link supply adapter for direct infeed of DC link voltage for Line Modules and Motor Modules in booksize format <ul style="list-style-type: none"> • 50 mm (1.97 in) and 100 mm (3.94 in) wide • 150 mm (5.91 in), 200 mm (7.87 in) and 300 mm (11.81 in) wide 	6SL3162-2BD00-0AA0 6SL3162-2BM00-0AA0
DC link adapters (2x) for multi-tier configuration for all Line Modules and Motor Modules in booksize format	6SL3162-2BM01-0AA0

Voltage Clamping Module in booksize format

Overview



Undesirable oscillations to ground potential can occur in drive groupings with total cable lengths (sum of all motor and DC link cables) of > 350 m (1148 ft) (shielded) or 560 m (1837 ft) (unshielded). The Voltage Clamping Module damps these oscillations, thereby allowing the total permissible cables lengths in a booksize format drive grouping to increase to 630 m (2067 ft) (shielded) or 850 m (2789 ft) (unshielded), taking derating into account (see characteristics of corresponding Line Modules).

With total cable lengths of > 350 m (1148 ft), the limit values of Category C2 defined in EN 61800-3 can be exceeded.

VCM Voltage Clamping Modules may be operated only in networks with grounded neutral (TN system).

Where possible, the Voltage Clamping Module should be mounted next to the Line Module and connected to the voltage-source DC link via the integrated DC busbar.

Design

The Voltage Clamping Module features the following interfaces as standard:

- 2 DC link connections via integrated DC link busbars
- 1 connection for HSB
- 2 PE (protective earth) connections

Technical data

DC link voltage 510 V to 720 V DC	Voltage Clamping Module in booksize format
24 V DC busbar current capacity	20 A
DC link busbar current capacity	100 A
PE connection	On housing with M5 screw
Grounding	Screw terminal Connectable cross section: 4 mm ² to 16 mm ²
Power loss, approx.	50 W
Width	50 mm (1.97 in)
Height	380 mm (14.96 in)
Depth, with spacer (included in scope of supply)	270 mm (10.63 in)
Weight, approx.	3.1 kg (7 lb)

Selection and ordering data

Description	Order No.
Voltage Clamping Module in booksize format	6SL3100-1VE00-0AA0

Accessories

Description	Order No.
Warning signs in foreign languages This set of foreign language warning signs can be placed on top of the standard German or English signs. One sign in each of the following languages is provided in each set: Chinese, Danish, Dutch, Finnish, French, Greek, Italian, Japanese, Korean, Portuguese, Spanish and Swedish.	6SL3166-3AB00-0AA0