

**Features:**

- ❑ DC braking with one-way rectification
- ❑ suitable for all asynchronous motors
- ❑ easy mounting, also for retrofitting into existing plants
- ❑ wear-resistant and maintenance-free
- ❑ special voltages up to 600V (20A-devices)
- ❑ special voltages up to 690V (devices from 40A on)
- ❑ integrated braking contactor (devices up to 20A)
- ❑ for snap-mounting onto 35mm top-hat-rail (devices up to 20A)
- ❑ degree of protection IP 20 (BR 230/400 - 10 ... 20)
- ❑ degree of protection IP 00 (BR 230/400 - 40 ... 600)



**Braking Devices  
BR 230-10 ... 600  
BR 400-10 ... 600**

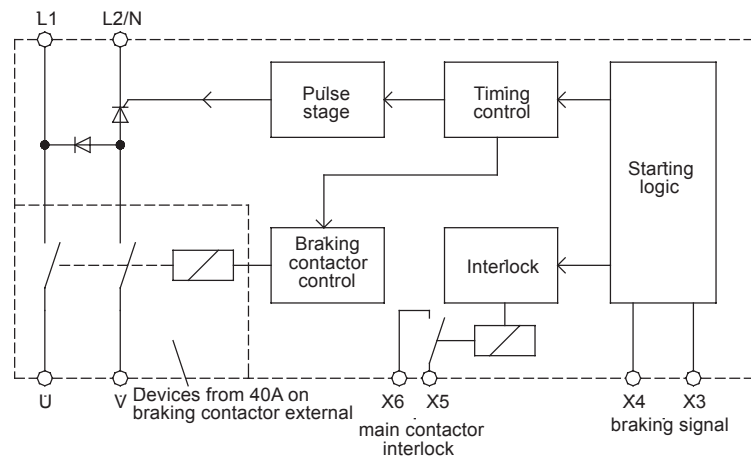


**Function:**

- ❑ DC braking
- ❑ control via motor contactor
- ❑ 2 separately adjustable parameters  
braking current, braking time
- ❑ potential-free output for motor contactor  
interlocking during braking  
- loadable with 250V/8A
- ❑ potential-free output for braking contactor  
(devices from 40A on)  
- loadable with 250V/8A

**Typical Applications:**

- sawing machines
- centrifuges
- wood working machines
- textile machines
- conveying systems

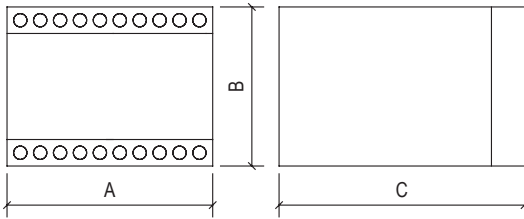


Type designation BR	230-10 400-10	230-20 400-20	230-40 400-40	230-60 400-60	230-100 400-100	230-200 400-200	230-400 400-400	230-600 400-600
Mains voltage according to DIN EN 50160 (IEC 38)	BR 230 ... 220/240V ±10%		50/60Hz		other voltages upon request			
Power draw of the electronics	6 VA							
Recommended for rated motor currents up to	5A	10A	20A	30A	50A	100A	200A	300A
Rated device current	10A	20A	40A	60A	100A	200A	400A	600A
c.d.f. at max. braking current	20%	20%	15%	15%	15%	15%	15%	15%
I <sup>2</sup> t-Value Power semiconductor (A <sup>2</sup> s)	40	680	8000	8000	8000	80000	320000	1125000
Braking voltage	0 ... 130VDC at 220/240V 0 ... 220VDC at 380/415V							
Braking time	2 ... 15sec. (other times upon request)							
Contact rating	relay contact for motor contactor = 6A/250V~ contact for braking contactor = 6A/250V~							
Delay time for reduction of residual e.m.f.	250ms	250ms	600ms	600ms	1500ms	1500ms	1500ms	1800ms
max. cross-sectional area	2,5mm <sup>2</sup>	2,5mm <sup>2</sup>	16mm <sup>2</sup>	16mm <sup>2</sup>	35mm <sup>2</sup>	35mm <sup>2</sup>	bolt M8	bolt M10
Ambient / Storage temperature	0°C ... 45°C / -25°C ... 75°C							
Weight	0,5kg	0,55kg	2,4kg	2,4kg	2,55kg	3,55kg	7,6kg	13,5kg
Order number	BR 230-...	BR 230-...	BR 230-...	BR 230-...	BR 230-...	BR 230-...	BR 230-...	BR 230-...
	21600.	21600.	21600.	21600.	21600.	21600.	21600.	21600.
	22010.	22020.	22040.	22060.	22100.	22200.	22400.	22600.
	BR 400-...	BR 400-...	BR 400-...	BR 400-...	BR 400-...	BR 400-...	BR 400-...	BR 400-...
	21600.	21600.	21600.	21600.	21600.	21600.	21600.	21600.
	38010.	38020.	38040.	38060.	38100.	38200.	38400.	38600.

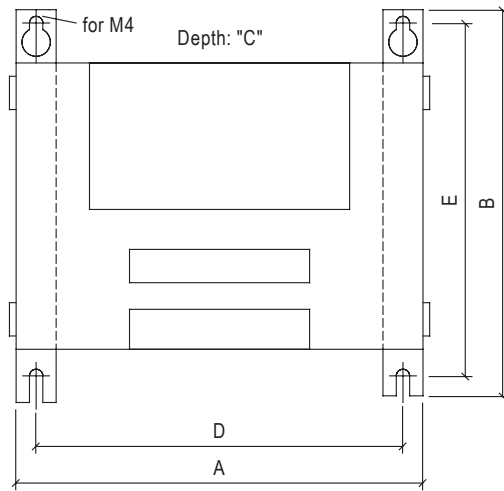
Please observe supplementary sheet with dimensioning rules.

**Dimensions:**

BR 230-10 ... 20  
BR 400-10 ... 20



BR 230-40 ... 600  
BR 400-40 ... 600

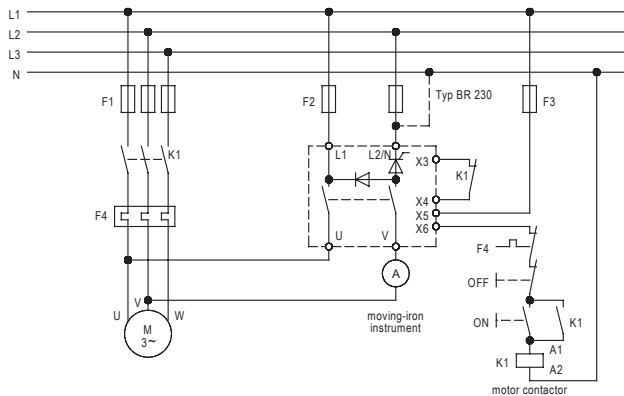


	A	B	C	D	E
BR ... - 10	100	73	120	-	-
BR ... - 20	100	73	120	-	-
BR ... - 40	175	200	172	146	185
BR ... - 60	175	200	172	146	185
BR ... - 100	175	200	172	146	185
BR ... - 200	175	240	172	146	225
BR ... - 400	315	240	172	286	225
BR ... - 600	315	450	211	260	415

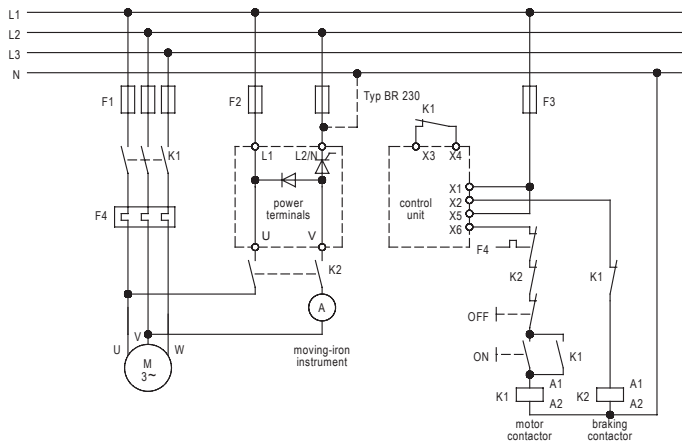
All dimensions in mm.

**Connection Diagrams:**

BR 230-10 ... 20  
BR 400-10 ... 20



BR 230-40 ... 600  
BR 400-40 ... 600



**Attention:**  
If, in spite of a long braking time, the braking current is instantly switched off, the braking current is adjusted to a too high value.

**EMC**  
The limit values for emitted interference according to the applicable device standards do not rule out the possibility that receivers and susceptible electronic devices within a radius of 10m are subjected to interference.  
If such interference, that is definitely attributable to the operation of the braking devices "BR", occurs, the emitted interference can be reduced by taking appropriate measures.  
Such measures are, e.g.:  
to connect reactors (3mH) or a suitable mains filter in series before the soft starter, or to connect X-capacitors (0,15µ F) in parallel to the supply voltage terminals.