

Combined Motor Start and Braking Devices VBMS ... 2.01

**Features:**

- simple motor control with only a few elements
- motor contactor and DC-brake in a single device
- suitable for all asynchronous motors
- controlled by microcontroller
- easy mounting, also for retrofitting into existing plants
- motor contactor with contact gap  $\geq 3\text{mm}$ , utilization category AC-3
- operator's controls physically separated from load (24V extra-low voltage)
- connection of several "STOP" buttons possible
- for snap-mounting onto 35 mm top-hat rail
- degree of protection IP 20
- meets trade assoc. requirements for category 2 acc. to EN 954-1 according to the test principles of woodworking machines GS-HO-01
- intermateable with BRMS



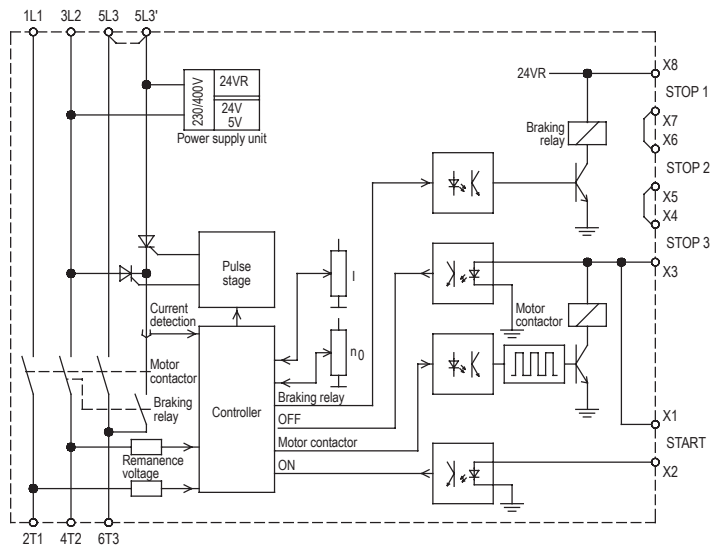
Combined Motor Start and Braking Devices  
**VBMS ...**  
**CE**

**Function:**

- direct online start via motor contactor
- DC braking
- control via buttons or via switch
- braking current infinitely adjustable
- standstill threshold adjustable
- braking current cutoff after motor standstill (overload protection)
- monitoring of exceeded braking time (10s)
- start interlock in case of safety relevant errors

**Typical Applications:**

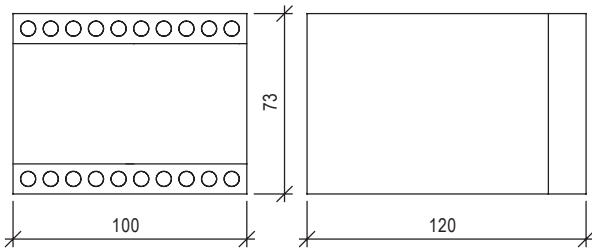
- sawing machines
- centrifuges
- vibrators



Type designation VBMS	400-2,2/20	230-1,5/20
Rated operational voltage 50/60Hz according to DIN EN 50160 (IEC 38)	3x 380/415V ± 10%	3x 200/240V ± 10%
<b>AC-3</b> Rated operational power	2,2kW	1,5kW
Conventional enclosed thermal current $I_{th} = I_e$ (motor contactor)	16A	
Braking current	2...20A	
max braking time	10s	
max. braking frequency at braking current 10A braking current 20A	at 5s braking time: 1 in 25s, at 10s braking time: 1 in 50s at 5s braking time: 1 in 60s, at 10s braking time: 1 in 120s	
Delay time during switch-off and braking	500ms	
Braking voltage	0...220V DC	0...110V DC
max. cross-sectional area	2,5mm per terminal	
Weight / kg	0,6	
Ambient / Storage temperature	0°C ... 45°C / -25°C ... 75°C	
Order number	2C000.40020	2C000.23020

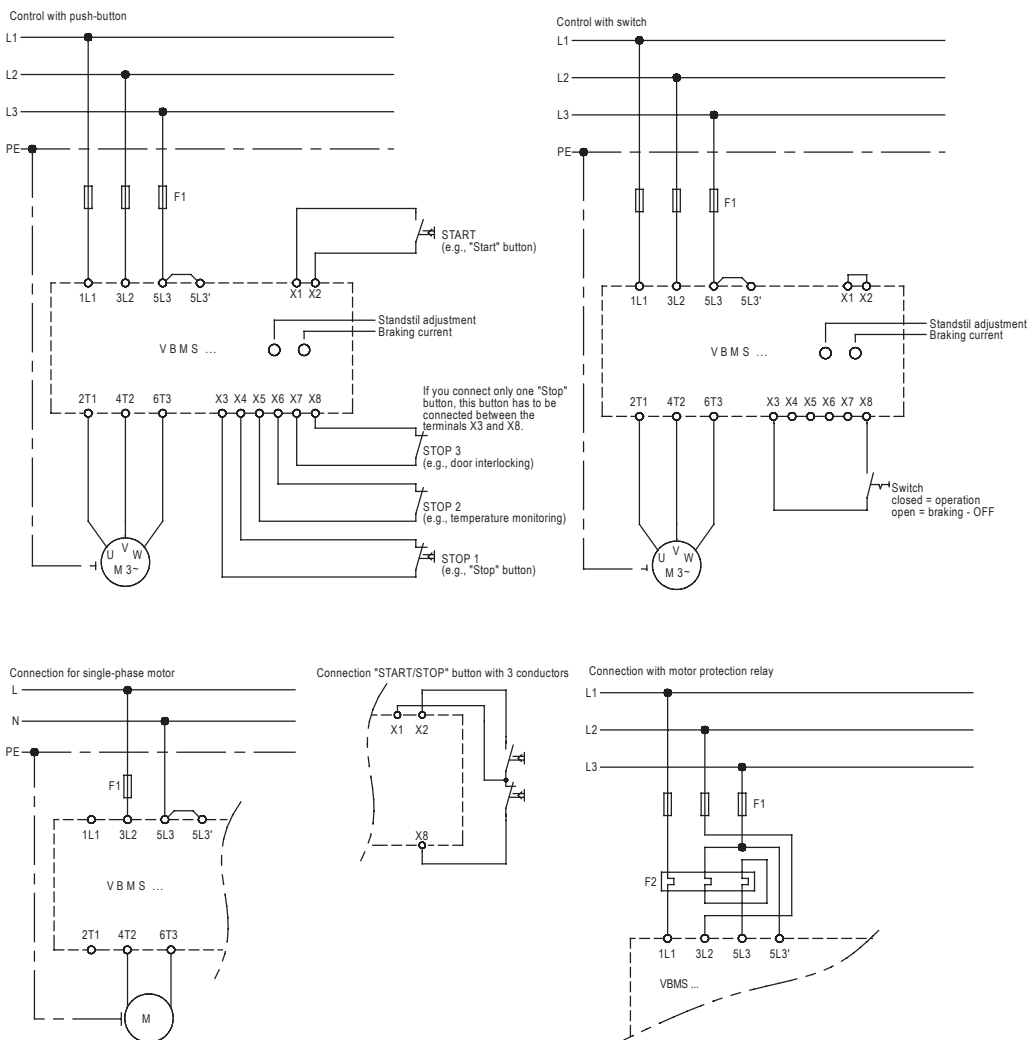
Please observe supplementary sheet with dimensioning rules.

**Dimensions:**



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, which is definitely attributable to the operation of the braking devices "VBMS", 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.