



# DIRIS Digiware Idc

## Direct current acquisition module

Multi-circuit metering & measurement



DIRIS Digiware I-30dc/I-35dc

diris-dw\_085.eps



Configuration with Easy Config System.

### Function

DIRIS Digiware Idc modules measure consumption and monitor the DC electrical installation. Several Idc modules can be used within the same system, allowing the measurement of a large number of DC circuits. They are associated with DIRIS Digiware Udc voltage measurement modules.

Direct current is measured using external sensors connected by RJ12-Molex cables, available in multiple lengths. These cables are colour coded (brown, orange, white) to easily identify circuits.

### Advantages

#### Multi-circuit

- Measurement of up to 3 DC circuits per Idc module.
- Multiple Idc modules can be included. This allows the measurement of a large number of DC loads simultaneously.

#### Flexible

- Adapted to suit metering and quality analysis of the direct current.
- A complete range of solid core and split core DC current sensors from 50 to 5000 A.

The associated DIRIS Digiware D screen and the embedded webserver Webview can display electrical measurements from both DIRIS Digiware AC and DC systems simultaneously.

#### Plug & Play

- Quick RJ45 connection between modules and RJ12-Molex to current sensors.
- Easy to configure from DIRIS Digiware D interfaces or from the Easy Config software.

#### Compact

One module wide to address space constraints inside electrical panels.

### The solution for

- > Data centre
- > Telecommunication
- > Renewable power
- > Transportation



### Strong points

- > Multi-circuit
- > Plug & Play
- > Flexible
- > Compact



RJ45 (Digiware Bus) cables are available.

### Compliance with standards

- > IEC 61557-12





- > ISO 14025



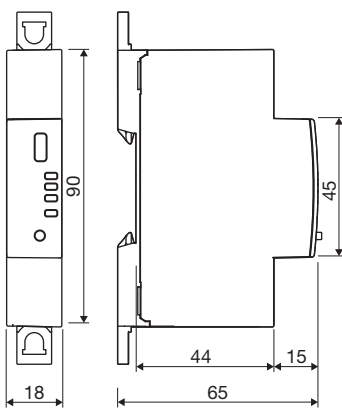
- > UL E257746



Application	Direct current (DC) measurement modules	
		
<b>DIRIS Digiware Idc</b>	<b>I-30dc</b>	<b>I-35dc</b>
Number of current inputs	3	3
Metering		
± kWh	•	•
Load curves		•
Multi-measurement		
DC current (I DC)	•	•
DC power (P DC)	•	•
Predictive power		•
Measurement of current quality		
I ripple (current ripple)		•
I rms		•
Alarms		
Thresholds and combinations		•
Trends		
Average values		•
Format		
Width/number of modules	18 mm / 1	

## Dimensions (mm)

DIRIS Digiware Idc

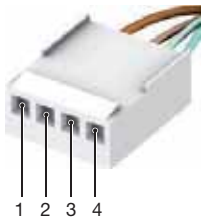
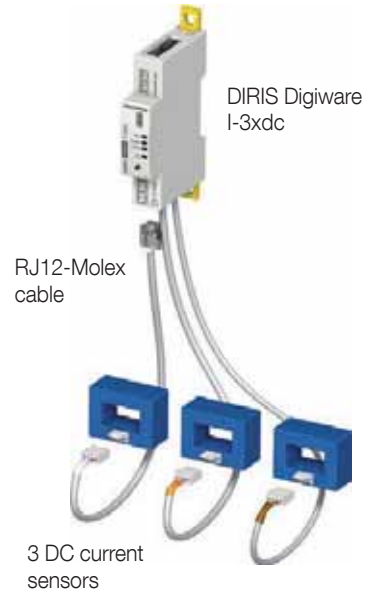


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## Connections

DC current is measured by external sensors connected to the DIRIS Digiware I-3xdc modules via RJ12-Molex cables. Connection of the current sensors is quick and error-free. A wide range of current sensors is available from Socomec to suit all installations and applications including split-core current sensors for retrofit applications.

- Open-loop Hall effect sensors
- Solid core or split core.
- Power supply voltage:  $\pm 15$  V.
- Power supply current:  $\pm 25$  mA depending on sensor.
- Output voltage:  $\pm 4$  V.
- 4-point male Molex terminal strip.
- Measuring range: 16 to 6000 A.
- Category III overvoltage.

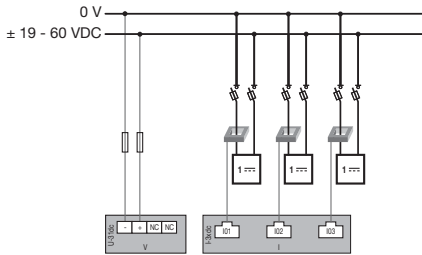


- PIN 1: + 15 V (+ Vc)
- PIN 2: - 15 V (- Vc)
- PIN 3: sensor input (M)
- PIN 4: 0 V sensor (0)

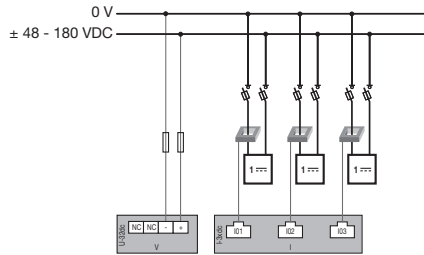
## Network and connection examples

### Measurement of 3 DC loads

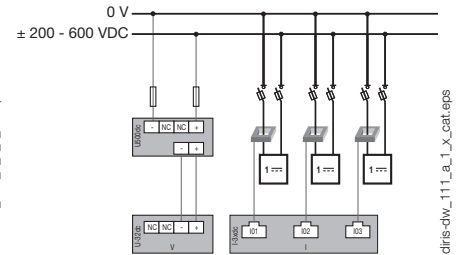
DIRIS Digiware U-31dc  
Voltage (VDC): 19 - 60 V



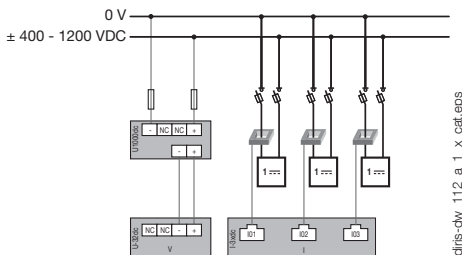
DIRIS Digiware U-32dc  
Voltage (VDC): 48 - 180 V



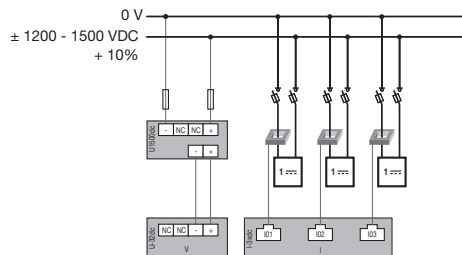
DIRIS Digiware U-32dc + adaptor U500dc  
Voltage (VDC): 200 - 600 V



DIRIS Digiware U-32dc + adaptor U1000dc  
Voltage (VDC): 400 - 1200 V



DIRIS Digiware U-32dc + adaptor U1500dc  
VDC voltage: 1200 - 1500 V +10%



1. Fuse: 2A gPV  DC current sensor  DC load 

## Technical characteristics

### Measurement characteristics

DC current measurement - DIRIS Digiware Idc	
Number of current inputs	3
Associated current sensors	Open-loop Hall effect
Accuracy of current measurement	Class 0.5
Precision measurement of power and energy	With U-31dc/U-32dc only: class 1 With U-32dc + adaptor: class 2
Connection	Specific Socomec cable with RJ12-Molex connectors
Power consumption of module	2 VA

### Mechanical features

Casing type	DIN-rail mounting module and base
Casing protection index	IP20 / IK06
Front panel protection index	IP40 front face in modular assembly / IK06
Weight	69 g

### Environmental specifications

Ambient operating temperature	-10 to +70°C
Storage temperature	-25 to +70°C
Operating humidity	55 °C / 97% HR
Operating altitude	< 2000 m

### 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
Digiware bus	
Function	Connection between DIRIS Digiware modules
Cable type	Specific Socomec cable with RJ45 connections

## References

DIRIS Digiware I-3xdc		Reference
I-30dc	Metering - 3 current inputs	4829 0156
I-35dc	Analysis - 3 current inputs	4829 0157
RJ12-Molex cables		
Number of cables	Length of cables	Reference
3	0.3 m	4829 0782
3	0.5 m	4829 0783
3	1 m	4829 0784
3	2 m	4829 0785
1	5 m	4829 0786

Digiware connection cables		Reference
RJ45 cables for Digiware Bus	Length 0.06 m	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
	Reel 50 m + 100 connectors	4829 0185
Termination for Digiware Bus (supplied with interfaces C and D)		4829 0180
USB configuration cable		4829 0050

## Expert Services

### Do you require services for your metering system?

No problem for our "Expert Services" team. They will fully integrate all your Socomec devices, **audit** your system, **commission** selected equipment and **train** your staff on its use.

For further information, please contact your nearest Socomec branch.