

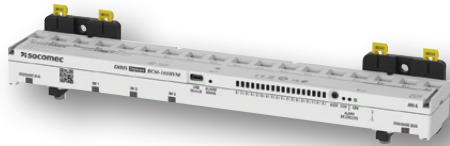
# DIRIS Digiware BCM

Multi-circuit current acquisition module with integrated sensors for power distribution units (PDU) for 18 or 21 circuits



DIRIS Digiware BCM 21 circuits

diris-dw\_202.eps



DIRIS Digiware BCM 18 circuits

diris-dw\_203.eps

## The solution for

- > Data centre



## Strong points

- > 3x quicker to install than standard solutions
- > 2x quicker 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 more information see our website [www.socomec.com](http://www.socomec.com)

## Expert services

### Need help to integrate this system in your network?

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.

## Function

The **DIRIS Digiware BCM** is a multi-circuit current measurement module with 18 or 21 integrated sensors and allows the monitoring of all types of power distribution units (PDUs). These modules are also equipped with three RJ12 channels allowing them to be connected to TE/TR/ITR/TF current sensors using RJ12 cables and various ΔIC differential toroids.

## Advantages

### 3x quicker to install than standard solutions

- The integrated current sensors do not require any wiring; they are directly integrated in the module.
- Quick RJ45 connection between modules.
- RJ12 connection for external current sensors.
- Integrated AutoCorrect technology that provides automatic wiring control and an error correction feature available off-load.

### 2x quicker to configure than standard solutions

Easy Config System Software - free of charge – enables the configuration of multiple identical panels with a "duplication" function and also provides time-saving configuration templates enabling the initial design to be adapted with ease.

### Minimal footprint







- No additional CT leads required - and therefore less cabling required.
- 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 differential toroids to mutualize power consumption and residual current monitoring.

### Maximum reliability

- A robust protective plastic cover safeguards the electronic components and reduces the risk of breakage. By not simply being an exposed PCB, the unit can, therefore, be handled manually.
- 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 to access the monitoring of protective devices across the entire electrical installation, both remotely and in real-time.

## General characteristics

- 18/21 integrated current sensors.
- Measures up to 120 A.
- Configurable as 18/21 single-phase circuits or 6/7 three-phase circuits.

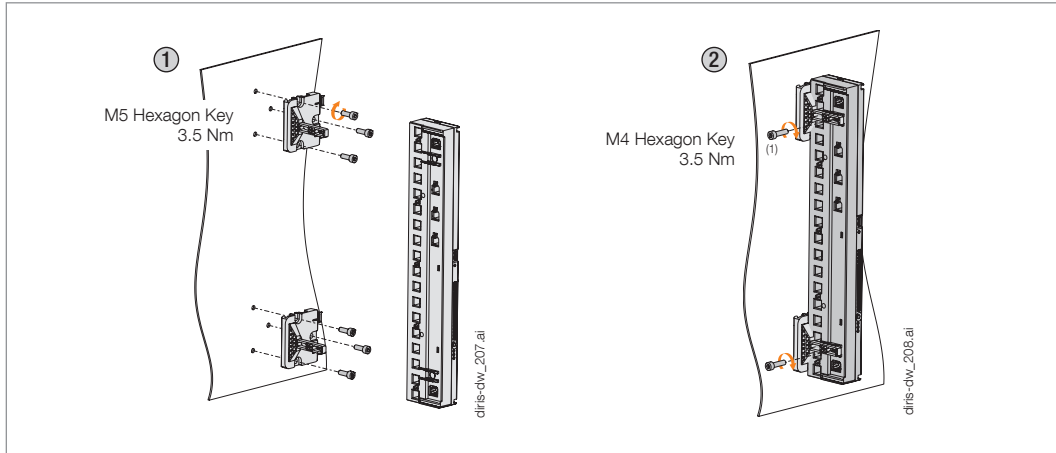
DIRIS Digiware BCM	BCM-1818	BCM-1818VM	BCM-2119	BCM-2119VM	BCM-2125	BCM-2125VM
						
Number of current inputs	18 + 3x RJ12	18 + 3x RJ12	21 + 3x RJ12	21 + 3x RJ12	21 + 3x RJ12	21 + 3x RJ12
Nominal current In / Maximum current I <sub>max</sub>	32...63A/80A	32...63A/80A	32...63A/80A	32...63A/80A	40...100A/120A	40...100A/120A
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
<b>Metering</b>						
± kWh, ± kvarh, kVAh	•	•	•	•	•	•
Multi-tariff (max 8)	•	•	•	•	•	•
Load curves / demand profiles	•	•	•	•	•	•
<b>Multi-measurement</b>						
I <sub>1</sub> , I <sub>2</sub> , I <sub>3</sub> , I <sub>n</sub> , ΣP, ΣQ, ΣS, ΣPF	•	•	•	•	•	•
P, Q, S, PF per phase	•	•	•	•	•	•
Predictive power	•	•	•	•	•	•
Current unbalance (In <sub>ba</sub> , I <sub>dir</sub> , I <sub>inv</sub> , I <sub>hom</sub> , I <sub>nb</sub> )	•	•	•	•	•	•
Phi, cos Phi, tan Phi	•	•	•	•	•	•
<b>Power Quality</b>						
THDi1, THDi2, THDi3, THD <sub>In</sub> , THD <sub>Isys</sub>	•	•	•	•	•	•
Individual harmonics I (up to rank 63)	•	•	•	•	•	•
Crest Factor I <sub>1</sub> , I <sub>2</sub> , I <sub>3</sub>	•	•	•	•	•	•
Overcurrent	•	•	•	•	•	•
<b>Alarms</b>						
Thresholds	•	•	•	•	•	•
Load levels	•	•	•	•	•	•
System alarms	•	•	•	•	•	•
Protection alarms	•	•	•	•	•	•
Protection counters	•	•	•	•	•	•
Boolean combination of alarms	•	•	•	•	•	•
<b>Trends</b>						
Average values	•	•	•	•	•	•
<b>Advanced features</b>						
VirtualMonitor technology	•	•	•	•	•	•
AutoCorrect technology	•	•	•	•	•	•
Earth leakage monitoring	•	•	•	•	•	•
<b>Format</b>						
Pitch	18 mm	18 mm	19 mm / ¾in	19 mm / ¾in	25 mm / 1in	25 mm / 1in
Width	324 mm	324 mm	400 mm	400 mm	533.5 mm	533.5 mm

# DIRIS Digiware BCM

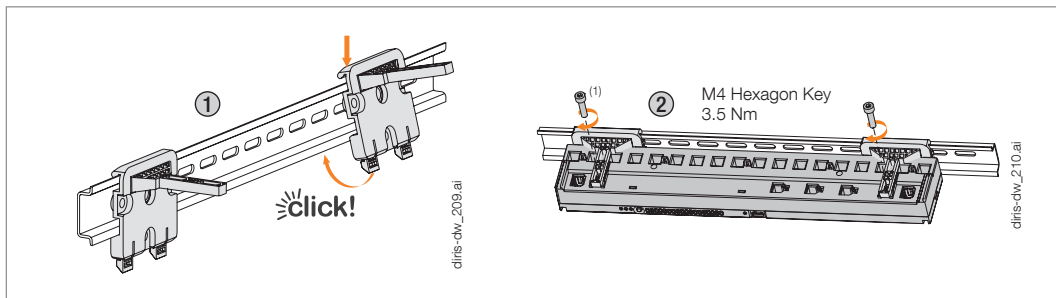
Multi-circuit current acquisition module with integrated sensors for power distribution units (PDU) for 18 or 21 circuits

## Mounting accessories

### Back plate mounting



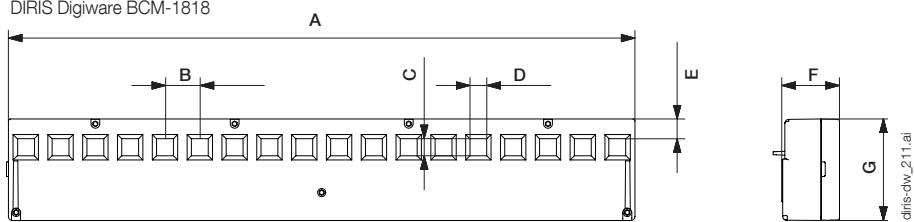
### DIN rail mounting



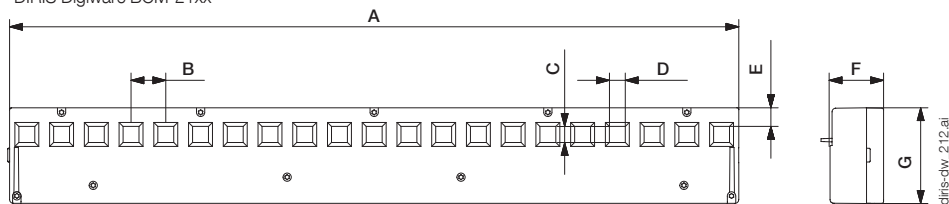
(1) 2x mounting brackets along with 2 x CHC M5 x 20 screws are included with the DIRIS Digiware BCM modules.

## Dimensions (in/mm)

DIRIS Digiware BCM-1818



DIRIS Digiware BCM-21xx

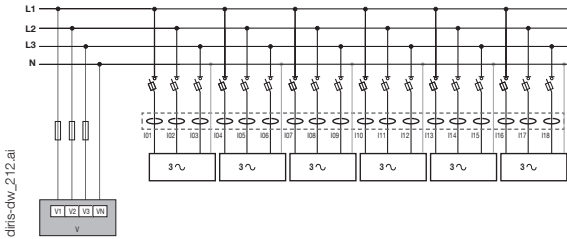


Modèle	A		B		C		D		E		F		G	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
DIRIS Digiware BCM-1818 / 1818VM	17.76	324	0.71	18	0.35	8,8	0.34	8,6	0.40	10,2	1.14	29	2.09	53
DIRIS Digiware BCM-2119 / 2119VM	15.75	400	0.75	19	0.35	8,8	0.34	8,6	0.39	10	1.18	30	2.09	53
DIRIS Digiware BCM-2125 / 2125VM	20.98	533,5	0.98	25	0.55	14	0.54	13,6	0.75	19	1.26	32	2.68	68

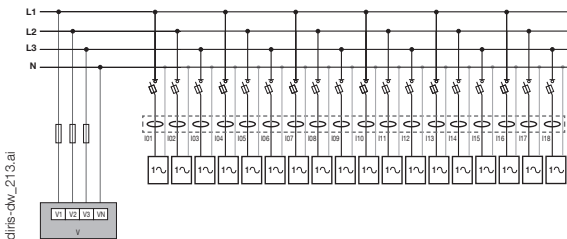
## Connections

### DIRIS Digiware BCM-1818

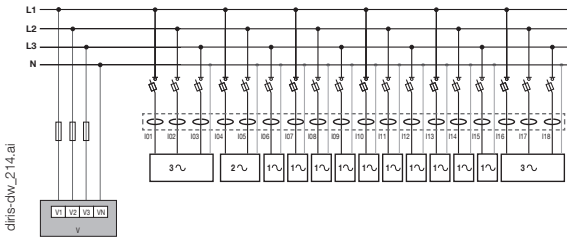
3P+N - 3 CT (x6)



1P + N (x18)

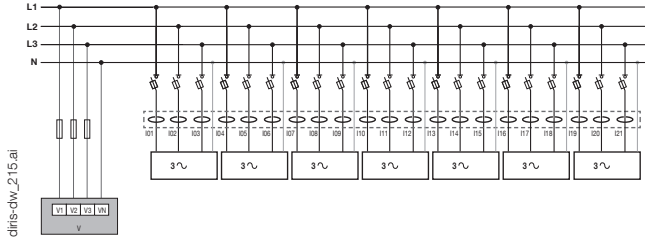


Multi-load types configuration

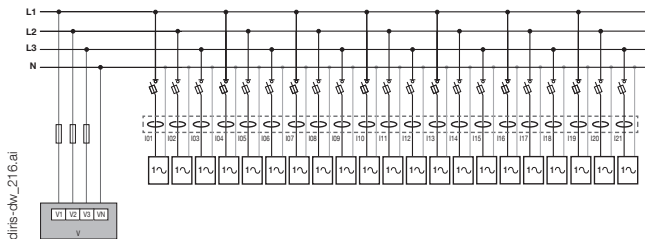


### DIRIS Digiware BCM-21xx

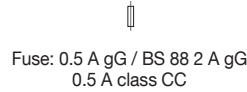
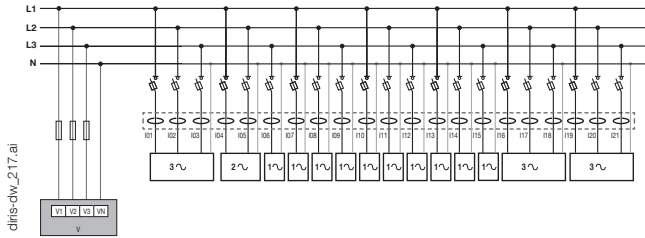
3P+N - 3 CT (x7)



1P + N (x21)



Multi-load types configuration



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## Technical characteristics

Measurement characteristics			
DIRIS Digiware BCM	DIRIS Digiware BCM-1818	DIRIS Digiware BCM-2119	DIRIS Digiware BCM-2125
Number of integrated current inputs	18	21	21
Accuracy of current measurement (integrated current inputs)	Class 0.5	Class 0.5	Class 0.5
Nominal current I <sup>n</sup> (integrated current inputs)	32 ... 63 A	32 ... 63 A	40 ... 100 A
Maximum current I <sup>max</sup> (integrated 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		
Accuracy of current measurement (RJ12 current inputs)	Class 0.2 DIRIS Digiware module alone Class 0.5 with TE, ITR or TF sensors Class 1 with TR sensors		
Connection (RJ12 current inputs)	Socomec RJ12 cables		
Measurement of energy (integrated and RJ12 current inputs)			
Accuracy of active energy	Class 0.5 IEC 61557-12		
Accuracy of reactive energy	Class 2 IEC 61557-12		
Mechanical characteristics			
Mounting	DIN rail or back plate mounting		
Casing protection	index IP20 / IK08		
Weight	BCM-1818: 475g / BCM-2119: 565 g / BCM-2125: 995 g		
Module power consumption	1.25 VA		
Communication specifications			
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 connector		
Environmental specifications			
Ambient operating temperature	-10 ... +55°C		
Storage temperature	-40 ... +70°C		
Operating humidity	40°C / 95% RH		
Operating altitude	< 2000 m		

## References

<b>DIRIS Digiware</b>		<b>Reference</b>
BCM-1818	18 current inputs (18 mm pitch)	4829 0165
BCM-1818VM	18 current inputs (18 mm pitch) + Virtual Monitor	4829 0166
BCM-2119	21 current inputs (19 mm / 3/4in pitch)	4829 0167
BCM-2119VM	21 current inputs (19 mm / 3/4in pitch) + Virtual Monitor	4829 0168
BCM-2125	21 current inputs (25 mm / 1in pitch)	4829 0169
BCM-2125VM	21 current inputs (25 mm / 1in pitch) + Virtual Monitor	4829 0170
<b>Digiware connection cables</b>		<b>Reference</b>
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
<b>Accessories <sup>(1)</sup></b>		
BCM-1818/2119 DIN RAIL ACCESSORY		4829 0197
BCM-2125 DIN RAIL ACCESSORY		4829 0198

<sup>(1)</sup> Included with the DIRIS Digiware BCM modules.