

TRANSOMIK® BC

Braking choppers

**Suitable for frequency inverters
in the power range up to 1200 kW**

User benefits

- ♦ Rapid braking of three-phase induction motors fed by frequency inverters without an integrated braking chopper
- ♦ Elimination of production stops due to unwanted inverter tripping caused by overvoltage in the DC link



BC1



BC2



Features

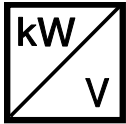
- ♦ Compatible with all frequency inverters with a DC voltage link operating at input voltages up to 3 AC 690 V
- ♦ Simple wiring without control voltage
- only two cables to the DC link required
- ♦ External braking resistors with overtemperature protection (OPTION BR) available
- ♦ Adjustable brake threshold-voltage by switchable preset values
- ♦ Especially suitable for quasi- continuous braking duty (e.g. heavy-duty braking for crane drives)
- ♦ Special monitoring functions with TRANSOMIK BC:
 - Heat sink overtemperature trip
 - Monitoring LED's
- ♦ Additional with TRANSOMIK BC2:
 - Electronic overload-monitoring of brake resistor
 - Fault latch with relay output
- ♦ TRANSOMIK BC2 can be paralleled for higher braking powers

Applications

Braking of three-phase drives fed from frequency inverters, in particular:

- ♦ Drives with a large inertia, e.g. large fans, centrifuges
- ♦ Drives with requirement for rapid braking, e.g. saws, planing and milling machines
- ♦ Drives for transport, long travel and hoisting applications
- ♦ Retrofit to existing inverters without a braking chopper e.g. to avoid nuisance tripping with link overvoltage
- ♦ Often a price advantage compared to braking choppers of original inverter manufacturer

TECHNICAL DATA



Available powers and voltages

Type	Rated voltage frequency inverter	Brake voltage threshold	Rated braking power* in kW														
			11	22	30	40	55	90	110	160	200	500	550	630	1000	1100	1200
BC1	3AC 400...460 V +10%	DC 670/770 V	●	●													
BC2	3AC 400...480 V +10%	DC 670/770 V				●		●		●		●			●		
BC2/575	3AC 480...575 V +10%	DC 840/960 V			●		●		●		●		●			●	
BC2/690	3AC 660...690 V +10%	DC 1065/1155V											●			●	

* Peak braking power with repetitive braking at the lower brake voltage-threshold
Please enquire for other versions

Peak braking power with infrequent braking

TRANSOMIK BC1

TRANSOMIK BC2

Cycle time = 120 s, lower / higher brake voltage-threshold

Power	Duty	Duty with fan	Braking resistor		
13 / 15 kW	40 %	-	33 / 39 Ω	11BC1	
23 / 27 kW	25 %	-	20 / 22 Ω	22BC1	
47 / 54 kW	35 %	100 %	10 / 11 Ω		40BC2
95 / 110 kW	20 %	60 %	4,7 / 5,6 Ω		90BC2
175 / 200 kW	20 %	35 %	2,7 / 3,1 Ω		160BC2
500 / 580 kW	7 %	30 %	0,9 / 1,0 Ω		500BC2
970 / 1100 kW	4 %	30 %	0,47 / 0,54 Ω		1000BC2
59 / 67 kW	35 %	100 %	12 / 14 Ω		55BC2/575
120 / 135 kW	20 %	60 %	6 / 7 Ω		110BC2/575
215 / 245 kW	20 %	35 %	3,3 / 3,9 Ω		200BC2/575
570 / 650 kW	7 %	35 %	1,25 / 1,4 Ω		550BC2/575
1100 / 1250 kW	4 %	35 %	0,65 / 0,74 Ω		1100BC2/575
670 / 730 kW	7 %	35 %	1,7 / 1,85 Ω		630BC2/690
1300 / 1400 kW	4 %	35 %	0,9 / 1,0 Ω		1200BC2/690

Maximum Peak braking power

Maximum supply voltage:	Brake voltage-threshold:		
2/3AC 230...240 V +10%	DC 385 V	Please enquire	Please enquire
3AC 400...415 V +10%	DC 670 V	18 kW	30...1200 kW
3AC 440...460 V +10%	DC 770 V	21 kW	35...1400 kW
3AC 480...500 V +10%	DC 840 V	-	38...1400 kW
3AC 550...575 V +10%	DC 960 V	-	43...1600 kW
3AC 660 V +10%	DC 1065 V	-	850...1600 kW
3AC 690 V +10%	DC 1155 V	-	920...1700 kW
Parallel connection for higher braking powers		not recommended	yes

Fault monitoring function

Overtemperature	●	●
Electronic monitoring of power loading of braking resistor	—	●
Fault latch with relay output and internal or external reset	—	●

Optimum drive solutions from 0,25 up to 2000 kW and from 110 up to 690 V



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Technical data subject to change without notice