




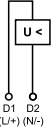
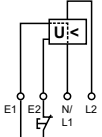
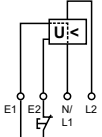
Protection

Circuit protection

Earth leakage protection

Electrical auxiliaries for iC120, DPN, DPN Vigi, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC devices

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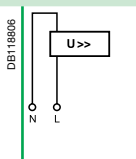
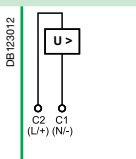
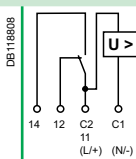
| | | Tripping | | | | | |
|---|------|--|----------|--|---------------|---|---------------|
| Auxiliaries | | MN | | MNs | | MNx | |
| Type | | Undervoltage release | | | | | |
| | | Instantaneous | | Delayed | | Independent of the supply voltage | |
| | |  | |  | |  | |
| Function | | <ul style="list-style-type: none"> Causes the device with which it is associated to trip when its input voltage decreases (between 70 % and 35 % of U_n). Prevents the device from closing until its input voltage has been restored | | <ul style="list-style-type: none"> No tripping in the event of transient voltage dips (up to 0.2 s) | | <ul style="list-style-type: none"> Tripping of the associated device by opening of the control circuit (e.g. push-button, dry contact) A drop in the supply voltage does not trip the associated device A locking push-button control allows the circuit protected (e.g. machine control) to be placed in safety configuration | |
| Wiring diagrams | |  | |  | |  | |
| Utilization | | <ul style="list-style-type: none"> Emergency stop via a normally-closed pushbutton Ensures the safety of the power supply circuits of several machines by preventing accidental startups | | | | <ul style="list-style-type: none"> Fail-safe emergency stop Insensitive to the variation in the control circuit voltage to improve continuity of service Important: Before any servicing operation switch off the mains power supply (voltage presence at terminals E1/E2) | |
| Catalogue numbers | | A9N26960 | A9N26961 | A9N26959 | A9N26963 | A9N26969 | A9N26971 |
| iC120, DPN, DPN Vigi, ID | | ■ | ■ | ■ | ■ | ■ | ■ |
| C60H-DC, SW60-DC, C60PV-DC, C60NA-DC | | ■ | ■ | ■ | ■ | ■ | ■ |
| Technical specifications | | | | | | | |
| Rated voltage (U_e) | V AC | 220...240 | 48 | 115 | 220...240 | 230 | 400 |
| | V DC | - | 48 | - | - | - | - |
| Standardised operating and non-response to voltage times (U_a)* | | - | - | - | - | - | - |
| Maximum operating time | | - | - | - | - | - | - |
| Minimum non-response time | | - | - | - | - | - | - |
| Operating frequency | Hz | 50/60 | | 400 | 50/60 | 50/60 | |
| Mechanical state indicator light, red | | On front face | | | On front face | | On front face |
| Test function | | - | | | - | | - |
| Width in 9 mm modules | | 2 | | | 2 | | 2 |
| Operating current | | - | | | - | | - |
| Number of contacts | | - | | | - | | - |
| Operating temperature | °C | -25...+50 | | | -25...+50 | | -25...+50 |
| Storage temperature | °C | -40...+85 | | | -40...+85 | | -40...+85 |
| Standards | | | | | | | |
| IEC/EN 60947-1 | | ■ | | ■ | | ■ | |
| IEC/EN 60947-5-1 | | - | | - | | - | |
| EN 60947-2 | | ■ | | ■ | | - | |
| EN 62019-2 ⁽¹⁾ | | - | | - | | - | |

(1) For iC120, DPN.

*(U_a): Voltages measured between the phase and the neutral conductor, at which the MSU device must control the associated protective device.

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Electrical auxiliaries for iC120, DPN,
DPN Vigi, ID, C60H-DC, SW60-DC,
C60PV-DC, C60NA-DC devices (cont.)

| MSU | | | | | MX | | | MX+OF | | |
|---|----------|----------|----------|----------|--|-----------------|-----------------|---|-----------------|-----------------|
| Voltage threshold release | | | | | Shunt release | | | With Open/Close auxiliary contact | | |
|  | | | | |  | | |  | | |
| <p>■ Cuts off the power supply by opening the device with which it is associated when the phase/neutral voltage is exceeded (loss of neutral). For a four-phase network, use three MSU tripping auxiliaries</p> | | | | | <p>■ Trips the associated device when it is powered on</p> | | | <p>■ Includes an open/close contact (OF) to indicate the "open" or "closed" position of the breaker</p> | | |
|  | | | | |  | | |  | | |
| <p>■ Protection of the devices against overvoltages on the electrical network (break in the neutral conductor) ■ Monitoring the voltage between the phase conductor and the neutral conductor</p> | | | | | <p>■ Emergency stop via a normally-open pushbutton.</p> | | | <p>■ Emergency stop via a normally-open pushbutton ■ Remote indication of the position of the associated device</p> | | |
| A9N26500 | | | | | A9N26476 | A9N26477 | A9N26478 | A9N26946 | A9N26947 | A9N26948 |
| ■ | | | | | ■ | ■ | ■ | ■ | ■ | ■ |
| - | | | | | ■ | ■ | ■ | ■ | ■ | ■ |
| 230 | | | | | 100...415 | 48 | 12...24 | 100...415 | 48 | 12...24 |
| - | | | | | 110...130 | 48 | 12...24 | 110...130 | 48 | 12...24 |
| 255 V AC | 275 V AC | 300 V AC | 350 V AC | 400 V AC | - | - | - | - | - | - |
| No tripping | 15 s | 5 s | 0.75 s | 0.20 s | - | - | - | - | - | - |
| | 3 s | 1 s | 0.25 s | 0.07 s | - | - | - | - | - | - |
| 50/60 | | | | | 50/60 | | | 50/60 | | |
| On front face | | | | | On front face | | | On front face | | |
| - | | | | | - | | | - | | |
| 2 | | | | | 2 | | | 2 | | |
| - | | | | | - | | | 3 A / 415 V AC 6 A / ≤ 240 V AC | | |
| - | | | | | - | | | 1 NO/NC | | |
| -25...+50 | | | | | -25...+50 | | | -25...+50 | | |
| -40...+85 | | | | | -40...+85 | | | -40...+85 | | |
| ■ | | | | | ■ | | | ■ | | |
| - | | | | | - | | | - | | |
| - | | | | | - | | | - | | |
| - | | | | | - | | | - | | |

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Electrical auxiliaries for iC120, DPN, DPN Vigi, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC devices (cont.)

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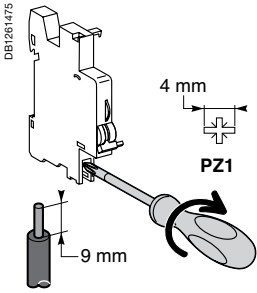
| | | Indication | | | | |
|---|------|---|--|--|--|--|
| Auxiliaries | | OF.S | OF | SD | OF+SD/OF | OF+SD24 |
| Type | | Open/closed auxiliary contact | Open/closed auxiliary contact | Fault indicating contact | Double open/closed or fault indicating contact | Double open/close and fault indicating contact |
| | | | | | | |
| Function | | <ul style="list-style-type: none"> Changeover contact indicating the "open" or "closed" position of the associated device <p>⚠ Compulsory for the addition of tripping or indication auxiliaries on a residual current circuit breaker ID</p> | <ul style="list-style-type: none"> Changeover contact indicating the "open" or "closed" position of the associated device | <ul style="list-style-type: none"> Changeover contact indicating the position of the associated device in the event of: <ul style="list-style-type: none"> electrical fault action on the tripping auxiliary <p>⚠ Not compatible with a ID residual current circuit breaker, use an OF+SD/OF in the SD position</p> | <ul style="list-style-type: none"> The OF+SD/OF auxiliary is a two-in-one product: choice of OF + SD or OF + OF contact via the selector switch | <ul style="list-style-type: none"> 2 contacts (1 NO + 1 NC) can report the signalling information of the associated device to the Acti 9 Smartlink or a programmable logic controller: <ul style="list-style-type: none"> electrical fault actuation of the tripping auxiliary "Open" or "Closed" position of the associated device |
| Wiring diagrams | | | | | | |
| Utilization | | <ul style="list-style-type: none"> Remote indication of the position of the associated device | <ul style="list-style-type: none"> Remote indication of the position of the associated device | <ul style="list-style-type: none"> Remote fault tripping indication of the associated device | <ul style="list-style-type: none"> Remote position and/or fault tripping indication of the associated device | <ul style="list-style-type: none"> Remote indication of position and tripping upon a fault of the associated breaker |
| Catalogue numbers | | A9N26923 | A9N26924 | A9N26927 | A9N26929 | A9N26899 |
| ID | | ■ | ■ | ■ | ■ | ■ |
| iC120, DPN, DPN Vigi, C60H-DC, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC | | - | ■ | ■ | ■ | ■ |
| Technical specifications | | | | | | |
| Rated voltage (Ue) | V AC | 24...415 | 24...415 | 24...415 | 24...415 | - |
| | V DC | 24...130 | 24...130 | 24...130 | 24...130 | 24 |
| Operating frequency | Hz | 50/60 | 50/60 | 50/60 | 50/60 | - |
| | | | | | | |
| Mechanical state indicator | | - | - | On front face | On front face | On front face |
| Test function | | - | On front face | On front face | On front face | On toggle |
| Width in 9 mm modules | | 1 | 1 | 1 | 1 | 1 |
| Operating current | | 3 A / 415 V AC 6 A / ≤ 240 V AC | | | | 2 mA mini, 100 mA maxi |
| Number of contacts | | 1 NO/NC | 1 NO/NC | 1 NO/NC | 1 NO/NC + 1 NO/NC | 1 NO + 1 NC |
| Operating temperature | °C | -25...+50 | -25...+50 | -25...+50 | -25...+50 | -25...+70 |
| | | | | | | |
| Storage temperature | °C | -40...+85 | -40...+85 | -40...+85 | -40...+85 | -40...+85 |
| | | | | | | |
| Standards | | | | | | |
| IEC/EN 60947-1 | | - | - | - | - | - |
| IEC/EN 60947-5-1 | | ■ | ■ | ■ | ■ | ■ IEC 60947-5-4 |
| EN 60947-2 | | - | - | - | - | - |
| EN 62019-2 ⁽¹⁾ | | ■ | ■ | ■ | ■ | - |

(1) For iC120, DPN.

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Circuit protection
Earth leakage protection

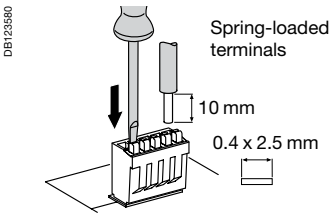
Electrical auxiliaries for iC120, DPN, DPN Vigi, ID, C60H-DC, SW60-DC, C60PV-DC, C60NA-DC devices (cont.)

Connection



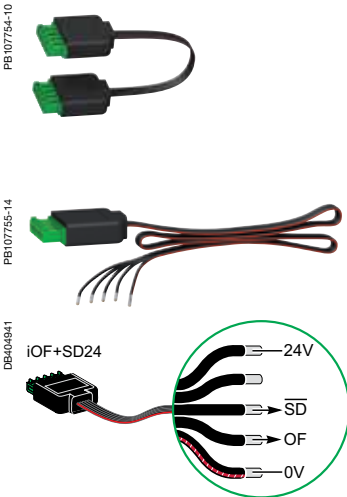
| Type | Tightening torque | Copper cables | |
|-------------------------------------|-------------------|--|-------------------------------------|
| | | Rigid | Flexible or with ferrule |
| Indication and tripping auxiliaries | 1 N.m | DB122945 0.5 to 2.5 mm ² | DB122946 2 x 1.5 mm ² |

Ti24 connector connection



| Type | Catalogue numbers | Copper cables | |
|----------------|-------------------|--|--|
| | | Rigid | Flexible |
| Ti24 interface | A9XC2412 | DB122945 1 x 0.5 to 1.5 mm ² | DB123563 1 x 0.5 to 1.5 mm ² |

Ti24 prefabricated cables connection



| Type | Cat. no. | Length |
|--|-----------------|--------|
| Connection for Acti 9 Smartlink | | |
| 6 short prefabricated | A9XCAS06 | 100 mm |
| 6 medium-sized prefabricated | A9XCAM06 | 160 mm |
| 6 long prefabricated | A9XCAL06 | 870 mm |
| Connection for PLC type terminals | | |
| 6 long prefabricated on a single side | A9XCAU06 | 870 mm |

Weight (g)

| Electrical auxiliaries | |
|------------------------|------------|
| Type | Weight (g) |
| MN | 66 |
| MNs | 66 |
| MNx | 73 |
| MSU | 66 |
| MX | 60 |
| MX+OF | 65 |
| OF.S | 33 |
| OF | 30 |
| SD | 30 |
| OF+SD/OF | 38 |
| OF+SD24 | 28 |

Dimensions (mm)

