

LEKTROMIK[®] B1, B4

Braking units

Soft braking of three-phase squirrel-cage induction and asynchronous motors

B1

up to 7 kW



B4

up to 200 kW
up to 90 kW 

Benefits

Mechanical

- ◆ Reduced maintenance costs
 - Electronic brakes require no maintenance (no brake linings etc.)
 - Fast stopping of damaged equipment e.g. with imbalance
- ◆ Vibrator motors can be stopped quickly

Safety

- ◆ Fast electronic braking increases safety
 - Machines can be stopped within 10 s or less
 - Machines with very high inertia should not be left unattended while they are running down

Productivity

- ◆ Waiting time to change or service tools eliminated
 - Especially useful with high inertia equipment

Features B1

- ◆ Braking torque and braking time-out separately adjustable
- ◆ Easily retrofitted
- ◆ Simple connection with standard contactors
- ◆ Fast start of braking operation (approx. 0.3 s)
- ◆ Module housing for mounting on 35 mm DIN rails. Very compact with width of a standard contactor (45 mm)
- ◆ Live terminals are well protected against accidental contact
- ◆ Can be used without braking contactors
- ◆ Can be used as a combined soft-start and brake using the electronic soft-starts **SoftCompact**

Applications

- ◆ Braking of machines with long stopping times
- ◆ Roller-table drives
- ◆ Circular saws, planers
- ◆ Centrifuges
- ◆ Grinding machines
- ◆ Fast braking of vibrator motors
- ◆ Roller and ball mills

Features B4

- ◆ Up to 90 kW UL certificated for the USA and Canada
- ◆ Braking torque and braking time-out separately adjustable
- ◆ Controller very compact
- ◆ Simple connection with standard contactors
- ◆ Fast start of braking operation 0.4 - 2 s depending on power
- ◆ Optimum braking performance when compared with conventional single-phase braking equipment:
 - Braking torque much higher for same braking current
 - Lower motor noise and vibration
 - No DC components in supply
- ◆ Integrated automatic electronic detection of zero-speed
- ◆ Current transformer to limit maximum braking current. Advantages:
 - Ampmeter not required for commissioning
 - Safe operation with higher power motors
- ◆ Can be used as a combined soft start and brake using the electronic soft start LEKTROMIK S2 or E22

TECHNICAL DATA

Designation	LEKTROMIK B1						LEKTROMIK B4				
	2B1	5B1	7B1	1B1/230V	3B1/230V	4B1/230V	15B4	45B4	90B4	200B4	
Rated motor power											
◆ Power for normal braking	kW	2,2	5,5	7,5	1,1	3	4	15	45	90	200
◆ Power for light duty braking	kW							22	55	132	250
Minimum motor power	kW	0,25	1,1	1,1		0,55	0,55	1,1	4,0	11	22
Rated voltage	V	2AC 400 bzw. 2AC 480			2AC 230			2AC 220...500			
Control voltage	V							2AC 230			
Max. braking currents I _B (10 s)	A	11	30	36	11	30	36	52	150	300	700
Braking duty:											
- Convection +40 °C	%	10	3	15	10	3	15	25	15	12	7
- 10 mm space +40 °C	%	15	5	15	15	5	15				
- 10 mm space +50 °C	%	7	2	10	7	2	10				
- +50 °C	%							15	10	8	5
- Fan (Option) +35 °C	%							-	50	50	25
Utilization category: (EN60947-4-2)		11 A: AC-53a: 1-10: 10-36	30 A: AC-53a: 1-10: 3-11	36 A: AC-53a: 1-10: 15-54	11 A: AC-53a: 1-10: 10-36	30 A: AC-53a: 1-10: 3-11	36 A: AC-53a: 1-10: 15-54	without fan 52 A: AC-53a: 1-10: 25-90	without fan 150 A: AC-53a: 1-10: 15-54	without fan 300 A: AC-53a: 1-10: 12-43	without fan 700 A: AC-53a: 1-10: 7-25
Supply and motor connections		Ferrules			Ferrules			Cable shoe			Bus bars or Cable shoe
Cable cross-section (flexible with cable shoe) referring to EN60204-1 with suitable overload protection	mm ²	1,0...2,5	1,5...2,5	1,5...2,5	1,0...2,5	1,5...2,5	1,5...2,5	M5; 2,5...10	M5; 2,5...35	M8; 10...120	M8; 10...185
Cooling: - Convection - Fan (Option)		•	•	•	•	•	•	•	•	•	•
Protection:		IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP00/IP20	IP00/IP20
Weight	kg	0,4	0,45	0,65	0,4	0,45	0,65	3,5	3,5	12	16
Dimensions: Height	mm	75	75	75	75	75	75	226	226	300	300
Width	mm	45	45	60	45	45	60	164	164	260	260
Depth	mm	120	120	120	120	120	120	150	150	250	250
Clearance for: upper cooling	mm							80	80	100	100
lower cooling	mm							80	80	100	100
left, right	mm							10	10	-	-
Order no		8031.312	8031.315	8031.317	8031.211	8031.213	8031.214	8035.322-100	8035.326-100	8035.329-100	8035.333-100

*) IP20 with Option

Available types	LEKTROMIK	Rated supply voltage	Rated unit power [kW]										
			1,1	2,2	3	4	5,5	7,5	15	45	90	200	
B1		2AC 400 V		•				•	•				
		2AC 230 V	•		•	•							
		2 AC 480 V		•				•	•				
B4		2AC 220...500 V								• (UL)	• (UL)	• (UL)	•

• Standard ○ on request Higher powers on request

RANGE OF APPLICATION

LEKTROMIK	Supply voltage	Rated motor power [kW] / Rated braking current [A]									
		7,5	15	18	22	45	55	90	110	200	250
B4	2AC 220...240 V	15B4 52 A			45B4 150 A	90B4 300 A			200B4 700 A		
	2AC 380...440 V		15B4 52 A			45B4 150 A		90B4 300 A		200B4 700 A	
	2AC 460...500 V			15B4 52 A			45B4 150 A		90B4 300 A		200B4 700 A

Options	Designation	Electrical data	Order no.
	OPTION B4IP20	90/200 kW IP20 Schutz	Please inquire
	OPTION 4.7MF	Capacitor 4.7 µF	0523.109
	FAN2 / 230	Fan module 2AC 230 V	6019.220
	FAN3 / 230	Fan module 2AC 230 V	6019.320

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

