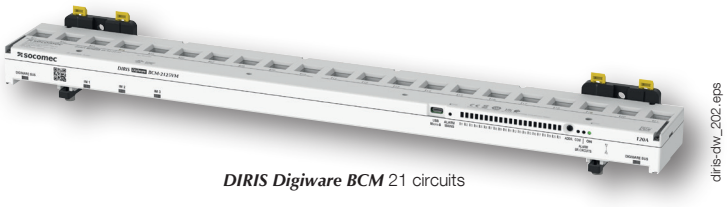
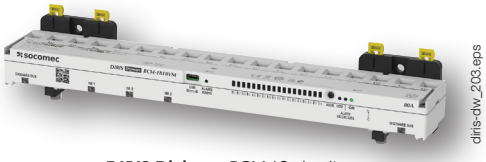
DIRIS Digiware BCM

Current measurement module for power distribution units (PDU) for 18 or 21 circuits



DIRIS Digiware BCM 21 circuits



DIRIS Digiware BCM 18 circuits

Function

The DIRIS Digiware BCM is a multi-circuit current measurement module with 18 or 21 built-in sensors, enabling monitoring of all types of power distribution units (PDUs).

These modules are also equipped with three RJ12 channels that can be connected to TE/TR/iTR/TF current sensors using RJ12 cables and to various ΔIC residual CTs.

Advantages

3x faster to install than standard solutions

- The built-in current sensors do not require any wiring, but are built in to the module.
- Quick RJ45 connection between modules.
- RJ12 connection for external current sensors.
- Integrated AutoCorrect technology that provides automatic wiring check and an off-load error correction function.

2x faster to configure than standard solutions

Easy Config System Software – supplied free of charge – makes it easy to configure multiple identical distribution panels with a “duplication” function and also provides time-saving configuration templates that enable the initial design to be adapted with ease.

Minimal footprint

- No additional central unit required – and therefore less wiring needed.
- VirtualMonitor technology indicating the status of the protection elements eliminates the need to install auxiliary contacts.
- - Connection to TE/TR/iTR/TF current sensors and ΔIC residual CTs to combine monitoring of power consumption and residual current.

Maximum reliability

- A robust plastic case protects the electronic components and reduces the risk of breakage. Since it is not a simple circuit board, the module can therefore be handled without risk.
- PreciSense technology ensures accurate and reliable measurements over a wide measurement range: class 0.5 accuracy for active energy according to IEC 61557-12 and ANSI C12.20 standards.
- Integrated VirtualMonitor technology for accessing protection device monitoring across the entire electrical installation, both remotely and in real time.

General characteristics

- 18/21 built-in current sensors.
- Measurement up to 120 A.
- Configurable for 18/21 single-phase circuits or 6/7 three-phase circuits.

The solution for

> Data centres

Strong points

> 3x faster to install than standard solutions
> 2x faster to configure than standard solutions
> Minimal footprint
> Maximum reliability

Conformity to standards

> IEC 61557-12

> UL 61010
Guide FTRZ/PICQ
File E257746*

> ANSI C12.20

**for DIRIS Digiware BCM-21xx models only.*

Integrated technologies

PreciSense AutoCorrect VirtualMonitor

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

Expert Services

Need help incorporating this system into your network?
No problem for our “Expert Services” team. They will fully integrate all your SOCOMEC devices, audit your system, commission your equipment and train your staff in its use. For further information, please contact your nearest SOCOMEC branch.

DIRIS Digiware BCM

Current measurement module for power distribution units (PDU)

for 18 or 21 circuits

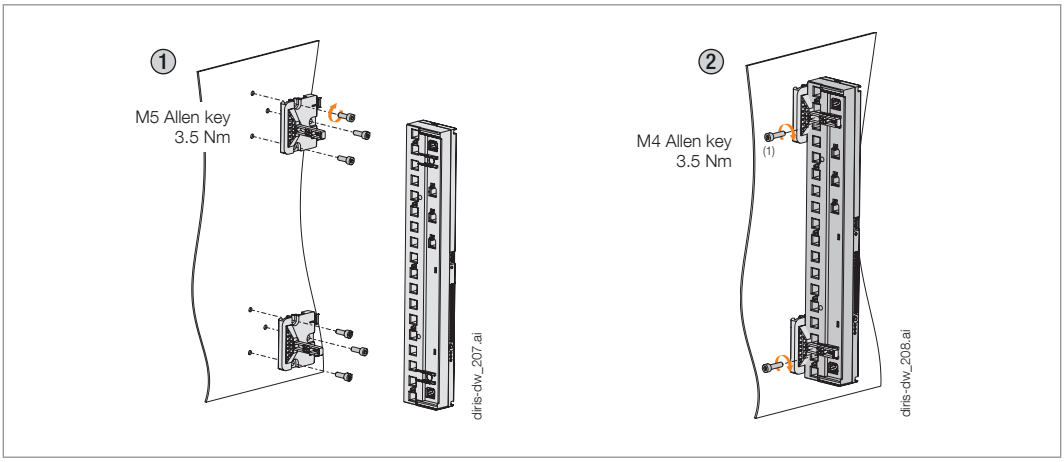
DIRIS Digiware BCM	BCM-1818	BCM-1818VM	BCM-2119	BCM-2119VM	BCM-2125	BCM-2125VM
						
Number of current inputs	18 + 3x RJ12	18 + 3x RJ12	21 + 3x RJ12	21 + 3x RJ12	21 + 3x RJ12	21 + 3x RJ12
Nominal current / Maximum current Imax	32...63 A/80 A	32...63 A/80 A	32...63 A/80 A	32...63 A/80 A	40...100 A/120 A	40...100 A/120 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	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 / Demand profiles	•	•	•	•	•	•
Multi-measurement						
I1, I2, I3, In, ∑P, ∑Q, ∑S, ∑PF	•	•	•	•	•	•
P, Q, S, FP per phase	•	•	•	•	•	•
Predictive power	•	•	•	•	•	•
Current unbalance (Inba, Idir, Iinv, Ihom, Inb)	•	•	•	•	•	•
Phi, cos Phi, tan Phi	•	•	•	•	•	•
Power quality						
THDi1, THDi2, THDi3, THDin, THD Isys	•	•	•	•	•	•
Individual harmonics I (up to 63rd)	•	•	•	•	•	•
Crest factor I1, I2, I3	•	•	•	•	•	•
Overcurrent	•	•	•	•	•	•
Alarms						
Thresholds	•	•	•	•	•	•
Load levels	•	•	•	•	•	•
System alarms	•	•	•	•	•	•
Protection alarms	•	•	•	•	•	•
Protection counters	•	•	•	•	•	•
Logical combination of alarms	•	•	•	•	•	•
Trends						
Average values	•	•	•	•	•	•
Advanced functions						
VirtualMonitor technology		•		•		•
AutoCorrect technology	•	•	•	•	•	•
Earth leakage monitoring	•	•	•	•	•	•
Format						
Pitch	18 mm	18 mm	19 mm	19 mm	25 mm	25 mm
Width	324 mm	324 mm	400 mm	400 mm	533.5 mm	533.5 mm

DIRIS Digiware BCM

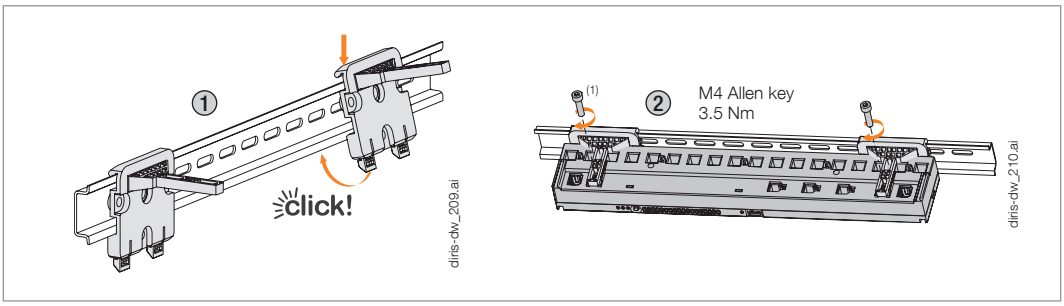
Current measurement module for power distribution units (PDU)
for 18 or 21 circuits

Mounting accessories

Back-plate mounting



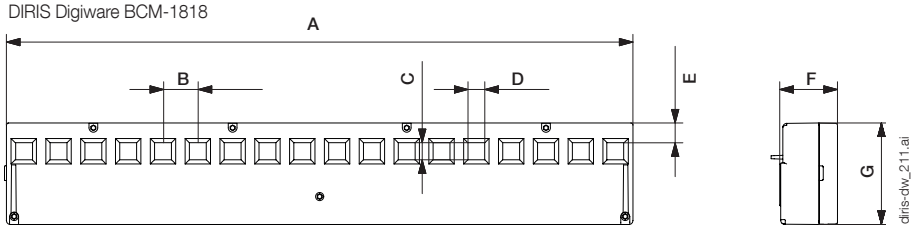
DIN-rail mounted



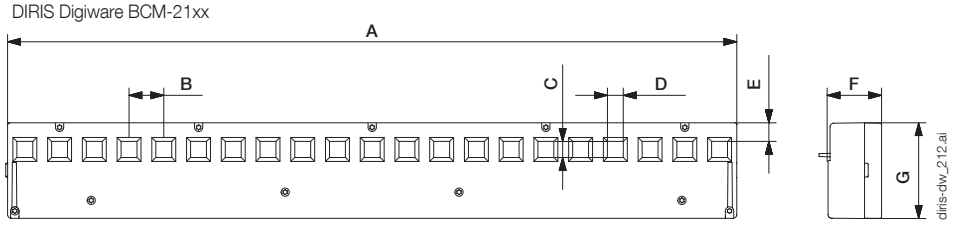
(1) DIRIS Digiware BCM modules are supplied with 2 mounting brackets and 2 CHC M5 x 20 screws.

Dimensions (in/mm)

DIRIS Digiware BCM-1818



DIRIS Digiware BCM-21xx

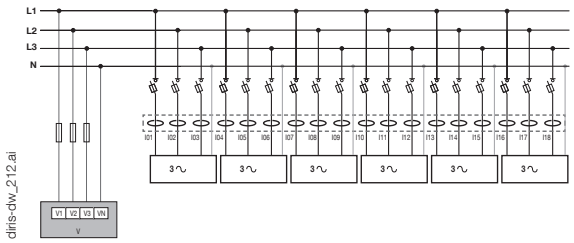


Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
DIRIS Digiware BCM-1818 / 1818VM	324	18	8.8	8.6	10.2	29	53
DIRIS Digiware BCM-2119 / 2119VM	400	19	8.8	8.6	10	30	53
DIRIS Digiware BCM-2125 / 2125VM	533.5	25	14	13.6	19	32	68

Connections

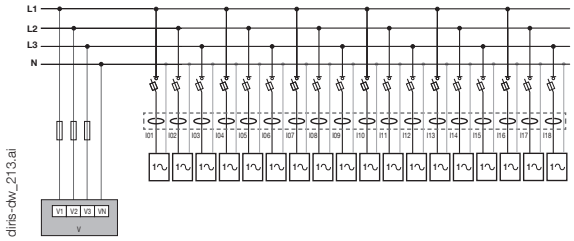
DIRIS Digiware BCM-1818

3P+N - 3 CT (x6)



diris-dw_212.ai

1P + N (x18)



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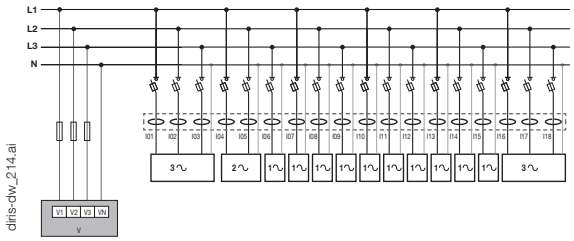
Configuration of multi-load devices



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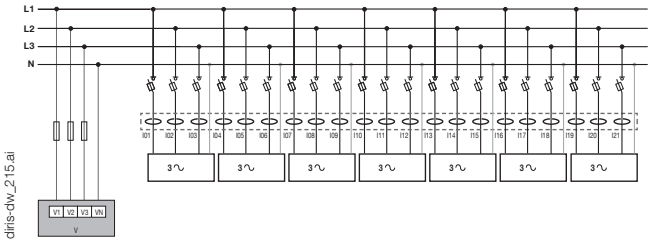
DIRIS Digiware BCM-21xx

3P+N - 3 CT (x7)



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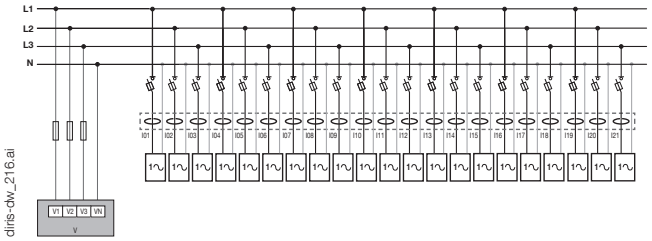
1P + N (x21)



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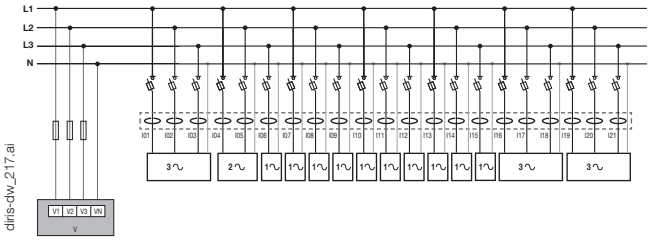
Configuration of multi-load devices



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DIRIS Digiware U

DIRIS Digiware BCM

Load

Fuse: 0.5 A gG / BS 88 2 A gG 0.5 A class CC

DIRIS Digiware BCM

Current measurement module for power distribution units (PDU)
for 18 or 21 circuits

Technical characteristics

Measurement characteristics			
DIRIS Digiware BCM	**DIRIS Digiware BCM-1818**	**DIRIS Digiware BCM-2119**	**DIRIS Digiware BCM-2125**
Number of built-in current inputs	18	21	21
Current measurement accuracy (built-in current inputs)	Class 0.5	Class 0.5	Class 0.5
Nominal current I_n (built-in current inputs)	32 … 63 A	32 … 63 A	40 … 100 A
Maximum current I_n (built-in current inputs)	80 A	80 A	120 A
Number of RJ12 current inputs	3	3	3
Associated current sensors (RJ12 current inputs)	Solid-core TE, split-core TR/iTR, flexible TF current sensors		
Current measurement accuracy (RJ12 current inputs)	Class 0.2 DIRIS Digiware module alone Class 0.5 with TE, iTR or TF sensors Class 1 with TR sensors		
Connexion (entrées courant RJ12)	Socomec RJ12 cables		
Energy measurement (built-in current inputs and RJ12)			
Active energy accuracy	Class 0.5 IEC 61557-12		
Reactive energy accuracy	Class 2 IEC 61557-12		
Mechanical characteristics			
Mounting	Back-plate or DIN-rail mounting		
Case protection rating	IP20 / IK08		
Weight	BCM-1818: 475 g / BCM-2119: 565 g / BCM-2125: 995 g		
Module power consumption	1.25 VA		
Communication characteristics			
Digiware bus			
Function	Connection between DIRIS Digiware units		
Cable type	Specific Socomec cable with RJ45 connection		
USB			
Protocol	Modbus RTU over USB		
Function	Configuration of gateway and connected PMDs/meters		
Location	On each DIRIS Digiware module		
Connection	Type B micro USB connector		

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

References

DIRIS Digiware		Reference
BCM-1818	18 current inputs (18 mm pitch)	4829 **0165**
BCM-1818VM	18 entrées courant (pas de 18 mm) + VirtualMonitor	4829 **0166**
BCM-2119	21 current inputs (19 mm pitch)	4829 **0167**
BCM-2119VM	21 current inputs (19 mm pitch) + VirtualMonitor	4829 **0168**
BCM-2125	21 current inputs (25 mm pitch)	4829 **0169**
BCM-2125VM	21 current inputs (25 mm pitch) + VirtualMonitor	4829 **0170**
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**
	50 m reel + 100 connectors	4829 **0185**
USB configuration cable		4829 **0050**
Accessories [1]		
BCM-1818/2119 DIN RAIL ACCESSORY		4829 **0197**
BCM-2125 DIN RAIL ACCESSORY		4829 **0198**

[1] *Included with DIRIS Digiware BCM modules.*