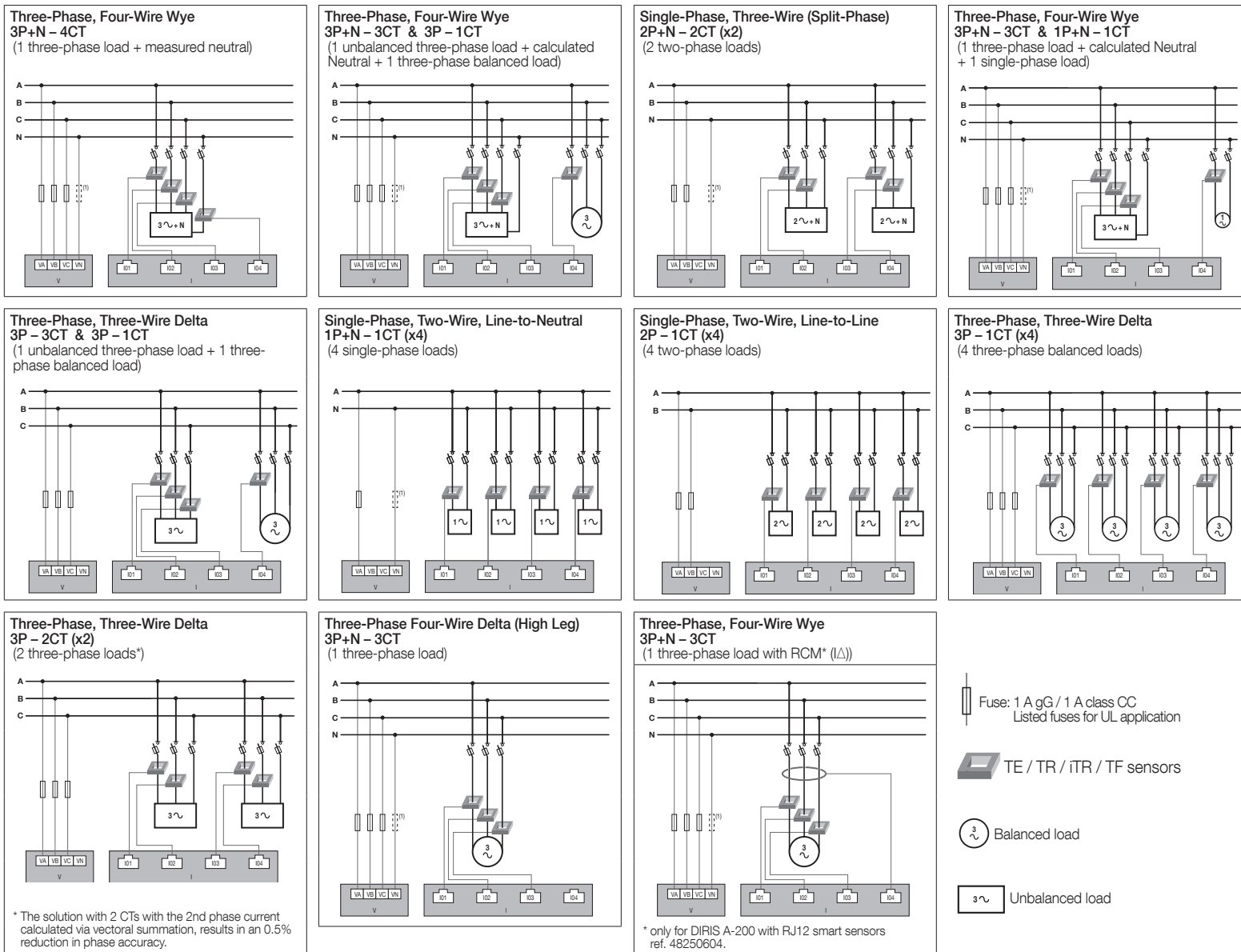


## 7 Line voltage and load connections for RJ12 smart sensors models

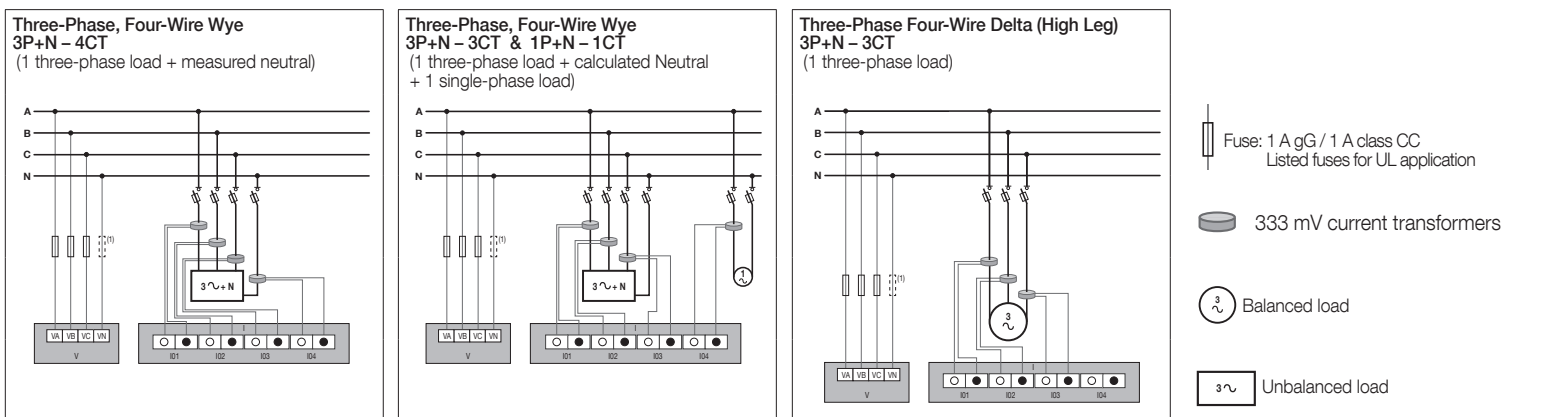
Each current input is independent: see below for some connection examples:



(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.



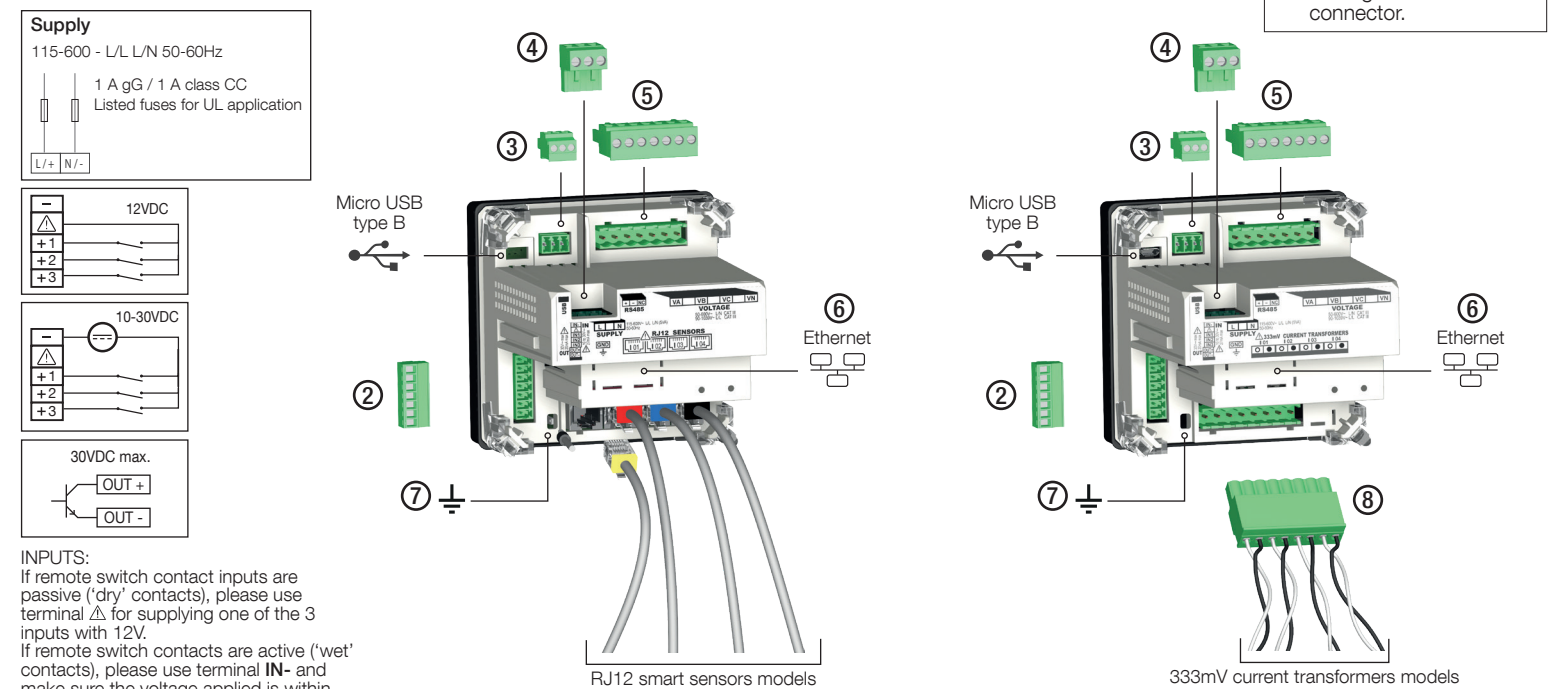
# Multi-function power and energy meter DIRIS A-100 / A-200



	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.

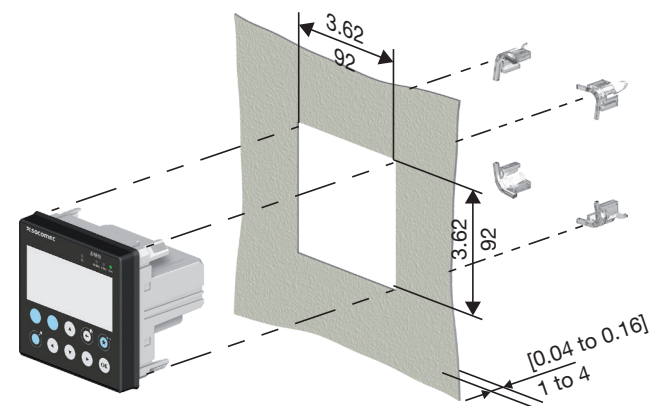
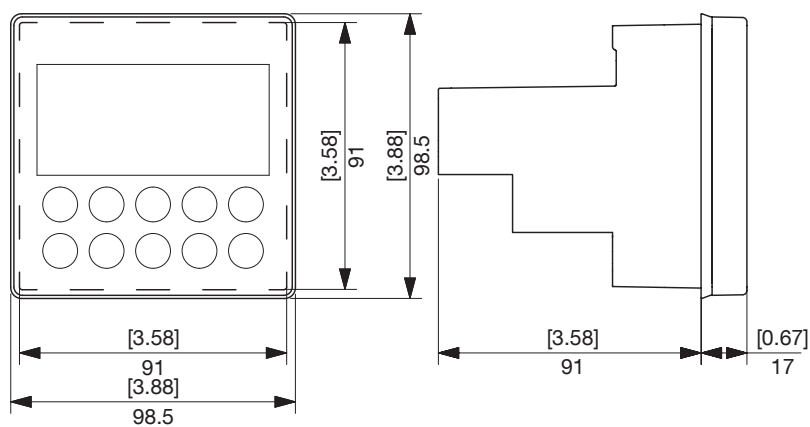
		Screw Torques
②	3x INPUT 12 to 24 VDC +/- 20% - 27 mA max. - SELV 1x OUTPUT 30 VDC max - 20 mA max. - SELV	x = 6 - 7 mm 24-15 AWG 0,2 to 1,65 mm² 0,147 lbf-in (0.2 Nm)
③	RS485 MODBUS RTU SELV	x = 6 - 7 mm 24-15 AWG 0,2 to 1,65 mm² 0,147 lbf-in (0.2 Nm)
④	SUPPLY 115-600 V- L/L L/N (7 VA) 50-60 Hz	x = 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.

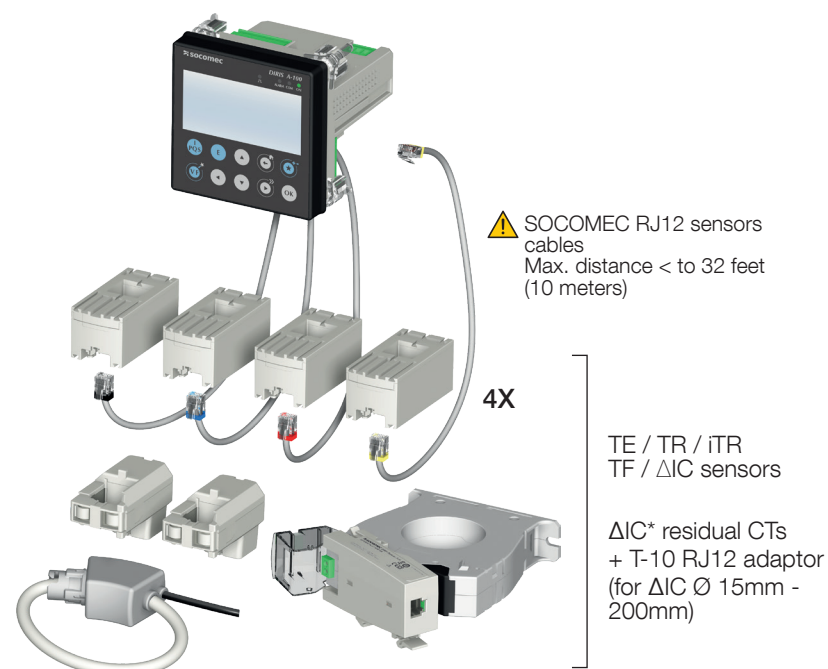


## 2 Dimensions [in]/mm and mounting

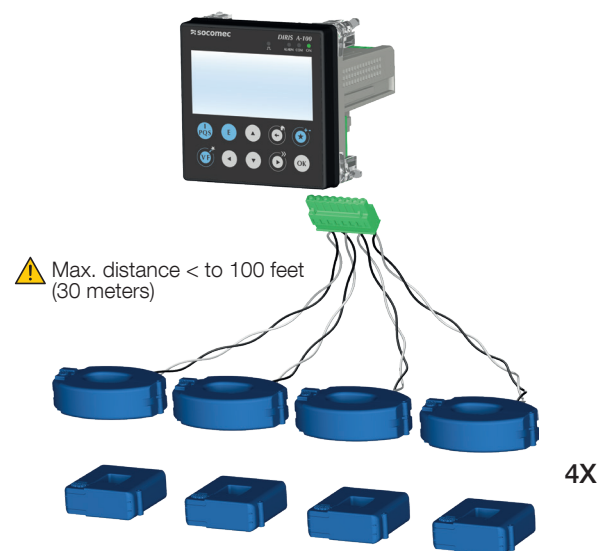


## 3 Sensors connection

### 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)

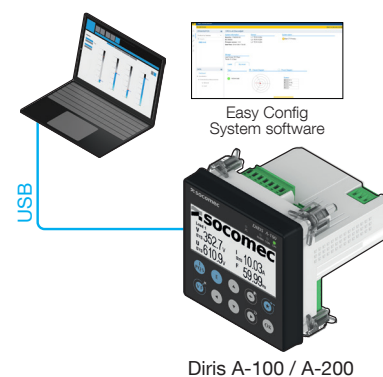
## 5 Technical characteristics

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	

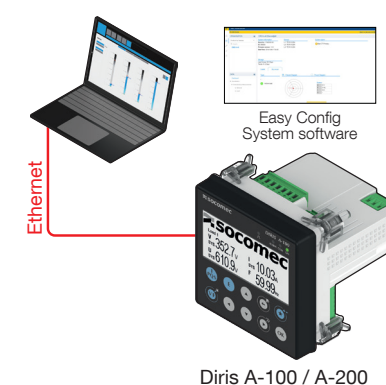
\* Front face only. The use of a silicone seal may be required to ensure sufficient sealing of the junction between DIRIS A-xxx display and the panel door.

## 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

