

**Features:**

- ❑ three-phase controlled soft starter
- ❑ easy mounting, also for retrofitting into existing plants
- ❑ terminal arrangement suitable for switchgear connection
- ❑ for snap-mounting on 35mm standard rail
- ❑ integrated bypass relay
- ❑ extensive monitoring functions
- ❑ robust metal housing
- ❑ no mains neutral conductor (N) required
- ❑ special voltages up to 600V
- ❑ functional peak current reduction
- ❑ option „B“ features soft start and brake in a single device
- ❑ degree of protection IP 20



Soft Starters  
**MINISTART 1.5 ... 11**  
**CE**

**Function:**

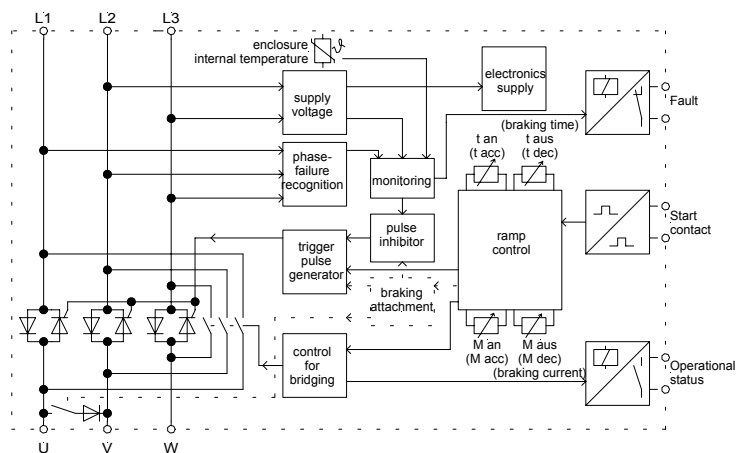
- ❑ soft start - soft stop
- ❑ soft start - braking, with option „B“
- ❑ 4 separately adjustable parameters starting torque, acceleration time, soft stop torque (braking current with option „B“) deceleration time (braking time with option „B“)
- ❑ potential-free input for soft start or soft stop -control voltage 10 ... 30VDC
- ❑ potential-free output for fault indication
- ❑ potential-free output for operational status \* -loadable with 250V/8A each
- ❑ temperature monitoring
- ❑ phase-failure monitoring during ramp-up

- \*  
- with standard devices closed, when power semiconductors are bridged  
- with option „S“ closed from the beginning of the start until the end of soft stop  
- with option „B“ closed from the beginning of the start until the end of braking

**Typical Applications:**

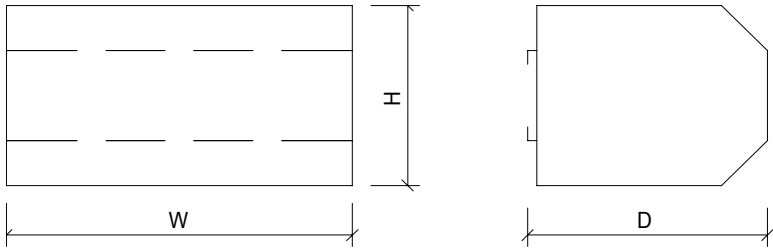
pumps, ventilators  
cranes  
travelling and rotary operating mechanisms  
conveying machinery  
washing machines, linen dryers

with option „B“ (braking option)  
vibrators  
wood working machinery  
centrifuges  
drives with large rotating masses



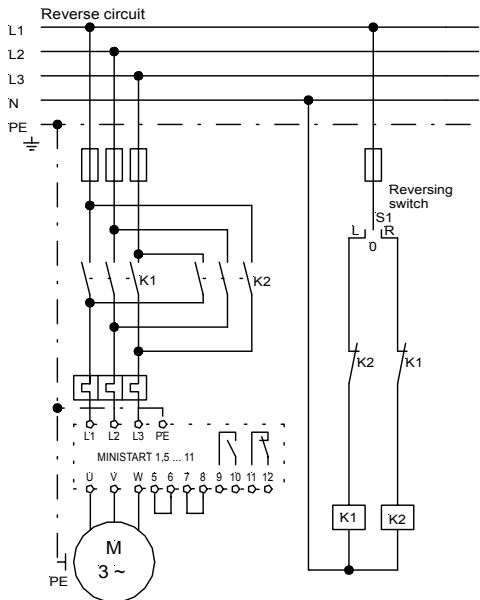
Technical Data	MINISTART							
	1.5	3	5.5	7.5	11	1.5B	3B	5.5B
Mains / Motor voltage	400V ± 15% 50/60Hz							
Device nominal current	4A	6,5A	12A	16A	25A	4A	6,5A	12A
Motor rating	1.5kW	3kW	5.5kW	7.5kW	11kW	1.5kW	3kW	5.5kW
min. Motor load	10% of the device power rating							
Starting torque	0 ... 80%							
Acceleration time	1 ... 20s							
Soft stop torque	20 ... 80%					Braking current		
Deceleration time	0 ... 20s					0-7.5A	0-15A	0-22A
	Braking time 0.75...15s							
Reset time	200ms							
max. Switching cycle	120/h			60/h	20/h	90/h		
External fuse "high speed"	16A	25A	35A	80A	100A	16A	25A	35A
Ambient / Storage temperature	0°C ... 45°C / -25°C ... 75°C							
Weight	1.2kg	1.2kg	1.35kg	1.5kg	1.5kg	1.25kg	1.25kg	1.4kg
Order number	21200. 38001	21200. 38003	21200. 38005	21200. 38007	21200. 38011	21201. 38001	21201. 38003	21201. 38005

**Dimensions:**



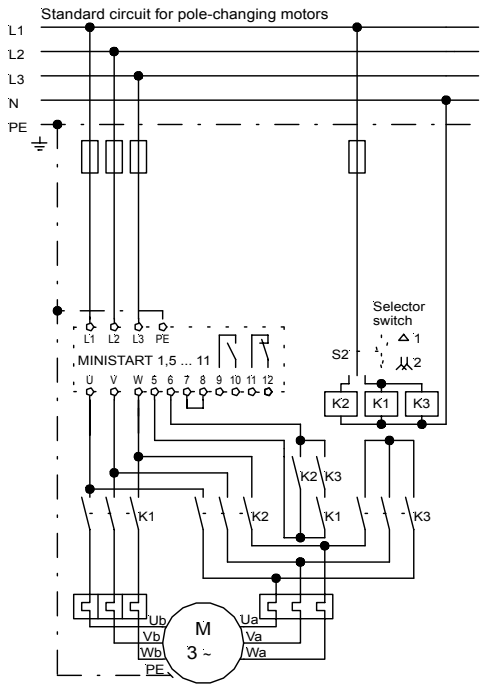
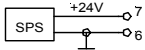
	W	H	D
Mounting dimensions	166mm	106mm	117mm

**Connection Diagram:**



**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 soft starters "MINISTART", 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 (0,15µF) in parallel to the supply voltage terminals.

Wiring of the potential-free control input



For pole-changing motors trimmer t aus to 0 (left stop)

