

Converter systems SIMODRIVE base line

SIMODRIVE base line

Overview



The SIMODRIVE base line converter is designed for operation with 1FK7 motors. This can only be used with 1FK7 motors with 2-pole resolvers. The converters are preconfigured for these motors, so rapid start-up is possible.

The rugged design offers an optimum combination of functionality and the necessary technology. The main application areas for SIMODRIVE base line converters are in turning and milling machines as well as in applications that demand an economical solution.

Benefits

- Complete units
- Preconfigured devices
- Economical design
- Reduced complexity

Design

The SIMODRIVE base line converter is available as a single-axis and two-axis unit and comprises the following components:

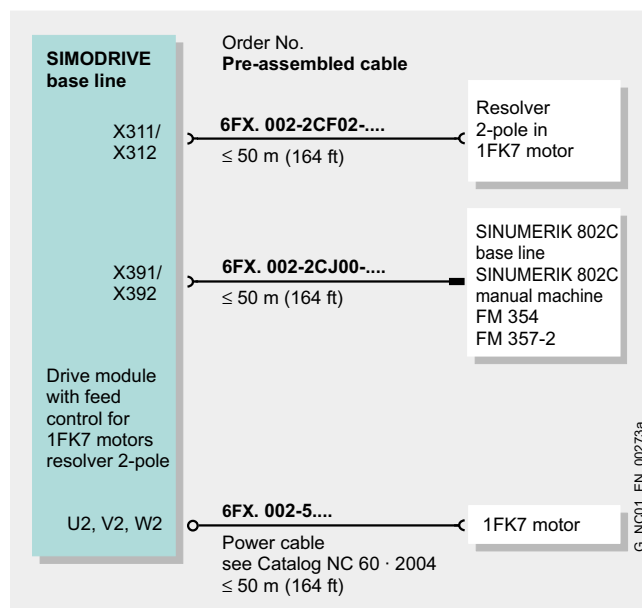
- Unregulated infeed
- Power section with 1 x 9 A or 2 x 5 A
- Single-axis or two-axis resolver closed-loop control

The converter is designed exclusively for use with 1FK7 motors with 2-pole resolvers.

Function

- Single-axis or two-axis devices
- For 1FK7 motors with 2-pole resolver
- Analog interface with ± 10 V setpoint input

Integration



Connection overview for SIMODRIVE base line

Technical specifications

| SIMODRIVE base line | |
|---------------------------------|--|
| Infeed type | Unregulated |
| Rated power | 5 kW |
| Input voltage | 3-phase AC 400 V -10% ... 3-phase AC 480 V +6% ¹⁾ |
| Output voltage | 3-phase AC 0 ... 430 V |
| Rated current | 12.5 A |
| Current with undervoltage | 14 A |
| Peak current | 25 A |
| Conductor cross-section | 6 mm ² |
| Module width | 110 mm (4.33 in) |
| Heat dissipation method | |
| • Internal heat dissipation | Natural cooling |
| Losses | 270 W +70/90 W |
| Weight, approx. | |
| • Single-axis unit | 14 kg (30.87 lb) |
| • Two-axis unit | 17 kg (37.49 lb) |
| Rated current | 2 x 5 A (two-axis unit), 9 A (single-axis unit) |
| Peak current | 2 x 10 A (two-axis unit), 18 A (single-axis unit) |
| Motors | 1FK7...-.....-T.. |
| Encoder | Resolver 2-pole |
| Encoder evaluation | Output for incremental encoder (TTL signal) 1024 S/R |
| Permissible ambient temperature | |
| • Storage and transport | -25 ... +70 °C (-13 ... +158 °F) |
| • Operation | -25 ... +40 °C (-13 ... +104 °F) |
| Dimensions (W x H x D) | 110 mm x 483 mm x 271 mm (4.33 in x 19.02 in x 10.67 in) |

1) Derating must be considered from 380 V.