

Representative Image

# Alternate Catalog No. HF2.4-ROL
# Catalog No. 1SAT125000R1011

**Description: HF2.4-ROL Electronic Compact Starter 24 VDC**

**UPC No 4013614515552**

**Home > Starters > Electronic Starters**

The HF-ROL-range is used for forward and reverse running motors, as well as for switching non resistive loads. With contactor and overload relay functionalities integrated into one device, the results are faster wiring times and fewer faults. The range covers 0.6 A, 2.4 A and up to 9 A - for motors up to 3 kW – 500 V AC. The integrated electronic overload protection has a wide setting range that enables just three models to cover all requirements. Setting range of HF2.4-ROL-24VDC is 0.18 A to 2.4 A. The control supply voltage is 24 V DC. For the control and main connection points ABB offers screw connections. ABB also offers a HF-ROLE safety range with emergency stop function. This offers Safety Integrity Level 3, in accordance with functional safety standard IEC 61508-1 and Performance Level 'e' in accordance with ISO 13849-1. The safety range is ATEX-certified.

## Descriptors

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|---|---|
| Category | Electronic Starters |

## Specifications

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|---|---|
| Function | Reversed-on-line starter with overload protection |
| Horsepower Rating UL/CSA | Nominal Switching Performance Full Load (power factor = 0.4) 1.2 hp<br>Nominal Switching Performance Full Load (power factor = 0.8) 2.2 hp |
| Setting Range | 0.18 ... 2.4 A |
| Full Load Amps Motor Use | 2.4 A |
| Ambient Air Temperature | Operation -25 ... +70 °C<br>Operation Compensated -40 ... + 80 °C |
| RoHS Status | Following EU Directive 2011/65/EU |
| Maximum Operating Voltage UL/CSA | Main Circuit 500 V AC |
| Ampere Rating UL/CSA | 2.4 A |
| Connecting Capacity Main Circuit UL/CSA | Flexible with Ferrule 1x 24 ... 14 AWG<br>Flexible 1x 24 ... 14 AWG<br>Solid 1x 24 ... 14 AWG |
| Connecting Capacity Control Circuit UL/CSA | Flexible with Ferrule 1x 24 ... 14 AWG<br>Flexible 16-8 AWG<br>Solid 1x 24 ... 14 AWG |
| Tightening Torque UL/CSA | Control Circuit 5 ... 7 in-lb<br>Main Circuit 5 ... 7 in-lb |
| Standards | IEC/EN 60947-1<br>IEC/EN 60947-4-2<br>UL 60947-1<br>UL 60947-4-2 |
| Utilization | Motor Protection |
| Rated Operational Voltage | Main Circuit 500 V AC |
| Operational Voltage | Maximum 550 V AC<br>Minimum 42 V AC |
| Rated Frequency | Main Circuit 50Hz<br>Main Circuit 60 Hz |
| Rated Control Supply Voltage | 24 V DC |
| Rated Input Voltage | Switching Threshold at Signal 0> -3 ... 9.6 V<br>Switching Threshold at Signal 1> 19.2 ... 30 V |
| Rated Impulse Withstand Voltage | Main Circuit 6 kV |
| Rated Insulation Voltage | 500 V |

by ABB

## Specifications

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|---|---|
| Rated Operational Current AC-51 | 2.4 A |
| Rated Operational Current AC-53a | 2.4 A |
| Rated Control Supply Current | 0.04 A |
| Rated Uninterrupted Current | 2.4 A |
| Input Current | 0.00 A |
| Switching Frequency | ≤ 2 Hz<br>120 starts/min<br>7200 starts/h |
| Rated Operational Power AC-53a | 0.75 kW |
| Overvoltage Category | III |
| Overload Protection | Electronic overload protection |
| Trip Class | class 10A |
| Number of Poles | 3 |
| Power Loss | Maximum 3,3 W<br>Minimum 1,1 W |
| Number of Protected Poles | 3 |
| Mechanical Durability | 10000 cycle |
| Electrical Durability | 30000000 cycle |
| Delay Time | Off, Maximum, Switched Off via Supply Voltage 500 ms<br>Off, Typical, Switched Off via Control Input Voltage 30 ms<br>Off, Typical, Switched Off via Supply Voltage 25 ms<br>Off, Maximum, Switched Off with Pushbutton 3 second [unit of time]<br>Off, Minimum, Switched Off with Pushbutton 0.5 second [unit of time] |
| Mounting on DIN Rail | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715<br>TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 |
| Mounting Position | Position 1, load side bottom |
| Connecting Capacity Control Circuit | Flexible with Ferrule 1/2x 1 ... 2.5 mm2<br>Flexible 1/2x 1 ... 2.5 mm2<br>Rigid 1x 0.5 ... 4 mm2 |
| Connecting Capacity Main Circuit | Flexible with Ferrule 1x 2 ... 2.5 mm2<br>Flexible 1x 2 ... 2.5 mm2<br>Rigid 1x 2 ... 2.5 mm2 |
| Recommended Screw Driver | Control Circuit M3<br>Main Circuit M3 |
| Terminal Type | Screw Terminals |
| Tightening Torque | Control Circuit 0.5 ... 0.6 N·m<br>Main Circuit 0.5 ... 0.6 N·m |
| Wire Stripping Length | Control Circuit 8 mm<br>Main Circuit 8 mm |
| Response Time | Phase Asymmetry 33% 120 second [unit of time]<br>Phase Asymmetry 67% 1.8 second [unit of time]<br>Phase Failure 1.8 second [unit of time] |
| Pollution Degree | 2 |
| Phase Loss Sensitive | Yes |
| Degree of Protection | Housing IP20<br>Main Circuit Terminals IP20 |
| Short-Circuit Current Rating (SCCR) | (500 V AC, 30 A Class J or CC) 100 kA |

## Classifications

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|---|---|
| ETIM 5.0 | EC001037 - Motor starter combination |
| ETIM 6.0 | EC001037 - Motor starter/Motor starter combination |
| ETIM 7 | EC001037 - Motor starter/Motor starter combination |
| eClass | 7.0 27370905 |

## Dimensions

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|---|---|
| Product Net Width | 22.5 mm |

## Dimensions

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|---|---|
| Product Net Height | 99 mm |
| Product Net Depth / Length | 114.5 mm |
| Product Net Weight | 0.219kg |

## Package Information

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| Package Level 1 Units | 1 piece |
| Package Level 1 Width | 150 mm |
| Package Level 1 Depth / Length | 115 mm |
| Package Level 1 Height | 34 mm |
| Package Level 1 Gross Weight | 0.319 kg |
| Package Level 1 EAN | 4013614515552 |

## Safety Information

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| Mean Time to Failure | 39.6 year |