

Features:

- DC braking with one-way rectification
- controlled by microcontroller
- suitable for all asynchronous motors
- easy mounting, also for retrofitting into existing plants
- wear-resistant and maintenance-free
- integrated braking contactor (devices up to 60A)
- degree of protection IP 20



Braking Devices

VB 230/400-40 ... 600

C E UL in preparation

Function:

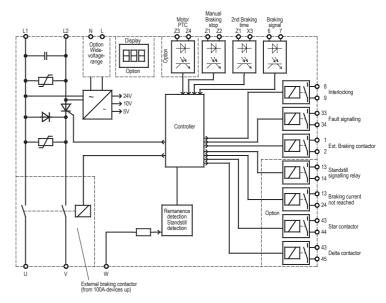
- control via motor contactor
- standstill- or time-dependent braking
- signalling relay for exceeded braking times
- braking current adjustments 0...100%, current control
- automatic remanence time optimization
- **■** braking times 0,5 320s
- temperature monitoring of heat sink
- potential-free signalling and control outputs
- 2nd braking time 0,5 − 40s selectable
- manual braking stop selectable

Options: (upon request)

- braking current display (AC*)
- wide voltage range 200 690V (BC*)
- plug-in control terminals (C)
- motor temperature monitoring (PC*)
- star-delta starting control (PC*)
 standstill signalling relay (PC*)
- braking current monitoring (PC*)
- Adaptor for braking devices 40A-200A for
 - mounting onto DIN rail (order number 29000.29700)

Typical Applications:

sawing machines centrifuges wood working machines textile machines conveying systems

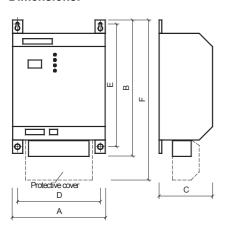


Type designation VB	230-40	230-60	230-100	230-200	230-400	230-600		
	400-40	400-60	400-100	400-200	400-400	400-600		
Mains voltage	220/240V ±10% 50/60Hz (standard)							
according to DIN EN 50160 (IEC 38)	380/415V ±10% 50/60Hz (standard)							
	200 – 690V ±10% 50/60Hz (wide voltage range)							
Power draw of the electronics	6 VA							
Recommended for rated motor currents up to	20A	30A	50A	100A	200A	300A		
Rated device current	40A	60A	100A	200A	400A	600A		
c.d.f. at max. braking current	20%							
I ² t-Value Power semiconductor	1050A ² s	4900A2s	6050A ² s	80000A2s	320000A2s	1125000A2s		
Braking voltage	0 130VDC at 220/240V							
	0 220VDC at 380/415V							
max. Braking time	40s with standstill-dependent braking							
	320s with time-dependent braking							
Contact rating of output relays	3A/250VAC; 3A/30VDC							
Delay time for reduction of residual e.m.f.	self-op	timizing	self-optimizing					
·	(200 3	3100ms)	(1600 3100ms)					
max. Cross-sectional area	16mm²	16mm²	16mm²	35mm²	Screv	v M12		
Ambient / Storage temperature	0°C 45°C / -25°C 75°C							
Weight / kg	2,1	2,1	2,1	3,1	7,2	10,2		
Order number 230V	29700.23040	29700.23060	29700.23100	29700.23200	29700.23400	29700.23600		
Order number 400V	29700.40040	29700.40060	29700.40100	29700.40200	29700.40400	29700.40600		

Please observe supplementary sheet with dimensioning rules.

^{*} Devices with options are always equipped with pluggable control terminals.

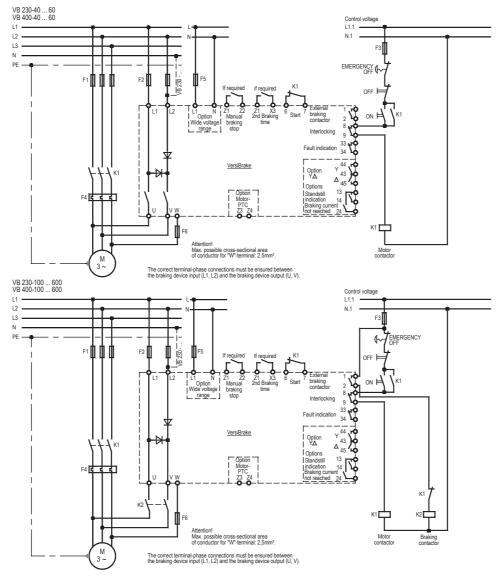
Dimensions:



	Α	В	С	D	Е	F
VB40	110	242	140	86	226	
VB60	110	242	140	86	226	
VB100	110	242	140	86	226	
VB200	110	255	155	80	226	
VB400	210	275	165	180	226	340
VB600	310	280	165	280	226	355

All dimensions in mm.

Connection Diagrams:



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, wich is definitely attributable to the operation of the braking devices "VB", 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 braking device, or to connect X-capacitors (0.15µF) in parallel to the supply voltage terminals.