



## Technical Specification:

### Item no. 1 DV+

Qty.: 1 set(s)

### SafePlus compact switchgear

Total number of modules 2 pcs

### STANDARDS AND MECHANICAL DATA

Metal Enclosed switchgear:	IEC 62271-200
General Purpose switches:	IEC 60265-1
Disconnectors and Earthing switches:	IEC 62271-102
Switch Fuse Combination:	IEC 62271-105
Circuit Breakers:	IEC 62271-100
Common clauses:	IEC 62271-1
Pressure of SF6 gas:	1.4 bar at 20 °C generally
Cable bushings:	DIN 47636
Temperature class:	-25 °C - +40 °C
Degree of protection:	
- SF6 tank:	IP 67
- Fusecanisters:	IP 67
- Front cover:	IP 2X
- Cable cover:	IP 3X
Busbars:	240 mm <sup>2</sup> Cu
Earth bar (external):	100 mm <sup>2</sup> Cu - Bolt dimension: M10
Colours:	
- Front cover:	RAL 7035
- Side and cable cover:	RAL 7035

### ELECTRICAL DATA – 12 kV - 28kV-1min

Nominal voltage: 11 kV  
Rated frequency: 50 Hz  
Rated current busbars: 630 A  
Rated current cable switch disconnector : 630 A  
Short time withstand current:  
- cable switch disconnector with interface C (400-bolt) bushing: 21 kArms 3 sec. / 25kArms 1sec.  
- vacuum circuit breaker with interface A (200-plug) bushing: 16 kArms 0,5 sec.  
- vacuum circuit breaker with interface C (400-bolt) bushing: 21 kArms 3 sec.  
Rated current for transformer T-off : 200 / 630 A  
Short time withstand current (3 sec) **CB-module** vacuum circuit breaker: 25kArms

Impulse withstand voltage :  
To earth and between phases: 95 kV  
Insulation level:  
- Power frequency 1 min: 28 kV



### A01 D

SafePlus D is a direct cable connection module with busbars and earthbar.

- 1 SafePlus type D: Direct cable connection 12kV, 630A
- 1 Cable bushings 400 series bolted, 630 A, standard
- 1 Cable cover standard
- 1 Sidewall left
- 1 Capacitive voltage indication fixed type DXN5-T
- 1 Cable support bars, standard for 1-way unit (Steel, Adjustable)
- 1 Manometer

### A02 V

SafePlus V is a Vacuum circuit breaker module with vacuum circuit breaker, three position isolator/earthing switch, busbars, interlocking, earthbar and stored spring energy mechanism (A-mech.).

- 1 SafePlus type V: Vacuum circuit breaker 12kV, 630A
- 1 Stored energy mech. for man.operation
- 1 Dead end receptacles for future extension
- 1 Bushings outside cone interface C for connection of external busbar
- 1 Sidewall right
- 1 Without padlocking device push buttons
- 1 Protection relay type ABB REJ 603
- 3 Ring core current transformer type CT2 16-56A
- 1 Cable bushings 400 series bolted, 630A
- 1 Cable cover standard
- 1 Capacitive voltage indication fixed type DXN2-T
- 1 Cable support bars, standard for 1-way unit (Steel, Adjustable)
  
- 1 **shunt coil for transformer temperature trip**
- 1 **shunt trip coil**

Additional equipment delivered separately or mounted in respective panel.

- 1 Operating handle



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**Item no. 2 CV+**

Qty.: 1 set(s)

**SafePlus compact switchgear**

Total number of modules 2 pcs

**STANDARDS AND MECHANICAL DATA**

Metal Enclosed switchgear:	IEC 62271-200
General Purpose switches:	IEC 60265-1
Disconnectors and Earthing switches:	IEC 62271-102
Switch Fuse Combination:	IEC 62271-105
Circuit Breakers:	IEC 62271-100
Common clauses:	IEC 62271-1
Pressure of SF6 gas:	1.4 bar at 20 °C generally
Cable bushings:	DIN 47636
Temperature class:	-25 °C - +40 °C
Degree of protection:	
- SF6 tank:	IP 67
- Fusecanisters:	IP 67
- Front cover:	IP 2X
- Cable cover:	IP 3X
Busbars:	240 mm <sup>2</sup> Cu
Earth bar (external):	100 mm <sup>2</sup> Cu - Bolt dimension: M10
Colours:	
- Front cover:	RAL 7035
- Side and cable cover:	RAL 7035

**ELECTRICAL DATA – 12 kV - 28kV-1min**

Nominal voltage: 11 kV  
Rated frequency: 50 Hz  
Rated current busbars: 630 A  
Rated current cable switch disconnecter : 630 A  
Short time withstand current:  
- cable switch disconnecter with interface C (400-bolt) bushing: 21 kArms 3 sec. / 25kArms 1sec.  
- vacuum circuit breaker with interface A (200-plug) bushing: 16 kArms 0,5 sec.  
- vacuum circuit breaker with interface C (400-bolt) bushing: 21 kArms 3 sec.  
Rated current for transformer T-off : 200 / 630 A  
Short time withstand current (3 sec) **CB-module** vacuum circuit breaker: 25kArms

Impulse withstand voltage :  
To earth and between phases: 95 kV  
Insulation level:  
- Power frequency 1 min: 28 kV



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### A01 C

SafePlus C is a cable switch module with a three position load break switch and earthing switch, busbars, interlocking and earthbar.

- 1 SafePlus type C: Cable switch 12kV, 630A
- 1 Snap action mech. for manual operation
- 1 Sidewall left
- 1 Cable bushings 400 series bolted, 630 A, standard
- 1 Cable cover standard
- 1 Capacitive voltage indication fixed type DXN5-T
- 1 Cable support bars, standard for 1-way unit (Steel, Adjustable)
- 1 Manometer

### A02 V

SafePlus V is a Vacuum circuit breaker module with vacuum circuit breaker, three position isolator/earthing switch, busbars, interlocking, earthbar and stored spring energy mechanism (A-mech.).

- 1 SafePlus type V: Vacuum circuit breaker 12kV, 630A
- 1 Stored energy mech. for man.operation,with trip coil open
- 1 Dead end receptacles for future extension
- 1 Bushings outside cone interface C for connection of external busbar
- 1 Sidewall right
- 1 Control voltage, trip coil 24 V DC
- 1 Without padlocking device push buttons
- 1 Protection relay type ABB REJ 603
- 3 Ring core current transformer type CT2 16-56A
- 1 Cable bushings 400 series bolted, 630A
- 1 Cable cover standard
- 1 Capacitive voltage indication fixed type DXN2-T
- 1 Cable support bars, standard for 1-way unit (Steel, Adjustable)
  
- 1 **shunt coil for transformer temperature trip**
- 1 **shunt trip coil**

Additional equipment delivered separately or mounted in respective panel.

- 1 Operating handle



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### Item no. 3 VV+

Qty.: 1 set(s)

### SafePlus compact switchgear

Total number of modules 2 pcs

### STANDARDS AND MECHANICAL DATA

Metal Enclosed switchgear:	IEC 62271-200
General Purpose switches:	IEC 60265-1
Disconnectors and Earthing switches:	IEC 62271-102
Switch Fuse Combination:	IEC 62271-105
Circuit Breakers:	IEC 62271-100
Common clauses:	IEC 62271-1
Pressure of SF6 gas:	1.4 bar at 20 °C generally
Cable bushings:	DIN 47636
Temperature class:	-25 °C - +40 °C
Degree of protection:	
- SF6 tank:	IP 67
- Fusecanisters:	IP 67
- Front cover:	IP 2X
- Cable cover:	IP 3X
Busbars:	240 mm <sup>2</sup> Cu
Earth bar (external):	100 mm <sup>2</sup> Cu - Bolt dimension: M10
Colours:	
- Front cover:	RAL 7035
- Side and cable cover:	RAL 7035

### ELECTRICAL DATA – 12 kV - 28kV-1min

Nominal voltage: 11 kV  
Rated frequency: 50 Hz  
Rated current busbars: 630 A  
Rated current cable switch disconnecter : 630 A  
Short time withstand current:  
- cable switch disconnecter with interface C (400-bolt) bushing: 21 kArms 3 sec. / 25kArms 1sec.  
- vacuum circuit breaker with interface A (200-plug) bushing: 16 kArms 0,5 sec.  
- vacuum circuit breaker with interface C (400-bolt) bushing: 21 kArms 3 sec.  
Rated current for transformer T-off : 200 / 630 A  
Short time withstand current (3 sec) **CB-module** vacuum circuit breaker: 25kArms

Impulse withstand voltage :  
To earth and between phases: 95 kV  
Insulation level:  
- Power frequency 1 min: 28 kV



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#### A01 V

SafePlus V is a Vacuum circuit breaker module with vacuum circuit breaker, three position isolator/earthing switch, busbars, interlocking, earthbar and stored spring energy mechanism (A-mech.).

- 1 SafePlus type V: Vacuum circuit breaker 12kV, 630A
- 1 Stored energy mech. for man.operation,with trip coil open
- 1 Sidewall left
- 1 Control voltage, trip coil 220 V AC
- 1 Without padlocking device push buttons
- 1 Protection relay type ABB REJ 603
- 3 Ring core current transformer type CT2 16-56A
- 1 Cable bushings 400 series bolted, 630A
- 1 Cable cover standard
- 1 Capacitive voltage indication fixed type DXN5-T
- 1 Cable support bars, standard for 1-way unit (Steel, Adjustable)
- 1 Manometer

#### A02 V

SafePlus V is a Vacuum circuit breaker module with vacuum circuit breaker, three position isolator/earthing switch, busbars, interlocking, earthbar and stored spring energy mechanism (A-mech.).

- 1 SafePlus type V: Vacuum circuit breaker 12kV, 630A
- 1 Stored energy mech. for man.operation,with trip coil open
- 1 Dead end receptacles for future extension
- 1 Bushings outside cone interface C for connection of external busbar
- 1 Sidewall right
- 1 Control voltage, trip coil 220 V AC
- 1 Without padlocking device push buttons
- 1 Protection relay type ABB REJ 603
- 3 Ring core current transformer type CT2 16-56A
- 1 Cable bushings 400 series bolted, 630A
- 1 Cable cover standard
- 1 Capacitive voltage indication fixed type DXN5-T
- 1 Cable support bars, standard for 1-way unit (Steel, Adjustable)
  
- 1 **shunt coil for transformer temperature trip**
- 1 **shunt trip coil**

Additional equipment delivered separately or mounted in respective panel.

- 1 Operating handle



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**Item no. 4 CVV+**

Qty.: 1 set(s)

**SafePlus compact switchgear**

Total number of modules 3 pcs

**STANDARDS AND MECHANICAL DATA**

Metal Enclosed switchgear:	IEC 62271-200
General Purpose switches:	IEC 60265-1
Disconnectors and Earthing switches:	IEC 62271-102
Switch Fuse Combination:	IEC 62271-105
Circuit Breakers:	IEC 62271-100
Common clauses:	IEC 62271-1
Pressure of SF6 gas:	1.4 bar at 20 °C generally
Cable bushings:	DIN 47636
Temperature class:	-25 °C - +40 °C
Degree of protection:	
- SF6 tank:	IP 67
- Fusecanisters:	IP 67
- Front cover:	IP 2X
- Cable cover:	IP 3X
Busbars:	240 mm <sup>2</sup> Cu
Earth bar (external):	100 mm <sup>2</sup> Cu - Bolt dimension: M10
Colours:	
- Front cover:	RAL 7035
- Side and cable cover:	RAL 7035

**ELECTRICAL DATA – 12 kV - 28kV-1min**

Nominal voltage: 11 kV  
Rated frequency: 50 Hz  
Rated current busbars: 630 A  
Rated current cable switch disconnecter : 630 A  
Short time withstand current:  
- cable switch disconnecter with interface C (400-bolt) bushing: 21 kArms 3 sec. / 25kArms 1sec.  
- vacuum circuit breaker with interface A (200-plug) bushing: 16 kArms 0,5 sec.  
- vacuum circuit breaker with interface C (400-bolt) bushing: 21 kArms 3 sec.  
Rated current for transformer T-off : 200 / 630 A  
Short time withstand current (3 sec) **CB-module** vacuum circuit breaker: 25kArms

Impulse withstand voltage :  
To earth and between phases: 95 kV  
Insulation level:  
- Power frequency 1 min: 28 kV



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### A01 C

SafePlus C is a cable switch module with a three position load break switch and earthing switch, busbars, interlocking and earthbar.

- 1 SafePlus type C: Cable switch 12kV, 630A
- 1 Snap action mech. for manual operation
- 1 Sidewall left
- 1 Cable bushings 400 series bolted, 630 A, standard
- 1 Cable cover standard
- 1 Capacitive voltage indication fixed type DXN5-T
- 1 Cable support bars, standard for 1-way unit (Steel, Adjustable)
- 1 Manometer

### A02 V

SafePlus V is a Vacuum circuit breaker module with vacuum circuit breaker, three position isolator/earthing switch, busbars, interlocking, earthbar and stored spring energy mechanism (A-mech.).

- 1 SafePlus type V: Vacuum circuit breaker 12kV, 630A
- 1 Stored energy mech. for man.operation,with trip coil open
- 1 Control voltage, trip coil 220 V AC
- 1 Without padlocking device push buttons
- 1 Protection relay type ABB REJ 603
- 3 Ring core current transformer type CT2 16-56A
- 1 Cable bushings 400 series bolted, 630A
- 1 Cable cover standard
- 1 Capacitive voltage indication fixed type DXN5-T
- 1 Cable support bars, standard for 1-way unit (Steel, Adjustable)

### A03 V

SafePlus V is a Vacuum circuit breaker module with vacuum circuit breaker, three position isolator/earthing switch, busbars, interlocking, earthbar and stored spring energy mechanism (A-mech.).

- 1 SafePlus type V: Vacuum circuit breaker 12kV, 630A
- 1 Stored energy mech. for man.operation,with trip coil open
- 1 Dead end receptacles for future extension
- 1 Bushings outside cone interface C for connection of external busbar



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- 1 Sidewall right
- 1 Control voltage, trip coil 220 V AC
- 1 Without padlocking device push buttons
- 1 Protection relay type ABB REJ 603
- 3 Ring core current transformer type CT2 16-56A
- 1 Cable bushings 400 series bolted, 630A
- 1 Cable cover standard
- 1 Capacitive voltage indication fixed type DXN5-T
- 1 Cable support bars, standard for 1-way unit (Steel, Adjustable)
  
- 1 ***shunt coil for transformer temperature trip***
- 1 ***shunt trip coil***

Additional equipment delivered separately or mounted in respective panel.

- 1 Operating handle



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**Item no. 5 VVV+**

Qty.: 1 set(s)

**SafePlus compact switchgear**

Total number of modules 3 pcs

**STANDARDS AND MECHANICAL DATA**

Metal Enclosed switchgear:	IEC 62271-200
General Purpose switches:	IEC 60265-1
Disconnectors and Earthing switches:	IEC 62271-102
Switch Fuse Combination:	IEC 62271-105
Circuit Breakers:	IEC 62271-100
Common clauses:	IEC 62271-1
Pressure of SF6 gas:	1.4 bar at 20 °C generally
Cable bushings:	DIN 47636
Temperature class:	-25 °C - +40 °C
Degree of protection:	
- SF6 tank:	IP 67
- Fusecanisters:	IP 67
- Front cover:	IP 2X
- Cable cover:	IP 3X
Busbars:	240 mm <sup>2</sup> Cu
Earth bar (external):	100 mm <sup>2</sup> Cu - Bolt dimension: M10
Colours:	
- Front cover:	RAL 7035
- Side and cable cover:	RAL 7035

**ELECTRICAL DATA – 12 kV - 28kV-1min**

Nominal voltage: 11 kV  
Rated frequency: 50 Hz  
Rated current busbars: 630 A  
Rated current cable switch disconnecter : 630 A  
Short time withstand current:  
- cable switch disconnecter with interface C (400-bolt) bushing: 21 kArms 3 sec. / 25kArms 1sec.  
- vacuum circuit breaker with interface A (200-plug) bushing: 16 kArms 0,5 sec.  
- vacuum circuit breaker with interface C (400-bolt) bushing: 21 kArms 3 sec.  
Rated current for transformer T-off : 200 / 630 A  
Short time withstand current (3 sec) **CB-module** vacuum circuit breaker: 25kArms

Impulse withstand voltage :  
To earth and between phases: 95 kV  
Insulation level:  
- Power frequency 1 min: 28 kV



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### A01 V

SafePlus V is a Vacuum circuit breaker module with vacuum circuit breaker, three position isolator/earthing switch, busbars, interlocking, earthbar and stored spring energy mechanism (A-mech.).

- 1 SafePlus type V: Vacuum circuit breaker 12kV, 630A
- 1 Stored energy mech. for man.operation,with trip coil open
- 1 Sidewall left
- 1 Control voltage, trip coil 220 V AC
- 1 Without padlocking device push buttons
- 1 Protection relay type ABB REJ 603
- 3 Ring core current transformer type CT2 16-56A
- 1 Cable bushings 400 series bolted, 630A
- 1 Cable cover standard
- 1 Capacitive voltage indication fixed type DXN5-T
- 1 Cable support bars, standard for 1-way unit (Steel, Adjustable)
- 1 Manometer

### A02 V

SafePlus V is a Vacuum circuit breaker module with vacuum circuit breaker, three position isolator/earthing switch, busbars, interlocking, earthbar and stored spring energy mechanism (A-mech.).

- 1 SafePlus type V: Vacuum circuit breaker 12kV, 630A
- 1 Stored energy mech. for man.operation,with trip coil open
- 1 Control voltage, trip coil 220 V AC
- 1 Without padlocking device push buttons
- 1 Protection relay type ABB REJ 603
- 3 Ring core current transformer type CT2 16-56A
- 1 Cable bushings 400 series bolted, 630A
- 1 Cable cover standard
- 1 Capacitive voltage indication fixed type DXN5-T
- 1 Cable support bars, standard for 1-way unit (Steel, Adjustable)

### A03 V

SafePlus V is a Vacuum circuit breaker module with vacuum circuit breaker, three position isolator/earthing switch, busbars, interlocking, earthbar and stored spring energy mechanism (A-mech.).

- 1 SafePlus type V: Vacuum circuit breaker 12kV, 630A
- 1 Stored energy mech. for man.operation,with trip coil open



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- 1 Dead end receptacles for future extension
- 1 Bushings outside cone interface C for connection of external busbar
- 1 Sidewall right
- 1 Control voltage, trip coil 220 V AC
- 1 Without padlocking device push buttons
- 1 Protection relay type ABB REJ 603
- 3 Ring core current transformer type CT2 16-56A
- 1 Cable bushings 400 series bolted, 630A
- 1 Cable cover standard
- 1 Capacitive voltage indication fixed type DXN5-T
- 1 Cable support bars, standard for 1-way unit (Steel, Adjustable)
  
- 1 ***shunt coil for transformer temperature trip***
- 1 ***shunt trip coil***

Additional equipment delivered separately or mounted in respective panel.

- 1 Operating handle