

Features:

- ▣ two-phase controlled soft starter
- ▣ controlled by microcontroller
- ▣ optimized soft start
- ▣ current and torque reduction during acceleration
- ▣ easy mounting, for snap-mounting on 35mm standard rail
- ▣ integrated bypass relay
- ▣ parameterization by means of three potentiometers
- ▣ no additional control voltage required
- ▣ no mains neutral conductor (N) required
- ▣ economically priced substitute for star-delta starters
- ▣ compact design, 45mm
- ▣ degree of protection IP20



Soft Starters
VS II ...-3,5...16



Functions:

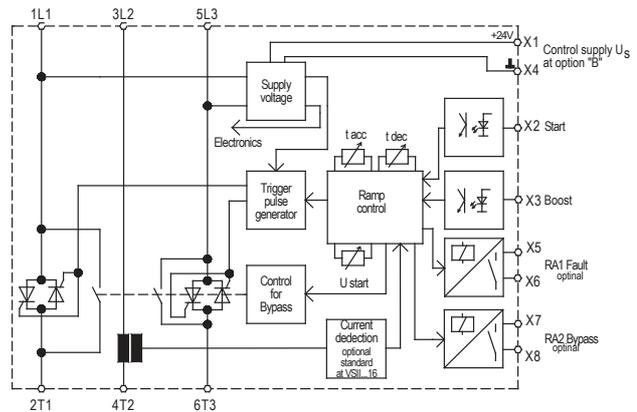
- ▣ soft acceleration and deceleration
- ▣ potential-free control input for soft acceleration and deceleration
- ▣ 3 separately adjustable parameters
accel. time, start voltage, decel. time
- ▣ boost-start selectable
- ▣ potential-free relay output for operating state
- unit bypassed – and failure (optional)

Options: (upon request)

- ▣ special voltages 230V and 480V
- ▣ wide voltage range 200-480V with external control supply voltage U_s 24VDC (B)
- ▣ signalling contact (I)
bypass and failure
- ▣ motor-PTC (I)
- ▣ current control ($200...500\% x I_N$) (I)
- ▣ heat sink temperature monitoring (I)
- ▣ $\sqrt{3}$ – connection (cost saving via smaller rating)
- ▣ signalling contact (M)
(beginning of acceleration until end of deceleration)

Typical Applications:

door and gate drives
pumps, ventilators, fans
conveying machines, packaging machines
transport systems, assembly lines
machine applications



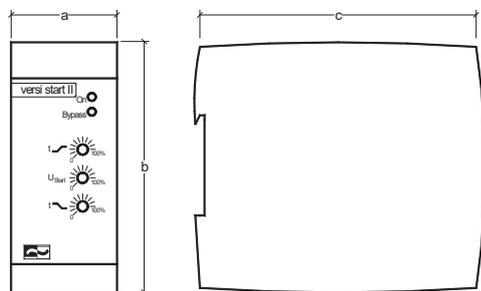
Typical designation (standard)	VS II 400-3,5	VS II 400-6,5	VS II 400-12	VS II 400-16	
rated device current	3,5A	6,5A	12A	16A	
rated operating voltage U_e	400V $\pm 10\%$ 50/60Hz				
control supply voltage U_s only with option B	24V $\pm 10\%$ DC				
motor rating at U_e 400V	1,5kW	3kW	5,5kW	7,5kW	
order number	standard	25700.40003	25700.40006	25700.40012	25760.40016
	option I	25703.40003	25703.40006	25703.40012	25703.40016
special voltages (optional)	230V / 480V / wide voltage range 200-480V with external control voltage 24VDC				

Technical data (standard)	VS II 400-3,5	VS II 400-6,5	VS II 400-12	VS II 400-16
rated device current	3,5A	6,5A	12A	16A
max. switching frequency at $3xI_N$ and $5s t_{an}$	150/h	70/h	30/h	15/h
max. power dissipation				
- in operating related to max. starting frequency	11W	10W	9W	7W
- standby	2,5W	2,5W	2,5W	2,5W
I^2t –power semiconductors in A ² s	390	390	720	720
min. motor load	20% of the device rated current			
acceleration	voltage ramp			
starting time	0,5 ... 10s			
starting voltage	40 ... 80%			
stopping time	0,25 ... 10s			
restart time	300ms			
input resistance control inputs	10kOhm			
contact rating of relay outputs RA1/RA2	2A / 250VAC / 30VDC			
installation class	4			
overvoltage category / pollution degree:				
control and auxiliary circuit	II / 2			
main circuit	III (TT / TN-systems) / 2			
rated impulse strength U_{imp} : control and auxiliary circuit	2,5kV			
main circuit	4kV			
rated insulation voltage U_i : main circuit	500V			
control and auxiliary circuit	250V			
cross-sectional area for connection (max.):				
control terminals	1,5mm ² / AWG 16			
power terminals	2,5mm ² / AWG 14			
tightening torque (max.): control terminals	0,6 Nm / 5 lbs in			
main circuit	0,6 Nm / 5 lbs in			
ambient / storage temperature	0°C ... 45°C up to an altitude of 1000m / -25°C ... 70°C			
weight / kg	0,4g			

Note:

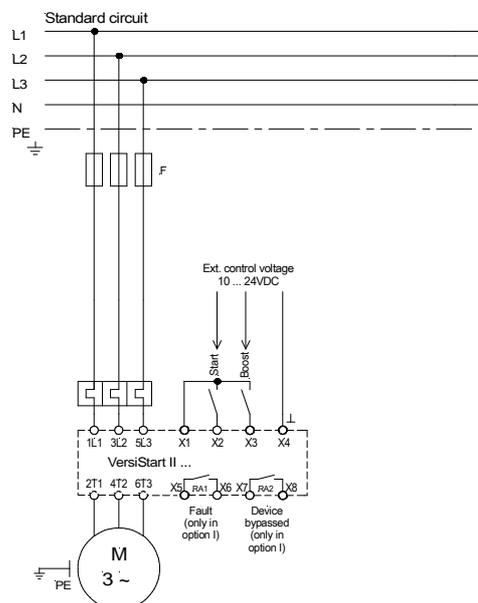
Please pay attention and consider for the operation of IE3 motors while dimensioning of softstarters and dc brakes the resulting higher starting and braking currents.

For the use of IE3 motors we highly recommend to dimension and design the needed softstarters and braking devices one size higher.

Dimensions:

Mounting dimensions	a	b	c
VS II ...-3,5...16	45	110	121

All dimensions indicated in mm.

Connection Diagram:

Subject to change without notice.