

Front panel



1. Backlit LCD display.
2. Direct access key for currents and test function.
3. Direct access key for voltages and frequency.
4. Direct access key for active, reactive, and apparent powers and power factor.
5. Direct access key for maximum and average current and power values.
6. Direct access key for harmonic values.
7. Direct access key for energies, hour meter and programming menu.

Plug-in modules

DIRIS® A40



DIRIS® A41*



* with a factory fitted neutral CT module.



Pulse outputs

2 configurable pulse outputs (type, weight and duration) on $\pm$ kWh, $\pm$ kvarh and kVAh.



Communication MODBUS®

RS485 link with MODBUS® protocol (speed up to 38400 bauds).



PROFIBUS® DP communication

SUB-D9 link with PROFIBUS® DP protocol (speed up to 12 Mbauds).



Ethernet communication

- Ethernet connection with MODBUS TCP or MODBUS RTU over TCP protocol.
- Embedded Webserver function⁽¹⁾.



Ethernet communication with RS485 MODBUS gateway

- Ethernet connection with MODBUS TCP or MODBUS RTU over TCP protocol.
- Connection of 1 to 247 RS485 MODBUS slaves.
- Embedded Webserver function⁽¹⁾.



Analogue outputs

A maximum of 2 modules may be connected, providing up to 4 analogue outputs.

Per module 2 outputs assignable to:

3I, In, 3V, 3U, F, $\pm$ Σ P, $\pm$ Σ Q, Σ S, Σ PFL/C, I sys, Vsys, Usys, Ppred, Q pred, Spred, T°C internal, T°C 1, T°C 2, T°C3 and to 30 VDC power supply.



2 inputs - 2 outputs

A maximum of 3 modules may be connected, providing up to 6 inputs and 6 outputs.

Per module 2 outputs assignable to:

- monitoring: 3I, In, 3V, 3U, F, $\pm$ Σ P, $\pm$ Σ Q, Σ S, Σ PFL/C, THD 3I, THD In, THD 3V, THD 3U, Ppred, Qpred, Spred, internal T°C, T°C 1, T°C2, T°C3 and hour meter,
- remote control,
- timed remote control.
- 2 inputs for pulse metering.



Memory

- Storing up to a maximum of 62 days of P+, P-, Q+, Q- with an internal or external synchronisation signal of 5, 8, 10, 15, 20, 30 and 60 minutes.
- Storing of 10 hour-dated last alarms.
- Storing of the last minimum and maximum instantaneous values for 3U, 3V, 3I, In, F, Σ P $\pm$, Σ Q $\pm$, Σ S, THD 3U, THD 3V, THD, 3U, THD, 3V, THD, 3I, THD In.
- Storing of 3U, 3V and F average values based on synchronisation function (maximum 60 days).



Temperature⁽²⁾

Temperature indication:

- internal,
- external sensor PT 100 (T°C 1),
- external sensor PT 100 (T°C 2),
- external sensor PT 100 (T°C 3).

(1) See "Management software for DIRIS" page 618.

(2) See "external sensor PT 100" page 600.

References

Basic device	DIRIS A40		DIRIS A41 with CT on the neutral
Auxiliary power supply U_s	Reference		Reference
110 ... 400 VAC / 120 ... 350 VDC	4825 0201		4825 0202
12 ... 48 VDC	4825 1201		4825 1202
Options			
Plug-in modules⁽¹⁾	Reference		Reference
Pulse outputs	4825 0090		4825 0090
RS485 MODBUS [®] communication	4825 0092		4825 0092
Analogue outputs	4825 0093		4825 0093
2 inputs / 2 outputs	4825 0094		4825 0094
Communication Sub D9 PROFIBUS [®] DP ⁽²⁾	4825 0205		4825 0205
Memory	4825 0097		4825 0097
Embedded Webserver function ⁽²⁾	4825 0203		4825 0203
Ethernet communication + RS485 MODBUS gateway (Embedded Webserver function) ⁽²⁾	4825 0204		4825 0204
Temperature inputs	4825 0206		4825 0206

(1) Ease of integration for additional functions (maximum 4 slots on A40 and 3 on A41).

(2) Dimension of the plug-in module: 2 slots.

Accessories				
Description of accessories	To be ordered in multiples of	Reference	To be ordered in multiples of	Reference
IP65 protection	1	4825 0089	1	4825 0089
Panel mounting kit for a 144 x 96 mm cut-out	1	4825 0088	1	4825 0088
Fuse disconnect switches for the protection of voltage inputs (type RM) 3 poles	4	5601 0018	4	5601 0018
Fuse disconnect switches for the protection of the auxiliary supply (type RM) 1 pole + neutral	6	5601 0017	6	5601 0017
Fuse type gG 10 x 38 0.5 A	10	6012 0000	10	6012 0000
Current transformer range	1	see page 584	1	see page 584
Ferrite to be associated with communication modules	1	4899 0011		4899 0011
Temperature sensor PT100 - M6 screw type	1	4825 0208	1	4825 0208
Temperature sensor PT100 - M6 eyelet type	1	4825 0209	1	4825 0209
Management software for DIRIS				see page 618

Expert Services

- > Study, definition, advice, implementation, maintenance and training... Our experts "Expert Services" offer complete support for the success of your project.



References

Basic device	DIRIS A60
Auxiliary power supply U_s	Reference
110 ... 400 VAC / 120 ... 350 VDC	4825 0207
Options	
Plug-in-modules⁽¹⁾	Reference
Pulse outputs	4825 0090
RS485 MODBUS® communication	4825 0092
Analogue outputs	4825 0093
2 inputs / 2 outputs	4825 0094
Ethernet communication (embedded Ethernet Webserver) ⁽²⁾	4825 0203
Ethernet communication + RS485 MODBUS gateway (embedded Ethernet Webserver) ⁽²⁾	4825 0204
Temperature inputs	4825 0206

(1) Easy integration of additional functions (maximum 3 slots per device).

(2) Dimension of the plug-in module: 2 slots.

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Ferrite to be associated with communication modules	1	4899 0011
Current transformer range	1	see page 584
Temperature sensor PT100 - M6 screw type	1	4825 0208
Temperature sensor PT100 - M6 eyelet type	1	4825 0209
Management softwares for DIRIS		see page 618

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