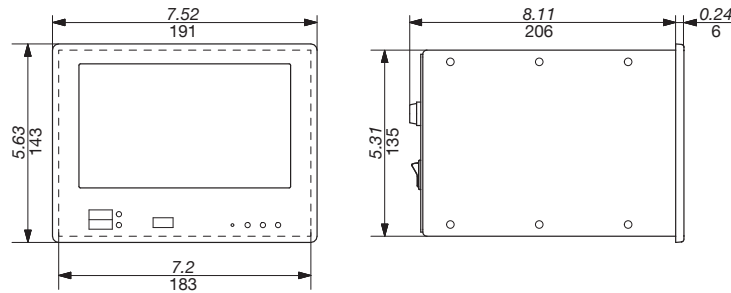


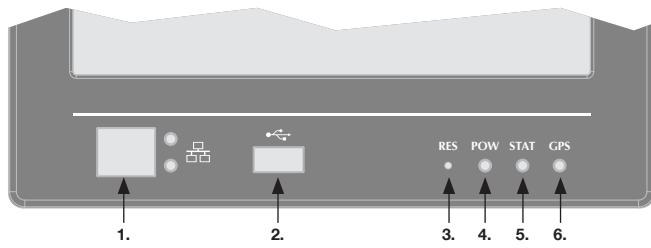




# 1 Dimensions in/mm

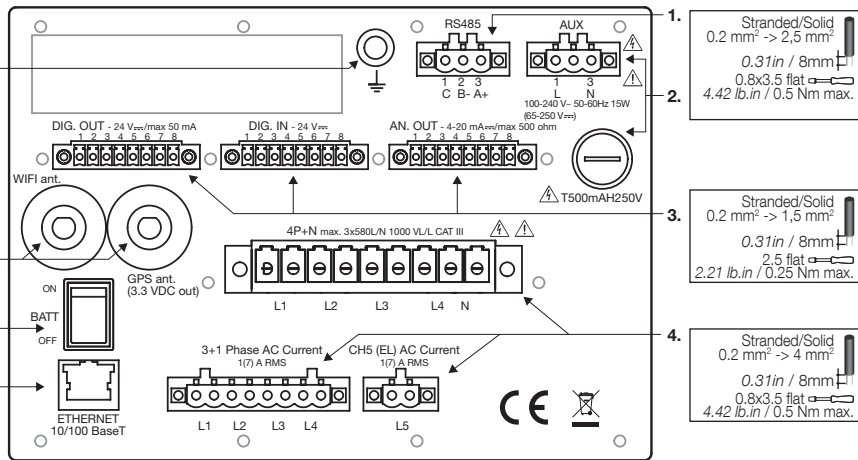


# 3

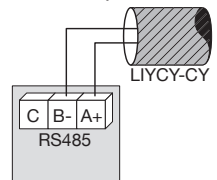


1. Front Ethernet port
2. USB host port
3. Set default/Reset button
4. LED auxiliary power supply status
5. LED instrument operating status
6. LED RTC synchro status with GPS

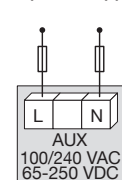
# 8



## 1. Communication via RS485 link SELV part



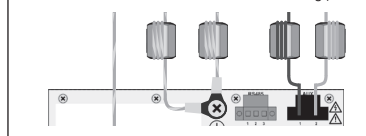
## 2. AC and DC auxiliary power supply



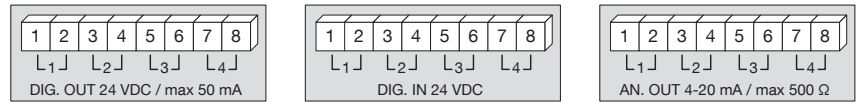
To fulfill the EMC requirements, install the included big ferrites at a maximum 5 cm distance from the device on connection cables of:

- Protective earth terminal
- Power supply terminal
- Current terminal (only CT instrument model)

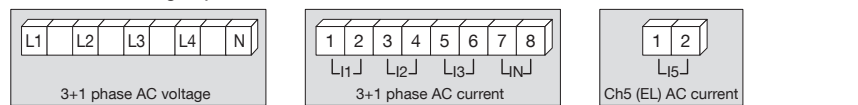
Make sure the cable is wound 3 turns inside the ferrite. If the cable length is not enough, use an extension cable of at least 40 cm about. Please refer to the following picture:



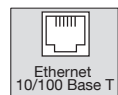
## 3. Digital / analogic outputs SELV parts (Safety extra low voltage)



## 4. Current and voltage inputs



## 5. Auto MDIX Ethernet port

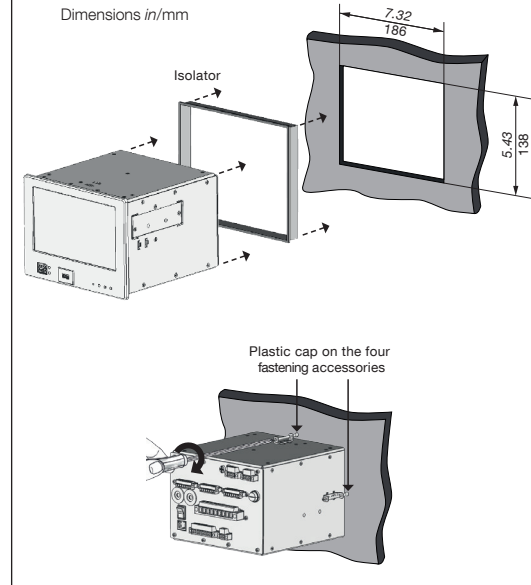


## 6. Battery switch

## 7. GPS and WIFI antenna

- ## 8. Earth connection
- ⚠ Connect the grounding cable to the instrument protective earth (M6) and fix the screw with locking washer.
  - ⚠ For direct current applications (VDC), do not connect the protective earth to the negative pole of the power supply terminal.

# 2 Mounting



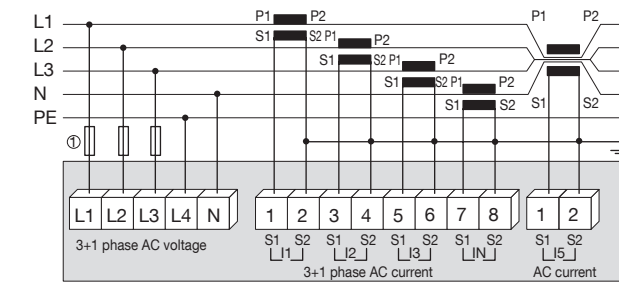
## Technical characteristics

| AUXILIARY POWER SUPPLY  |  |
|---|--|
| Auxiliary power voltage<br>Refer to the value indicated on the instrument | 100...240 VAC 50/60 Hz / 65...250 VDC  |
| Frequency   | 19...60 VDC on request   |
| Power consumption   | 50/60 Hz   |
| Backup battery  | Max. 15 VA   |
|   | Li-ion 2500 mAh  |
| MEASUREMENT INPUTS  |  |
| Direct voltage measurement input  | P-N: max 580 V RMS CAT III<br>L-L: max 1000 V RMS CAT III                      |
| U4 direct voltage measurement input                                       | Max 580 V RMS CAT III  |
| Voltage input crest factor  | 2  |
| Current inputs  | Max 7 A RMS  |
| Current input consumption   | 0.04 VA  |
| Current input crest factor  | 3  |
| Voltage input impedance   | > 6 MΩ   |
| Frequency range   | 42.5 to 57.5 Hz/51 to 69 Hz  |
| Voltage reference channel   | U1N/U12  |
| Sampling  | 51.2 kHz @50 Hz  |
| ACCURACY  |  |
| Three-phase voltage   | ± 0.1%   |
| 4 <sup>th</sup> voltage (neutral/earth)                                   | ± 0.2%   |
| Currents  | ± 0.2%   |
| Power   | ± 0.2%   |
| Frequency   | ± 10 mHz   |
| Harmonics   | Class 1 IEC/EN 61000-4-7   |
| Active energy   | Class 0.2S IEC/EN 62053-22   |
| Reactive energy   | Class 1 IEC/EN 62053-24  |
| COMMUNICATION   |  |
| Ethernet ports  | 2 Auto MDIX RJ45 10/100 Base Ethernet  |
| RS485 opto-insulated port (slave)   | 0.5 UL 2400 to 115200 bps  |
| Passive WIFI antenna  | SMA male connector   |
| Active GPS antenna  | SMA female connector   |
| Protocols   | HTTP, HTTPS, FTP, SFTP, NTP, NMEA, Modbus RTU/TCP, WPA, SMTP                   |
| USB port  | USB 2.0  |
| Instrument IP address   | 192.168.0.5  |
| Netmask   | 255.255.0.0  |
| Gateway IP address  | 192.168.0.1  |
| Administrator password  | Admin  |
| ENVIRONMENTAL CONDITIONS  |  |
| Operating temperature (max. range)  | - 25 °C to + 55 °C   |
| Storage temperature   | - 25 °C to + 75 °C   |
| Humidity  | Max. 95 %  |
| Max. altitude   | 2000 m   |
| STANDARDS AND SAFETY  |  |
| Product conformity  | IEC/EN 62586-1, IEC/EN 62586-2   |
| Safety  | Inputs measurement CATIII<br>Auxiliary power supply OVCIII, insulation class 2 |
| Degree of pollution   | 2 (EN 61010-1)   |
| Degree of protection  | IP40 front, IP20 rear  |
| Directive   | RED §3.1a Health EN 62311 :2008<br>RED §3.1b EMC                               |
| REFERENCE   |  |
| DIPIS Q800  | Ref. 4826 0100 <sup>(1)</sup>  |
| <sup>(1)</sup> Power supply 19...60 VDC; please contact us.               |  |

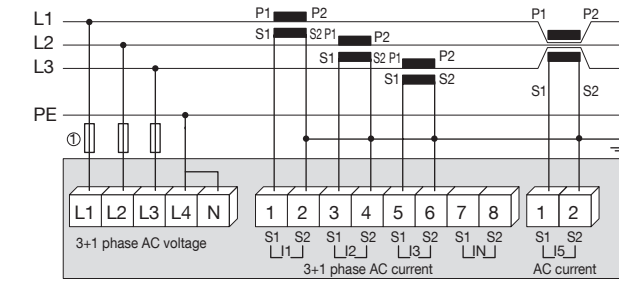
# 4

## 1. 0.5 A gG / 0.5 A class CC fuses.

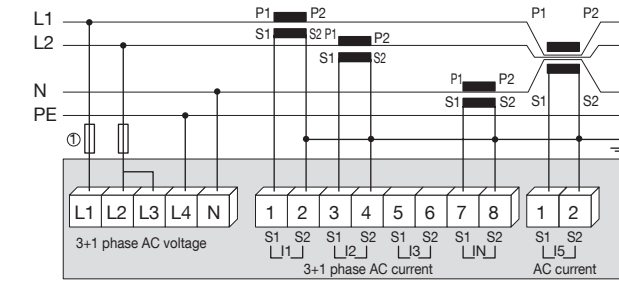
### Direct connection : 3 phases, 4 wires, 4 CT (3.4.4)



### Direct connection : 3 phases, 3 wires, 3 CT (3.3.3)

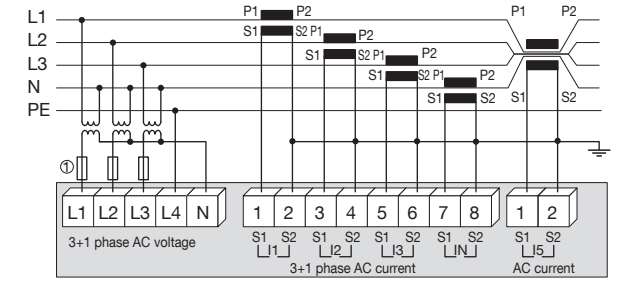


### Direct connection : 2 phases + neutral, 3 wires, 3 CT (2.3.3)

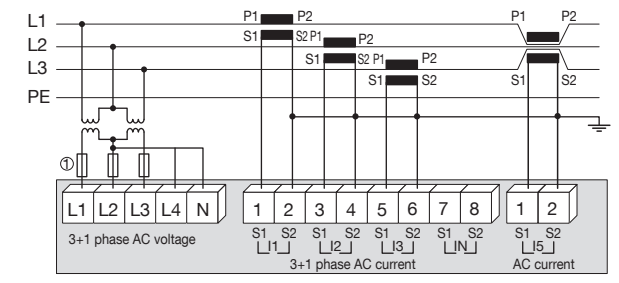


## 1. 0.5 A gG / 0.5 A class CC fuses.

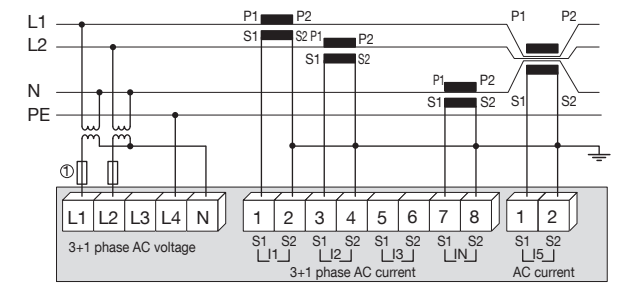
### Connection with VT : 3 phases, 4 wires, 4 CT (3.4.4)



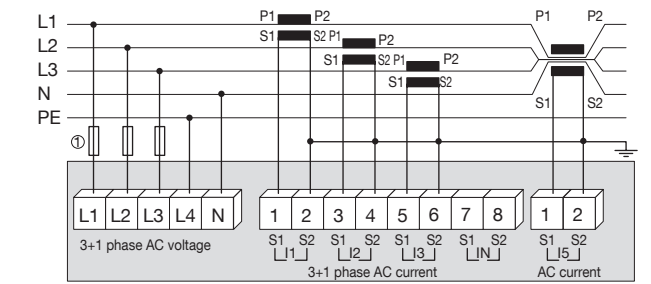
### Connection with VT : 3 phases, 3 wires, 3 CT (3.3.3)



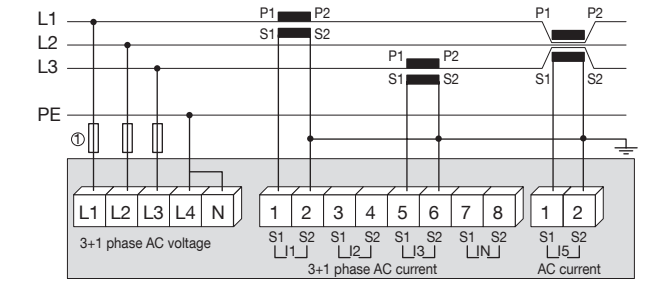
### Connection with VT : 2 phases + neutral, 3 wires, 3 CT (2.3.3)



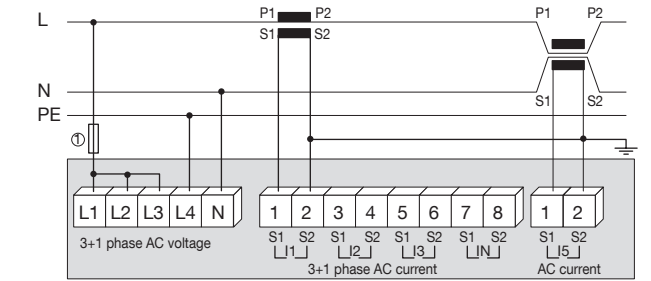
### Direct connection : 3 phases, 4 wires, 3 CT (3.4.3)



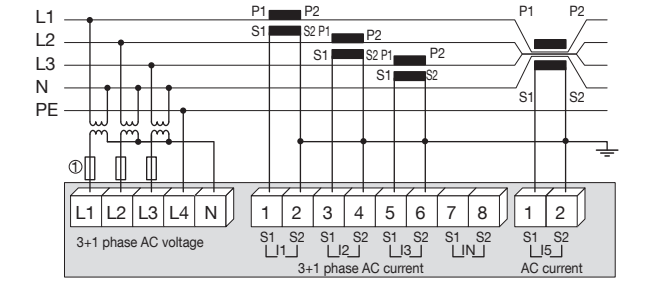
### Direct connection : 3 phases, 3 wires, 2 CT (3.3.2)



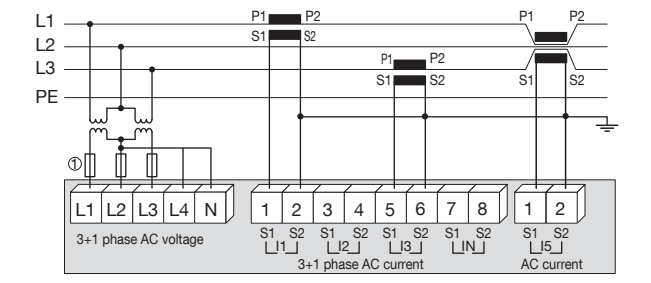
### Direct connection : 1 phase, 2 wires, 1 CT (1.2.1)



### Connection with VT : 3 phases, 4 wires, 3 CT (3.4.3)



### Connection with VT : 3 phases, 3 wires, 2 CT (3.3.2)



### Connection with VT : 1 phase, 2 wires, 1 CT (1.2.1)

