

Selection guide

AC measurement and monitoring system

DIRIS Digiware AC

Build your own AC measurement system

System interface, displays and gateways
(24 VDC)

or

or

+

DIRIS Digiware D
display

DIRIS Digiware M
gateway

DIRIS Digiware C
RS485 interface

Voltage acquisition module

DIRIS Digiware U

Current measurement module with built-in sensors

DIRIS Digiware S

DIRIS Digiware BCM
21 circuits

DIRIS Digiware BCM
18 circuits

Current acquisition modules

+

DIRIS Digiware I-3x
3 inputs

DIRIS Digiware I-4x
4 inputs

DIRIS Digiware I-6x
6 inputs

Current sensors

+

TE
Solid

TR/iTR
Split-core

TF
Flexible

Digital and analogue input/output modules

+

DIRIS Digiware IO

Find the best DIRIS Digiware configuration



The Soctec Meter Selector is your digital assistant, helping you find the best DIRIS Digiware configuration for your power monitoring projects, and all in just a few clicks!

1. **Fill in** information regarding your project.
2. **Download** the system diagram and bill of material.
3. **All** your projects are archived in your personal account.

Control and power supply interface

| Application | Centralisation and display of data | | | | Data centralisation | Repeater |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------|------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| |  | |  | |  |  |
| DIRIS Digiware | D-50 <i>p. 2</i> | D-70 <i>p. 2</i> | M-50 <i>p. 2</i> | M-70 <i>p. 2</i> | C-31 <i>p. 2</i> | C-32 <i>p. 2</i> |
| Function | | | | | | |
| Centralising measurement points | • | • | • | • | • | |
| High-resolution LCD display (configuration, selection and viewing of circuits) | • | • | | | | |
| Repeater | | | | | | • |
| Power supply | | | | | | |
| 24 VDC | • | • | • | • | • | • |
| Communication | | | | | | |
| RS485 Modbus | Input/Output | Input/Output | Input/Output | Input/Output | Output | |
| Digiware bus | • | • | • | • | • | • |
| Bluetooth | • | • | • | • | | |
| Ethernet | Modbus TCP BACnet IP SNMP | Modbus TCP BACnet IP SNMP | Modbus TCP BACnet IP SNMP | Modbus TCP BACnet IP SNMP | | |
| Embedded web server | WEB-CONFIG | WEBVIEW-M | WEB-CONFIG | WEBVIEW-M | | |

Voltage acquisition module

| Application | Metering | Analysis |
|---------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| |  |  |
| DIRIS Digiware U | U-10 <i>p. 2</i> | U-30 <i>p. 2</i> |
| Multi-measurement | | |
| U12, U23, U31, V1, V2, V3, f | • | • |
| U system, V system, | | • |
| Ph/N unbalance | | • |
| Ph/Ph unbalance | | • |
| Quality analysis | | |
| THDv1, THDv2, THDv3, THDu12, THDu23, THDu31 | | • |
| Crest factor V1, V2, V3, U12, U23, U31 | | • |
| Individual harmonics U & V (up to 63rd) | | • |
| Voltage dips, interruptions and overvoltages (EN 50160) | | • |
| Alarms | | |
| Thresholds and combinations | | • |
| Trends | | |
| Average values | | • |
| Format | | |
| Width/number of modules | 18 mm / 1 | 18 mm / 1 |

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Current acquisition modules

| Application | Metering | | | Analysis | | Monitoring | Analysis | Metering | | | |
|-------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| |  | new  |  |  | new  |  |  |  | new  |  | new  |
| DIRIS Digiware Iac | I-30 <i>p. 2</i> | I-30 MID ⁽¹⁾ <i>p. 2</i> | I-31 <i>p. 2</i> | I-35 <i>p. 2</i> | I-35 MID ⁽¹⁾ <i>p. 2</i> | I-43 <i>p. 2</i> | I-45 <i>p. 2</i> | I-60 <i>p. 2</i> | I-60 MID ⁽¹⁾ <i>p. 2</i> | I-61 <i>p. 2</i> | I-61 MID ⁽¹⁾ <i>p. 2</i> |
| Number of current inputs | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 6 | 6 | 6 | 6 |
| Metering | | | | | | | | | | | |
| ±kWh, ±kVAh, kVAh | • | • | • | • | • | • | • | • | • | • | • |
| Load curves | | | • | • | • | | • | | | • | • |
| Multi-tariff | | | • | • | • | | • | | | • | • |
| MID | | • | | | • | | | | • | | • |
| Multi-measurement | | | | | | | | | | | |
| I1, I2, I3, In, ΣP, ΣQ, ΣS, ΣPF | • | • | • | • | • | • | • | • | • | • | • |
| P, Q, S, PF per phase | | | • | • | • | • | • | | | • | • |
| Predictive power | | | | • | • | | • | | | | |
| Current unbalance (Inba, Idir, Iinv, Ihom, Inb) | | | | • | • | | • | | | | |
| Phi, cos Phi, tan Phi | | | | • | • | | • | | | | |
| Quality | | | | | | | | | | | |
| THDi1, THDi2, THDi3, THDIn | | | | • | • | • | • | | | | |
| Individual harmonics I (up to 63rd) | | | | • | • | | • | | | | |
| Crest factors I1, I2, I3, In | | | | • | • | | | | | | |
| Overcurrents | | | | • | • | | • | | | | |
| Alarms | | | | | | | | | | | |
| Thresholds and combinations | | | ◦ | • | • | | • | | | ◦ | ◦ |
| Inputs/outputs | | | | | | 2/2 | 2/2 | | | | |
| Trends | | | | | | | | | | | |
| Average values | | | | • | • | | • | | | | |
| Format | | | | | | | | | | | |
| Width/number of modules | 18 mm / 1 | 18 mm / 1 | 18 mm / 1 | 18 mm / 1 | 18 mm / 1 | 27 mm / 1.5 | 27 mm / 1.5 | 36 mm / 2 | 36 mm / 2 | 36 mm / 2 | 36 mm / 2 |

◦ : only for total power (P,Q,S).

(1) To comply with the MID directive, the DIRIS Digiware system must have a D-50/D-70 display.

Current acquisition modules

| Application | Metering / monitoring / remote control | |
|----------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| |  |  |
| DIRIS Digiware IO | IO-10 <i>p. 2</i> | IO-20 <i>p. 2</i> |
| Number of digital inputs/outputs | 4/2 | |
| Number of analogue inputs | 2 | |
| Format | | |
| Width/number of modules | 18 mm / 1 | |

Current acquisition module with built-in sensors

| Application | Metering | | Analysis | |
|-------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| |  |  |  |  |
| DIRIS Digiware S | S-130 <i>p. 2</i> | S-130 MID⁽¹⁾ <i>p. 2</i> | S-135 <i>p. 2</i> | S-135 MID⁽¹⁾ <i>p. 2</i> |
| Number of current inputs | 3 | 3 | 3 | 3 |
| Basic current I_b | 10 A | 10 A | 10 A | 10 A |
| Maximum current I_{max} | 63 A | 63 A | 63 A | 63 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 |
| Metering | | | | |
| ±kWh, ±kVAh, kVAh | • | • | • | • |
| Multi-tariff (max 8) | | | • | • |
| Load curves | | | • | • |
| MID | | • | | • |
| Multi-measurement | | | | |
| I1, I2, I3, In, ΣP, ΣQ, ΣS, ΣPF | • | • | • | • |
| P, Q, S, PF per phase | | | • | • |
| Predictive power | | | • | • |
| Current unbalance (Inba, Inb, Idir, linv, lhom) | | | • | • |
| Phi, cos Phi, tan Phi | | | • | • |
| Quality | | | | |
| THDi1, THDi2, THDi3, THDin | | | • | • |
| Individual harmonics I (up to 63rd) | | | • | • |
| Crest factors U, V, I | | | • | • |
| K factor | | | • | • |
| Overcurrents | | | • | • |
| Alarms | | | | |
| Thresholds and combinations | | | • | • |
| Connection errors | | | • | • |
| Protection alarms | • | • | • | • |
| Trends | | | | |
| Average values | | | • | • |
| Format | | | | |
| Width | 54 mm | 54 mm | 54 mm | 54 mm |

(1) To comply with the MID directive, the DIRIS Digiware system must have a D-50/D-70 display.

Selection guide

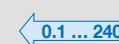
AC measurement and monitoring system

DIRIS Digiware AC

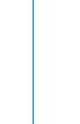
Multi-circuit measurement modules with built-in sensors for power distribution units (PDU)

| DIRIS Digiware BCM | BCM-1818 <i>p. 2</i> | BCM-1818VM <i>p. 2</i> | BCM-2119 <i>p. 2</i> | BCM-2119VM <i>p. 2</i> | BCM-2125 <i>p. 2</i> | BCM-2125VM <i>p. 2</i> |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| | new  | new  | new  | new  | new  | new  |
| 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 I _{max} | 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 |
| Metering | | | | | | |
| ±kWh, ±kVAh, kVAh | • | • | • | • | • | • |
| Multi-tariff (max. 8) | • | • | • | • | • | • |
| Load curves / Demand profiles | • | • | • | • | • | • |
| Multi-measurement | | | | | | |
| I ₁ , I ₂ , I ₃ , I _n , ΣP, ΣQ, ΣS, ΣPF | • | • | • | • | • | • |
| P, Q, S, FP per phase | • | • | • | • | • | • |
| Predictive power | • | • | • | • | • | • |
| Current unbalance (I _{nba} , I _{dir} , I _{inv} , I _{hom} , I _{nb}) | • | • | • | • | • | • |
| Phi, cos Phi, tan Phi | • | • | • | • | • | • |
| Power quality | | | | | | |
| THDi1, THDi2, THDi3, THD _{In} , THD _{I_{sys}} | • | • | • | • | • | • |
| Individual harmonics I (up to 63rd) | • | • | • | • | • | • |
| Crest factor I ₁ , I ₂ , I ₃ | • | • | • | • | • | • |
| 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 |

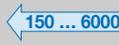
Current sensors

| Suitable for new installations match the pitch of protection devices | Solid-core current sensors | | | | | | |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| |  |  |  |  |  |  |  |
| | TE-18 <i>p. 2</i> | TE-25 <i>p. 2</i> | TE-35 <i>p. 2</i> | TE-45 <i>p. 2</i> | TE-55 <i>p. 2</i> | TE-90 <i>p. 2</i> | TE-90 <i>p. 2</i> |
| Nominal current I_n (A)  | 5 ... 20 | 25 ... 63 | 40 ... 160 | 63 ... 250 | 160 ... 630 | 400 ... 1000 | 600 ... 2000 |
| Real range covered (A)  | 0.1 ... 24 | 0.5 ... 75.6 | 0.8 ... 192 | 1.26 ... 300 | 3.2 ... 756 | 8 ... 1200 | 12 ... 2400 |
| Aperture (mm) | Ø 8.4 | Ø 8.4 | 13.5 x 13.5 | 21 x 21 | 31 x 31 | 41 x 41 | 64 x 64 |
| Dimensions (mm) | 28 x 20 x 45 | 28 x 20 x 45 | 25 x 32.5 x 65 | 35 x 32.5 x 71 | 45 x 32.5 x 86 | 55 x 32.5 x 100 | 90 x 126 x 24.6 |
| Connexion | RJ12 | RJ12 | RJ12 | RJ12 | RJ12 | RJ12 | RJ12 |

For currents above 1000 A, the 5A / RJ12 adaptor provides compatibility with CTs.

| Suitable for existing installations | Split-core current sensors | | | |
|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| |  |  |  |  |
| | TR/iTR-10 <i>p. 2</i> | TR/iTR-14 <i>p. 2</i> | TR/iTR-21 <i>p. 2</i> | TR/iTR-32 <i>p. 2</i> |
| Nominal current I_n (A)  | 25 ... 63 | 40 ... 160 | 63 ... 250 | 160 ... 600 |
| Real range covered (A)  | 0.5 ... 90 | 0.64 ... 120 | 1.26 ... 200 | 4 ... 720 |
| Diameter (mm) | Ø 10 | Ø 14 | Ø 21 | Ø 32 |
| Dimensions (mm) | 26 x 44 x 28 | 29 x 67 x 28 | 37 x 65 x 43 | 53 x 86 x 47 |
| Connexion | RJ12 | RJ12 | RJ12 | RJ12 |

For currents above 600 A, the 5A / RJ12 adaptor provides compatibility with CTs.

| Suitable for existing installations restricted by strict integration constraints or with a high-intensity current | Flexible current sensors | | | | | |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| |  |  |  |  |  |  |
| | TF-40 <i>p. 2</i> | TF-80 <i>p. 2</i> | TF-120 <i>p. 2</i> | TF-200 <i>p. 2</i> | TF-300 <i>p. 2</i> | TF-600 <i>p. 2</i> |
| Nominal current I_n (A)  | 140 ... 400 | 150 ... 600 | 400 ... 2000 | 600 ... 4000 | 1600 ... 6000 | 1600 ... 6000 |
| Real range covered (A)  | 2 ... 480 | 3 ... 720 | 8 ... 2400 | 12 ... 4800 | 32 ... 7200 | 32 ... 7200 |
| Diameter (mm) | Ø 40 | Ø 80 | Ø 120 | Ø 200 | Ø 300 | Ø 600 |
| Connexion | RJ12 | RJ12 | RJ12 | RJ12 | RJ12 | RJ12 |