

Product datasheet

Specifications



sub-base - soldered solid state output relay ABE7 - 16 inputs - 115 V AC

TSI Code: 402703688 ABE7S16E2F0

Main

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|--------------------------------|--|
| Range of product | Modicon ABE7 |
| Product or component type | Solid state input relay sub-base |
| [Us] rated supply voltage | 110/130 V AC 50/60 Hz (sensor end) 24 V DC (PLC end) |
| Number of channels | 16 |
| Number of terminal per channel | 2 |
| Connections - terminals | Screw type terminals, 1 x 0.09...1 x 1.5 mm ² , 0.09...1.5 mm ² (AWG 28...AWG 16) flexible with cable end Screw type terminals, 1 x 0.14...1 x 2.5 mm ² , 0.14...2.5 mm ² (AWG 26...AWG 12) solid Screw type terminals, 1 x 0.14...1 x 2.5 mm ² , 0.14...2.5 mm ² (AWG 26...AWG 14) flexible without cable end Screw type terminals, 2 x 0.09...2 x 0.75 mm ² , 0.09...0.75 mm ² (AWG 28...AWG 20) flexible with cable end Screw type terminals, 2 x 0.2...2 x 2.5 mm ² , 0.2...2.5 mm ² (AWG 24...AWG 14) solid |

Complementary

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|--|---|
| Terminal block type | Removable |
| Supply voltage limits | 19...30 V DC (PLC end) conforming to IEC 61131-2 |
| Isolation PLC/operative part | Yes |
| Protection type | Internal fuse 1 A 5 x 20 mm fast blow PLC end Adjustable by external fuse fast blow sensor end |
| Fixing mode | By clips (35 mm symmetrical DIN rail) By screws (solid plate with fixing kit) |
| Current per channel | 0.0083 A |
| Current state 1 guaranteed | >= 5 mA (sensor end) |
| Voltage state 1 guaranteed | >= 79 V for sensor end |
| Maximum switching current | 15 mA (PLC end) |
| Minimum switching current | 1 mA for PLC end |
| Response time | <= 20 ms from state 0 to 1 <= 20 ms from state 1 to 0 |
| Switching frequency | <= 25 Hz duty cycle: 50 % |
| [Uimp] rated impulse withstand voltage | 2.5 kV conforming to IEC 60947-1 |
| [Ui] rated insulation voltage | 2000 V |
| Installation category | II conforming to IEC 60664-1 |
| Tightening torque | 0.6 N.m with flat Ø 3.5 mm screwdriver |

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|----------------|----------|
| Width | 206 mm |
| Height | 77 mm |
| Depth | 58 mm |
| Product weight | 0.397 kg |

Environment

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|---------------------------------------|--|
| Dielectric strength | 2000 V at 50/60 Hz conforming to IEC 60947-1 |
| Product certifications | BV UL GL DNV CSA LROS (Lloyds register of shipping) EAC |
| Standards | IEC 61131-2 Type 1 |
| IP degree of protection | IP2x conforming to IEC 60529 |
| Resistance to incandescent wire | 750 °C conforming to IEC 60695-2-11 |
| Shock resistance | 15 gn for 11 ms conforming to IEC 60068-2-27 |
| Vibration resistance | 2 gn (f= 10...150 Hz) conforming to IEC 60068-2-6 |
| Resistance to electrostatic discharge | 4 kV (contact) level 3 conforming to IEC 61000-4-2 8 kV (air) level 3 conforming to IEC 61000-4-2 |
| Resistance to radiated fields | 10 V/m (26000000...1000000000 Hz) conforming to IEC 61000-4-3 level 3 |
| Resistance to fast transients | 2 kV level 3 conforming to IEC 61000-4-4 |
| Ambient air temperature for operation | -5...60 °C conforming to IEC 61131-2 |
| Ambient air temperature for storage | -40...80 °C conforming to IEC 61131-2 |
| Pollution degree | 2 conforming to IEC 60664-1 |

Packing Units

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|------------------------------|----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 480 g |
| Package 1 Height | 7 cm |
| Package 1 width | 8.2 cm |
| Package 1 Length | 21.2 cm |
| Unit Type of Package 2 | S03 |
| Number of Units in Package 2 | 16 |
| Package 2 Weight | 8.117 kg |
| Package 2 Height | 30 cm |
| Package 2 width | 30 cm |
| Package 2 Length | 40 cm |

Offer Sustainability

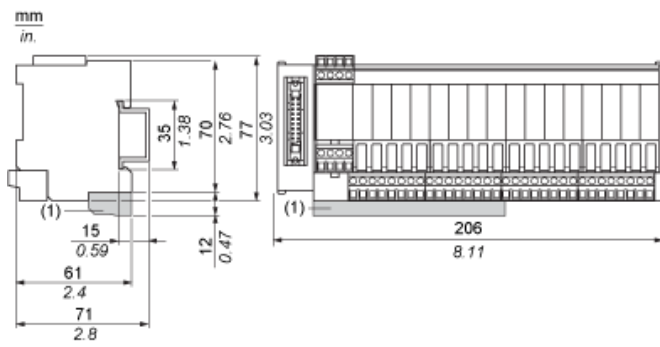
| | |
|--------------------------|--|
| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| REACH free of SVHC | Yes |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) |

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|-----------------------------------|---|
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End of Life Information |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Contractual warranty

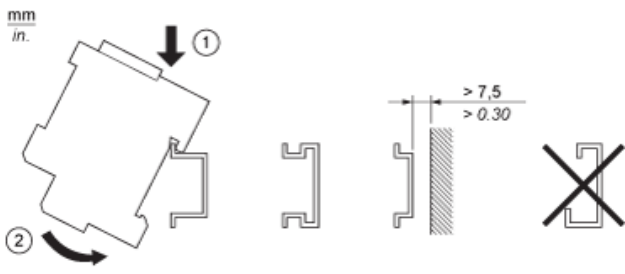
| | |
|-----------------|-----------|
| Warranty | 18 months |
|-----------------|-----------|

Dimensions

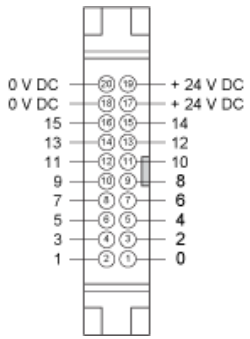


(1) ABE7BV20 / ABE7BV20E

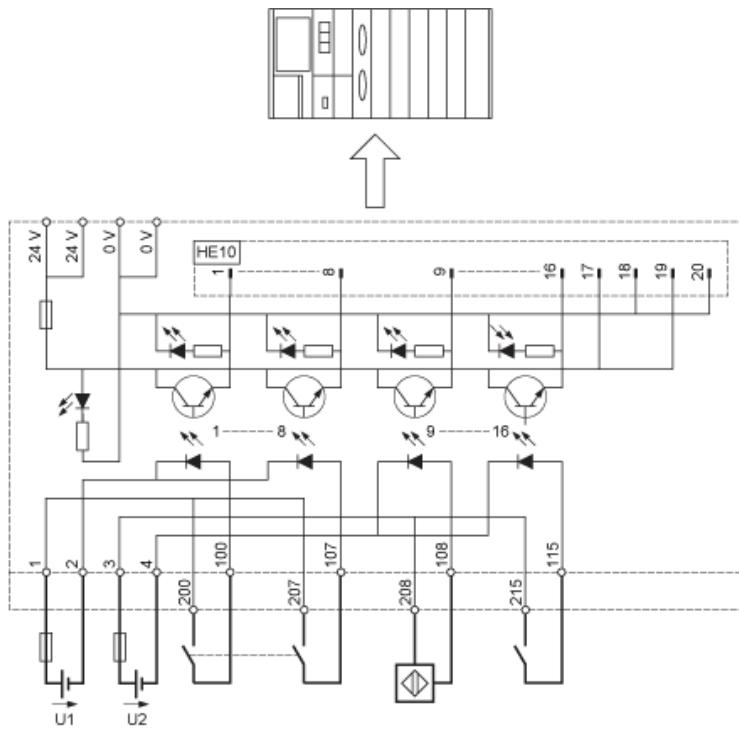
Mounting



HE10 16 Channels



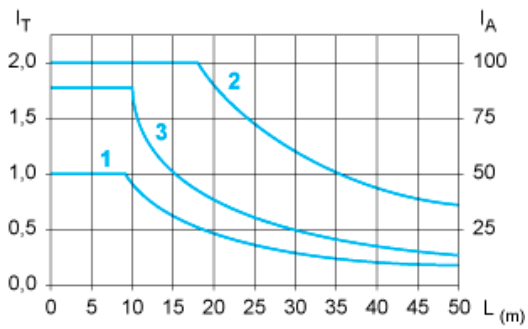
Wiring Diagram



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|-----------------|---------|
| ABE7 | U1, U2 |
| S16E2B1 / E2B1E | 24 VDC |
| S16E2E1 / E2E1E | 48 VDC |
| S16E2E0 / E2E0E | 48 VAC |
| S16E2F0 / E2F0E | 115 VAC |
| S16E2M0 / E2M0E | 230 VAC |

Curves for Determining Cable Type and Length According to the Current

16-channel Sub-base



- L Cable length
- I_T Total current per sub base (A)
- I_A Average current per channel (mA)
- (1) TSXCDP••2 and ABFH20H••0 cables with c.s.a. 0.08 mm² (AWG 28).
- (2) TSXCDP••3 cables with c.s.a. 0.34 mm² (AWG 22).
- (3) Cables with c.s.a. 0.13 mm² (AWG 26).

The curves are given for a voltage drop of 1 V in the cable. For n volts tolerance, multiply the length determined from the graph by n.