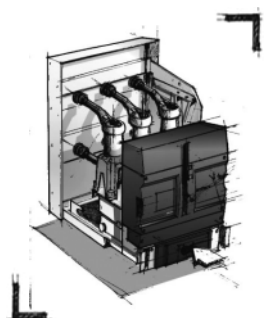


MV vacuum circuit breaker

Evolis 24 kV

Installation guide

2008



Evolis

Schneider
Electric

Creation
Printed on 2008/07/17

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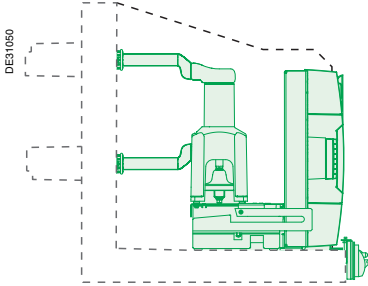
Information given in this guide is to give the panel builder a good understanding of all technical assembling condition.

Quality and performances of final assembly is under the panel builder responsibility.

Schneider Electric is responsible for quality and performances of each component.

Evolis 24 kV frontal withdrawable

Circuit breaker



Overall dimensions drawings, mechanical and electrical interfaces:

- 51301636F0 (phase distance: 230 mm).
- 51301644F0 (phase distance: 250 mm).

Auxiliary wiring diagram:

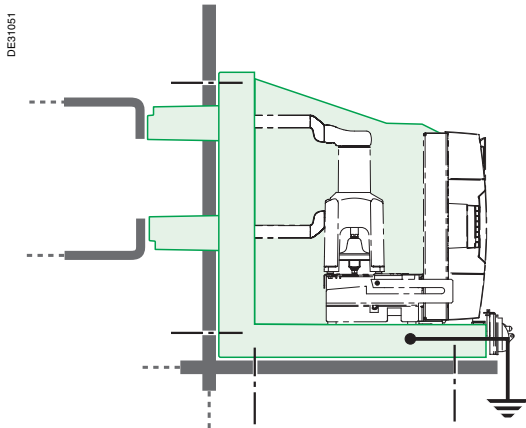
- 51301956F0.

Options

- please see separate accessories page 10 to 13.

Evolis 24 kV frontal withdrawable

Cradle

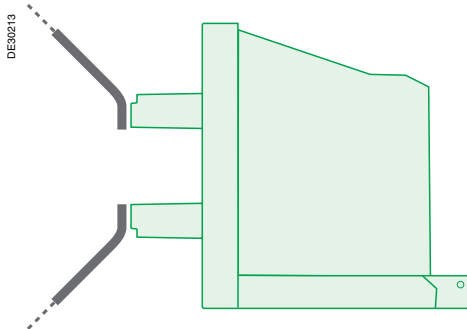


Overall dimensions drawings, mechanical and electrical interfaces:

- 51301961F0 (phase distance: 230 mm).
- 51301962F0 (phase distance: 250 mm).

Installation manual:

- 07897508FE.



Bars connection:

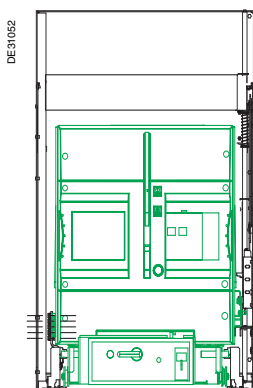
Cross sections and distances:

- please refer to MV design guide.

Field deflectors installation:

- 07897509FE.

Foolproof protection



General installation:

Installation manual:

- 07897508FE.

Options

- please see separate accessories page 10 to 13.

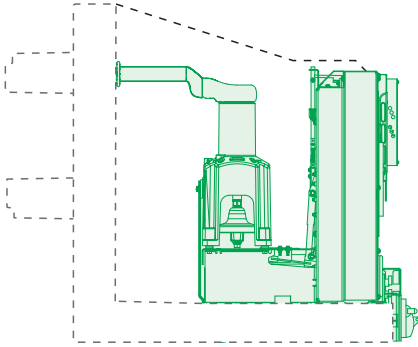
Evolis 24 kV earthing truck

Earthing truck

Installation manual:

■ 07897591EN.

DE31050a

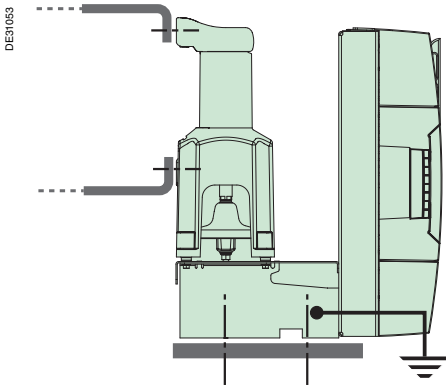


Options

■ please see separate accessories page 10 to 13.

Evolis 24 kV frontal fixed

Circuit breaker installation and earthing



Interfaces drawings:

- 51302129F0 (phase distance 230 mm - up to 1250 A and 25 kA)
- AAA10334F0 (phase distance 250 mm - up to 1250 A and 25 kA)
- AAA10295F0 (phase distance 250 mm - up to 2500 A and 31.5 kA).

Auxiliary wiring diagram:

- 51301956F0.

Bars connection:

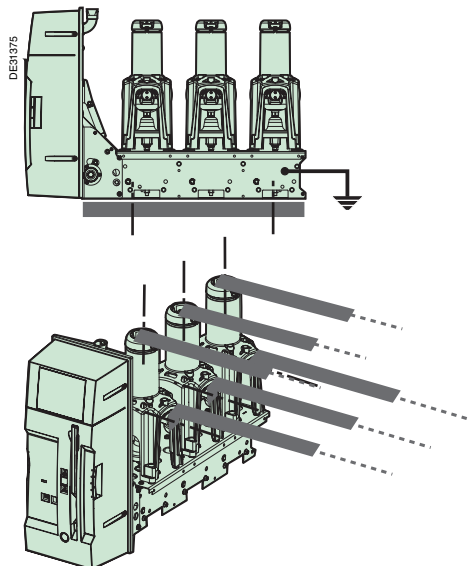
- 51302139F0 (phase distance 230 mm - up to 630 A and 25 kA)
- 51302140F0 (phase distance 230 mm - up to 1250 A and 25 kA)
- AAA10412F0 (phase distance 250 mm - up to 2500 A and 31.5 kA).

Options

- please see separate accessories page 10 to 13.

Evolis 24 kV lateral fixed / EVOset

Lateral right circuit breaker installation and earthing



Interfaces drawings:

- AAA10375F0 (phase distance 250 mm - up to 1250 A and 25 kA).
- AAA10377F0 (phase distance 300 mm - up to 1250 A and 25 kA).
- AAA10446F0 (EVOset phase distance 250 mm - up to 1250 A and 25 kA).
- AAA10378F0 (EVOset phase distance 300 mm - up to 1250 A and 25 kA).

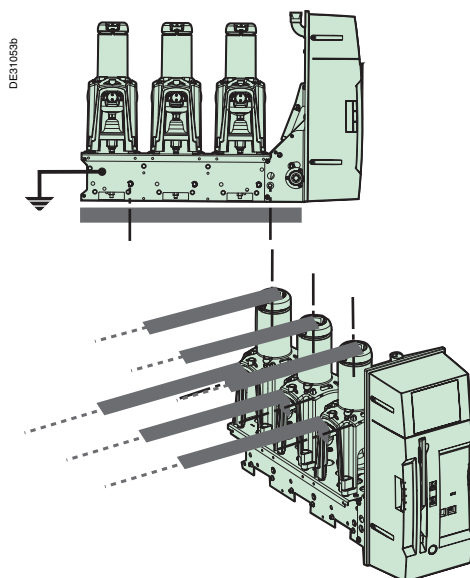
Auxiliary wiring diagram:

- 51301956F0.
- with VIP 30/35: PCRED399007EN
- with VIP 300: PCRED399008EN

Bars connection:

- AAA10450F0

Lateral left circuit breaker installation and earthing



Interfaces drawings:

- AAA10376F0 (phase distance 250 mm - up to 1250 A and 25 kA).
- AAA10448F0 (phase distance 300 mm - up to 1250 A and 25 kA).
- AAA10447F0 (EVOset phase distance 250 mm - up to 1250 A and 25 kA).
- AAA10449F0 (EVOset phase distance 300 mm - up to 1250 A and 25 kA).

Auxiliary wiring diagram:

- 51301956F0.
- with VIP 30/35: PCRED399007EN
- with VIP 300: PCRED399008EN

Bars connection:

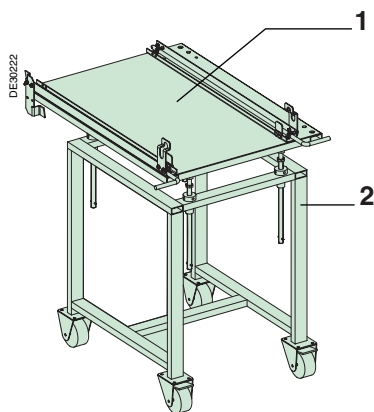
- AAA10450F0

Options

- please see separate accessories page 10 to 13.

Switchboard components

Circuit breaker extraction table



Upper part drawing:

■ 51306759F0.

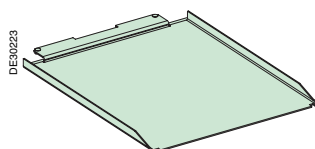
Complete table drawing:

■ 51306830F0.

Installation manual:

■ 07897533FR.

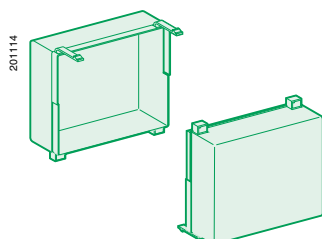
Slope for circuit breaker insertion in cradle



Manufacturing drawing:

■ 51301755F0.

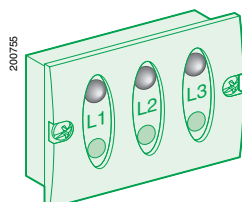
Busbar cover



Installation manual:

■ 07897335FR.

Voltage indicator 10 to 24 kV



Overall size drawing:

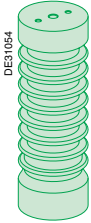
■ 51236248F0.

Installation manual:

■ 07897331FR.

Switchboard components

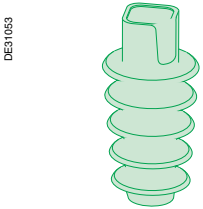
Standard insulator 24 kV



Overall size drawing:

■ 51302047F0.

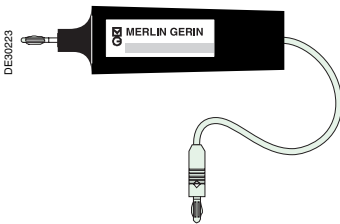
Capacitive divider insulator set 24 kV



Overall size drawing:

■ 3736825.

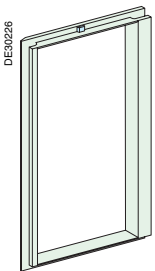
Phase comparator



Installation manual:

■ 7896613.

High resistance plastic window

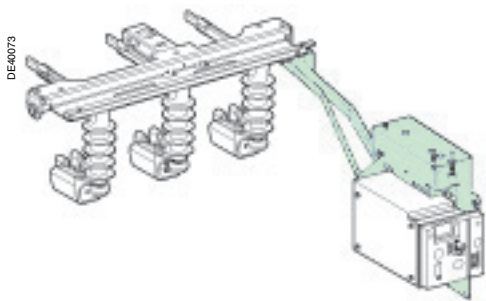


Overall size drawing:

■ 3728891.

Switchboard components

Earthing switch



Overall size drawing:

■ 51301930F0.

Installation manual:

■ 07897513FE.

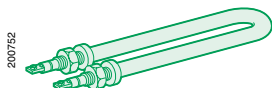
Cubicle compartment handle



Overall size drawing:

■ 51236245F0.

Heating resistor

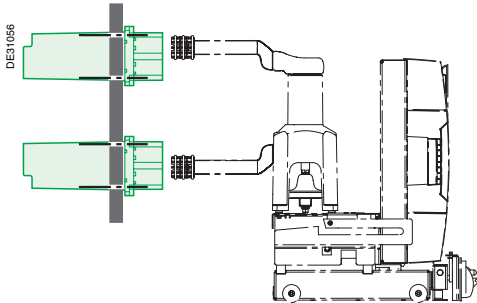


Overall size drawing:

■ 03408863F0.

Separate accessories

Bushing assembly



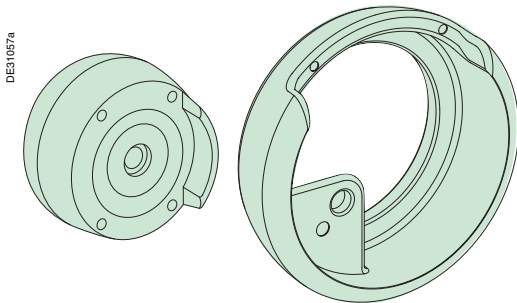
Interfaces drawings:

- 51301963F0 (630-1250A).
- 51301964F0 (2500A)

Installation manual:

- 07897570FE.

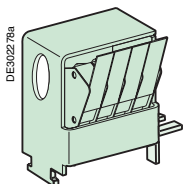
Field deflectors for bushing ends



Installation manual:

- 07897509FE.

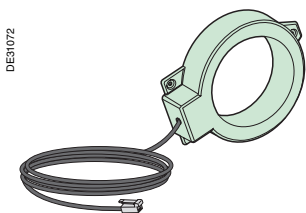
4 racked in/racked out circuit breaker position contacts



Installation manual:

- 07897501FR.

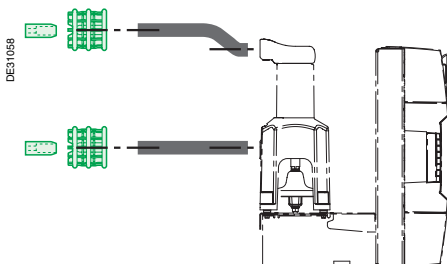
Toroidal low power current transducer (TLP type)



Installation manual:

- 07897526FE.

Clusters and fingers for withdrawable MV connection



Overall size drawings:

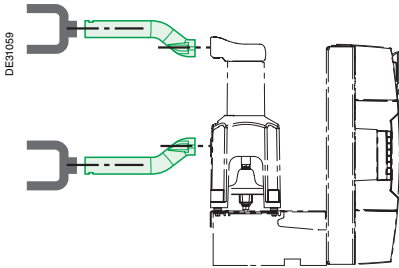
- 51301425F0 (1250A).
- 51301998F0 (2500A).

Installation manual:

- 07897507FE.

Separate accessories

Arms assembly



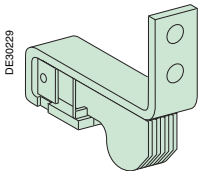
Interfaces drawings:

■ 51301434F0 (630-1250A).

Installation manual:

■ 07897506FE.

Additional earthing sliding device



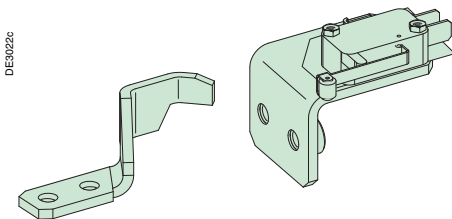
Interfaces drawing:

■ 51223612F0.

Installation manual:

■ 07897502FR.

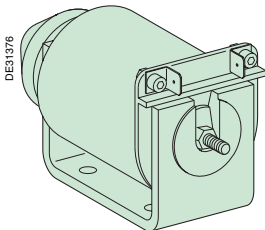
Test position contact



Installation manual:

■ 07897501FR.

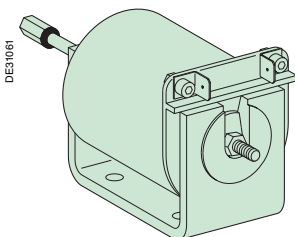
Shunt opening release



Installation manual:

■ 07897515FE.

Shunt closing release

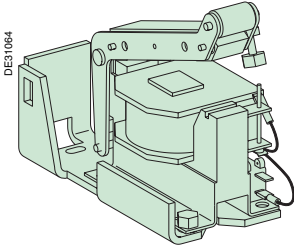


Installation manual:

■ 07897516FE.

Separate accessories

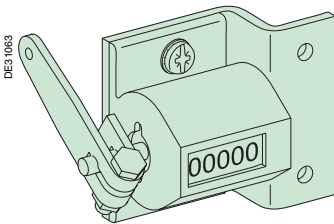
Undervoltage release



Installation manual:

■ 07897517FE.

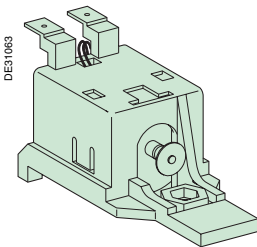
Operation counter



Installation manual:

■ 07897518FE.

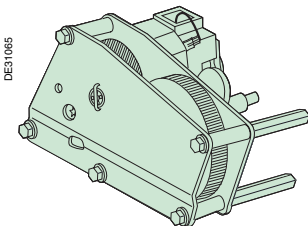
Low energy release (Mitop)



Installation manual:

■ 07897519FE.

Electric motor and gear reducer

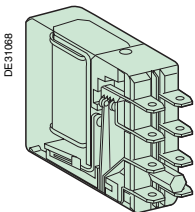


Installation manual:

■ 07897520FE.

■ 07897521FE.

Antipumping relay

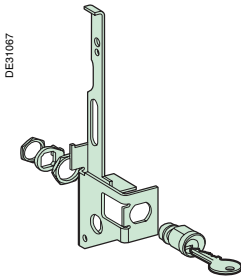


Installation manual:

■ 07897522FE.

Separate accessories

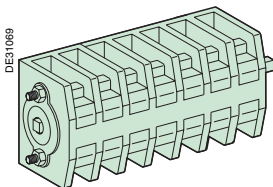
Open position circuit breaker locking kit



Installation manual:

■ 07897523FE.

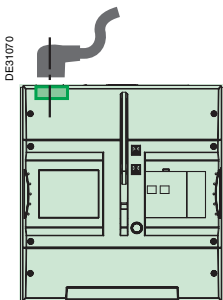
Open/closed auxiliary contacts



Installation manual:

■ 07897524FE.

LV plug



Without interlocking (fixed breaker use):

Electrical diagram:

■ 51301956F0.

Installation manual:

■ 07897567FE.

With interlocking (retrofit of withdrawable breaker on a fixed breaker basis):

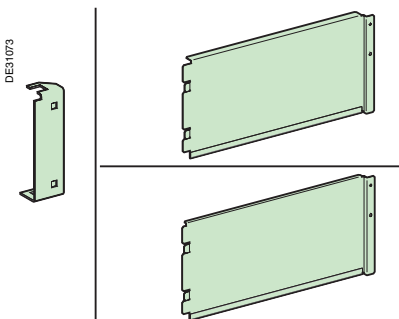
Electrical diagram:

■ 51301956F0.

Installation manual:

■ 07897576FE.

Additional shutter for maintenance



Parts to be manufactured by the client as per following drawings:

For cradle 630A/1205A:

■ number upper: AAA10361F0.

■ number lower: AAA10362F0.

For cradle 2500A:

■ number upper: AAA10364F0.

■ number lower: AAA10365F0.

Support additional shutter:

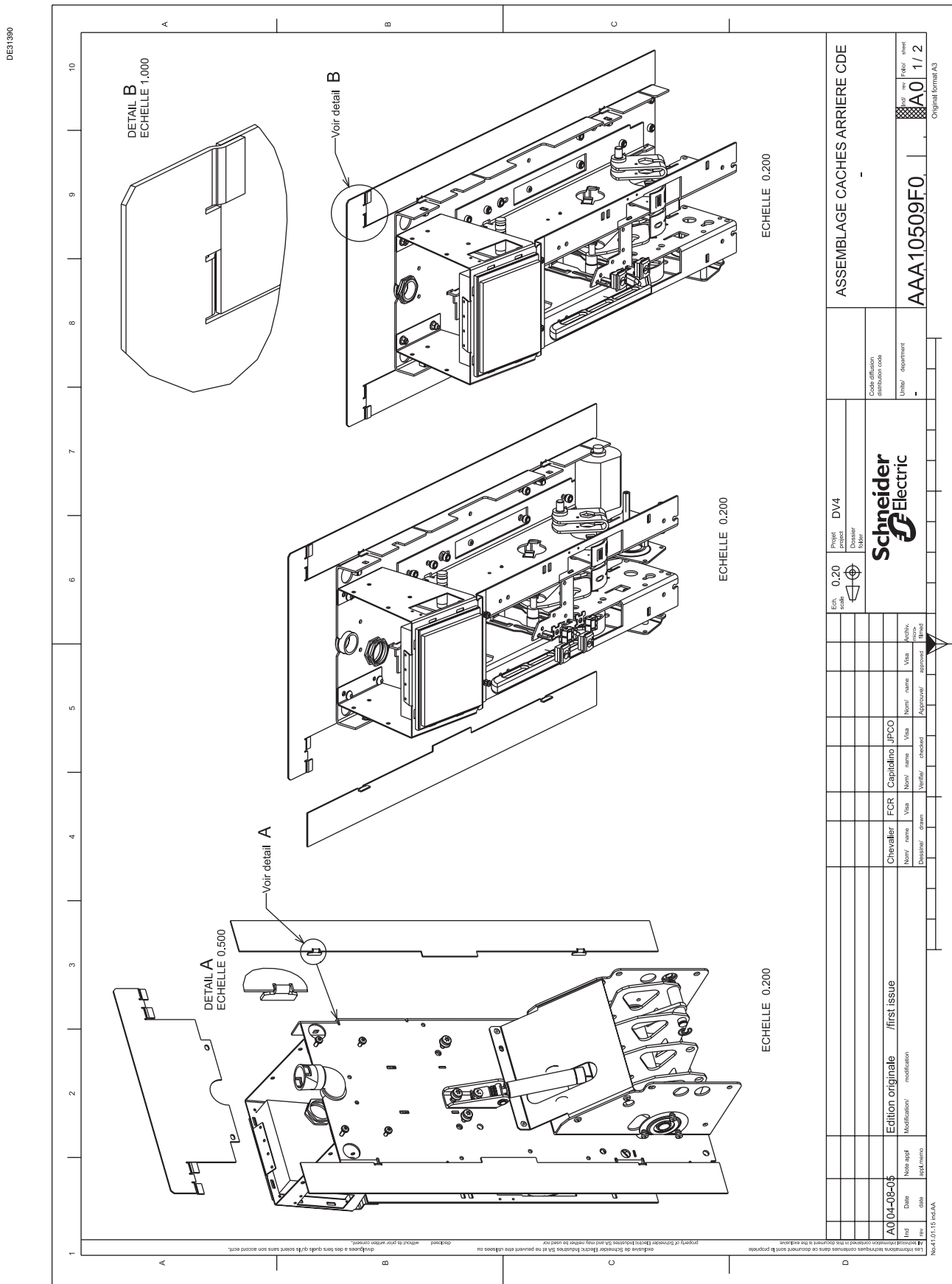
■ AAA10363F0.

Installation manual:

■ 07897575FE.

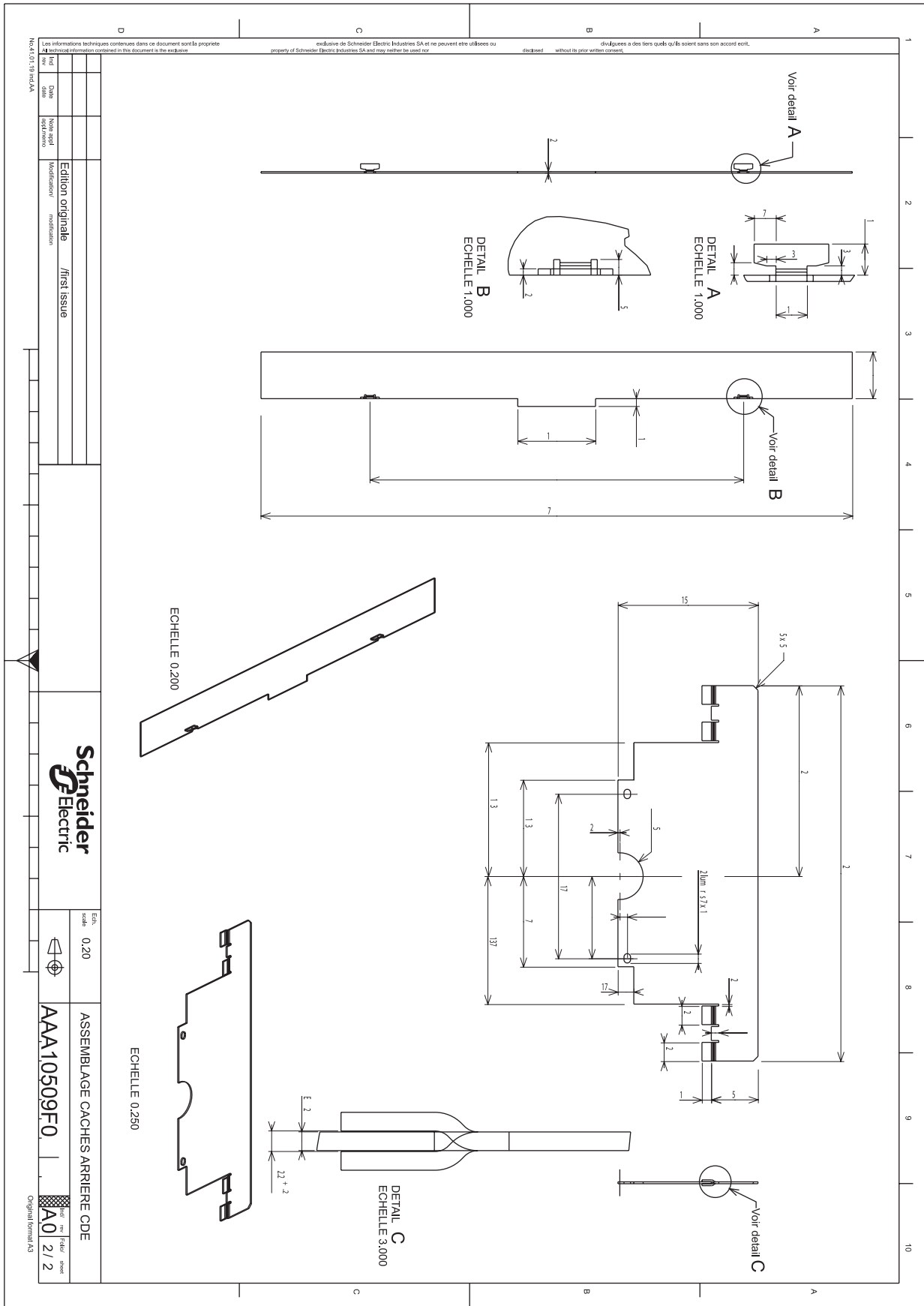
Separate accessories

Additional shutter for maintenance (cont.)



Separate accessories

Additional shutter for maintenance (cont.)



Appendices

Installation manuals Evolis circuit breaker

| | |
|---|------------|
| ■ voltage indicator 10 to 24 kV | 07897331FR |
| ■ busbar cover | 07897335FR |
| ■ block of 4 racked in/out position contacts and 1 contact for "racked in confirmation" | 07897501FR |
| ■ earthing sliding contact | 07897502FR |
| ■ power arms 630 A - 1250 A | 07897506FE |
| ■ assembly of the cluster on the arms 630 A -1250 A-2500 A | 07897507FE |
| ■ cradle 230 mm - 250 mm | 07897508FE |
| ■ field deflectors | 07897509FE |
| ■ low power current sensor | 07897526FE |
| ■ earthing switch installation manual | 07897513FE |
| ■ shunt opening release | 07897515FE |
| ■ shunt closing release | 07897516FE |
| ■ undervoltage release | 07897517FE |
| ■ operation counter | 07897518FE |
| ■ low energy release (Mitop) | 07897519FE |
| ■ electric motor and gear reducer | 07897520FE |
| ■ gear reducer | 07897521FE |
| ■ antipumping relay | 07897522FE |
| ■ open position circuit breaker locking kit | 07897523FE |
| ■ open/closed auxiliary contacts | 07897524FE |
| ■ toroidal low power current transducer | 07897526FE |
| ■ extraction table | 07897533FR |
| ■ microswitch SE | 07897548FE |
| ■ end of charging contact | 07897550FE |
| ■ LV plug without interlocking (fixed breaker use) | 07897567FE |
| ■ additional shutter for maintenance | 07897575FE |
| ■ LV plug with interlocking (retrofit of withdrawable breaker on a fixed breaker basis) | 07897576FE |
| ■ bushing | 07897570FE |

Appendices

Drawings for Evolis installation

| | |
|--|------------|
| ■ circuit breaker frontal withdrawable | |
| □ 230 mm | 51301636F0 |
| □ 250 mm | 51301644F0 |
| ■ electrical diagram | 51301956F0 |
| ■ cradle | |
| □ 230 mm | 51301961F0 |
| □ 250 mm | 51301962F0 |
| ■ circuit breaker frontal fixed | |
| □ interfaces drawing 230 mm (25 kA) | 51302129F0 |
| □ interfaces drawing 250 mm (25 kA) | AAA10334F0 |
| □ interfaces drawing 250 mm (31.5 kA) | AAA10295F0 |
| □ connecting (direct) of bars 230 mm - 630 A | 51302139F0 |
| □ connecting direct) of bars 230 mm - 1250 A | 51302140F0 |
| □ connecting (direct) of bars 250 mm - 2500 A | AAA10412F0 |
| ■ extraction table | |
| □ upper part | 51306759F0 |
| □ complete | 51306830F0 |
| ■ ramp for cradle access | 51301755F0 |
| ■ voltage indicator 10 to 24 kV | 51236248F0 |
| ■ standard insulator 24 kV | 51302047F0 |
| ■ capacitor divider insulator set 24 kV | 3736825 |
| ■ phase comparator | 7896613 |
| ■ high resistance plastic window | 3728891 |
| ■ cubicle compartment handle | 51236245F0 |
| ■ heating resistor | 03408863F0 |
| ■ bushing assembling conditions (630 A-1250 A) | 51301963F0 |
| ■ bushing assembling conditions (2500 A) | 51301964F0 |
| ■ clusters and fingers (630 A-1250 A) | 51302138F0 |
| ■ clusters and fingers (2500 A) | AAA10289F0 |
| ■ arms | 51301434F0 |
| ■ additional earthing sliding device | 51223612F0 |
| ■ earthing switch overall drawing | 51301930FE |

Appendices

Drawings for Evolis installation

| | |
|---|---------------|
| ■ additional shutter for maintenance 630 A-1250 A | |
| □ number upper | AAA10361F0 |
| □ number lower | AAA10362F0 |
| ■ additional shutter for maintenance 2500 A | |
| □ number upper | AAA10364F0 |
| □ number lower | AAA10365F0 |
| ■ support additional shutter for maintenance | AAA10363F0 |
| ■ circuit breaker lateral | |
| □ 250 mm right | AAA10375F0 |
| □ 250 mm left | AAA10376F0 |
| □ 300 mm right | AAA10377F0 |
| □ 300 mm left | AAA10448F0 |
| □ bar connection | AAA10450F0 |
| ■ circuit breaker EVOset | |
| □ 250 mm right | AAA10446F0 |
| □ 300 mm right | AAA10378F0 |
| □ bar connection | AAA10450F0 |
| □ VIP30/35 | PCRED399007EN |
| □ VIP300 | PCRED399008EN |

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