

# DIRIS Digiware BCM

## Branch-circuit monitoring module with integrated current sensors



DIRIS Digiware BCM 21 circuits, 1 in. pitch

diris-dw\_202.eps



DIRIS Digiware BCM 21 circuits, 3/4 in. pitch

diris-dw\_205.eps

### Function

The **DIRIS Digiware BCM** is a multi-circuit metering module with 21 integrated sensors and allows individual circuit monitoring within any of any electrical panelboard (Remote Power Panel, lighting panel, power panel etc.). The DIRIS Digiware BCM is also equipped with three RJ12 channels connected to TE/TR/iTR/TF current sensors and ΔIC zero sequence CTs.

### Advantages

#### 3x quicker to install than standard solutions

- The integrated current sensors do not require any wiring: they are directly integrated to the BCM meter strip.
- Quick RJ45 connection between modules.
- RJ12 connection for external current sensors.
- AutoCorrect technology detects wiring errors, even 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 breaker status eliminates the need to install auxiliary contacts.
- Connection to TE/TR/iTR/TF current sensors and ΔIC zero sequence CTs to mutualize power metering and earth leakage 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 individual breaker status remotely and in real-time.

### General characteristics

- 21 integrated current sensors.
- Measures up to 120 A.
- 3/4-in and 1-in pitch versions
- Configurable as 21 single-phase circuits, 7 three-phase circuits or a mix of single-phase, two-phase and three-phase circuits.

### The solution for

- Data center
- High rises
- Commercial buildings



### 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

### Integrated technologies



For more information see our website  
[www.socomec.us](http://www.socomec.us)

### Expert services

Need help to integrate this device to your architecture?

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.

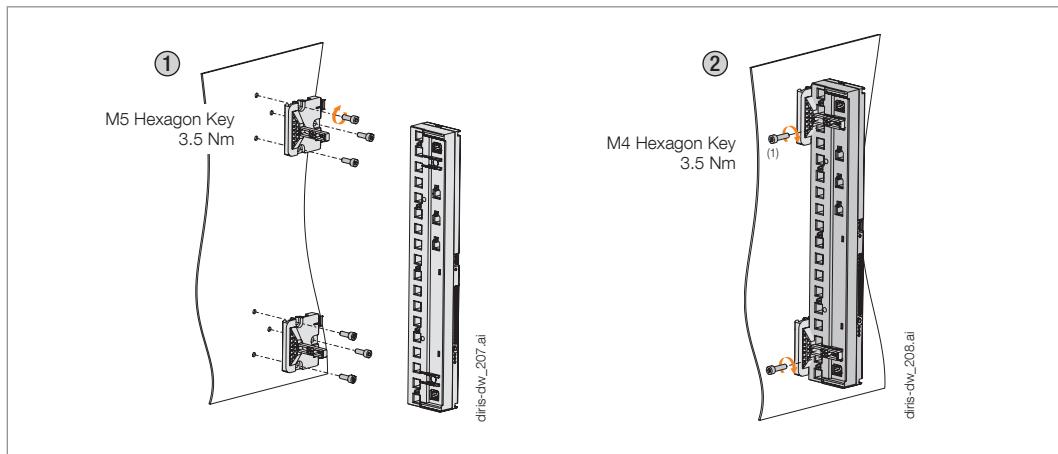
<b>DIRIS Digiware BCM</b>	<b>BCM-2119</b>	<b>BCM-2119VM</b>	<b>BCM-2125</b>	<b>BCM-2125VM</b>
Number of current inputs	21 + 3x RJ12			
Nominal current In / Maximum current Imax	32...63A/80A	32...63A/80A	40...100A/120A	40...100A/120A
Load type accepted	1P+N 2P 2P+N 3P 3P+N	1P+N 2P 2P+N 3P 3P+N	1P+N 2P 2P+N 3P 3P+N	1P+N 2P 2P+N 3P 3P+N
<b>Metering</b>				
± kWh, ± kvarh, kWh	•	•	•	•
Multi-tariff (max 8)	•	•	•	•
Load curves / demand profiles	•	•	•	•
<b>Multi-measurement</b>				
I1, I2, I3, In, ∑P, ∑Q, ∑S, ∑PF	•	•	•	•
P, Q, S, PF per phase	•	•	•	•
Predictive power	•	•	•	•
Current unbalance (Inba, Idir, inv, Ihom, Inb)	•	•	•	•
Phi, cos Phi, tan Phi	•	•	•	•
<b>Power Quality</b>				
THD1, THD2, THD3, THDin, THD Isys	•	•	•	•
Individual harmonics I (up to 63rd)	•	•	•	•
Crest Factor I1, I2, I3	•	•	•	•
Overcurrent	•	•	•	•
<b>Alarms</b>				
Measurement thresholds	•	•	•	•
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	19 mm / ¾in	19 mm / ¾in	25 mm / 1in	25 mm / 1in
Width	400 mm	400 mm	533.5 mm	533.5 mm

# DIRIS Digiware BCM

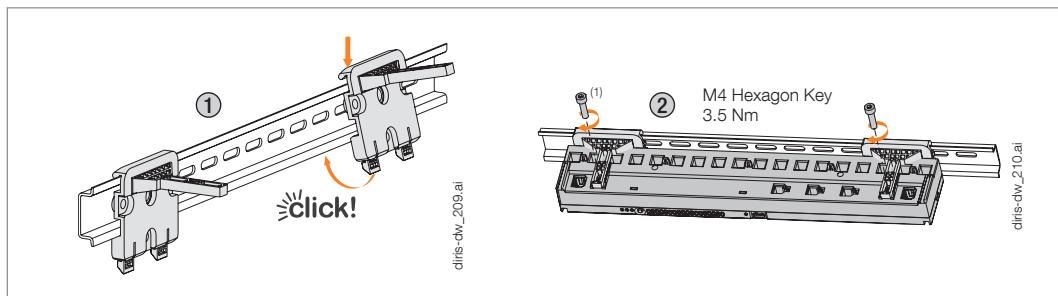
Branch-circuit monitoring module with integrated current sensors

## Mounting accessories

### Back plate mounting

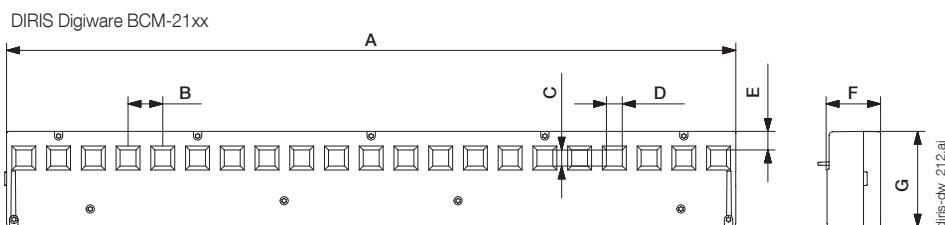


### DIN rail mounting



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

## Dimensions (in/mm)

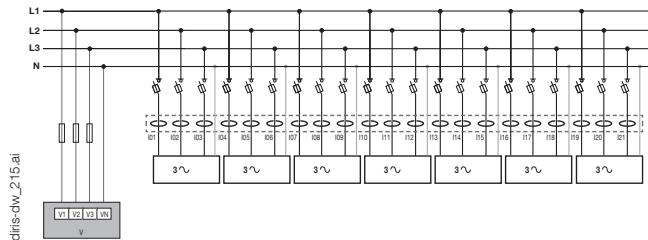


Modèle	A (in) (mm)	B (in) (mm)	C (in) (mm)	D (in) (mm)	E (in) (mm)	F (in) (mm)	G (in) (mm)	
DIRIS Digiware BCM-2119 / 2119VM	15.75	400	0.75	19	0.35	8,8	0.34	8,6
DIRIS Digiware BCM-2125 / 2125VM	20.98	533.5	0.98	25	0.55	14	0.54	13.6

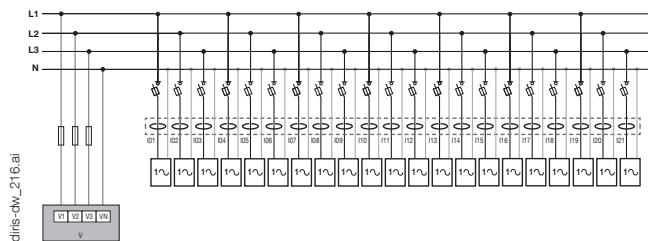
## Connections

### DIRIS Digiware BCM-21xx

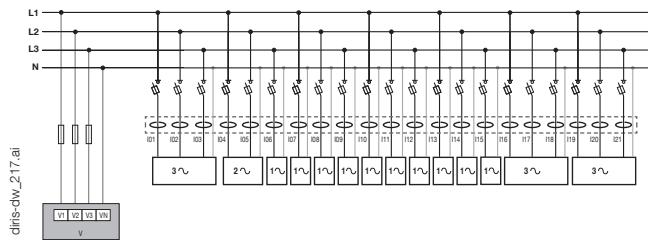
3P+N - 3 CT (x7)



1P + N (x21)



Multi-load types configuration



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**

Branch-circuit monitoring module with integrated current sensors

## Technical characteristics

### Measurement characteristics

DIRIS Digiware BCM	DIRIS Digiware BCM-2119	DIRIS Digiware BCM-2125
Number of integrated current inputs	21	21
Accuracy of current measurement (integrated current inputs)	Class 0.5	Class 0.5
Nominal current In (integrated current inputs)	32 ... 63 A	40 ... 100 A
Maximum current Imax (integrated current inputs)	80 A	120 A
Number of RJ12 current inputs	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
Accuracy of reactive energy	Class 2

### Mechanical characteristics

Mounting	DIN rail or back plate mounting
Casing protection	IP20 / IK08
Weight	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	Socomec RJ45 cable
USB	
Protocol	Modbus RTU over USB
Function	Configuration via Easy Config System and firmware upgrade via Product Upgrade Tool
Location	On each DIRIS Digiware module
Connection	Type B micro connector

### Environmental characteristics

Ambient operating temperature	+14 ... +131°F / -10 ... +55°C
Storage temperature	-40 ... +158°F / -40 ... +70°C
Operating humidity	40°C / 95% RH
Operating altitude	6561 ft / 2000 m

## References

DIRIS Digiware		Reference
BCM-2119	21 current inputs (19 mm / 3/4 in pitch)	4829 0167
BCM-2119VM	21 current inputs (19 mm / 3/4 in pitch) + Virtual Monitor	4829 0168
BCM-2125	21 current inputs (25 mm / 1 in pitch)	4829 0169
BCM-2125VM	21 current inputs (25 mm / 1 in pitch) + Virtual Monitor	4829 0170
Digiware connection cables		Reference
RJ45 cables for Digiware bus	Length 0.2 ft / 0.06 m	4829 0189
	Length 0.33 ft / 0.10 m	4829 0181
	Length 0.66 ft / 0.20 m	4829 0188
	Length 1.64 ft / 0.50 m	4829 0182
	Length 3.28 ft / 1 m	4829 0183
	Length 6.56 ft / 2 m	4829 0184
	Length 9.84 ft / 3 m	4829 0190
	Length 16.4 ft / 5 m	4829 0186
	Length 32.8 ft / 10 m	4829 0187
	164.04 ft / 50 m reel + 100 connectors	4829 0185
USB configuration cable		4829 0050
Accessories <sup>(1)</sup>		
BCM-2119 DIN RAIL ACCESSORY		4829 0197
BCM-2125 DIN RAIL ACCESSORY		4829 0198

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