

## References

### ATyS p

| Rating (A) /<br>Frame size | No. of poles | ATyS p    | Bridging bars                        | Voltage sensing<br>and power<br>supply tap | Terminal<br>shrouds                                                | Terminal screens                                                   | Optional<br>modules                                                                                                                                                                                                                                                                    | Auxiliary contact |                                      |                                      |
|----------------------------|--------------|-----------|--------------------------------------|--------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------|--------------------------------------|
| 125 A / B3                 | 3 P          | 9573 3012 | 3 P<br>4109 3019<br>4 P<br>4109 4019 | 3 P<br>1559 3012<br>4 P<br>1559 4012       | 3 P<br>2694 3014 <sup>(2)</sup><br>4 P<br>2694 4014 <sup>(2)</sup> | 3 P<br>1509 3012<br>4 P<br>1509 4012                               | RS485 MODBUS<br>communication<br>4825 0092<br><br>2 inputs /<br>2 outputs<br>1599 2001<br><br>Ethernet<br>communication<br>4825 0203<br><br>Ethernet<br>communication +<br>RS485 MODBUS<br>gateway<br>4825 0204<br><br>Analogue outputs<br>4825 0093<br><br>Pulse outputs<br>4825 0090 | 1599 0502         |                                      |                                      |
|                            | 4 P          | 9573 4012 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 160 A / B3                 | 3 P          | 9573 3016 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
|                            | 4 P          | 9573 4016 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 200 A / B3                 | 3 P          | 9573 3020 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
|                            | 4 P          | 9573 4020 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 250 A / B4                 | 3 P          | 9573 3025 | 4109 3025                            | 3 P<br>1559 3025<br>4 P<br>1559 4025       | 3 P<br>2694 3021 <sup>(2)</sup><br>4 P<br>2694 4021 <sup>(2)</sup> | 3 P<br>1509 3025<br>4 P<br>1509 4025                               |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
|                            | 4 P          | 9573 4025 | 4109 4025                            |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 315 A / B4                 | 3 P          | 9573 3031 | 3 P<br>4109 3039<br>4 P<br>4109 4039 | 3 P<br>1559 3040<br>4 P<br>1559 4040       |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   | 3 P<br>1509 3063<br>4 P<br>1509 4063 |                                      |
|                            | 4 P          | 9573 4031 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 400 A / B4                 | 3 P          | 9573 3040 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
|                            | 4 P          | 9573 4040 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 500 A / B5                 | 3 P          | 9573 3050 | 4109 3050                            |                                            | 3 P<br>1559 3063<br>4 P<br>1559 4063                               | 3 P<br>2694 3051 <sup>(2)</sup><br>4 P<br>2694 4051 <sup>(2)</sup> |                                                                                                                                                                                                                                                                                        |                   |                                      | 3 P<br>1509 3063<br>4 P<br>1509 4063 |
|                            | 4 P          | 9573 4050 | 4109 4050                            |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 630 A / B5                 | 3 P          | 9573 3063 | 4109 3063                            |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
|                            | 4 P          | 9573 4063 | 4109 4063                            |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 800 A / B6                 | 3 P          | 9573 3080 | 3 P<br>4109 3080<br>4 P<br>4109 4080 | 3 P<br>1559 3080<br>4 P<br>1559 4080       |                                                                    | 3 P<br>1509 3080<br>4 P<br>1509 4080                               | 1599 0532                                                                                                                                                                                                                                                                              |                   |                                      |                                      |
|                            | 4 P          | 9573 4080 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 1000 A / B6                | 3 P          | 9573 3100 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
|                            | 4 P          | 9573 4100 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 1250 A / B6                | 3 P          | 9573 3120 | 4109 3120                            | 3 P<br>1559 3120<br>4 P<br>1559 4120       |                                                                    | 1509 3160<br><br>1509 4160                                         |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
|                            | 4 P          | 9573 4120 | 4109 4120                            |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 1600 A / B7                | 3 P          | 9573 3160 | 4109 3160                            | 3 P<br>1559 3160<br>4 P<br>1559 4160       |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
|                            | 4 P          | 9573 4160 | 4109 4160                            |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 2000 A / B8                | 3 P          | 9573 3200 | (1)                                  | 3 P<br>1559 3200<br>4 P<br>1559 4200       |                                                                    | 3 P<br>1509 3200<br>4 P<br>1509 4200                               | included                                                                                                                                                                                                                                                                               |                   |                                      |                                      |
|                            | 4 P          | 9573 4200 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 2500 A / B8                | 3 P          | 9573 3250 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
|                            | 4 P          | 9573 4250 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
| 3200 A / B8                | 3 P          | 9573 3320 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |
|                            | 4 P          | 9573 4320 |                                      |                                            |                                                                    |                                                                    |                                                                                                                                                                                                                                                                                        |                   |                                      |                                      |

(1) See "Copper bar connection pieces" page 453.

(2) To fully shroud front, rear, top and bottom 4 references required.  
To shroud front switch top and bottom 2 references required.

# ATyS range

ATyS *r*, ATyS *d*, ATyS *t*, ATyS *g*, ATyS *p*

from 125 to 3200 A

## Accessories (continued)

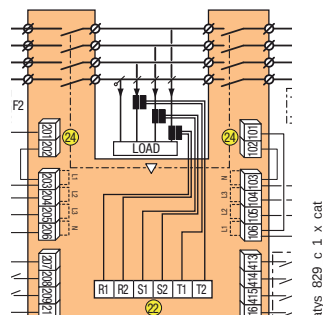
### Current transformer

Use - for ATyS p only

Used with ATyS p units, these current transformers enable information to be obtained on the load current.

References

See page 584.



trafo\_025\_a\_2\_cat



trafo\_077\_b\_1\_cat

### Plug-in optional modules

Use - for ATyS p only

Number of modules per device

A maximum of four modules can be fitted to each ATyS p, unless you are using either Ethernet communication module. In this case, you can connect up to 2 modules as well as the Ethernet communication module.



atys\_016\_c\_1\_cat



diris\_447\_a\_1\_cat

#### RS485 JBUS / MODBUS® communication

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



diris\_449\_a\_1\_cat

#### 2 inputs - 2 outputs

- 2 inputs and 2 outputs (programmable) on each module.



diris\_777\_a\_1\_cat

#### Ethernet communication

- Ethernet link with MODBUS/TCP or JBUS/MODBUS RTU over TCP.
- Embedded Ethernet Webserver software.



diris\_776\_a\_1\_cat

#### Ethernet communication with RS485 JBUS/MODBUS gateway

- Ethernet link with MODBUS/TCP or JBUS/MODBUS RTU over TCP.
- Connect 1 to 247 RS485 JBUS/MODBUS slaves.
- Embedded Ethernet Webserver software.



diris\_448\_a\_1\_cat

#### Analogue outputs

- Allocate outputs to: 3I, In, 3V, 3U, F,  $\pm \Sigma P$ ,  $\pm \Sigma Q$ ,  $\Sigma S$ .



diris\_445\_a\_1\_cat

#### Pulse outputs

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

| Description of accessories                                                                | Reference |
|-------------------------------------------------------------------------------------------|-----------|
| RS485 MODBUS communication                                                                | 4825 0092 |
| 2 inputs - 2 outputs                                                                      | 1599 2001 |
| Ethernet communication (embedded Ethernet Webserver software)                             | 4825 0203 |
| Ethernet communication + RS485 JBUS/MODBUS gateway (embedded Ethernet Webserver software) | 4825 0204 |
| Analogue outputs                                                                          | 4825 0093 |
| Pulse outputs                                                                             | 4825 0090 |

### References

| Basic device                                                                               | DIRIS A40        |  | DIRIS A41<br>with CT on the<br>neutral |
|--------------------------------------------------------------------------------------------|------------------|--|----------------------------------------|
| <b>Auxiliary power supply <math>U_s</math></b>                                             | <b>Reference</b> |  | <b>Reference</b>                       |
| 110 ... 400 VAC / 120 ... 350 VDC                                                          | 4825 0201        |  | 4825 0202                              |
| 12 ... 48 VDC                                                                              | 4825 1201        |  | 4825 1202                              |
| <b>Options</b>                                                                             |                  |  |                                        |
| <b>Plug-in modules<sup>(1)</sup></b>                                                       | <b>Reference</b> |  | <b>Reference</b>                       |
| Pulse outputs                                                                              | 4825 0090        |  | 4825 0090                              |
| RS485 MODBUS <sup>®</sup> communication                                                    | 4825 0092        |  | 4825 0092                              |
| Analogue outputs                                                                           | 4825 0093        |  | 4825 0093                              |
| 2 inputs / 2 outputs                                                                       | 4825 0094        |  | 4825 0094                              |
| Communication Sub D9 PROFIBUS <sup>®</sup> DP <sup>(2)</sup>                               | 4825 0205        |  | 4825 0205                              |
| Memory                                                                                     | 4825 0097        |  | 4825 0097                              |
| Embedded Webserver function <sup>(2)</sup>                                                 | 4825 0203        |  | 4825 0203                              |
| Ethernet communication + RS485 MODBUS gateway (Embedded Webserver function) <sup>(2)</sup> | 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<br>in multiples of | Reference    | To be ordered<br>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 |

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## References

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

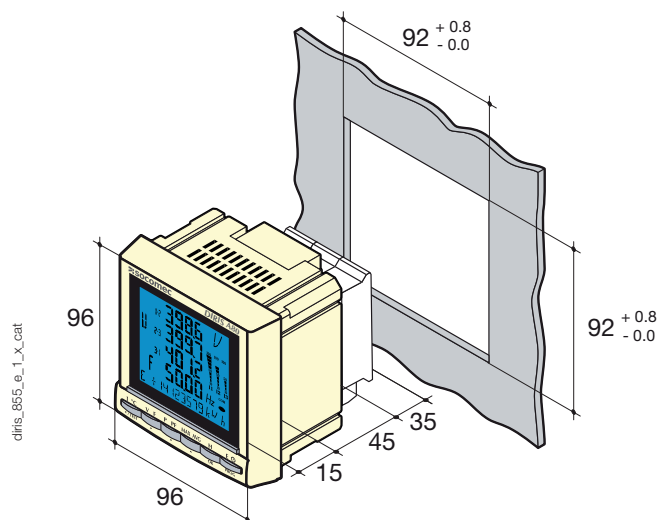
|                                                                                                |                                      |                  |
|------------------------------------------------------------------------------------------------|--------------------------------------|------------------|
| <b>Options</b>                                                                                 |                                      |                  |
| <b>Description of accessories</b>                                                              | <b>To be ordered in multiples of</b> | <b>Reference</b> |
| IP65 protection                                                                                | 1                                    | 4825 0089        |
| Panel mounting kit for a 144 x 96 mm cut-out                                                   | 1                                    | 4825 0088        |
| Fuse disconnect switches for the protection of voltage inputs (type RM) 3 poles                | 4                                    | 5601 0018        |
| Fuse disconnect switches for the protection of the auxiliary supply (type RM) 1 pole + neutral | 6                                    | 5601 0017        |
| Fuse type gG 10 x 38 0.5 A                                                                     | 10                                   | 6012 0000        |
| 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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## Case



|                                                            |                              |
|------------------------------------------------------------|------------------------------|
| Type                                                       | panel mounting               |
| Dimensions W x H x D                                       | 96 x 96 x 80 mm              |
| Case degree of protection                                  | IP30                         |
| Front degree of protection                                 | IP52                         |
| Display type                                               | backlit LCD display          |
| Terminal blocks type                                       | fixed or plug-in             |
| Current connection cross-section                           | 0.5 ... 6 mm <sup>2</sup>    |
| Cable cross-section for currents $\Delta I_n$ and $I_{PE}$ | 0.14 ... 1.5 mm <sup>2</sup> |
| Voltage and other connection cross-section                 | 0.2 ... 2.5 mm <sup>2</sup>  |
| Weight                                                     | 560 g                        |

## References

|                                                                                            |                  |
|--------------------------------------------------------------------------------------------|------------------|
| <b>Basic device</b>                                                                        | <b>DIRIS A80</b> |
| <b>Type</b>                                                                                | <b>Reference</b> |
| With 2 outputs                                                                             | 4825 0213        |
| With 1 input / 1 output                                                                    | 4825 0214        |
| <b>Options</b>                                                                             |                  |
| <b>Plug-in modules</b>                                                                     | <b>Reference</b> |
| RS485 MODBUS <sup>®</sup> communication                                                    | 4825 0092        |
| Ethernet communication (embedded Ethernet Webserver) <sup>(1)</sup>                        | 4825 0203        |
| Ethernet communication + RS485 MODBUS gateway (embedded Ethernet Webserver) <sup>(1)</sup> | 4825 0204        |

(1) Dimensions: 2 slots.

|                                                                                                |                                      |                  |
|------------------------------------------------------------------------------------------------|--------------------------------------|------------------|
| <b>Accessories</b>                                                                             | <b>To be ordered in multiples of</b> | <b>Reference</b> |
| <b>Description of accessories</b>                                                              |                                      |                  |
| IP65 protection                                                                                | 1                                    | 4825 0089        |
| Panel mounting kit for a 144 x 96 mm cut-out                                                   | 1                                    | 4825 0088        |
| Fuse disconnect switches for the protection of voltage inputs (type RM) 3 poles                | 4                                    | 5601 0018        |
| Fuse disconnect switches for the protection of the auxiliary supply (type RM) 1 pole + neutral | 6                                    | 5601 0017        |
| Fuses type gG 10 x 38 0.5 A                                                                    | 10                                   | 6012 0000        |
| Ferrite to be associated with communication modules                                            | 1                                    | 4899 0011        |
| Current transformer range                                                                      | 1                                    | see page 584     |

|                                                        |                             |                  |
|--------------------------------------------------------|-----------------------------|------------------|
| <b>Core balance transformer <math>\Delta IC</math></b> | <b>Toroid diameter (mm)</b> | <b>Reference</b> |
| <b>Type</b>                                            |                             |                  |
| $\Delta IC \varnothing 15$                             | 15                          | 4950 6015        |
| $\Delta IC \varnothing 30$                             | 30                          | 4950 6030        |
| $\Delta IC \varnothing 50$                             | 50                          | 4950 6050        |
| $\Delta IC \varnothing 80$                             | 80                          | 4950 6080        |
| $\Delta IC \varnothing 120$                            | 120                         | 4950 6120        |
| $\Delta IC \varnothing 200$                            | 200                         | 4950 6200        |
| $\Delta IC \varnothing 300$                            | 300                         | 4950 6300        |
| Management softwares for DIRIS                         |                             | see page 618     |

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