DIRIS Digiware S

Current measurement module with built-in sensors

for 3 circuits

new

diris-dw_127.psd

DIRIS Digiware S

Configuration with Easy Config System.

The solution for

- Data centres
- Healthcare

Strong points

- Plug & Play
- Multi-circuit
- Compact
- Accurate
- MID certified and much more

RJ45 (Digiware Bus) cables are available.

Integrated technologies

PreciSense AutoCorrect VirtualMonitor

For further information, please visit our website www.socomec.com

Conformity to standards

- IEC 61557-12
- - UL 61010 Guide FTRZ/PICQ File E257746
- ANSI C12.20
- EN 50470-1
- EN 50470-3
- Directive 2014/32/EU

Also available

DIRIS Digiware BCM

In 18 or 21 circuit versions for monitoring power distribution units (PDUs).

Function

DIRIS Digiware S current acquisition modules have 3 built-in current sensors for measuring electrical circuits up to 63 A.

Positioned directly on or under the protection devices, they work with the DIRIS Digiware U voltage measurement module to measure consumption, and monitor the electrical installation and power supply quality.

Advantages

Plug & Play

- Saves wiring time: current sensors are built in to the module.
- Quick RJ45 connection between modules.
- Positioning possible upstream or downstream of the protection device.

Multi-circuit

Many S-modules can be used in a measuring system for measuring a large number of loads.

Compact

- A measurement module offering the best compactness/performance ratio on the market.
- Matches the pitch of the protection device.

Accurate

DIRIS Digiware S modules offer class 0.5 (IEC 61557-12) and class C (EN 50470) accuracy, enabling accurate measurements over a wide current range.

MID certified and much more

The Digiware DIRIS S-130MID and S-135MID current modules comply with the MID directive, ensuring accurate and reliable metering. The "B+D module" certification means that an external laboratory has certified the design of the meter and its production process.

They are also equipped with innovative features that go beyond the usual practices found in the market:

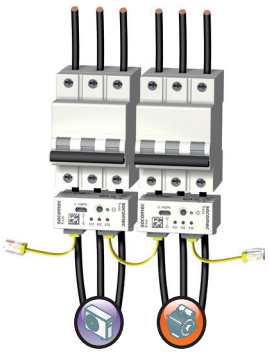
- Innovative tamper-resistance systems: the MID modules have a smart alarm system that is more effective than the standard mechanical seals offered by MID meters.
- Built-in PreciSense Technology: MID modules have a Class C energy measurement accuracy, the most accurate class according to the MID directive.
  In addition, as with any DIRIS Digiware system, the PreciSense technology offers the best accuracy on the market across the entire overall chain.

General characteristics

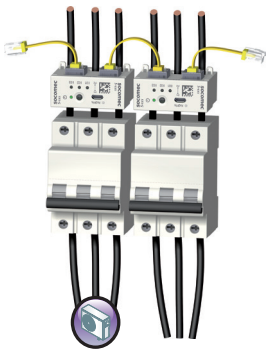
- 3 built-in current sensors.
- Measurement up to 63 A.
- Configurable as 3 single-phase circuits or 1 three-phase circuit.

Functional diagram

Upstream



Downstream



The DIRIS Digiware S measurement module solves space constraints inside electrical panels, by being mountable upstream or downstream of the protection device.

Application	Current measurement module with built-in sensors			
	Metering		Analysis	
				
DIRIS Digiware S	***S-130***	***S-130MID***	***S-135***	***S-135MID***
Number of current inputs	3	3	3	3
Basic current I_b	10 A	10 A	10 A	10 A
Maximum current I_{max}	63 A	63 A	63 A	63 A
Load type accepted	1P + N 2P / 2P + N 3P / 3P + N	1P + N 2P / 2P + N 3P / 3P + N	1P + N 2P / 2P + N 3P / 3P + N	1P + N 2P / 2P + N 3P / 3P + N
Metering				
±kWh, ±kVArh, kVAh	•	•	•	•
Multi-tariff (max 8)			•	•
Load curves			•	•
MID		•		•
Multi-measurement				
I1, I2, I3, In, ΣP, ΣQ, ΣS, ΣPF	•	•	•	•
P, Q, S, PF per phase			•	•
Predictive power			•	•
Current unbalance (Inba, Inb, Idir, Iinv, Ihom)			•	•
Phi, cos Phi, tan Phi			•	•
Quality				
THDi1, THDi2, THDi3, THDin			•	•
Individual harmonics I (up to 63rd)			•	•
Crest factors U, V, I			•	•
K factor			•	•
Overcurrents			•	•
Alarms				
Thresholds and combinations			•	•
Connection errors			•	•
Protection alarms	•	•	•	•
Trends				
Average values			•	•
Format				
Width	54 mm	54 mm	54 mm	54 mm

To comply with the MID directive, the DIRIS Digiware system must have a D-50/D-70 display.

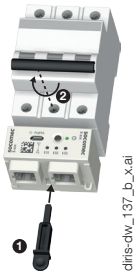
DIRIS Digiware S

AC current measurement module

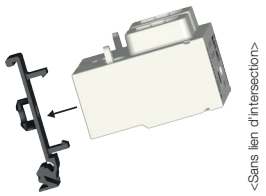
for 3 circuits

Mounting accessories

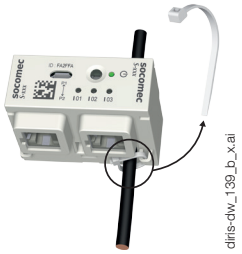
Temporary circuit breaker mounting



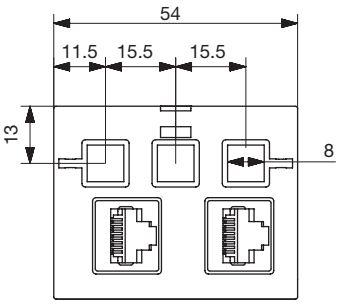
DIN-rail and backplate mounting

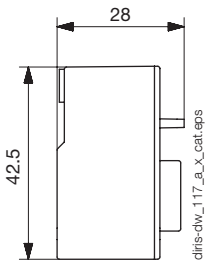


Use of cable ties



Dimensions (mm)

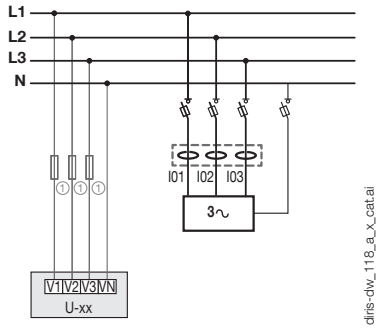




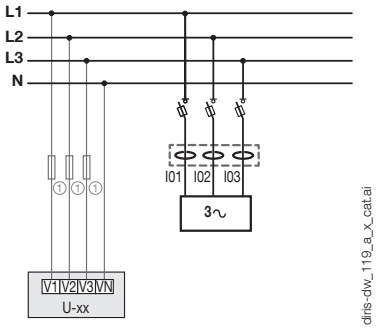
Connections

Current is measured by inputs I01, I02 and I03 built in to the DIRIS Digiware S module.

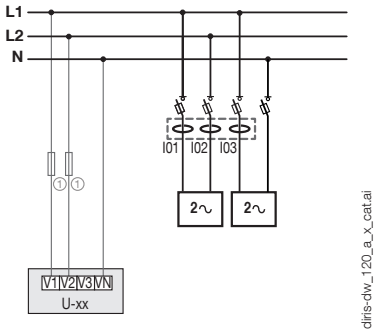
3P+N - 3CT



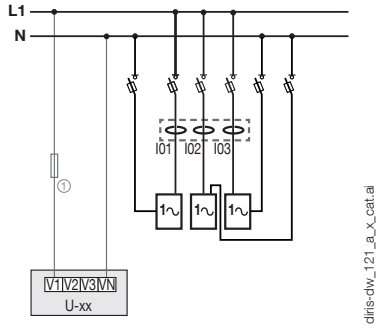
3P - 3 CT



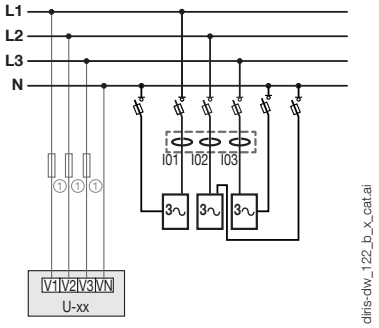
2P+N - 2CT & 2P+N - 1CT



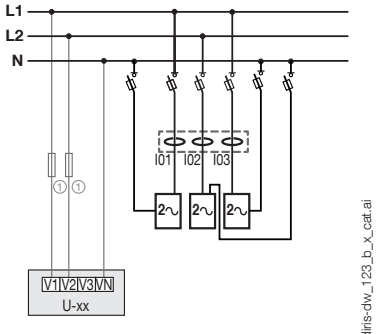
1P+N - 1 CT (3x)



3P+N - 1CT (3x)



2P+N - 1CT (3x)



DIRIS Digiware S | 3 Load | Fuses: 0.5 A gG/BS 88 2 A gG/0.5 A class CC

socomec Innovative Power Solutions

Technical characteristics

Measurement characteristics

Current measurement	
Number of current inputs	3
Associated current sensors	Integrated in the product
Basic current Ib	10 A
Maximum current I_{max}	63 A
Current measurement accuracy	Class 0.5
Energy measurement	
Active energy accuracy	Class 0.5 (IEC 61557-12) / Class C (EN 50470)
Reactive energy accuracy	Class 1 IEC 61557-12

Mechanical characteristics

Case type	Modular for DIN-rail and backplate mounting
Case Ingress Protection rating	IP20/IK08
Weight	63 g
Module power consumption	0.35 VA

Communication characteristics

Digiware Bus	
Function	Connection between DIRIS Digiware S, U, I modules and system interfaces
Cable type	Specific Socomec cable with RJ45 connections
USB	
Protocol	MODBUS RTU over USB
Function	Configuration of DIRIS Digiware modules
Location	On each DIRIS Digiware module
Connection	Type B micro USB connector

Environmental characteristics

Ambient operating temperature	-10 … +55 °C
Storage temperature	-25 … +70 °C
Operating humidity	40 °C/95% RH
Operating altitude	< 2000 m

References

DIRIS Digiware S		Reference
S-130	Metering - 3 integrated current inputs	4829 **0160**
S-130MID	Metering - 3 integrated current inputs + MID	4829 **0163**
S-135	Analysis - 3 integrated current inputs	4829 **0161**
S-135MID	Analysis - 3 integrated current inputs + MID	4829 **0164**
Accessories		**Reference**
DIN-rail and backplate mounting clip (x10)		4829 **0195**
Circuit-breaker mounting accessory (x10)		4829 **0196**

To comply with the MID directive, the DIRIS Digiware system must have a D-50/D-70 display.

Digiware connection cables		Reference
RJ45 cables for Digiware Bus	Length 0.06 m(1)	4829 **0189**
	Length 0.10 m	4829 **0181**
	Length 0.20 m	4829 **0188**
	Length 0.50 m	4829 **0182**
	Length 1 m	4829 **0183**
	Length 2 m	4829 **0184**
	Length 3 m	4829 **0190**
	Length 5 m	4829 **0186**
	Length 10 m	4829 **0187**
	50 m reel + 100 connectors	4829 **0185**
Termination for Digiware Bus (supplied with interfaces C and D)		4829 **0180**
USB configuration cable		4829 **0050**

(1) The 6 cm RJ45 cables can be used on 3-pole or 4-pole protection devices.

Expert Services

EXPERT SERVICES

Socomec offers a wide range of services to continuously ensure a functional and accurate energy monitoring system:

- Device integration
- System audit
- Commissioning
- Training for your teams

Ideal for ISO 50001 sites (periodic verification):

- Measurement consistency check to 3%
- Measurement accuracy check to 0.2%

For further information, please talk to your Socomec contact.