



DIRIS Digiware I

Current acquisition modules



DIRIS Digiware I-3x

DIRIS Digiware I-4x

DIRIS Digiware I-6x

The solution for

- > Industry
- > Building
- > Infrastructure
- > Data center



Strong points

- > Multi-circuit
- > Plug and Play
- > Compact
- > High-precision measurement chain

Integrated technologies



Conformity to standards

- > UL 61010 guide PICQ file E257746
- > IEC 61557-12
- > ISO 14025



Create your project



Configuration with EasyConfig.

Function

DIRIS Digiware I modules measure consumptions and monitor the system at the closest point to the loads. The flexibility of these modules allow you to allocate the loads to be measured or monitored through independent current inputs.

For example:

- 1 three-phase load,
- 3 single-phase loads.









The RJ45 and RJ12 connections allow you to connect modules very quickly and to automatically configure connected current sensors:

- communication address,
- load type,
- sensor type and ratio,
- automatic rating detection and verification of current flow direction.

Wiring errors are also prevented and installation is simplified.

Advantages

- RJ45 and RJ12 rapid connection.
- Available with 3, 4 or 6 inputs.
- Single-output or multi-output for maximum optimization of the number of products.
- Compact format: 1 or 2 modules sized for integration at the closest point to the loads.
- A complete, dedicated solution:
 - metering,
 - monitoring,
 - quality analysis.
- Better than revenue grade.
- Compliant with standard ANSI C12.20 and IEC 61557-12 standards, guaranteeing the quality and accuracy of the system:
 - Class 0.2 for the meter alone
 - Class 0.5 from 2% to 120% of the rated current (full scale), for the global measurement chain (with TE/ITR/ TF current sensors)

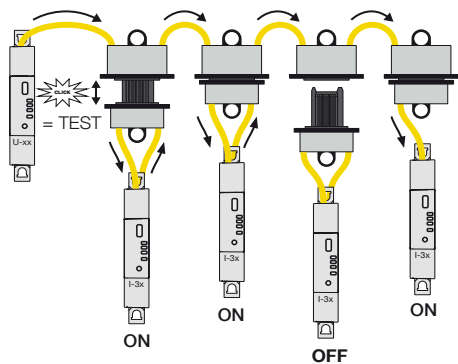
Application	Current measurement modules							
	Metering		Monitoring	Analysis	Monitoring	Analysis	Metering	
<i>DIRIS Digiware I</i>								
	<i>I-30</i>	<i>I-31</i>	<i>I-33</i>	<i>I-35</i>	<i>I-43</i>	<i>I-45</i>	<i>I-60</i>	<i>I-61</i>
Number of current inputs	3	3	3	3	4	4	6	6
Metering								
± kWh, ± kvarh, kVAh	•	•	•	•	•	•	•	•
Demand profiles		•		•		•		•
Multi-tariff		•		•		•		•
Multi-measurement								
I1, I2, I3, In, ΣP, ΣQ, ΣS, ΣPF	•	•	•	•	•	•	•	•
P, Q, S, PF per phase			•	•	•	•		
Predictive power				•		•		
Current unbalance (Inba, Idir, Iinv, Ihom, Inb)				•		•		
Phi, cos Phi, tan Phi				•		•		
Quality								
THDi1, THDi2, THDi3, THDin			•	•	•	•		
Individual harmonics I (up to 63 rd)				•		•		
Overcurrents				•		•		
Alarms								
On threshold				•		•		
Inputs/outputs					2/2	2/2		
History								
Average values				•		•		
Format								
Width/number of modules	0.71 in / 1	0.71 in / 1	0.71 in / 1	0.71 in / 1	1.06 in / 1.5	1.06 in / 1.5	1.42 in / 2	1.42 in / 2

Accessories

Digiware plug-in connector

With the Digiware plug-in connector you can disconnect a DIRIS Digiware module from the Bus while ensuring the DIRIS Digiware system continues to run downstream.

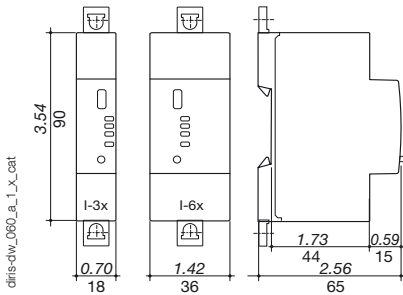
This accessory is particularly useful in applications with retractable drawers or critical applications such as data centers.



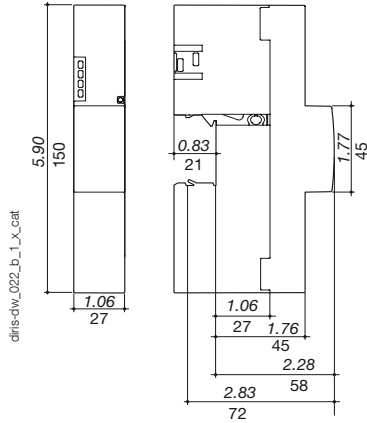
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Dimensions (in/mm)

DIRIS Digiware I-3x / I-6x



DIRIS Digiware I-4x



Connections

Associated current sensors

Various types of current sensors are connected to the DIRIS Digiware: closed (TE), split core (TR/ITR) or flexible (TF). This range of sensors can be adapted to all types of new or existing installations. A rapid RJ12 connection makes wiring easy, reliable, and error-free. The DIRIS Digiware system automatically recognizes the sensor size and type. This guarantees the overall accuracy of the DIRIS Digiware + current sensor measurement chain.

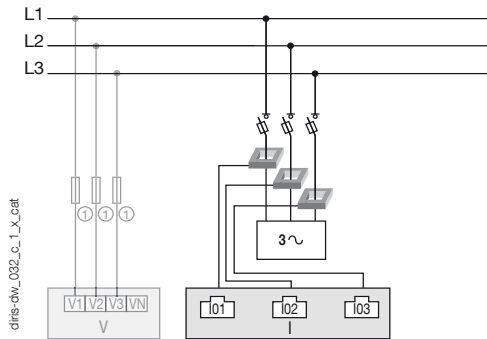
For more information see "TE, TR and TF sensors" pages.

Network and connection examples

I-3x

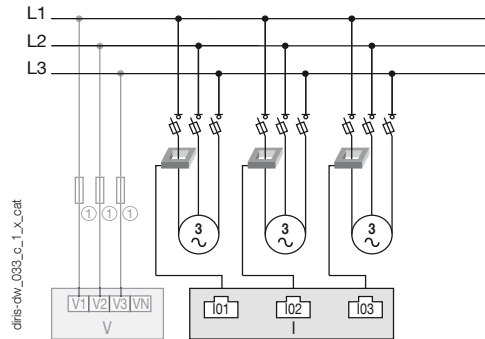
Three-phase

3P - 3CT (1 three-phase load)



Three-phase

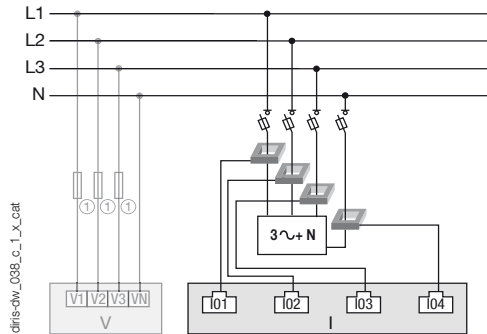
3P - 1CT (3 balanced, three-phase loads)



I-4x

Three phase + neutral

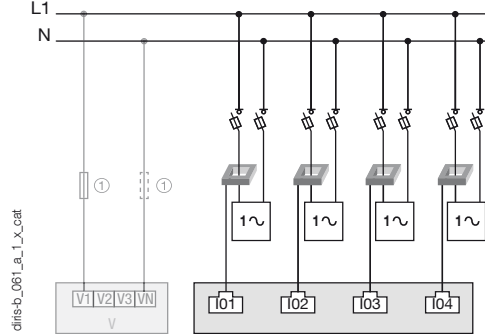
3P+N - 4CT (1 three-phase load + Neutral measured)



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

Single-phase

1P+N-1CT (4 single-phase loads)



CT: Current sensor 3~ Load

Specifications

Measuring characteristics

Current measurement - DIRIS Digiware I	
Number of current inputs	I-3x: 3 / I-45: 4 / I-6x: 6
Associated current sensors	Solid TE, split-core TR/ITR, flexible TF current sensors
Accuracy of current measurement	0.2 DIRIS Digiware class only Class 0.5 with TE, ITR or TF sensors Class 1 with TR sensors
Connection	Specific Socomec cable with RJ12 connectors

Inputs - DIRIS Digiware I-45	
Number of inputs	2
Type / Power supply	Non-insulated input, internal polarisation 12 VDC max, 1mA
Input functions	Logical status, pulse meter, multi-tariff
Connection	Removable screw terminal block, stranded or solid AWG 15 to AWG 35 or 0.14-1.5 mm ² cable

Outputs - DIRIS Digiware I-45	
Number of outputs	2
Relay type	230 VAC ±15 % - 1 A 30 VDC - 3 A
Function	Configurable alarm (current, power, etc.) when a threshold is exceeded or remote controlled status
Connection	Removable screw terminal block, stranded or solid AWG 10 to AWG 32 or 0.2-2.5 mm ² cable

Communication specifications

USB	
Protocol	Modbus RTU on USB
Function	Configuration of DIRIS Digiware U and I modules
Location	On each DIRIS Digiware U and I measurement module
Connection	Type B micro USB connector

References

DIRIS Digiware		Reference
I-30	Metering - 3 current inputs	4829 0110
I-31	Metering + demand profiles - 3 current inputs	4829 0111
I-33	Monitoring - 3 current inputs	4829 0128
I-35	Analysis - 3 current inputs	4829 0130
I-43	Monitoring - 2 inputs/ 2 outputs - 4 current inputs	4829 0129
I-45	Analysis - 2 inputs/ 2 outputs - 4 current inputs	4829 0131
I-60	Metering - 6 current inputs	4829 0112
I-61	Metering + demand profiles - 6 current inputs	4829 0113
Accessories		Reference
Digiware x 5 plug-in connector		4829 0605

Digiware connection cables		Reference
RJ45 cables for Digiware Bus	Length 0.20 feet / 0.06 m ⁽¹⁾	4829 0189
	Length 0.32 feet / 0.10 m	4829 0181
	Length 0.64 feet / 0.20 m	4829 0188
	Length 1.64 feet / 0.50 m	4829 0182
	Length 3.28 feet / 1 m	4829 0183
	Length 6.56 feet / 2 m	4829 0184
	Length 16.4 feet / 5 m	4829 0186
	Length 32.8 feet / 10 m	4829 0187
164 feet / 50 m reel + 100 connectors		4829 0185
Termination for Digiware Bus (supplied with interfaces C and D)		4829 0180
USB configuration cable		4829 0050



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