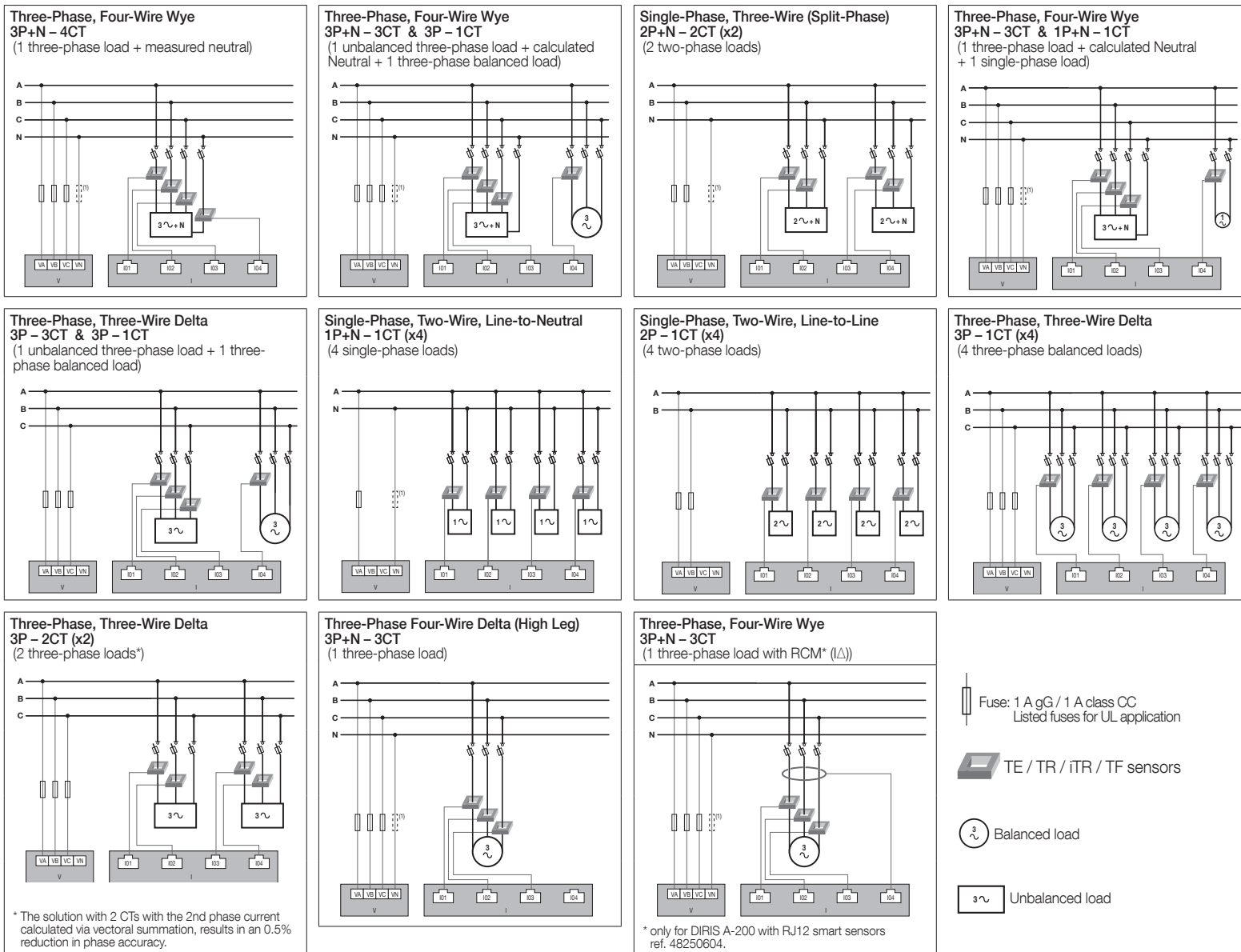


7 Line voltage and load connections for RJ12 smart sensors models

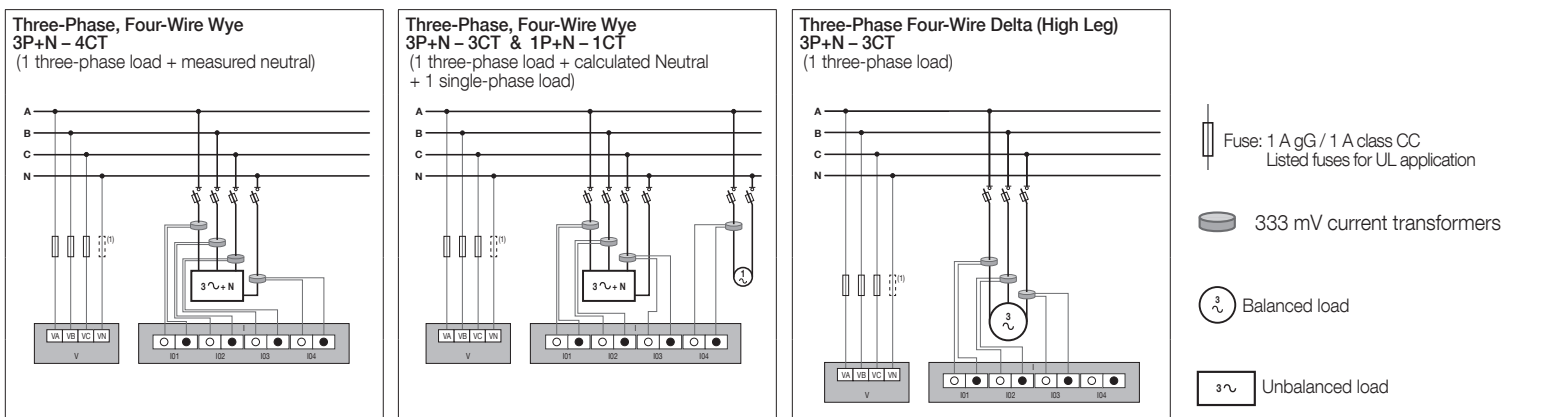
Each current input is independent: see below for some connection examples:



(1) For connection to IT system earthing, adapt the protection in accordance with the installation standards currently in force.

8 Line voltage and load connections for 333mV current transformers models

Each current input is independent: see below for some connection examples:



(1) For connection to IT system earthing, adapt the protection in accordance with the installation standards currently in force.



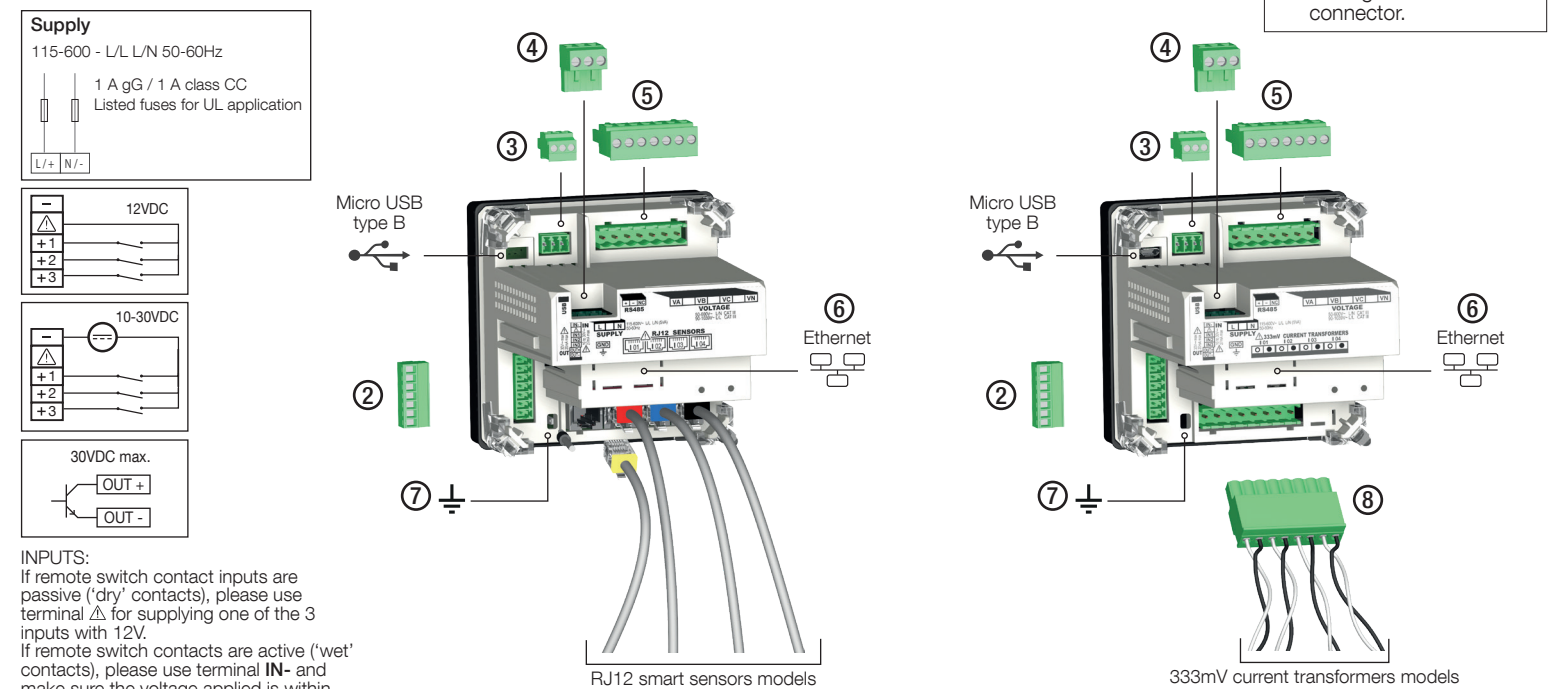
Multi-function power and energy meter DIRIS A-100 / A-200



| | Models | | | |
|----------------------------|-------------|-------------|-------------|-------------|
| | DIRIS A-100 | DIRIS A-100 | DIRIS A-200 | DIRIS A-200 |
| | | | | |
| RJ12 smart current sensors | • | | • | |
| 333mV current transformers | | • | | • |
| RS485 Modbus RTU | • | • | • | • |
| Ethernet Modbus TCP | | | • | • |
| Webview software | | | • | • |
| Part No. | 48250600 | 48250601 | 48250604 | 48250605 |

1 System wiring - Exploded view

- ⚠ Use SOCOMEK RJ-12 unshielded twisted pair (UTP) cables, stranded 24 AWG, 600V, -4 to +158°F (-20 to +70°C).
- ⚠ Do not put USB or RJ45 connectors in contact with hazardous voltage.
- ⚠ Do not connect RJ12 sensor cables into an RJ45 connector to avoid any risk of mechanical damage to this connector.



INPUTS:
If remote switch contact inputs are passive ('dry' contacts), please use terminal Δ for supplying one of the 3 inputs with 12V.
If remote switch contacts are active ('wet' contacts), please use terminal IN- and make sure the voltage applied is within the 10-30VDC range.

OUTPUT: optocoupler, apply max 30VDC and 20 mA of current.

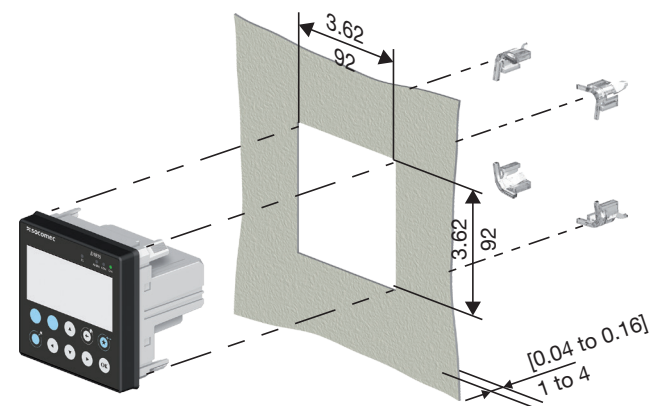
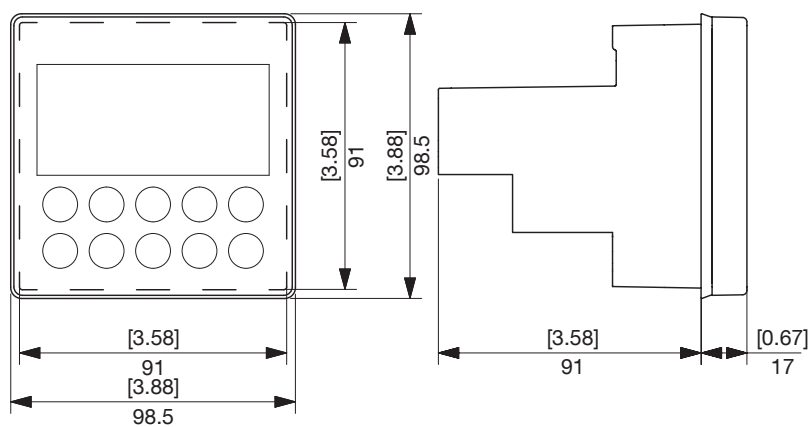
| | | Screw Torques |
|---|---|---|
| ② | 3x INPUT 12 to 24 VDC +/- 20% - 27 mA max. - SELV 1x OUTPUT 30 VDC max - 20 mA max. - SELV | x = 6 - 7 mm 24-15 AWG 0,2 to 1,65 mm² 0,147 lbf-in (0.2 Nm) |
| ③ | RS485 MODBUS RTU SELV | x = 6 - 7 mm 24-15 AWG 0,2 to 1,65 mm² 0,147 lbf-in (0.2 Nm) |
| ④ | SUPPLY 115-600 V- L/L L/N (7 VA) 50-60 Hz | x = 7 mm 24-14 AWG 0,2 to 2 mm² 0,486 lbf-in (0.66 Nm) |
| ⑤ | VA, VB, VC, and VN 50-600 V- L/N CAT III 90-690 V- L/L CAT III | x = 7 mm 24-13 AWG 0,2 to 2,6 mm² 0,486 lbf-in (0.66 Nm) |

| | | Screw Torques |
|---|-----------------------------------|---|
| ⑥ | ETHERNET Modbus® TCP - BACnet® IP | - |
| ⑦ | GROUND | 24-13 AWG 0,2 to 2,6 mm² 0,486 lbf-in (0.66 Nm) |
| ⑧ | 333 mV current transformers | x = 7 mm 28-12 AWG 0,08 to 3,31 mm² 0,486 lbf-in (0.66 Nm) |

SELV : Safety Extra Low Voltage.
(*) Use Copper conductors only.

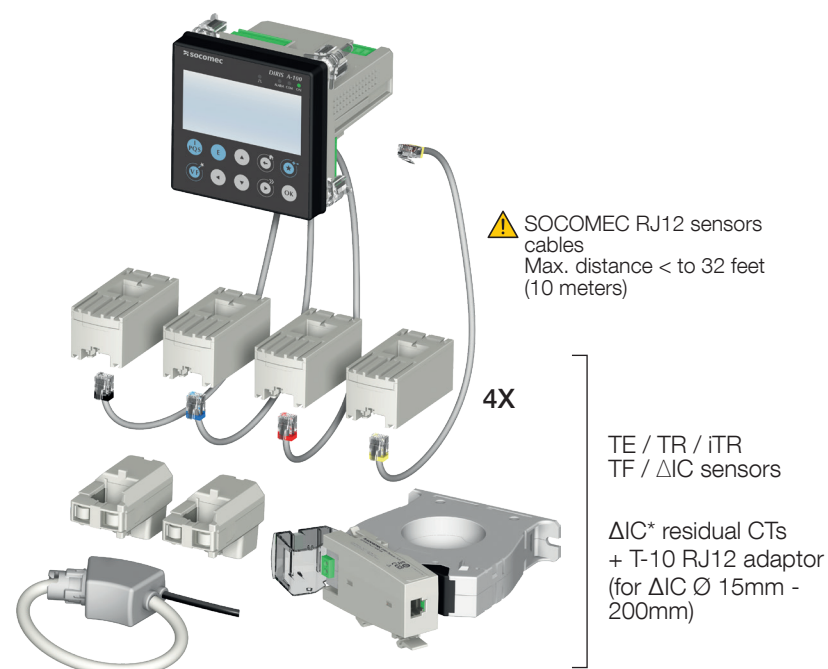


2 Dimensions [in]/mm and mounting

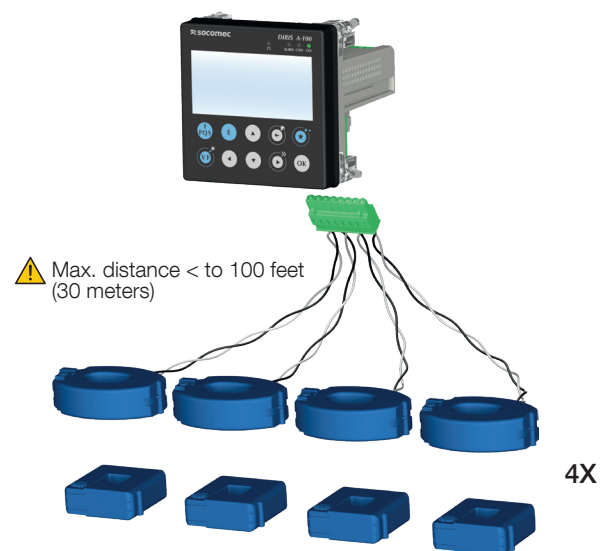


3 Sensors connection

RJ12 smart current sensors



Current transformers with 0.333 Vac outputs



*ΔIC residual current monitoring sensors are only compatible with the DIRIS A-200 with RJ12 sensors, model 48250604; only one ΔIC sensor per DIRIS A-200.

4 HMI



| | FIXED | BLINKING |
|--------------------------|---|---|
| ALARM MAINS (Red) | Ongoing alarm (measurement value, over / under range protection) | Ongoing system alarm (disconnected CT, V/I association, incorrect CT rating) |
| COM (Orange) | N/A | Device is communicating |
| ON (Green) | Product powered and operating normally | N/A |
| Pulse LED | Ongoing RCM alarm (if pulse set to RCM, in which case this LED doesn't display consumptions pulses anymore) | Energy consumed or produced pulses, pulse weight : 0.1 Wh (default, configurable) |

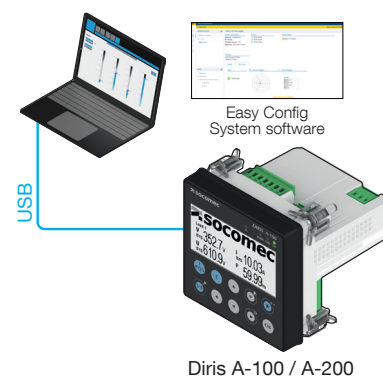
5 Technical characteristics

| Measurement characteristics | | |
|---|--|--|
| Number of current inputs | 4 current sensors or 3 current sensors + 1 residual current monitoring sensor | |
| Current sensor inputs | RJ12 100mV smart sensors : solid-core TE, split-core TR and iTR, flexible TF current sensors, ΔIC circular solid-core and ΔIP-R circular split-core residual current transformers, T-10 adaptor. 333 mV current transformers : split-core ACTL-0750-xxx, ACTL-1250-xxx, solid-core TCL-B-xxx. | |
| Electrical / Voltage | Line frequency : 45 to 65 Hz Voltage measurement : 50-600VAC L/N CAT III, 90-690VAC L/L CAT III Power supply : 115-600VAC L/N L/L | |
| Communication characteristics | | |
| Ethernet dual-port 10/100 Base-T – SELV | Modbus TCP (port 502), Modbus RTU over TCP (port 503), BACnet IP (UDP port 47808) | |
| RS485 2 to 3 half duplex wires – SELV | Modbus RTU 9600 to 115200 bauds | |
| Micro USB Type B | Configuration via Easy Config System software and firmware upgrade via Product Upgrade Tool software | |
| Environmental characteristics | | |
| Storage temperature | -40 ... +85°C / -40 to +185°F | |
| Operating temperature | -25 ... +70°C / -13 to +158°F | |
| Humidity | 5 to 95% RH non condensing (ANSI C12.1) | |
| Operating altitude | Up to 3000 m (9842 ft) | |
| Pollution degree | 2 | |
| Protection index | Housing : NEMA 250 Type 1, Front side : NEMA 250 Type 3R* | |
| Overvoltage category | CAT III | |
| Mechanical characteristics | | |
| Location | Indoor | |
| Vibration | 30 ... 350 Hz, 0.5g (ANSI C12.1) | |
| Shock | Half-sine pulse, 15 g, 11ms (ANSI C12.1) | |
| Standards | | |
| Measurement accuracy | ANSI C12.20 | Class 0.2 for active energy, meter alone |
| | CEC Revenue grade | CEC Revenue grade (<2% accuracy), listed on California Energy Commission's solar equipment list |
| | IEC 61557-12 | Class 0.2 for active energy, meter alone Global accuracy class from 2% to 120% of In (meter + sensors): - Class 0.5, in case of use with TE, iTR, TF, ACTL-1250, TCL-B sensors - Class 1, in case of use with TR or ACTL-0750 sensors |
| | IEC 62053-21 -24 | Class 0.2 active energy meter alone, class 1 reactive energy meter alone |
| Safety | UL 61010-1 & UL 61010-2-030 IEC 61010-1 & IEC 61010-2-030 + CB Scheme | |
| EMC | FCC Part 15, Class A (Radiated and Conducted Emissions) IEC 61326-1 | |

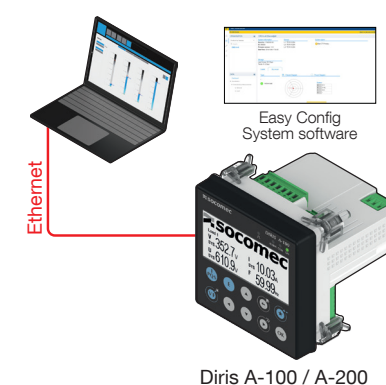
* Front face only. The use of a silicone seal may be required to ensure sufficient sealing of the junction between DIRIS A-xxx display and the panel door.

6 Configuration with Easy Config System or display

USB connection between device and computer



Ethernet connection, either direct or through a LAN connection



Display

Wizard starts automatically at first power on or by long press of the «V F» button

