



Medium voltage products

UniSec JTI

Secondary distribution switchgear with rapid delivery

Power and productivity
for a better world™

ABB

UniSec JTI

Thought up and built for industry customers

The JTI "Just To Install" acronym indicates a type of medium voltage switchgear for primary and secondary distribution featuring very rapid delivery and putting into service.

Delivery time for UniSec JTI switchgear is normally two weeks.

By means of a product configurator allowing precise and rapid estimates to be made, the customer receives complete proposals and does not have to make out the technical specification and design drawings.

UniSec JTI switchgear is based on the standard switchgear design and has a range of types able to satisfy even special plant requirements, thanks both to its electrical characteristics and standard fitting of accessories.

UniSec JTI switchgear is always fitted with mechanical and electromechanical interlocks in accordance with the IEC 62271-200 Standard. It is available with gas and vacuum circuit-breakers. All the solutions have the incoming units complying with the CEI 0-16 standard and use of the REF 601 relay or, alternatively, the REF542plus unit as the protection unit.

The technical design documentation is available immediately and the customer provides official approval of the design right from the offer stage.



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Characteristics

General characteristics

- Compartments and side pieces made of pre-galvanized or painted metal sheets
- Front panel doors painted grey RAL 7035 colour
- Removable HD4/R-Sec or removable VD4/R-Sec circuit-breaker
- Current sensors on circuit-breaker, KECA 250 B1 current sensors or KEV CD 24 AE3 combined current/voltage sensors to DIN standards
- REF601 protection relay or REF542*plus* microprocessor control and protection unit
- Incoming unit protection system according to CEI 0-16 Standard - December 2012 edition
- Arrangement for earthing, by means of movable devices or earthing switch in the incoming unit, on the network side

Compliance with Standards

- IEC 62271-200
- EN 62271-200

Version

- Standard internal arc proof on switchgear front

Classification

- Service continuity: LSC2A
- Partitions: PM (Metal partitions)

Degree of protection

- IP2X inside the switchgear
- IP3X on the external housing

Available mechanical interlocks

- Line-side isolator with earthing switch
- Door with earthing switch

Auxiliary circuit voltage

- 230 V c.a.

Electrical ratings

Rated voltage	kV	24
Test voltage (50 Hz/1 min)	kV	50
Impulse withstand voltage	kV	125
Rated frequency	Hz	50
Rated current	A	630
Rated short-time withstand current (1 s)	kA	16
Peak current	kA	40
Internal arc withstand current (up to IAC AF) (1 s)	kA	16

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Main components

**HD4/R-Sec gas circuit-breaker
(with REF 601 relay and current sensors)**



**VD4/R-Sec vacuum circuit-breakers
(with REF 601 relay and current sensors)**



G-Sec gas switch-disconnector



REF542*plus* multi-function control and protection unit



REF 601 protection relay



KECA 250 B1 current sensor



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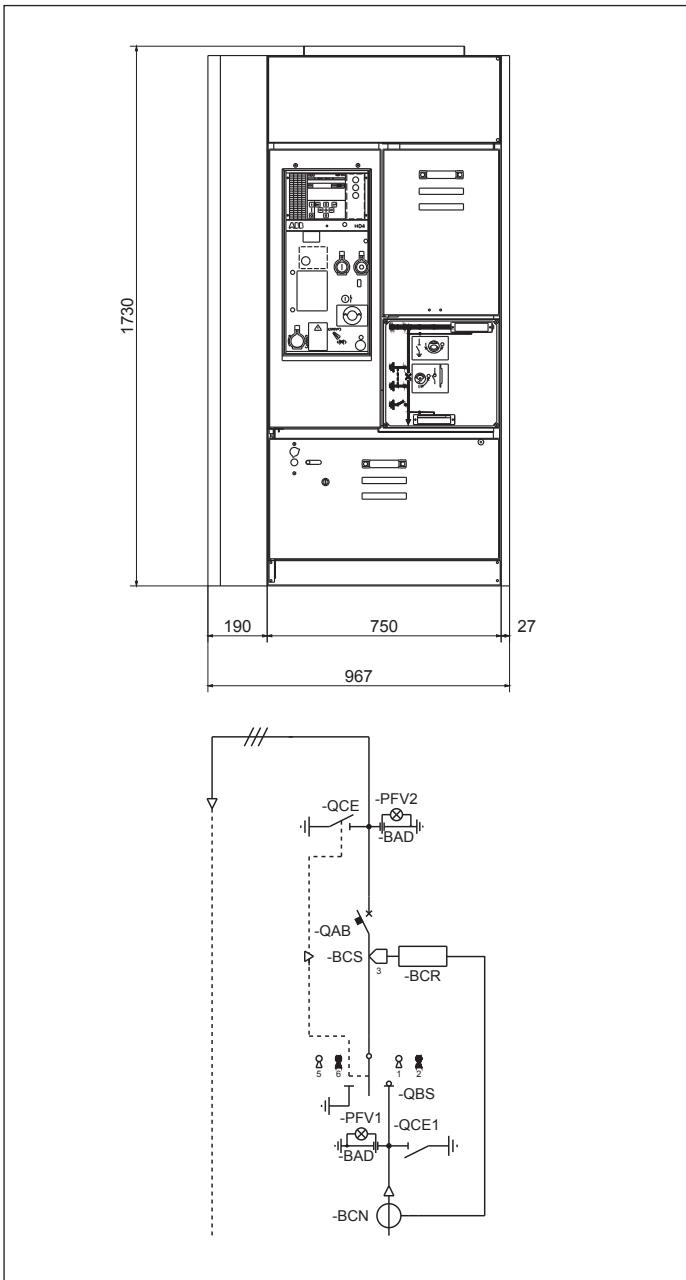
Solution available with undervoltage release and protection relay (50 - 51 - 50N - 51N)

JTI A1 - RLC + SBR switchgear

1 (one) SBR unit with removable circuit-breaker +

1 (one) RLC unit with cable exit on the left

- Voltage present on busbar side and cable side.
- HD4/R-Sec or VD4/R-Sec circuit-breaker p230 not motorized with shunt opening release, shunt closing release, operation counter, 2 NO + 2 NC aux. contacts, undervoltage release.
- Temporary mechanical override of the undervoltage release.
- REF 601 protection relay without communication (51, I>; 51, I>>; 50, I>>>; 51N, Io>; 50N, Io>>) with 3 on-board circuit-breaker sensors and toroid for earth fault, conforming to CEI 0-16 Standard (see warning page 3).
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the closed position and 1 removable key in the open position;
 - 1 removable key with earthing switch in the closed position and 1 removable key in the open position.
- Earthing switch on utility side with utility responsible for the key, in accordance with the CEI 0-16 Standard.



Codes for galvanized compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A1_Z_RLC_N_N_GAS	1VCF838000R0001	Without accessories
HD4/R-Sec	JTI_SEC_A1_Z_RLC_N_R_GAS	1VCF838000R0144	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A1_Z_RLC_I_N_GAS	1VCF838000R0002	Internal lighting
HD4/R-Sec	JTI_SEC_A1_Z_RLC_I_R_GAS	1VCF838000R0003	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A1_Z_RLC_N_N_VUOTO	1VCF838000R0016	Without accessories
VD4/R-Sec	JTI_SEC_A1_Z_RLC_N_R_VUOTO	1VCF838000R0017	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A1_Z_RLC_I_N_VUOTO	1VCF838000R0018	Internal lighting
VD4/R-Sec	JTI_SEC_A1_Z_RLC_I_R_VUOTO	1VCF838000R0019	Internal lighting and anti-condensation heater

Codes for painted compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A1_V_RLC_N_N_GAS	1VCF838000R0008	Without accessories
HD4/R-Sec	JTI_SEC_A1_V_RLC_N_R_GAS	1VCF838000R0009	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A1_V_RLC_I_N_GAS	1VCF838000R0010	Internal lighting
HD4/R-Sec	JTI_SEC_A1_V_RLC_I_R_GAS	1VCF838000R0011	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A1_V_RLC_N_N_VUOTO	1VCF838000R0024	Without accessories
VD4/R-Sec	JTI_SEC_A1_V_RLC_N_R_VUOTO	1VCF838000R0025	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A1_V_RLC_I_N_VUOTO	1VCF838000R0026	Internal lighting
VD4/R-Sec	JTI_SEC_A1_V_RLC_I_R_VUOTO	1VCF838000R0027	Internal lighting and anti-condensation heater

Completion	Height	Sales code
Height adjustment wedge	300 mm	1VCF8380000R0215

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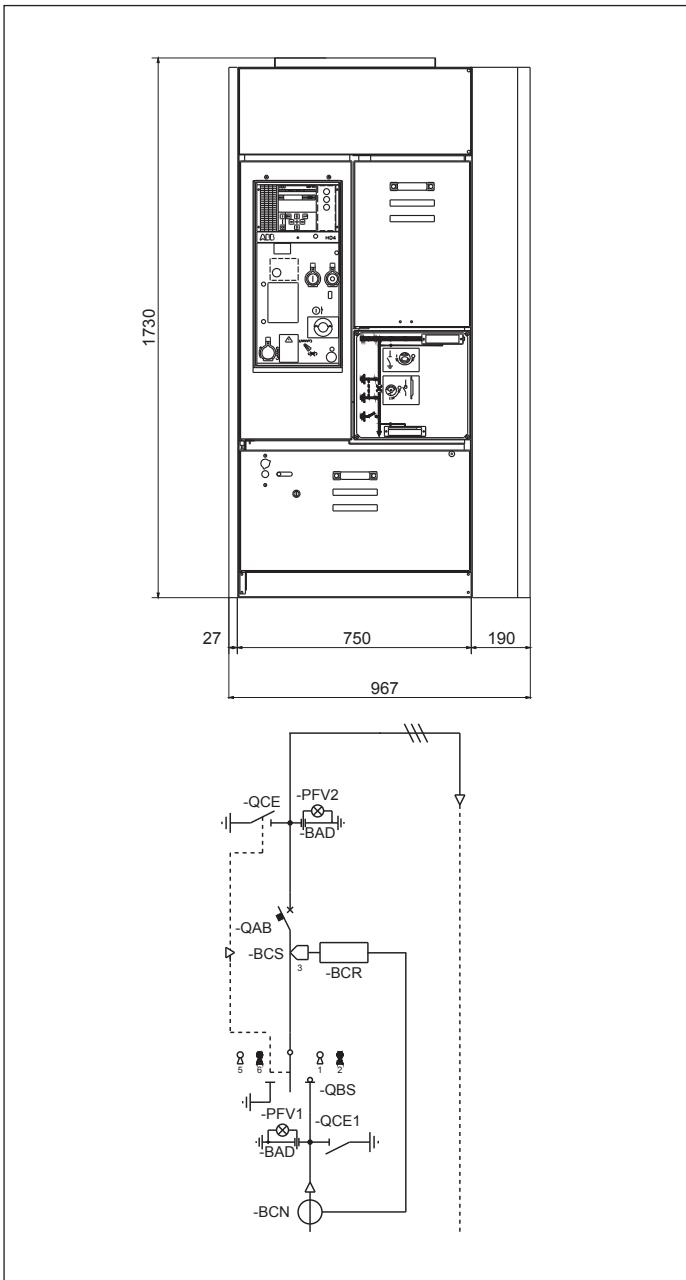
Solution available with undervoltage release and protection relay (50 - 51 - 50N - 51N)

JTI A1 - RRC + SBR switchgear

1 (one) SBR unit with removable circuit-breaker +

1 (one) RRC unit with cable exit on the right

- Voltage present on busbar side and cable side.
- HD4/R-Sec or VD4/R-Sec circuit-breaker p230 not motorized with shunt opening release, shunt closing release, operation counter, 2 NO + 2 NC aux. contacts, undervoltage release.
- Temporary mechanical override of the undervoltage release.
- REF 601 protection relay without communication (51, I>; 51, I>>; 50, I>>>; 51N, Io>; 50N, Io>>) with 3 on-board circuit-breaker sensors and toroid for earth fault, conforming to CEI 0-16 Standard (see warning page 3).
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the closed position and 1 removable key in the open position;
 - 1 removable key with earthing switch in the closed position and 1 removable key in the open position.
- Earthing switch on utility side with utility responsible for the key, in accordance with the CEI 0-16 Standard.



Codes for galvanized compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A1_Z_RRC_N_N_GAS	1VCF838000R0004	Without accessories
HD4/R-Sec	JTI_SEC_A1_Z_RRC_N_R_GAS	1VCF838000R0005	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A1_Z_RRC_I_N_GAS	1VCF838000R0006	Internal lighting
HD4/R-Sec	JTI_SEC_A1_Z_RRC_I_R_GAS	1VCF838000R0007	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A1_Z_RRC_N_N_VUOTO	1VCF838000R0020	Without accessories
VD4/R-Sec	JTI_SEC_A1_Z_RRC_N_R_VUOTO	1VCF838000R0021	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A1_Z_RRC_I_N_VUOTO	1VCF838000R0022	Internal lighting
VD4/R-Sec	JTI_SEC_A1_Z_RRC_I_R_VUOTO	1VCF838000R0023	Internal lighting and anti-condensation heater

Codes for painted compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A1_V_RRC_N_N_GAS	1VCF838000R0012	Without accessories
HD4/R-Sec	JTI_SEC_A1_V_RRC_N_R_GAS	1VCF838000R0013	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A1_V_RRC_I_N_GAS	1VCF838000R0014	Internal lighting
HD4/R-Sec	JTI_SEC_A1_V_RRC_I_R_GAS	1VCF838000R0015	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A1_V_RRC_N_N_VUOTO	1VCF838000R0028	Without accessories
VD4/R-Sec	JTI_SEC_A1_V_RRC_N_R_VUOTO	1VCF838000R0029	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A1_V_RRC_I_N_VUOTO	1VCF838000R0030	Internal lighting
VD4/R-Sec	JTI_SEC_A1_V_RRC_I_R_VUOTO	1VCF838000R0031	Internal lighting and anti-condensation heater

Completion	Height	Sales code
Height adjustment wedge	300 mm	1VCF8380000R0215

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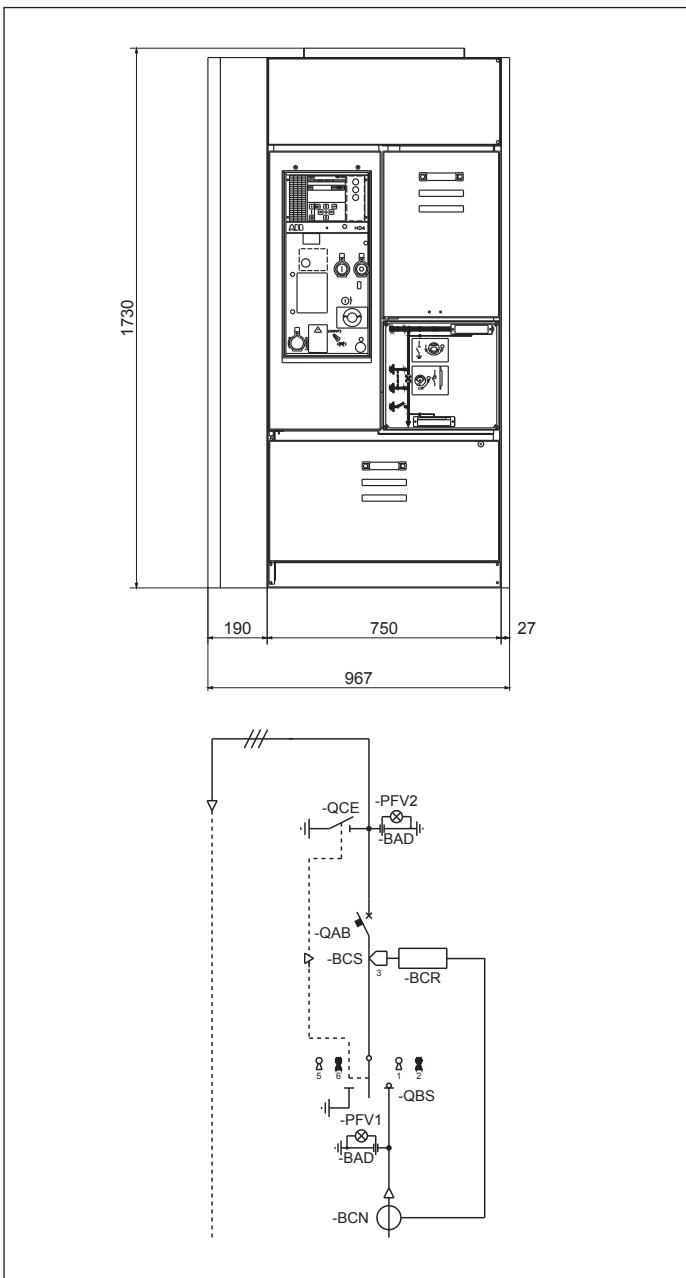
Solution available with undervoltage release and protection relay (50 - 51 - 50N - 51N)

JTI A1_F - RLC + SBR switchgear

1 (one) SBR unit with removable circuit-breaker +

1 (one) RLC unit with cable exit on the left

- Voltage present on busbar side and cable side.
- HD4/R-Sec or VD4/R-Sec circuit-breaker p230 not motorized with shunt opening release, shunt closing release, operation counter, 2 NO + 2 NC aux. contacts, undervoltage release and Temporary mechanical override of the undervoltage release.
- REF 601 protection relay without communication (51, I>; 51, I>>; 50, I>>>; 51N, Io>; 50N, Io>>) with 3 on-board circuit-breaker sensors and toroid for earth fault, conforming to CEI 0-16 Standard (see warning page 3).
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the closed position and 1 removable key in the open position;
 - 1 removable key with earthing switch in the closed position and 1 removable key in the open position.
- Arrangement for earthing by means of insulating rod. The insulating rod is excluded from the supply unless requested separately.



Codes for galvanized compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A1_F_Z_RLC_N_N_GAS	1VCF838000R0175	Without accessories
HD4/R-Sec	JTI_SEC_A1_F_Z_RLC_N_R_GAS	1VCF838000R0176	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A1_F_Z_RLC_I_N_GAS	1VCF838000R0177	Internal lighting
HD4/R-Sec	JTI_SEC_A1_F_Z_RLC_I_R_GAS	1VCF838000R0178	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A1_F_Z_RLC_N_N_VUOTO	1VCF838000R0191	Without accessories
VD4/R-Sec	JTI_SEC_A1_F_Z_RLC_N_R_VUOTO	1VCF838000R0192	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A1_F_Z_RLC_I_N_VUOTO	1VCF838000R0193	Internal lighting
VD4/R-Sec	JTI_SEC_A1_F_Z_RLC_I_R_VUOTO	1VCF838000R0194	Internal lighting and anti-condensation heater

Codes for painted compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A1_F_V_RLC_N_N_GAS	1VCF838000R0183	Without accessories
HD4/R-Sec	JTI_SEC_A1_F_V_RLC_N_R_GAS	1VCF838000R0184	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A1_F_V_RLC_I_N_GAS	1VCF838000R0185	Internal lighting
HD4/R-Sec	JTI_SEC_A1_F_V_RLC_I_R_GAS	1VCF838000R0186	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A1_F_V_RLC_N_N_VUOTO	1VCF838000R0199	Without accessories
VD4/R-Sec	JTI_SEC_A1_F_V_RLC_N_R_VUOTO	1VCF838000R0200	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A1_F_V_RLC_I_N_VUOTO	1VCF838000R0201	Internal lighting
VD4/R-Sec	JTI_SEC_A1_F_V_RLC_I_R_VUOTO	1VCF838000R0202	Internal lighting and anti-condensation heater

Completion	Description	Sales code	
Insulating rod	Kit for movable earthing	1VCF838000R0174	

Completion	Height	Sales code	
Height adjustment wedge	300 mm	1VCF838000R0215	

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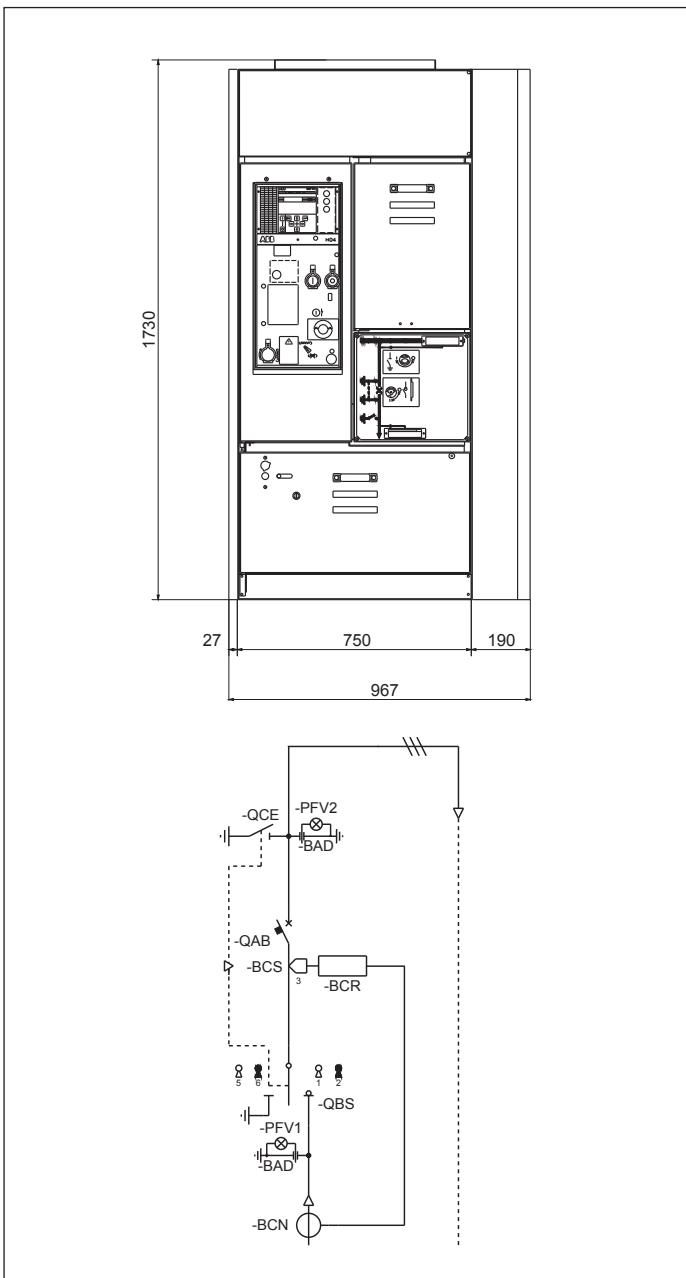
Solution available with undervoltage release and protection relay (50 - 51 - 50N - 51N)

JTI A1_F - RRC + SBR switchgear

1 (one) SBR unit with removable circuit-breaker +

1 (one) RRC unit with cable exit on the right

- Voltage present on busbar side and cable side.
- HD4/R-Sec or VD4/R-Sec circuit-breaker p230 not motorized with shunt opening release, shunt closing release, operation counter, 2 NO + 2 NC aux. contacts, undervoltage release and Temporary mechanical override of the undervoltage release.
- REF 601 protection relay without communication (51, I>; 51, I>>; 50, I>>>; 51N, Io>; 50N, Io>>) with 3 on-board circuit-breaker sensors and toroid for earth fault, conforming to CEI 0-16 Standard (see warning page 3).
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the closed position and 1 removable key in the open position;
 - 1 removable key with earthing switch in the closed position and 1 removable key in the open position.
- Arrangement for earthing by means of insulating rod. The insulating rod is excluded from the supply unless requested separately.



Codes for galvanized compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A1_F_Z_RRC_N_N_GAS	1VCF838000R0179	Without accessories
HD4/R-Sec	JTI_SEC_A1_F_Z_RRC_N_R_GAS	1VCF838000R0180	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A1_F_Z_RRC_I_N_GAS	1VCF838000R0181	Internal lighting
HD4/R-Sec	JTI_SEC_A1_F_Z_RRC_I_R_GAS	1VCF838000R0182	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A1_F_Z_RRC_N_N_VUOTO	1VCF838000R0195	Without accessories
VD4/R-Sec	JTI_SEC_A1_F_Z_RRC_N_R_VUOTO	1VCF838000R0196	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A1_F_Z_RRC_I_N_VUOTO	1VCF838000R0197	Internal lighting
VD4/R-Sec	JTI_SEC_A1_F_Z_RRC_I_R_VUOTO	1VCF838000R0198	Internal lighting and anti-condensation heater

Codes for painted compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A1_F_V_RRC_N_N_GAS	1VCF838000R0187	Without accessories
HD4/R-Sec	JTI_SEC_A1_F_V_RRC_N_R_GAS	1VCF838000R0188	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A1_F_V_RRC_I_N_GAS	1VCF838000R0189	Internal lighting
HD4/R-Sec	JTI_SEC_A1_F_V_RRC_I_R_GAS	1VCF838000R0190	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A1_F_V_RRC_N_N_VUOTO	1VCF838000R0203	Without accessories
VD4/R-Sec	JTI_SEC_A1_F_V_RRC_N_R_VUOTO	1VCF838000R0204	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A1_F_V_RRC_I_N_VUOTO	1VCF838000R0205	Internal lighting
VD4/R-Sec	JTI_SEC_A1_F_V_RRC_I_R_VUOTO	1VCF838000R0206	Internal lighting and anti-condensation heater

Completion	Description	Sales code	
Insulating rod	Kit for movable earthing	1VCF838000R0174	

Completion	Height	Sales code	
Height adjustment wedge	300 mm	1VCF838000R0215	

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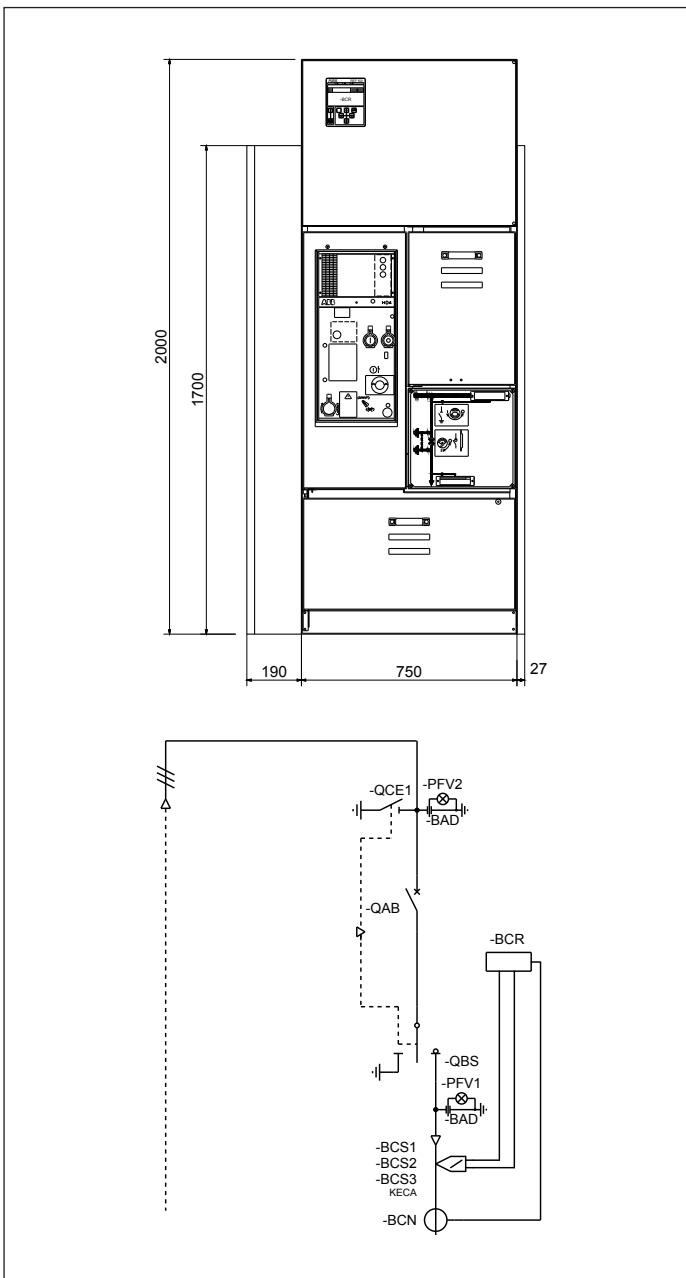
Solution available with Data Logger
and protection relay (50 - 51 - 50N - 51N)

JTI A1_F_DL – RLC + SBR switchgear

1 (one) SBR unit with plug-in circuit-breaker +

1 (one) RLC unit with cable outlet on left

- Voltage present on busbar side and cable side.
 - Circuit-breaker type VD4/R-Sec or HD4/R-Sec p230 with or without motor (”), with shunt opening release, shunt closing release, operation counter and 2 NO + 2NC auxiliary contacts.
 - REF 601 protection relay with Data Logger, Modbus communication and RS 485 serial output (51, I>; 51, I>>; 50, I>>>; 51N, Io>; 50N, Io>>, 68), with 3 current sensors and toroid for earth fault, conforming to Standard CEI 0-16 (“).
 - G-Sec switch-disconnector with:
 - 1 key that can be removed if line-side isolator is closed and 1 key that can be removed if line-side isolator is open;
 - 1 key that can be removed if earthing switch is closed and 1 key that can be removed if earthing switch is open.
 - Pre-engineered for earthing by means of earthing stick.
The earthing stick is not included in the supply and must be ordered separately.



- (4) Motor-operated circuit-breaker includes local/remote selector switch and opening and closing push-buttons

^(*) Software for Data Logger function can be downloaded free of charge from our website: www.abb.it/mediatensione CEL 0-16 portal.

A USB/RS485 converter is required.

We recommend use of a MOXA Uport 1130 v1.4 converter.

Codes for galvanized compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A1_F_DL_Z_RLC_N_N_N_GAS	1VCF838000R0225	Basic version without accessories
HD4/R-Sec	JTI_SEC_A1_F_DL_Z_RLC_N_R_N_GAS	1VCF838000R0226	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A1_F_DL_Z_RLC_I_N_N_GAS	1VCF838000R0227	Internal lighting
HD4/R-Sec	JTI_SEC_A1_F_DL_Z_RLC_I_R_N_GAS	1VCF838000R0228	Internal lighting and anti-condensation heater
HD4/R-Sec	JTI_SEC_A1_F_DL_Z_RLC_N_N_M_GAS	1VCF838000R0229	Motor-operated circuit-breaker
HD4/R-Sec	JTI_SEC_A1_F_DL_Z_RLC_I_R_M_GAS	1VCF838000R0230	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A1_F_DL_Z_RLC_N_N_N_VUOTO	1VCF838000R0231	Basic version without accessories
VD4/R-Sec	JTI_SEC_A1_F_DL_Z_RLC_N_R_N_VUOTO	1VCF838000R0232	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A1_F_DL_Z_RLC_I_N_N_VUOTO	1VCF838000R0233	Internal lighting
VD4/R-Sec	JTI_SEC_A1_F_DL_Z_RLC_I_R_N_VUOTO	1VCF838000R0234	Internal lighting and anti-condensation heater
VD4/R-Sec	JTI_SEC_A1_F_DL_Z_RLC_N_N_M_VUOTO	1VCF838000R0235	Motor-operated circuit-breaker
VD4/R-Sec	JTI_SEC_A1_F_DL_Z_RLC_I_R_M_VUOTO	1VCF838000R0236	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Completion	Description	Sales code
Insulating rod	Kit for movable earthing	1VCF838000R0174

Completion	Height	Sales code
Height adjustment wedge	300 mm	1VCF8380000R0215

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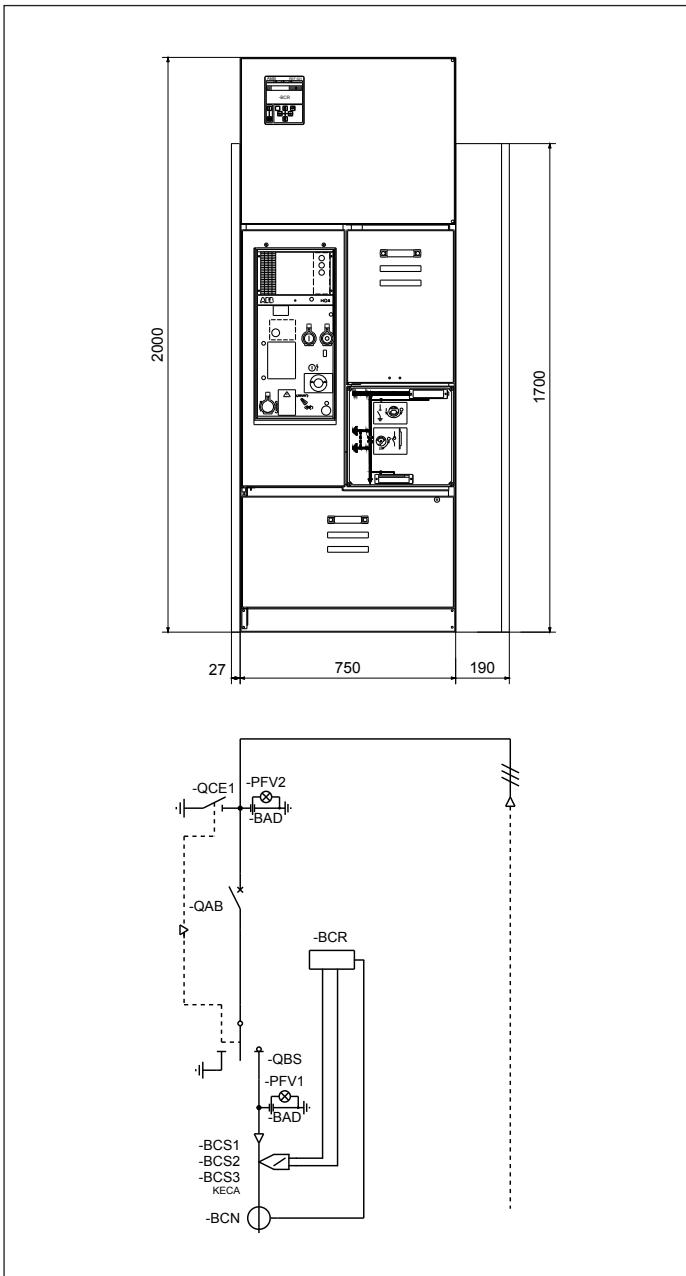
Solution available with Data Logger
and protection relay (50 - 51 - 50N - 51N)

JTI A1_F_DL – RRC + SBR switchgear

1 (one) SBR unit with plug-in circuit-breaker +

1 (one) RRC unit with cable outlet on right

- Voltage present on busbar side and cable side.
- Circuit-breaker type VD4/R-Sec or HD4/R-Sec p230 with or without motor^(*), with shunt opening release, shunt closing release, operation counter and 2 NO + 2 NC auxiliary contacts.
- REF 601 protection relay with Data Logger, Modbus communication and RS 485 serial output (51, I>; 51, I>>; 50, I>>>; 51N, Io>; 50N, Io>>, 68), with 3 current sensors and toroid for earth fault, conforming to Standard CEI 0-16^(**).
- G-Sec switch-disconnector with:
 - 1 key that can be removed if line-side isolator is closed and 1 key that can be removed if line-side isolator is open;
 - 1 key that can be removed if earthing switch is closed and 1 key that can be removed if earthing switch is open.
- Pre-engineered for earthing by means of earthing stick.
The earthing stick is not included in the supply and must be ordered separately.



^(*) Motor-operated circuit-breaker includes local/remote selector switch and opening and closing push-buttons

^(**) Software for Data Logger function can be downloaded free of charge from our website: www.abb.it/mediatensione CEI 0-16 portal.

A USB/RS485 converter is required.

We recommend use of a MOXA Uport 1130 v.1.4 converter

Codes for galvanized compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A1_F_DL_Z_RRC_N_N_N_GAS	1VCF838000R0237	Basic version without accessories
HD4/R-Sec	JTI_SEC_A1_F_DL_Z_RRC_N_P_N_GAS	1VCF838000R0238	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A1_F_DL_Z_RRC_I_N_N_GAS	1VCF838000R0239	Internal lighting
HD4/R-Sec	JTI_SEC_A1_F_DL_Z_RRC_I_R_N_GAS	1VCF838000R0240	Internal lighting and anti-condensation heater
HD4/R-Sec	JTI_SEC_A1_F_DL_Z_RRC_N_N_M_GAS	1VCF838000R0241	Motor-operated circuit-breaker
HD4/R-Sec	JTI_SEC_A1_F_DL_Z_RRC_I_R_M_GAS	1VCF838000R0242	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A1_F_DL_Z_RRC_N_N_VUOTO	1VCF838000R0243	Basic version without accessories
VD4/R-Sec	JTI_SEC_A1_F_DL_Z_RRC_N_P_N_VUOTO	1VCF838000R0244	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A1_F_DL_Z_RRC_I_N_N_VUOTO	1VCF838000R0245	Internal lighting
VD4/R-Sec	JTI_SEC_A1_F_DL_Z_RRC_I_R_N_VUOTO	1VCF838000R0246	Internal lighting and anti-condensation heater
VD4/R-Sec	JTI_SEC_A1_F_DL_Z_RRC_N_N_M_VUOTO	1VCF838000R0247	Motor-operated circuit-breaker
VD4/R-Sec	JTI_SEC_A1_F_DL_Z_RRC_I_R_M_VUOTO	1VCF838000R0248	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Completion	Description	Sales code
Insulating rod	Kit for movable earthing	1VCF838000R0174

Completion	Height	Sales code
Height adjustment wedge	300 mm	1VCF8380000R0215

UniSec JTI

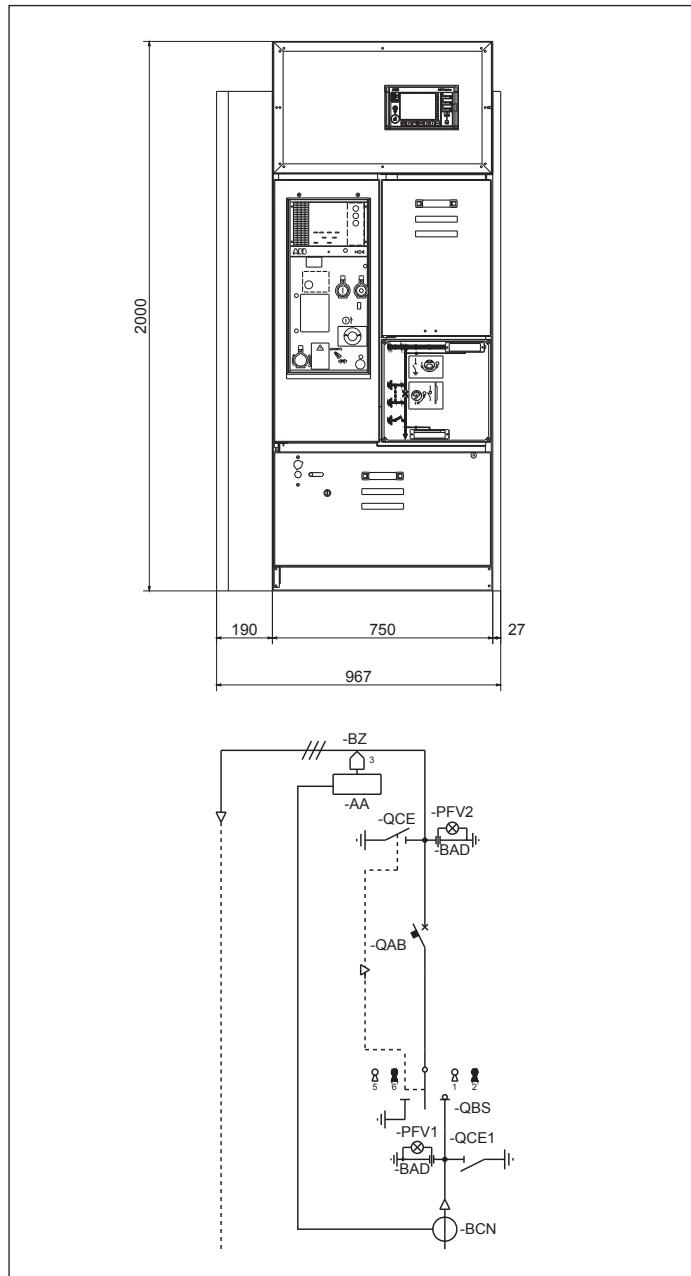
Solution available with Data Logger
and protection relay (50 - 51 - 50N - 51N - 67N)

JTI A2_DL – SBR + RLC switchgear

1 (one) SBR unit with removable circuit-breaker +

1 (one) RLC unit with cable exit on the left

- Voltage present on busbar side and cable side.
- Circuit-breaker type HD4/R-Sec or VD4/R-Sec p230 with or without motor (⁽¹⁾, with shunt opening release, shunt closing release, operation counter, 3 NO + 4 NC aux. contacts and springs loaded indicator.
- REF542plus protection and control unit (51, I>; 51, I>>; 50, I>>>; 51N, Io>; 50N, Io>>; 67NI; 67NC) with DATA LOGGER and 3 ABB type KEVCD voltage/current sensors mounted inside the busbar compartment and toroid for earth fault conforming to CEI 0-16 Standard.
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the closed position and 1 removable key in the open position;
 - 1 removable key with earthing switch in the closed position and 1 removable key in the open position;
 - auxiliary contacts: 4 NO or NC for line-side isolator and 4 NO or NC for earthing switch.
- Earthing switch on utility side with utility responsible for the key, in accordance with the CEI 0-16 Standard.



(⁽¹⁾) Motor-operated circuit-breaker includes local/remote selector switch and opening and closing push-buttons

Codes for galvanized compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A2_DL_Z_RLC_N_N_N_GAS	1VCF838000R0249	Basic version without accessories
HD4/R-Sec	JTI_SEC_A2_DL_Z_RLC_N_R_N_GAS	1VCF838000R0250	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A2_DL_Z_RLC_I_N_N_GAS	1VCF838000R0251	Internal lighting
HD4/R-Sec	JTI_SEC_A2_DL_Z_RLC_I_R_N_GAS	1VCF838000R0252	Internal lighting and anti-condensation heater
HD4/R-Sec	JTI_SEC_A2_DL_Z_RLC_N_N_M_GAS	1VCF838000R0253	Motor-operated circuit-breaker
HD4/R-Sec	JTI_SEC_A2_DL_Z_RLC_I_R_M_GAS	1VCF838000R0254	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A2_DL_Z_RLC_N_N_N_VUOTO	1VCF838000R0255	Basic version without accessories
VD4/R-Sec	JTI_SEC_A2_DL_Z_RLC_N_R_N_VUOTO	1VCF838000R0256	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A2_DL_Z_RLC_I_N_N_VUOTO	1VCF838000R0257	Internal lighting
VD4/R-Sec	JTI_SEC_A2_DL_Z_RLC_I_R_N_VUOTO	1VCF838000R0258	Internal lighting and anti-condensation heater
VD4/R-Sec	JTI_SEC_A2_DL_Z_RLC_N_N_M_VUOTO	1VCF838000R0259	Motor-operated circuit-breaker
VD4/R-Sec	JTI_SEC_A2_DL_Z_RLC_I_R_M_VUOTO	1VCF838000R0260	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Codes for painted compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A2_DL_V_RLC_N_N_N_GAS	1VCF838000R0261	Basic version without accessories
HD4/R-Sec	JTI_SEC_A2_DL_V_RLC_N_R_N_GAS	1VCF838000R0262	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A2_DL_V_RLC_I_N_N_GAS	1VCF838000R0263	Internal lighting
HD4/R-Sec	JTI_SEC_A2_DL_V_RLC_I_R_N_GAS	1VCF838000R0264	Internal lighting and anti-condensation heater
HD4/R-Sec	JTI_SEC_A2_DL_V_RLC_N_N_M_GAS	1VCF838000R0265	Motor-operated circuit-breaker
HD4/R-Sec	JTI_SEC_A2_DL_V_RLC_I_R_M_GAS	1VCF838000R0266	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A2_DL_V_RLC_N_N_N_VUOTO	1VCF838000R0267	Basic version without accessories
VD4/R-Sec	JTI_SEC_A2_DL_V_RLC_N_R_N_VUOTO	1VCF838000R0268	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A2_DL_V_RLC_I_N_N_VUOTO	1VCF838000R0269	Internal lighting
VD4/R-Sec	JTI_SEC_A2_DL_V_RLC_I_R_N_VUOTO	1VCF838000R0270	Internal lighting and anti-condensation heater
VD4/R-Sec	JTI_SEC_A2_DL_V_RLC_N_N_M_VUOTO	1VCF838000R0271	Motor-operated circuit-breaker
VD4/R-Sec	JTI_SEC_A2_DL_V_RLC_I_R_M_VUOTO	1VCF838000R0272	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Completion	Height	Sales code
Height adjustment wedge	300 mm	1VCF8380000R0215

UniSec JTI

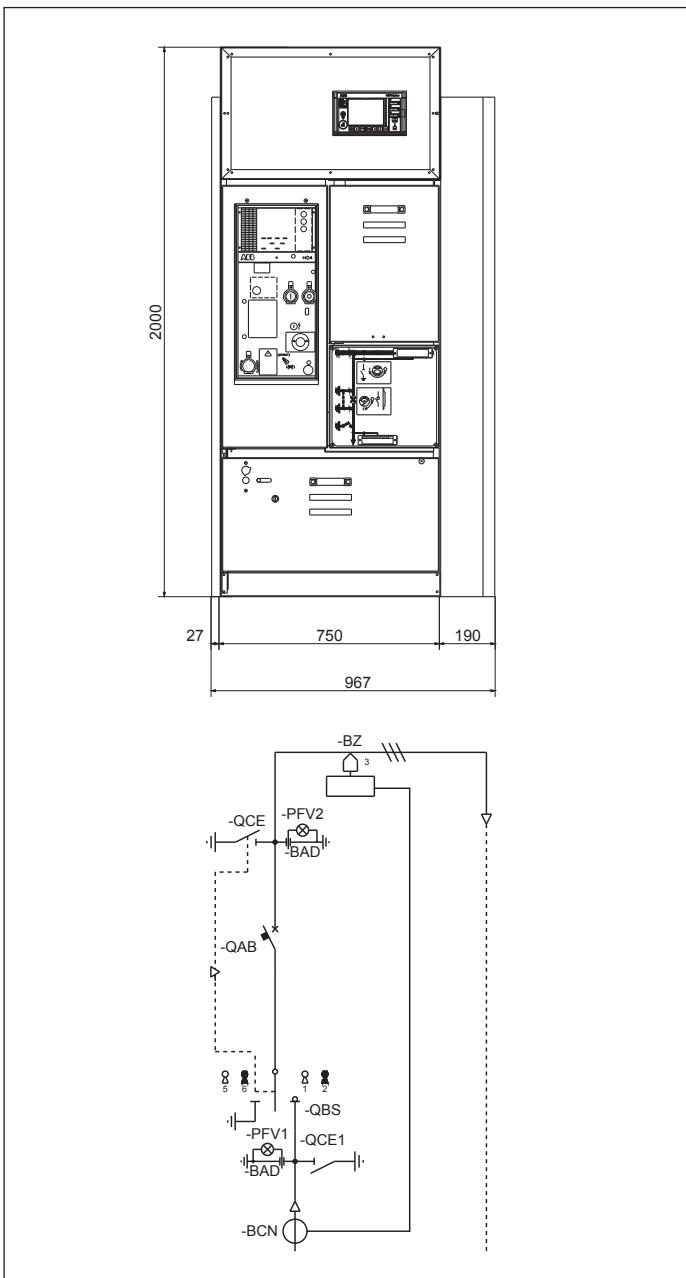
Solution available with Data Logger
and protection relay (50 - 51 - 50N - 51N - 67N)

JTI A2_DL – RRC + SBR switchgear

1 (one) SBR unit with removable circuit-breaker +

1 (one) RRC unit with cable exit on right

- Voltage present on busbar side and cable side.
- Circuit-breaker type HD4/R-Sec or VD4/R-Sec p230 with or without motor (”), with shunt opening release, shunt closing release, operation counter, 3 NO + 4 NC aux. contacts and springs loaded indicator.
- REF542plus protection and control unit (51, I>; 51, I>>; 50, I>>>; 51N, Io>; 50N, Io>>; 67NI; 67NC) with DATA LOGGER and 3 ABB type KEVCD voltage/current sensors mounted inside the busbar compartment and toroid for earth fault conforming to CEI 0-16 Standard.
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the closed position and 1 removable key in the open position;
 - 1 removable key with earthing switch in the closed position and 1 removable key in the open position;
 - auxiliary contacts: 4 NO or NC for line-side isolator and 4 NO or NC for earthing switch.
- Earthing switch on utility side with utility responsible for the key, in accordance with the CEI 0-16 Standard.



(“) Motor-operated circuit-breaker includes local/remote selector switch and opening and closing push-buttons

Codes for galvanized compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A2_DL_Z_RRC_N_N_N_GAS	1VCF838000R0273	Basic version without accessories
HD4/R-Sec	JTI_SEC_A2_DL_Z_RRC_N_R_N_GAS	1VCF838000R0274	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A2_DL_Z_RRC_I_N_N_GAS	1VCF838000R0275	Internal lighting
HD4/R-Sec	JTI_SEC_A2_DL_Z_RRC_I_R_N_GAS	1VCF838000R0276	Internal lighting and anti-condensation heater
HD4/R-Sec	JTI_SEC_A2_DL_Z_RRC_N_N_M_GAS	1VCF838000R0277	Motor-operated circuit-breaker
HD4/R-Sec	JTI_SEC_A2_DL_Z_RRC_I_R_M_GAS	1VCF838000R0278	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A2_DL_Z_RRC_N_N_N_VUOTO	1VCF838000R0279	Basic version without accessories
VD4/R-Sec	JTI_SEC_A2_DL_Z_RRC_N_R_N_VUOTO	1VCF838000R0280	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A2_DL_Z_RRC_I_N_N_VUOTO	1VCF838000R0281	Internal lighting
VD4/R-Sec	JTI_SEC_A2_DL_Z_RRC_I_R_N_VUOTO	1VCF838000R0282	Internal lighting and anti-condensation heater
VD4/R-Sec	JTI_SEC_A2_DL_Z_RRC_N_N_M_VUOTO	1VCF838000R0283	Motor-operated circuit-breaker
VD4/R-Sec	JTI_SEC_A2_DL_Z_RRC_I_R_M_VUOTO	1VCF838000R0284	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Codes for painted compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_A2_DL_V_RRC_N_N_N_GAS	1VCF838000R0285	Basic version without accessories
HD4/R-Sec	JTI_SEC_A2_DL_V_RRC_N_R_N_GAS	1VCF838000R0286	Anti-condensation heater
HD4/R-Sec	JTI_SEC_A2_DL_V_RRC_I_N_N_GAS	1VCF838000R0287	Internal lighting
HD4/R-Sec	JTI_SEC_A2_DL_V_RRC_I_R_N_GAS	1VCF838000R0288	Internal lighting and anti-condensation heater
HD4/R-Sec	JTI_SEC_A2_DL_V_RRC_N_N_M_GAS	1VCF838000R0289	Motor-operated circuit-breaker
HD4/R-Sec	JTI_SEC_A2_DL_V_RRC_I_R_M_GAS	1VCF838000R0290	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_A2_DL_V_RRC_N_N_N_VUOTO	1VCF838000R0291	Basic version without accessories
VD4/R-Sec	JTI_SEC_A2_DL_V_RRC_N_R_N_VUOTO	1VCF838000R0292	Anti-condensation heater
VD4/R-Sec	JTI_SEC_A2_DL_V_RRC_I_N_N_VUOTO	1VCF838000R0293	Internal lighting
VD4/R-Sec	JTI_SEC_A2_DL_V_RRC_I_R_N_VUOTO	1VCF838000R0294	Internal lighting and anti-condensation heater
VD4/R-Sec	JTI_SEC_A2_DL_V_RRC_N_N_M_VUOTO	1VCF838000R0295	Motor-operated circuit-breaker
VD4/R-Sec	JTI_SEC_A2_DL_V_RRC_I_R_M_VUOTO	1VCF838000R0296	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Completion	Height	Sales code
Height adjustment wedge	300 mm	1VCF8380000R0215

UniSec JTI

Solution available with Data Logger
and protection relay (50 - 51 - 50N - 51N)

JTI B1 switchgear

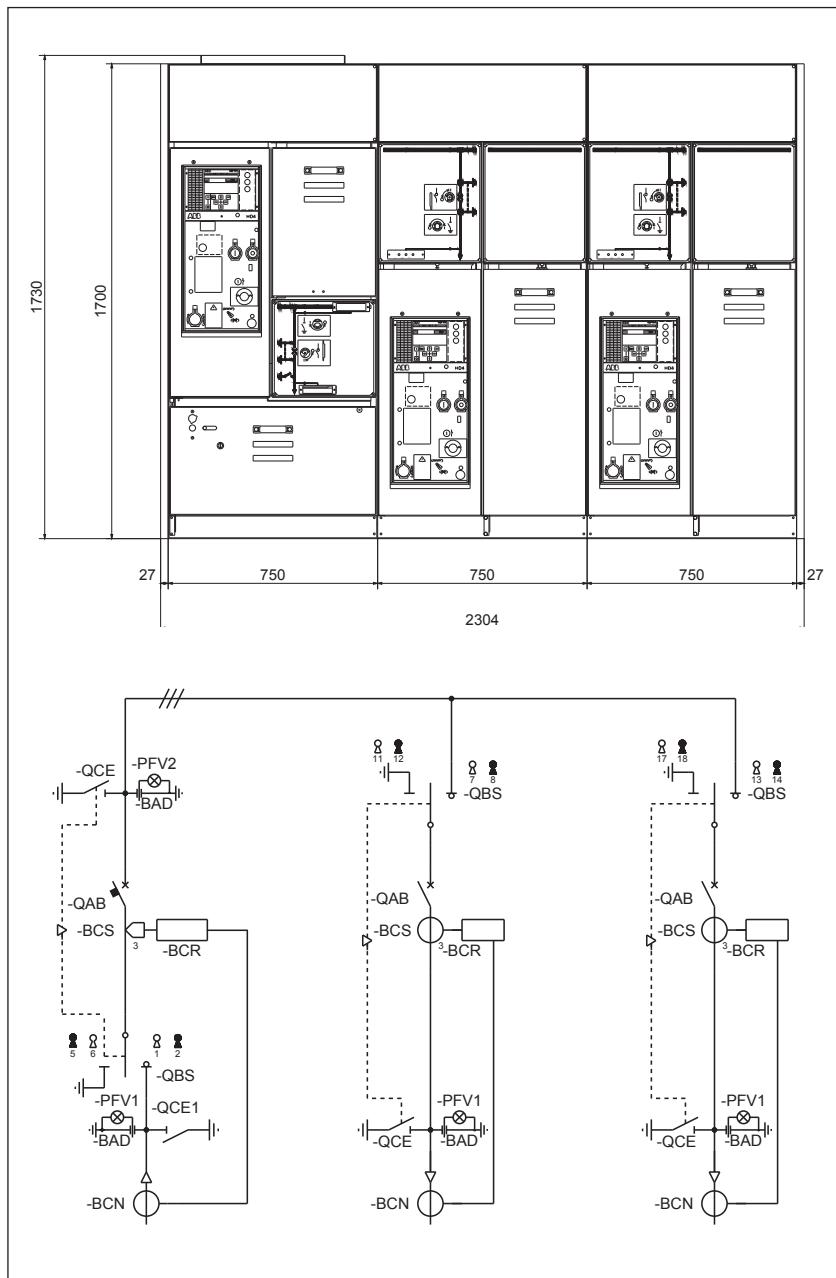
- 1 (one) Incoming feeder with SBR Unit +
2 (two) Transformer protection with SBC Unit

SBR incoming Unit

- Voltage present on busbar side and cable side.
- HD4/R-Sec or VD4/R-Sec circuit-breaker p230 not motorized with shunt opening release, shunt closing release, operation counter, 2 NO + 2 NC aux. contacts, undervoltage release and Temporary mechanical override of the undervoltage release.
- REF 601 protection relay without communication (51, I>; 51, I>>; 50, I>>>; 51N, Io>; 50N, Io>>) with 3 on-board circuit-breaker sensors and toroid for earth fault, conforming to CEI 0-16 Standard (see warning page 3).
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the closed position and 1 removable key in the open position;
 - 1 removable key with earthing switch in the closed position and 1 removable key with earthing switch in the open position.
- Earthing switch on utility side with utility responsible for the key, in accordance with the CEI 0-16 standard.

SBC transformer protection unit

- Voltage present on cable side.
- HD4/R-Sec or VD4/R-Sec circuit-breaker p230 not motorized with shunt opening release, shunt closing release, 2 NO + 2 NC aux. contacts and operation counter.
- REF 601 protection relay conforming to the IEC Standard with 3 sensors and toroid for earth fault (see warning page 3).
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the closed position and 1 removable key in the open position;
 - 1 removable key with earthing switch in the closed position and 1 key in the open position.



Codes for galvanized compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_B1_Z_N_N_GAS	1VCF838000R0064	Without accessories
HD4/R-Sec	JTI_SEC_B1_Z_N_R_GAS	1VCF838000R0065	Anti-condensation heater
HD4/R-Sec	JTI_SEC_B1_Z_I_N_GAS	1VCF838000R0066	Internal lighting
HD4/R-Sec	JTI_SEC_B1_Z_I_R_GAS	1VCF838000R0067	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_B1_Z_N_N_VUOTO	1VCF838000R0072	Without accessories
VD4/R-Sec	JTI_SEC_B1_Z_N_R_VUOTO	1VCF838000R0073	Anti-condensation heater
VD4/R-Sec	JTI_SEC_B1_Z_I_N_VUOTO	1VCF838000R0074	Internal lighting
VD4/R-Sec	JTI_SEC_B1_Z_I_R_VUOTO	1VCF838000R0075	Internal lighting and anti-condensation heater

Codes for painted compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_B1_V_N_N_GAS	1VCF838000R0068	Without accessories
HD4/R-Sec	JTI_SEC_B1_V_N_R_GAS	1VCF838000R0069	Anti-condensation heater
HD4/R-Sec	JTI_SEC_B1_V_I_N_GAS	1VCF838000R0070	Internal lighting
HD4/R-Sec	JTI_SEC_B1_V_I_R_GAS	1VCF838000R0071	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_B1_V_N_N_VUOTO	1VCF838000R0076	Without accessories
VD4/R-Sec	JTI_SEC_B1_V_N_R_VUOTO	1VCF838000R0077	Anti-condensation heater
VD4/R-Sec	JTI_SEC_B1_V_I_N_VUOTO	1VCF838000R0078	Internal lighting
VD4/R-Sec	JTI_SEC_B1_V_I_R_VUOTO	1VCF838000R0079	Internal lighting and anti-condensation heater

Completion	Height	Sales code	
Height adjustment wedge	300 mm	1VCF8380000R0219	

UniSec JTI

Solution available with Data Logger
and protection relay (50 - 51 - 50N - 51N - 67N)

JTI B2 switchgear

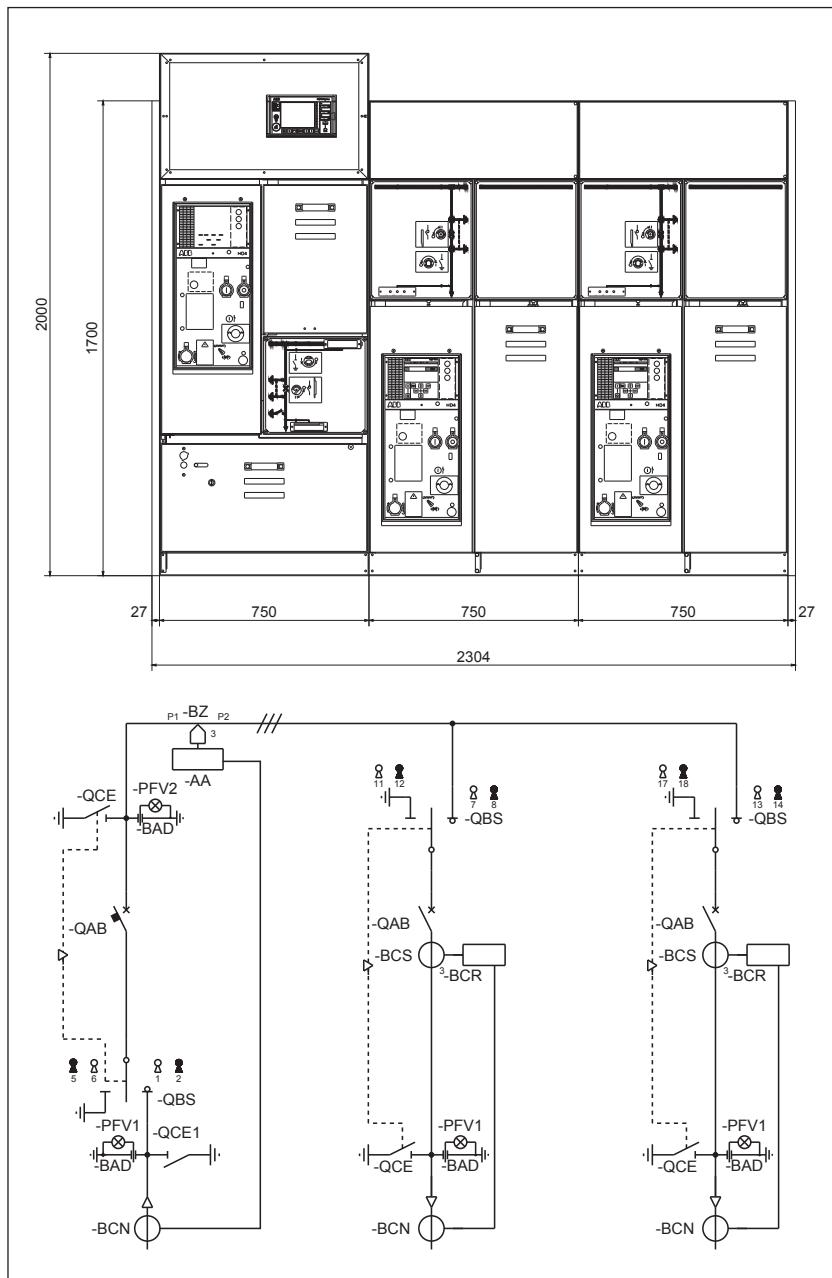
- 1 (one) Incoming feeder with SBR Unit +
2 (two) Transformer protection with SBC Unit

SBR incoming Unit

- Voltage present on busbar side and cable side.
- Circuit-breaker type HD4/R-Sec or VD4/R-Sec p230 with or without motor (†), with shunt opening release, shunt closing release, operation counter, 3 NO + 4 NC aux. contacts and springs loaded indicator.
- REF542plus protection and control unit (51, I>; 51, I>>; 50, I>>>; 51N, Io>; 50N, Io>>; 67NI; 67NC) with DATA LOGGER and 3 ABB KEVCD type current/voltage sensors mounted inside the busbar compartment and toroid for earth fault conforming to CEI 0-16 Standard.
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the closed position and 1 removable key in the open position;
 - 1 removable key with earthing switch in the closed position and 1 removable key with earthing switch in the open position;
 - auxiliary contacts: 4 NO or NC for line-side isolator and 4 NO or NC for earthing switch.
- Earthing switch on utility side with utility responsible for the key, in accordance with the CEI 0-16 standard.

SBC transformer protection unit

- Voltage present on cable side.
- HD4/R-Sec or VD4/R-Sec circuit-breaker p230 not motorized with shunt opening release, shunt opening release, 2 NO + 2 NC aux. contacts and operation counter.
- REF601 protection relay conforming to the IEC Standard with 3 sensors and toroid for earth fault (see warning page 3).
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the closed position and 1 removable key in the open position;
 - 1 removable key with earthing switch in the closed position and 1 key in the open position.



(†) Motor-operated circuit-breaker includes local/remote selector switch and opening and closing push-buttons

Codes for galvanized compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_B2_DL_Z_N_N_N_GAS	1VCF838000R0297	Basic version without accessories
HD4/R-Sec	JTI_SEC_B2_DL_Z_N_R_N_GAS	1VCF838000R0298	Anti-condensation heater
HD4/R-Sec	JTI_SEC_B2_DL_Z_I_N_N_GAS	1VCF838000R0299	Internal lighting
HD4/R-Sec	JTI_SEC_B2_DL_Z_I_R_N_GAS	1VCF838000R0300	Internal lighting and anti-condensation heater
HD4/R-Sec	JTI_SEC_B2_DL_Z_N_N_M_GAS	1VCF838000R0301	Motor-operated circuit-breaker
HD4/R-Sec	JTI_SEC_B2_DL_Z_I_R_M_GAS	1VCF838000R0302	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_B2_DL_Z_N_N_N_VUOTO	1VCF838000R0303	Basic version without accessories
VD4/R-Sec	JTI_SEC_B2_DL_Z_N_R_N_VUOTO	1VCF838000R0304	Anti-condensation heater
VD4/R-Sec	JTI_SEC_B2_DL_Z_I_N_N_VUOTO	1VCF838000R0305	Internal lighting
VD4/R-Sec	JTI_SEC_B2_DL_Z_I_R_N_VUOTO	1VCF838000R0306	Internal lighting and anti-condensation heater
VD4/R-Sec	JTI_SEC_B2_DL_Z_N_N_M_VUOTO	1VCF838000R0307	Motor-operated circuit-breaker
VD4/R-Sec	JTI_SEC_B2_DL_Z_I_R_M_VUOTO	1VCF838000R0308	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Codes for painted compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_B2_DL_V_N_N_N_GAS	1VCF838000R0309	Basic version without accessories
HD4/R-Sec	JTI_SEC_B2_DL_V_N_R_N_GAS	1VCF838000R0310	Anti-condensation heater
HD4/R-Sec	JTI_SEC_B2_DL_V_I_N_N_GAS	1VCF838000R0311	Internal lighting
HD4/R-Sec	JTI_SEC_B2_DL_V_I_R_N_GAS	1VCF838000R0312	Internal lighting and anti-condensation heater
HD4/R-Sec	JTI_SEC_B2_DL_V_N_N_M_GAS	1VCF838000R0313	Motor-operated circuit-breaker
HD4/R-Sec	JTI_SEC_B2_DL_V_I_R_M_GAS	1VCF838000R0314	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_B2_DL_V_N_N_N_VUOTO	1VCF838000R0315	Basic version without accessories
VD4/R-Sec	JTI_SEC_B2_DL_V_N_R_N_VUOTO	1VCF838000R0316	Anti-condensation heater
VD4/R-Sec	JTI_SEC_B2_DL_V_I_N_N_VUOTO	1VCF838000R0317	Internal lighting
VD4/R-Sec	JTI_SEC_B2_DL_V_I_R_N_VUOTO	1VCF838000R0318	Internal lighting and anti-condensation heater
VD4/R-Sec	JTI_SEC_B2_DL_V_N_N_M_VUOTO	1VCF838000R0319	Motor-operated circuit-breaker
VD4/R-Sec	JTI_SEC_B2_DL_V_I_R_M_VUOTO	1VCF838000R0320	Internal lighting, anti-condensation heater and motor-operated circuit-breaker

Completion	Height	Sales code	
Height adjustment wedge	300 mm	1VCF8380000R0219	

UniSec JTI

Configurations available

JTI B3 switchgear

1 (one) Incoming feeder with SBR Unit + 2 (two) Transformer protection with SFC unit

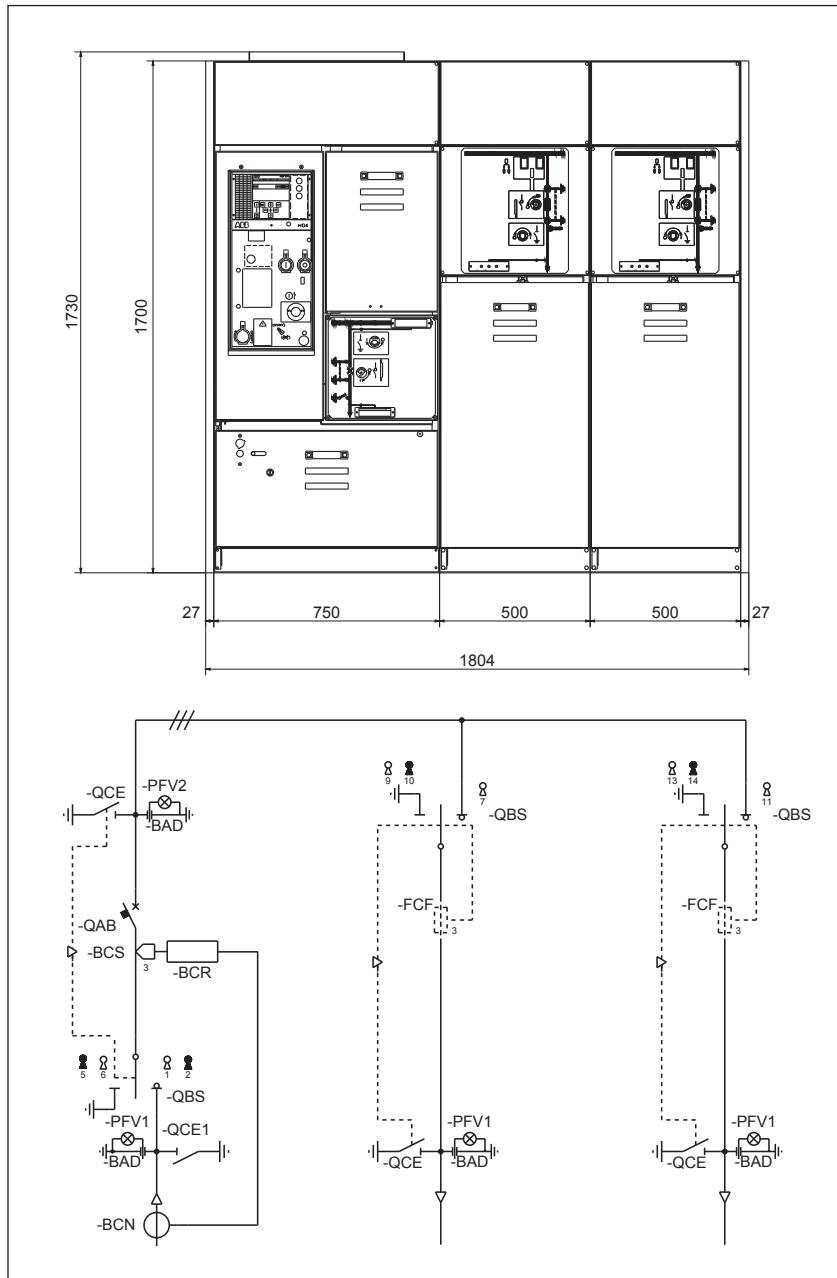
SBR incoming Unit

- Voltage present on busbar side and cable side.
- HD4/R-Sec or VD4/R-Sec circuit-breaker p230 not motorized with shunt opening release, shunt closing release, 2 NO + 2 NC aux. contacts, operation counter, undervoltage release. Temporary mechanical override of the undervoltage release.
- REF 601 protection relay without communication (51, I>; 51, I>>; 50, I>>>; 51N, Io>; 50N, Io>>) with 3 on-board circuit-breaker sensors and toroid for earth fault conforming to CEI 0-16 Standard (see warning page 3).
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the closed position and 1 removable key in the open position;
 - 1 removable key with earthing switch in the closed position and 1 removable key with earthing switch in the open position.
- Earthing switch on utility side with utility responsible for the key, in accordance with the CEI 0-16 Standard.

SFC transformer protection unit

(500 mm unit width)

- Voltage present on cable side.
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the open position;
 - 1 removable key with earthing switch in the closed position and 1 removable key in the open position;
 - shunt opening release;
 - fuse holder;
 - mechanical release system for blown fuse;
 - signalling contact for blown fuse;
 - auxiliary contacts: 4 NO or NC for line-side isolator and 4 NO or NC for earthing switch.
- Excluding supply of fuses (unless requested separately).



Codes for galvanized compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_B3_Z_N_N_GAS	1VCF838000R0096	Without accessories
HD4/R-Sec	JTI_SEC_B3_Z_N_R_GAS	1VCF838000R0097	Anti-condensation heater
HD4/R-Sec	JTI_SEC_B3_Z_I_N_GAS	1VCF838000R0098	Internal lighting
HD4/R-Sec	JTI_SEC_B3_Z_I_R_GAS	1VCF838000R0099	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_B3_Z_N_N_VUOTO	1VCF838000R0104	Without accessories
VD4/R-Sec	JTI_SEC_B3_Z_N_R_VUOTO	1VCF838000R0105	Anti-condensation heater
VD4/R-Sec	JTI_SEC_B3_Z_I_N_VUOTO	1VCF838000R0106	Internal lighting
VD4/R-Sec	JTI_SEC_B3_Z_I_R_VUOTO	1VCF838000R0107	Internal lighting and anti-condensation heater

Codes for painted compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_B3_V_N_N_GAS	1VCF838000R0100	Without accessories
HD4/R-Sec	JTI_SEC_B3_V_N_R_GAS	1VCF838000R0101	Anti-condensation heater
HD4/R-Sec	JTI_SEC_B3_V_I_N_GAS	1VCF838000R0102	Internal lighting
HD4/R-Sec	JTI_SEC_B3_V_I_R_GAS	1VCF838000R0103	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_B3_V_N_N_VUOTO	1VCF838000R0108	Without accessories
VD4/R-Sec	JTI_SEC_B3_V_N_R_VUOTO	1VCF838000R0109	Anti-condensation heater
VD4/R-Sec	JTI_SEC_B3_V_I_N_VUOTO	1VCF838000R0110	Internal lighting
VD4/R-Sec	JTI_SEC_B3_V_I_R_VUOTO	1VCF838000R0111	Internal lighting and anti-condensation heater

Fuse for SFC unit		Sales code	Note
24 kV – 16A		1VCF838000R0167	To be ordered in multiples of 3
24 kV – 25A		1VCF838000R0168	To be ordered in multiples of 3
24 kV – 40A		1VCF838000R0169	To be ordered in multiples of 3
24 kV – 50A		1VCF838000R0170	To be ordered in multiples of 3
24 kV – 63A		1VCF838000R0171	To be ordered in multiples of 3
24 kV – 80A		1VCF838000R0172	To be ordered in multiples of 3

Completion	Height	Sales code	
Height adjustment wedge	300 mm	1VCF8380000R0219	

UniSec JTI

Configurations available

JTI B4 switchgear

- 1 (one) Incoming feeder with SBR Unit +
2 (two) Transformer protection with SFC unit**

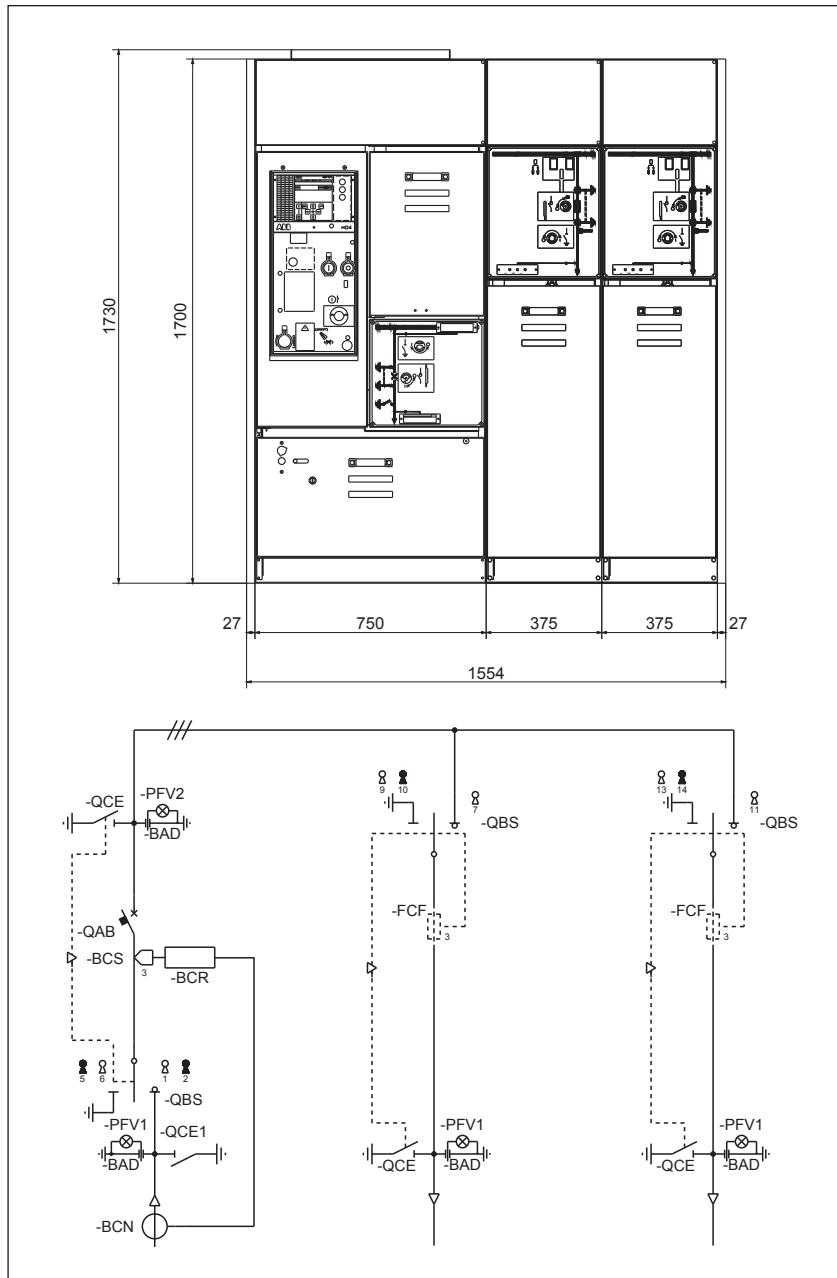
SBR incoming Unit

- Voltage present on busbar side and cable side.
- HD4/R-Sec or VD4/R-Sec circuit-breaker p230 not motorized with shunt opening release, shunt closing release, 2 NO + 2 NC aux. contacts, operation counter, undervoltage release. Temporary mechanical override of the undervoltage release.
- REF601 protection relay without communication (51, I>; 51, I>>; 50, I>>>; 51N, Io>; 50N, Io>>) with 3 on-board circuit-breaker sensors and toroid for earth fault conforming to CEI 0-16 Standard (see warning page 3).
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the closed position and 1 removable key in the open position;
 - 1 removable key with earthing switch in the closed position and 1 removable key with earthing switch in the open position.
- Earthing switch on utility side with utility responsible for the key, in accordance with the CEI 0-16 Standard.

SFC transformer protection unit

(375 mm unit width)

- Voltage present on cable side.
- Switch-disconnector G-Sec with:
 - 1 removable key with line-side isolator in the open position;
 - 1 removable key with earthing switch in the closed position and 1 removable key in the open position;
 - shunt opening release;
 - fuse holder;
 - mechanical release system for blown fuse;
 - signalling contact for blown fuse;
 - auxiliary contacts: 4 NO or NC for line-side isolator and 4 NO or NC for earthing switch.
- Excluding supply of fuses (unless requested separately).



Codes for galvanized compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_B4_Z_N_N_GAS	1VCF838000R0112	Without accessories
HD4/R-Sec	JTI_SEC_B4_Z_N_R_GAS	1VCF838000R0113	Anti-condensation heater
HD4/R-Sec	JTI_SEC_B4_Z_I_N_GAS	1VCF838000R0114	Internal lighting
HD4/R-Sec	JTI_SEC_B4_Z_I_R_GAS	1VCF838000R0115	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_B4_Z_N_N_VUOTO	1VCF838000R0120	Without accessories
VD4/R-Sec	JTI_SEC_B4_Z_N_R_VUOTO	1VCF838000R0121	Anti-condensation heater
VD4/R-Sec	JTI_SEC_B4_Z_I_N_VUOTO	1VCF838000R0122	Internal lighting
VD4/R-Sec	JTI_SEC_B4_Z_I_R_VUOTO	1VCF838000R0123	Internal lighting and anti-condensation heater

Codes for painted compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_B4_V_N_N_GAS	1VCF838000R0116	Without accessories
HD4/R-Sec	JTI_SEC_B4_V_N_R_GAS	1VCF838000R0117	Anti-condensation heater
HD4/R-Sec	JTI_SEC_B4_V_I_N_GAS	1VCF838000R0118	Internal lighting
HD4/R-Sec	JTI_SEC_B4_V_I_R_GAS	1VCF838000R0119	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_B4_V_N_N_VUOTO	1VCF838000R0124	Without accessories
VD4/R-Sec	JTI_SEC_B4_V_N_R_VUOTO	1VCF838000R0125	Anti-condensation heater
VD4/R-Sec	JTI_SEC_B4_V_I_N_VUOTO	1VCF838000R0126	Internal lighting
VD4/R-Sec	JTI_SEC_B4_V_I_R_VUOTO	1VCF838000R0127	Internal lighting and anti-condensation heater

Fuse for SFC unit		Sales code	Note
24 kV – 16A		1VCF838000R0167	To be ordered in multiples of 3
24 kV – 25A		1VCF838000R0168	To be ordered in multiples of 3
24 kV – 40A		1VCF838000R0169	To be ordered in multiples of 3
24 kV – 50A		1VCF838000R0170	To be ordered in multiples of 3
24 kV – 63A		1VCF838000R0171	To be ordered in multiples of 3
24 kV – 80A		1VCF838000R0172	To be ordered in multiples of 3

Completion	Height	Sales code	
Height adjustment wedge	300 mm	1VCF8380000R0221	

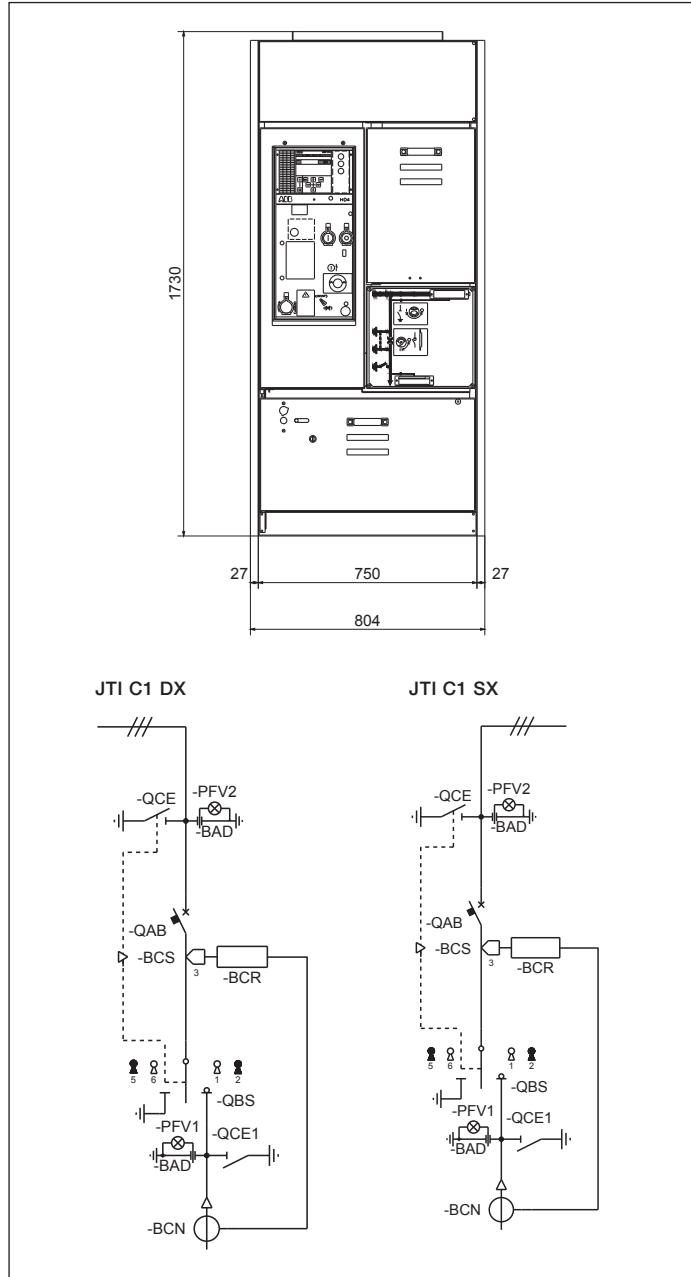
UniSec JTI

Configurations available

JTI C1 switchgear

1 (one) Incoming feeder with SBR unit

- Voltage present on busbar side and cable side.
- HD4/R-Sec or VD4/R-Sec circuit-breaker p230 not motorized with shunt opening release, shunt closing release, operation counter, 2 NO + 2 NC aux. contacts, undervoltage release. Temporary mechanical override of the undervoltage release.
- REF 601 protection relay without communication (51, I>; 51, I>>; 50, I>>>; 51N, Io>; 50N, Io>>) with 3 on-board circuit-breaker sensors and toroid for earth fault, conforming to CEI 0-16 Standard (see warning page 3).
- G-Sec switch-disconnector with:
 - 1 removable key with line-side isolator in the closed position and 1 removable key in the open position;
 - 1 removable key with earthing switch in the closed position and 1 removable key with earthing switch in the open position.
- Earthing switch on utility side with utility responsible for the key, in accordance with the CEI 0-16 Standard.
- The busbars for coupling with the adjacent unit are excluded from the supply unless requested separately.



Note: the units must only be coupled with omnibus busbars for extension to existing UniSec switchgear.

Codes for galvanized compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_C1_Z_SX_N_N_GAS	1VCF838000R0128	Without accessories
HD4/R-Sec	JTI_SEC_C1_Z_SX_N_R_GAS	1VCF838000R0129	Anti-condensation heater
HD4/R-Sec	JTI_SEC_C1_Z_SX_I_N_GAS	1VCF838000R0145	Internal lighting
HD4/R-Sec	JTI_SEC_C1_Z_SX_I_R_GAS	1VCF838000R0146	Internal lighting and anti-condensation heater
HD4/R-Sec	JTI_SEC_C1_Z_DX_N_N_GAS	1VCF838000R0130	Without accessories
HD4/R-Sec	JTI_SEC_C1_Z_DX_N_R_GAS	1VCF838000R0131	Anti-condensation heater
HD4/R-Sec	JTI_SEC_C1_Z_DX_I_N_GAS	1VCF838000R0147	Internal lighting
HD4/R-Sec	JTI_SEC_C1_Z_DX_I_R_GAS	1VCF838000R0148	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_C1_Z_SX_N_N_VUOTO	1VCF838000R0136	Without accessories
VD4/R-Sec	JTI_SEC_C1_Z_SX_N_R_VUOTO	1VCF838000R0137	Anti-condensation heater
VD4/R-Sec	JTI_SEC_C1_Z_SX_I_N_VUOTO	1VCF838000R0149	Internal lighting
VD4/R-Sec	JTI_SEC_C1_Z_SX_I_R_VUOTO	1VCF838000R0150	Internal lighting and anti-condensation heater
VD4/R-Sec	JTI_SEC_C1_Z_DX_N_N_VUOTO	1VCF838000R0138	Without accessories
VD4/R-Sec	JTI_SEC_C1_Z_DX_N_R_VUOTO	1VCF838000R0139	Anti-condensation heater
VD4/R-Sec	JTI_SEC_C1_Z_DX_I_N_VUOTO	1VCF838000R0151	Internal lighting
VD4/R-Sec	JTI_SEC_C1_Z_DX_I_R_VUOTO	1VCF838000R0152	Internal lighting and anti-condensation heater

Codes for painted compartments and side pieces

Circuit-breaker	Switchgear description	Sales code	Fittings
HD4/R-Sec	JTI_SEC_C1_V_SX_N_N_GAS	1VCF838000R0132	Without accessories
HD4/R-Sec	JTI_SEC_C1_V_SX_N_R_GAS	1VCF838000R0133	Anti-condensation heater
HD4/R-Sec	JTI_SEC_C1_V_SX_I_N_GAS	1VCF838000R0153	Internal lighting
HD4/R-Sec	JTI_SEC_C1_V_SX_I_R_GAS	1VCF838000R0154	Internal lighting and anti-condensation heater
HD4/R-Sec	JTI_SEC_C1_V_DX_N_N_GAS	1VCF838000R0134	Without accessories
HD4/R-Sec	JTI_SEC_C1_V_DX_N_R_GAS	1VCF838000R0135	Anti-condensation heater
HD4/R-Sec	JTI_SEC_C1_V_DX_I_N_GAS	1VCF838000R0155	Internal lighting
HD4/R-Sec	JTI_SEC_C1_V_DX_I_R_GAS	1VCF838000R0156	Internal lighting and anti-condensation heater

Circuit-breaker	Switchgear description	Sales code	Fittings
VD4/R-Sec	JTI_SEC_C1_V_SX_N_N_VUOTO	1VCF838000R0140	Without accessories
VD4/R-Sec	JTI_SEC_C1_V_SX_N_R_VUOTO	1VCF838000R0141	Anti-condensation heater
VD4/R-Sec	JTI_SEC_C1_V_SX_I_N_VUOTO	1VCF838000R0157	Internal lighting
VD4/R-Sec	JTI_SEC_C1_V_SX_I_R_VUOTO	1VCF838000R0158	Internal lighting and anti-condensation heater
VD4/R-Sec	JTI_SEC_C1_V_DX_N_N_VUOTO	1VCF838000R0142	Without accessories
VD4/R-Sec	JTI_SEC_C1_V_DX_N_R_VUOTO	1VCF838000R0143	Anti-condensation heater
VD4/R-Sec	JTI_SEC_C1_V_DX_I_N_VUOTO	1VCF838000R0159	Internal lighting
VD4/R-Sec	JTI_SEC_C1_V_DX_I_R_VUOTO	1VCF838000R0160	Internal lighting and anti-condensation heater

Omnibus busbars

Busbar for coupling with adjacent unit	Sales code
With 375 and 750 mm unit	1VCF838000R0162
With 500 mm unit	1VCF838000R0161

Completion	Height	Sales code
Height adjustment wedge	300 mm	1VCF838000R0223

UniSec JTI

Configurations available

JTI (TR) switchgear

1 (one) Transformer box unit

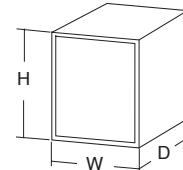
The transformer box unit is only available in the standard version. The transformer box is made of galvanized sheet metal with doors painted standard RAL 7035 colour, is supplied in an assembly kit and can be fitted with internal lighting. For other transformer box dimensions, please contact ABB.

Choosing the transformer box units

After having defined the type of transformer box unit according to the total losses of the transformer, it is necessary to check that the dimensions of the transformer box are large enough to ensure adequate insulation distances.

Types available

Unit	W [mm]	D [mm]	H [mm]
TR1	1600	1150	1950
TR2	2000	1150	1950
TR3	2000	1300	2250
TR4	2200	1500	2250
TR5	2200	1800	2250



Maximum operating temperature of the transformer

	T [°C]
No-load losses	Wo [W]
Load losses	Wcc [W]
Load factor	a
Rated current	In [A]
Total losses	Ptot. = Wo + a2 x Wcc

Type of box	Total losses [W]		
	T=100 °C	T=120 °C	T=140 °C
TR1	5.000	6.000	7.000
TR2	6.000	7.500	8.500
TR3	7.500	9.000	10.500
TR4	8.500	10.000	11.500
TR5	9.000	10.500	12.500

Description of unit	Sales code
TR1	1VCF838000R0163
TR2	1VCF838000R0164
TR3	1VCF838000R0165
TR4	1VCF838000R0166
TR5	1VCF838000R0173

Notes

Notes

Contact us

ABB S.p.A.
Power Products Division
Unità Operativa Sace-MV
Via Friuli, 4
I-24044 Dalmine
Tel: +39 035 6952 111
Fax: +39 035 6952 874
E-mail: info.mv@it.abb.com
www.abb.it

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