

**Features:**

- ❑ two-phase controlled soft starter
- ❑ easy mounting, also for retrofitting into existing plants
- ❑ integrated bypass relay
- ❑ no mains neutral conductor (N) required
- ❑ parameterization by means of three potentiometers
- ❑ economically priced replacement for star/delta switches
- ❑ for mounting on top hat rail
- ❑ current reduction during acceleration
- ❑ very compact design, overall width from 45mm on
- ❑ degree of protection IP20



Soft Starters  
**DUOSTART 1,5 ... 5,5**  
**CE**

**Function:**

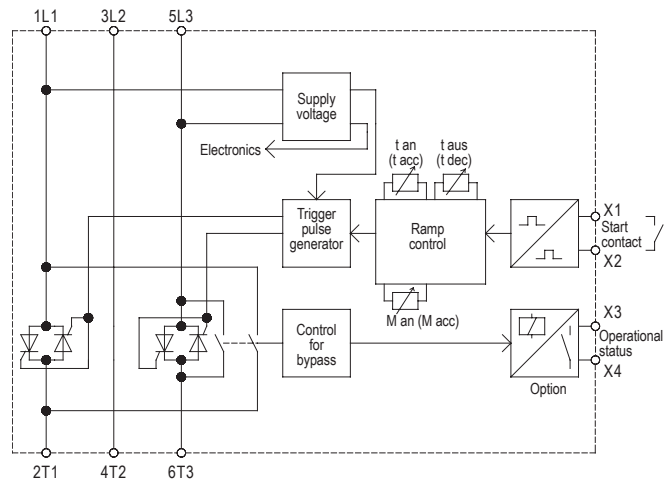
- ❑ soft start and soft stop
- ❑ potential-free control input for soft start and soft stop
- ❑ 3 separately adjustable parameters starting torque, acceleration time, deceleration time
- ❑ control (start/stop) with contact or voltage 10-42VDC

**Typical Applications:**

door and gate drives  
pumps, ventilators  
conveyors  
packaging machinery  
transformer soft start

**Options: (upon request)**

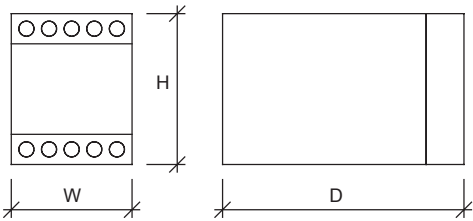
- ❑ DUOSTART ... M (beginning of acceleration until end of deceleration)
- ❑ DUOSTART ... S control (start/stop) with voltage 10-42VDC
- ❑ external 24V supply voltage (wide voltage range capability)



Technical Data	DUOSTART		
	1,5	3	5,5
Mains / Motor voltage according to DIN EN 50160 (IEC 38)	400V ±10% 50/60Hz		
Device nominal current	3,5A	6,5A	12A
Motor rating at 400V mains voltage	1,5kW	3kW	5,5kW
min. motor current	40% of the device rated current		
Starting torque	0 ... 80%		
Acceleration time	0,5 ... 12s		
Deceleration time	0,5 ... 12s		
Reset time	200ms		
max. Switching cycle at 3x I <sub>e</sub> and 5s t <sub>an</sub>	200/h	120/h	70/h
max. Cross-sectional area	solid stranded	2x 2,5mm <sup>2</sup> 2x 1,5mm <sup>2</sup>	2x 2,5mm <sup>2</sup> 2x 1,5mm <sup>2</sup>
I <sup>2</sup> t-Value Power semiconductor	72A <sup>2</sup> s	265A <sup>2</sup> s	610A <sup>2</sup> s
Ambient / Storage temperature	0°C ... 45°C / -25°C ... 75°C		
Weight / kg	0,4	0,4	0,4
Special voltages	230V	230V 480V	230V 480V
Order number	21500.40001	21500.40003	21500.40005
Option „M“	21501.40001	21501.40003	21501.40005
Option „S“	21502.40001	21502.40003	21502.40005

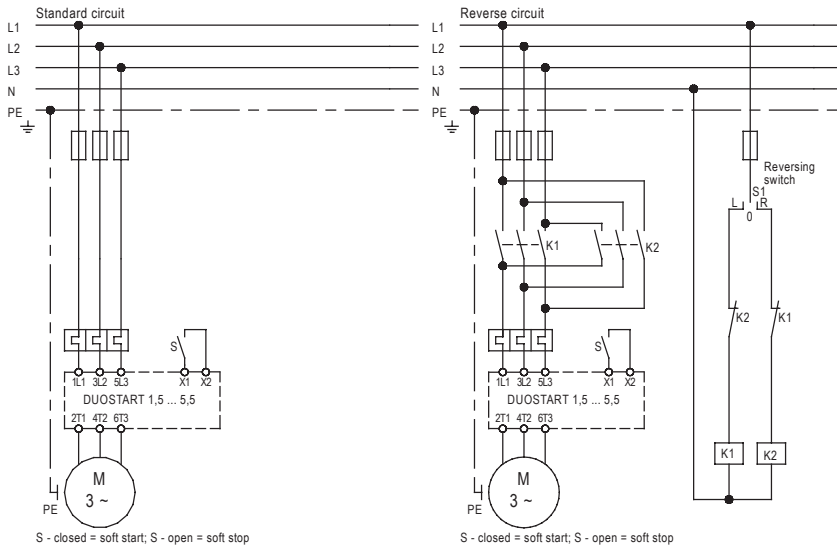
Please observe supplementary sheet with dimensioning rules.

**Dimensions:**



Mounting dimensions	W	H	D
DUOSTART 1,5 ... 5,5	45mm	73mm	122mm

**Connections 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, that is definitely attributable to the operation of the soft starters "DUOSTART", 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.

