



DIRIS BCMS 720

Branch Circuit Monitoring System
up to 72 branch circuits

Metering and
measurement for
data centres

new



Function

Energy efficiency is becoming a major concern for the owners and operators of data centres. The **DIRIS BCMS 720** is a real asset in obtaining energy savings thanks to its ability to monitor currents, power and energy on 72 single-phase distribution circuits in PDU type electrical switchboards⁽¹⁾.

With a Modbus or SNMP communication, this device can be easily connected to any Power Monitoring Software (EMS/PMS). It can also generate event alarms in order to improve the availability of the data centre.

(1) PDU: Power Distribution Unit

Advantages

Compact and cost effective

Thanks to its compact dimensions, the DIRIS BCMS 720 can be easily integrated into PDU or RPP type end of line switchboards. It also reduces the costs of measuring points, as a single device can supervise up to 72 single-phase distribution circuits and 10 additional main incoming circuits.

Easy installation

The DIRIS BCMS 720 is perfectly adapted to any new or existing installation. The device can be easily back plate or DIN-rail mounted. Setting is also facilitated thanks to the EASY CONFIG software.

Safe and robust

All components are protected by a durable casing to avoid:

- direct electrical contact,
- any possible mechanical damage during transportation, installation and handling of the device.

Performance

The accuracy of the global measurement chain (DIRIS BCMS 720 + CTs) is 0.5%. Real-time supervision enables the detection and reporting of operating faults, for example the detection of zero current on a branch circuit.

Improved communication

With RS485 MODBUS communication and/or Ethernet SNMP, the DIRIS BCMS 720 can be easily connected to Power Monitoring systems (EMS/PMS).

When connected through a DIRIS A40's Ethernet module, the Webserver enables remote viewing of the measurements and status of the DIRIS BCMS 720 without the need for additional software.

The solution for

- > Data centres
- > Shopping centres
- > Offices



Strong points

- > Compact and cost effective
- > Easy installation
- > Safe and robust
- > Performance
- > Improved communication

Conformity to standards

- > IEC 60950-1



Product

DIRIS BCMS 720 Multifunction Meter



The DIRIS BCMS 720 is a measurement reporting device.

Two versions are available:

- one with RS 485 MODBUS communication,
- one with RS 485 MODBUS communication and Ethernet SNMP.

The device requires a 24V AC/DC power source.

Accessories such as a DIN-rail mounting kit or a 230V/24V power supply kit can also be provided.

Additional equipment needed

CT strips with 6 or 9 CTs



CT strips with 6 or 9 CTs (63A CTs at a pitch of 18mm) are available for new installations. In order to suit the number of distribution circuits of an installation, the total number of current transformers can easily be adapted through a combination of these two CT strips.

For the right solutions, please see page

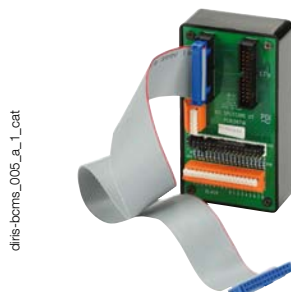
Cable harness and split-core CTs



The cable harness and plug and play split-core CT kits are perfectly adapted for easy installation on existing sites.

Accessories

CT strip repair kit



During installation and connection of the panel it is possible that damage may occur to a CT on a 6 or 9 CT strip. This kit enables any damaged CT to be replaced, avoiding the need to replace the entire CT strip. Any CT can be replaced without disconnecting cables or shutting down the installation.

Single input measuring kit

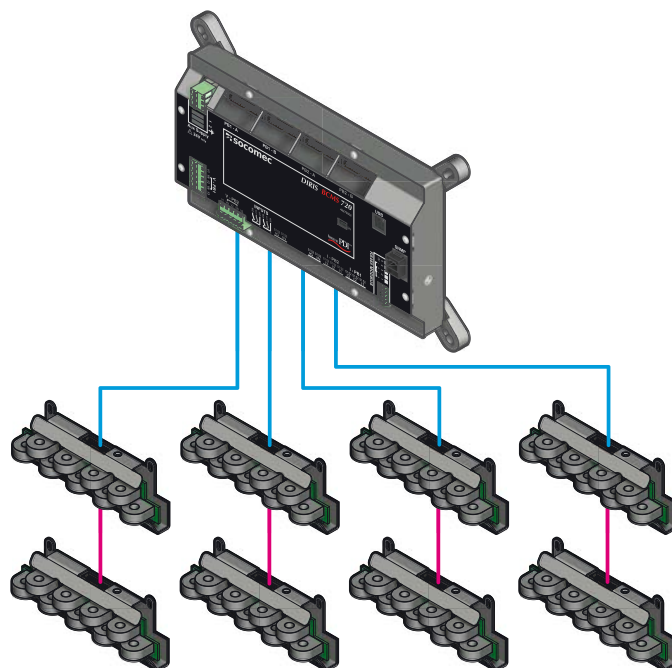


This kit comprises a connection harness and five split-core CTs. It is designed to measure the three-phase main input circuit of the electrical switchboard. The DIRIS BCMS 720 can include up to two measuring kits for two individual input circuits.

DIRIS BCMS 720

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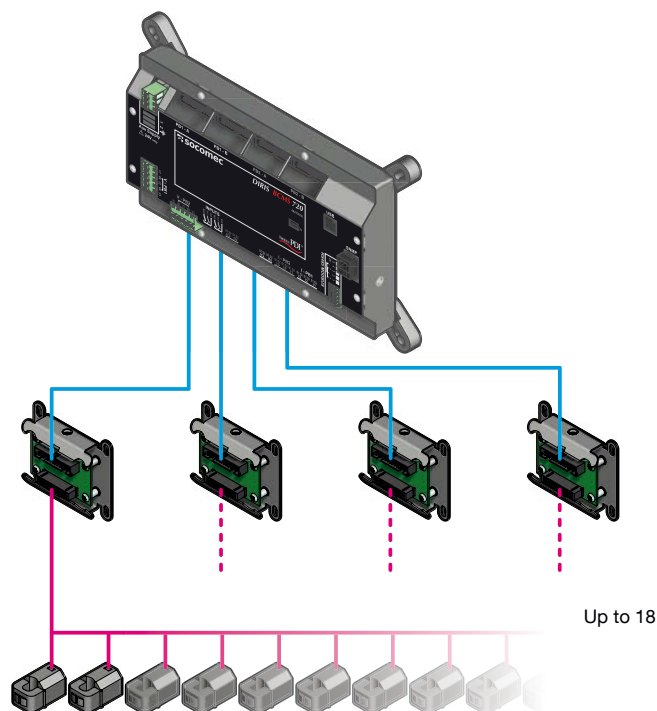
Device for new installations



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Number of distribution circuits	12	18	24	30	36	42	48	54	60	66	72	Reference
	Quantity to be ordered											
CT strips with 6 CTs	2		4	2		4	2		4	2		4827 0106
CT strips with 9 CTs		2		2	4	2	4	6	4	6	8	4827 0109

Device for existing installations



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Split-core CTs for 18 branch circuits (plug and play CT)	12	18	24	30	36	42	48	54	60	66	72	Reference
	Quantity to be ordered											
Cable harness for the connection of up to 18 split-core CTs	2					4						4827 2001
Split-core CTs for 18 branch circuits (plug and play CT)	1	2			3			4				4827 2003

Technical data

Products and associated equipment		SNMP communication	
Admissible voltage between phase and neutral	0 ... 300 VAC	Link	Ethernet
Frequency	48 ... 62 Hz	Protocol	SNMP
Input current at 20 °C	0 ... 400 A	Speed	10/100 Mbps
Input current at 40 °C	0 ... 250 A	Digital inputs	
Rated output current	63 A	Number of inputs	4
Permanent overload output current	75 A	Power supply	Self-supplied
Accuracy of measurements		Auxiliary power supply	
Voltage	0.3 %	AC voltage	24 VAC ± 20 %
Frequency	0.1 %	DC voltage	24 VDC ± 10 %
Output current	0.2 %	Consumption	150 mA
Active Power	0.5 %	Operating conditions	
Reactive Power	0.6 %	Operating temperature	0-40 °C
Apparent Power	0.5 %	Maximum humidity	95 %
Power factor	1.0 %	Maximum altitude	3000 m
Active energy	0.5 %	Dimensions (W x H x D)	
MODBUS communication		DIRIS BCMS 720	240 x 145 x 39 mm
Link	RS485	CT strips with 6 CTs	126 x 74 x 41 mm
Protocol	MODBUS RTU	CT strips with 9 CTs	180 x 74 x 41 mm
Speed	9600 bds	Measurement acquisition card	85 x 74 x 23 mm

References

Product	Reference
DIRIS BCMS 720 with RS485 MODBUS communication	4827 0001
DIRIS BCMS 720 with RS485 MODBUS communication + SNMP Ethernet	4827 0002
Additional equipment needed	
CT strip with 6 CTs	4827 0106
CT strip with 9 CTs	4827 0109
Cable harness for 18 split-core CTs	4827 2001
Split-core CTs (63 A) for 18 branch circuits	4827 2003
Accessories	
Measuring kit for 400 A input circuits	4827 3000
CT strip repair kit	4827 0100
DIN-rail mounting kit for DIRIS BCMS 720	4827 0052
Power supply kit 230 VAC/24 VAC	4827 0051

Zoom



Think about it

DIRIS A multifunction measurement units

DIRIS A are panel mounted measurement units which ensure the user has access to all the measurements required for successfully carrying out energy efficiency projects and ensuring the electrical distribution is monitored. All this information can be analysed remotely using the VERTELIS software solution. Please see the DIRIS A pages for more information.

DIRIS N Network analysers

DIRIS N are multifunction network analysers designed for in-depth analysis of electrical networks. They ensure that the power quality level complies with standard EN 50160. They store the events relating to any fault or interference on the electrical network.