Selection guide
Power monitoring system AC
DIRIS Digiware AC

Build your own AC system

System interface, displays and gateways (24 VDC)	Voltage acquisition module	Current acquisition module with integrated sensors

DIRIS Digiware D display or **DIRIS Digiware M** gateway or **DIRIS Digiware C** RS485 interface

+

DIRIS Digiware U

+

DIRIS Digiware BCM 21 circuits

DIRIS Digiware S

DIRIS Digiware BCM 18 circuits

Current acquisition modules	Current sensors	Digital and analogue input/output modules

+

DIRIS Digiware I-3x 3 inputs **DIRIS Digiware I-4x** 4 inputs **DIRIS Digiware I-6x** 6 inputs

+

TE Solid **TR/iTR** Split-core **TF** Flexible

+

DIRIS Digiware IO

Find the best DIRIS Digiware configuration!

The Socomec 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!
- Fill in information regarding your project.
- Download the system diagram and bill of material.
- All your projects are archived in your personal account.

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Control and power supply interface

Application	Centralisation and display of data				Data centralisation	Repeater
DIRIS Digiware	**D-50** *p. 302*	**D-70** *p. 302*	**M-50** *p. 312*	**M-70** *p. 312*	**C-31** *p. 308*	**C-32** *p. 308*
Function						
Centralising measurement points	•	•	•	•	•	
High-resolution LCD display (configuration, selection and visualisation display 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** *p. 318*	**U-30** *p. 318*
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 factors V1, V2, V3, U12, U23, U31		•
Individual harmonics U & V (up to 63rd)		•
Voltage dips, interruptions and swells (EN50160)		•
Alarms		
On threshold		•
History		
Average values		•
Format		
Width/number of modules	18 mm / 1	18 mm / 1

Current acquisition modules

Application	Metering	Metering	Analysis	Monitoring	Analysis	Metering	Metering
DIRIS Digiware I	**I-30** *p. 324*	**I-31** *p. 324*	**I-35** *p. 324*	**I-43** *p. 324*	**I-45** *p. 324*	**I-60** *p. 324*	**I-61** *p. 324*
Number of current inputs	3	3	3	4	4	6	6
Metering							
± kWh, ± kvarh, kVAh	•	•	•	•	•	•	•
Load curves		•	•		•		•
Multi-tariff		•	•		•		•
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							
On threshold			•		•		
Inputs/outputs				2/2	2/2		
History							
Average values			•		•		
Format							
Width/number of modules	18 mm / 1	18 mm / 1	18 mm / 1	27 mm / 1.5	27 mm / 1.5	36 mm / 2	36 mm / 2

Input/output modules

Application	Metering / monitoring / control	
DIRIS Digiware IO	**IO-10** *p. 340*	**IO-20** *p. 340*
Number of digital inputs/outputs	4 / 2	
Number of analogue inputs		2
Format		
Width/number of modules	18 mm / 1	18 mm / 1

Current acquisition module with integrated sensors

Application	Metering	Analysis
DIRIS Digiware S	**S-130** *p. 320*	**S-135** *p. 320*
Number of current inputs	3	3
Basic current I_b	10 A	10 A
Maximum current I_{max}	63 A	63 A
Load type accepted	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		•
Multi-measurement		
I1, I2, I3, In, ΣP, ΣQ, ΣS, ΣPF	•	•
P, Q, S, PF per phase		•
Predictive power		•
Current unbalance (Inba, Inb, Idir, Iinv, Ihom)		•
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		•
Load level		
Wiring errors		•
Protective device		•
Trends		
Average values		•
Format		
Width	54 mm	54 mm

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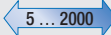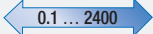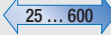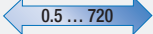
DIRIS Digiware BCM	BCM-1818	BCM-1818VM	BCM-2119	BCM-2119VM	BCM-2125	BCM-2125VM
Number of current inputs	18 + 3x RJ12	18 + 3x RJ12	21 + 3x RJ12	21 + 3x RJ12	21 + 3x RJ12	21 + 3x RJ12
Nominal current In / Maximum current Imax	32...63A/80A	32...63A/80A	32...63A/80A	32...63A/80A	40...100A/120A	40...100A/120A
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, ± kvarh, kVAh	•	•	•	•	•	•
Multi-tariff (max 8)	•	•	•	•	•	•
Load curves / demand profiles	•	•	•	•	•	•
Multi-measurement						
I1, I2, I3, In, $\sum P$, $\sum Q$, $\sum S$, $\sum PF$	•	•	•	•	•	•
P, Q, S, PF 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 rank 63)	•	•	•	•	•	•
Crest Factor I1, I2, I3	•	•	•	•	•	•
Overcurrent	•	•	•	•	•	•
Alarms						
Thresholds	•	•	•	•	•	•
Load levels	•	•	•	•	•	•
System alarms	•	•	•	•	•	•
Protection alarms	•	•	•	•	•	•
Protection counters	•	•	•	•	•	•
Boolean combination of alarms	•	•	•	•	•	•
Trends						
Average values	•	•	•	•	•	•
Advanced features						
VirtualMonitor technology		•		•		•
AutoCorrect technology	•	•	•	•	•	•
Earth leakage monitoring	•	•	•	•	•	•
Format						
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

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Current sensors
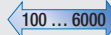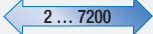
	Solid-core current sensors						
Suitable for new installations match the pitch of protective devices							
	TE-18 *p. 328*	**TE-25** *p. 328*	**TE-35** *p. 328*	**TE-45** *p. 328*	**TE-55** *p. 328*	**TE-90** *p. 328*
Nominal current Iₙ (A) 5 … 2000	5 … 20	25 … 63	40 … 160	63 … 250	160 … 630	400 … 1000	600 … 2000
Real range covered (A) 0.1 … 2400	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
Connection	RJ12	RJ12	RJ12	RJ12	RJ12	RJ12	RJ12

For currents above 2000 A, the 5A / RJ12 adapter provides compatibility with 1A or 5A secondary CTs.

	Split-core current sensors			
Suitable for existing installations				
	TR/iTR-10 *p. 332*	**TR/iTR-14** *p. 332*	**TR/iTR-21** *p. 332*	**TR/iTR-32** *p. 332*
Nominal current Iₙ (A) 25 … 600	25 … 63	40 … 160	63 … 250	160 … 600
Real range covered (A) 0.5 … 720	0.5 ... 90	0.64 ... 120	1.26 ... 200	4 ... 720
Aperture (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
Connection	RJ12	RJ12	RJ12	RJ12

For currents above 600 A, the 5A / RJ12 adapter provides compatibility with 1A or 5A secondary CTs.

	Flexible current sensors					
Suitable for existing installations with space constraints or with high currents						
	TF-40 *p. 334*	**TF-80** *p. 334*	**TF-120** *p. 334*	**TF-200** *p. 334*	**TF-300** *p. 334*	**TF-600** *p. 334*
Nominal current Iₙ (A) 100 … 6000	140 … 400	150 … 600	400 ... 2000	600 … 4000	1600 … 6000	1600 … 6000
Real range covered (A) 2 … 7200	2 … 480	3 … 720	8 ... 2400	12 ... 4800	32 … 7200	32 … 7200
Aperture (mm)	Ø 40	Ø 80	Ø 120	Ø 200	Ø 300	Ø 600
Connection	RJ12	RJ12	RJ12	RJ12	RJ12	RJ12

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