Christian P-4.0



22,5mm compact motor starter including motor protection

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Functionality:

Today's drive solutions require powerful and flexible instruments. The compact motor starter Christian P-4.0 from TELE is usable for motors up to 4.0kW @ 400V and includes 5 functions in one compact unit, requiring only 22,5mm width. This intelligent instrument offers soft start, soft stop, forward/reverse, current protection and an electronic motor protection.

Offering the integrated motor protection plus isolation relays the use of an MCB is no longer necessary. A simple circuit breaker protects the installation against short circuit and faulty wiring. The soft start and stop function is performed by semiconductors (thyristors) and the reversing function by internal relays, operated in the standstill phase. After performing the start/stop function the semiconductors are bypassed by integrated relays to minimize power dissipation. The intelligent combination of semiconductors and relays increases lifetime and efficiency of the product. The integrated current limit protects motors, shafts and plants from mechanical stress and reduces maintenance and standstill times.

Technical Features:

- Forward/Reverse of 3-ph ac motors 3 AC 480 V / 9 A, equals 4.0kW @ 400VAC
- Direction change by relays in standstill phase
- 2-ph control for softstart and stop
- Integrated bypass relays
- 3 pots for adjustment of torque, time and max. current
- 4 LEDs indicate status and error
- Reset button on front and external reset available
- Dimension in mm (W x H x D): 22,5 x 105 x 120,3
- Article number: 490800 (F/R + blocking protection);

490801 (F/R + motor protection + isolation contactor)

Your advantages:

- Up to 5 functions in one instrument:
 - Forward/Reverse, soft start, current limit, motor protection, soft stop.
- Minimized space consumption, only 22.5mm width
- Simple commissioning and easy operation
- Robust semiconductors with 1500V max. isolation voltage
- Increased system availability by motor protection function
- Increased lifetime by hybrid design compared to relay solution
- Energy saving by bumpless soft start/stop function

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Applications:

- Reversing of drive for door, lifting and transport application with blocking protection.
- Transport systems (belts and rollers) with blocking protection
- Motorized valves in process applications (chemical and petrochemical, power generation plants)
- Pumps and fans
- Switching of 3 ph transformers
- ... and a lot of other applications with sophisticated drive requirements.



Advantage of power control with semiconductors:

- Switching without any wear
- Extended lifetime
- Frequent start / stop events
- Little space occupation
- Fast switching
- Usable in industrial environment

Functions:

- Reversing direction (forward / return): Two separate digital inputs for F and R. Reversing is achieved with an internal relay in the standstill phase of the motor without current flow. The softstart and stop is done with thyristor control.
- **Softstart / Softstop:** The drive is started and stopped without mechanical stress to save wear on gearboxes and drive belts. Even the mains supply will be protected and high inrush current is totally removed.
- **Overcurrent protection:** To detect motor blocking conditions with adjustable threshold.
- **Motorprotection (option):** Is an electronic replacement of a bimetal switch as used in MCBs. The setting is realized with a potentiometer on the front panel.
- **Isolation relays (option):** Isolate the electronics powerdevices from the motor in case of stop or error condition.



Do you have any specific questions?

Don't hesitate to contact us if you have specific questions according to our new softstarter. I will answer your questions.

Kunst Christian, Sales

