



COMPACT TRANSFORMER SUBSTATIONS

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About us

Team

Our team combines the expertise of seasoned craftsmen with the fresh ideas of young specialists, creating a unique synergy that enables us to provide you with the best solutions and solve even the most complex problems. Our modern approach to production ensures fast, high-quality, and sustainable product manufacturing.

Vision

To become a leading manufacturer of compact transformer substations in the Baltic and European markets, recognized for reliability, innovation, and high-quality energy infrastructure solutions that support the development of modern and sustainable power networks.

Goal

To establish SIA "Hexa" as a competitive and trusted provider in the Baltic and European markets by continuously improving product quality, innovation, and customer satisfaction.

Our Values

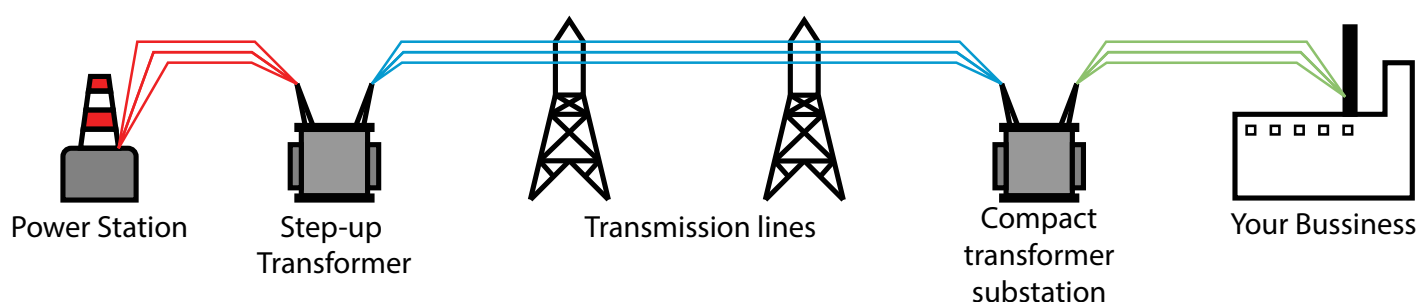
Reliability – We deliver dependable solutions that ensure stable power infrastructure.

Expertise – Our specialists combine experience and innovation to solve complex engineering challenges.

Quality – We maintain high standards in every stage of design and production.

Product and design

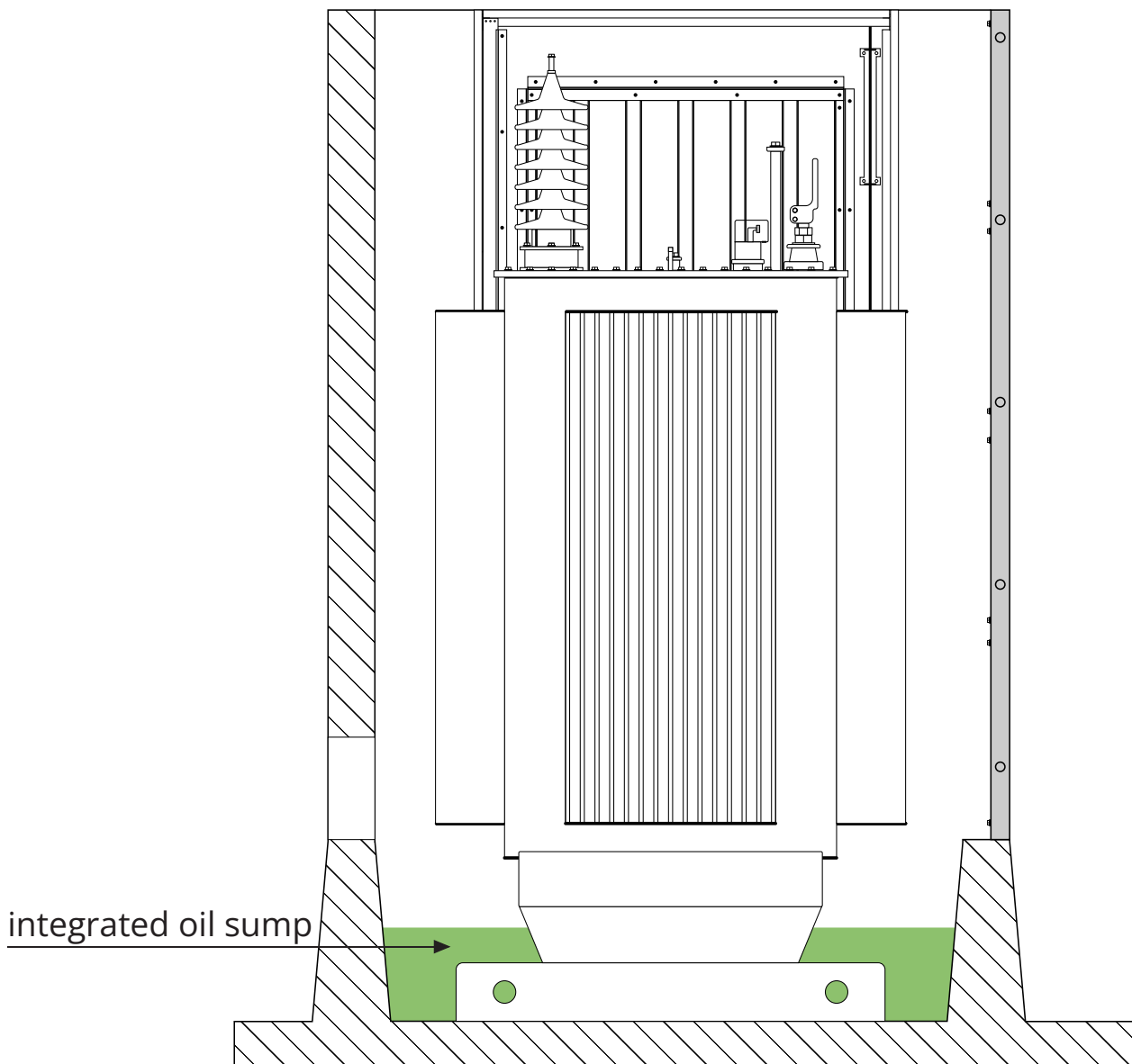
Compact Transformer Substations are an essential component of modern electrical infrastructure. They provide efficient transmission and distribution of electricity, converting medium voltage to low voltage suitable for end users such as households, businesses, and industrial facilities. The monolithic reinforced concrete structure ensures long-lasting durability and safe operation.



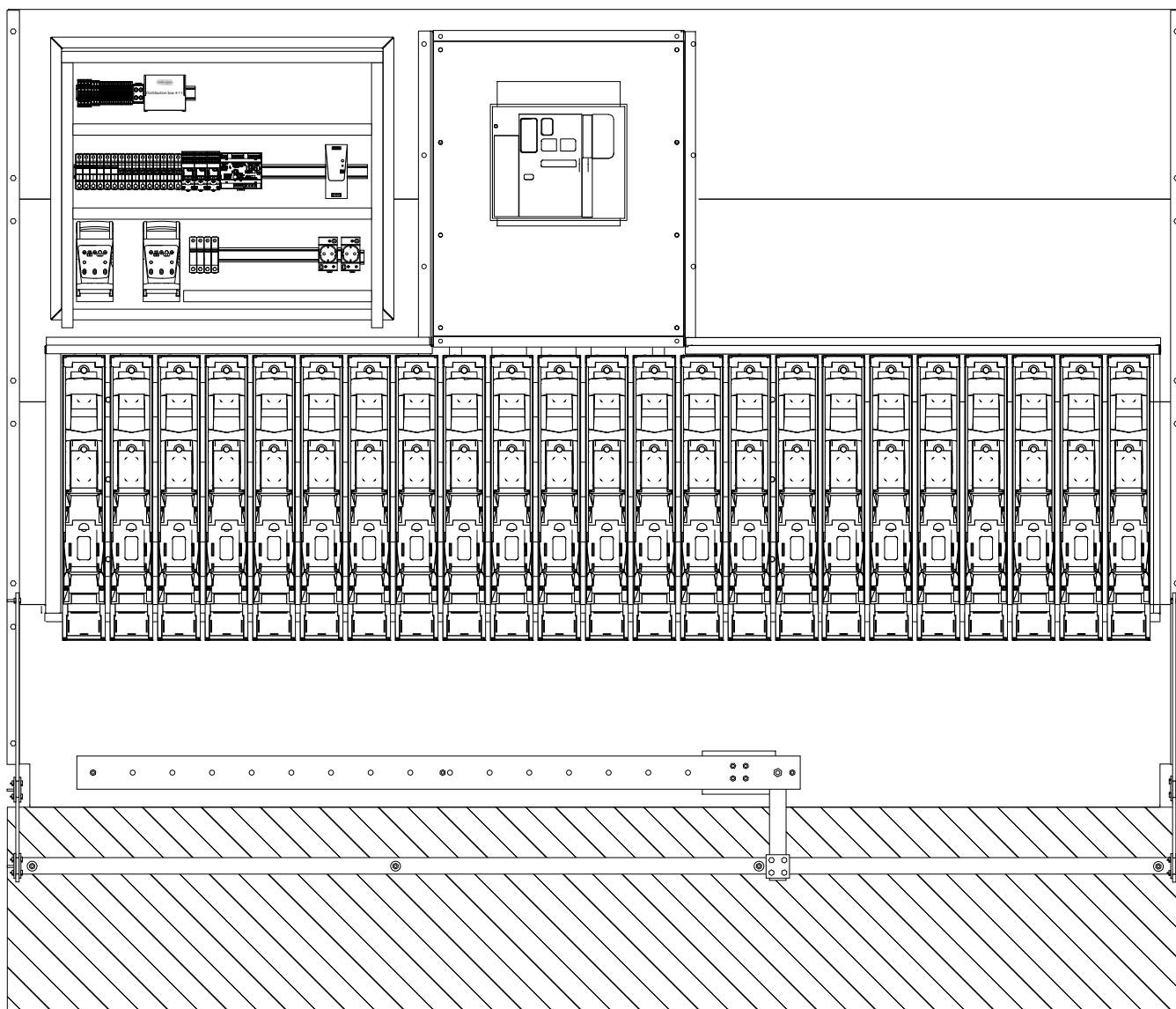
To allow the substation to integrate seamlessly into urban areas or specific architectural environments, various façade finishing options are available, including decorative plaster, RAL color coatings, and a range of alternative materials.

The transformer compartment contains an integrated, sealed oil sump, protecting the surrounding environment in the event of a transformer leak or malfunction. Reinforced concrete housing and its doors also safeguard passersby and nearby infrastructure in case of an internal arc or fire.

Compact transformer substation follows the **EN 62271-202** standard. Housing is made of fire-resistant reinforced concrete with a REI 60 rating.



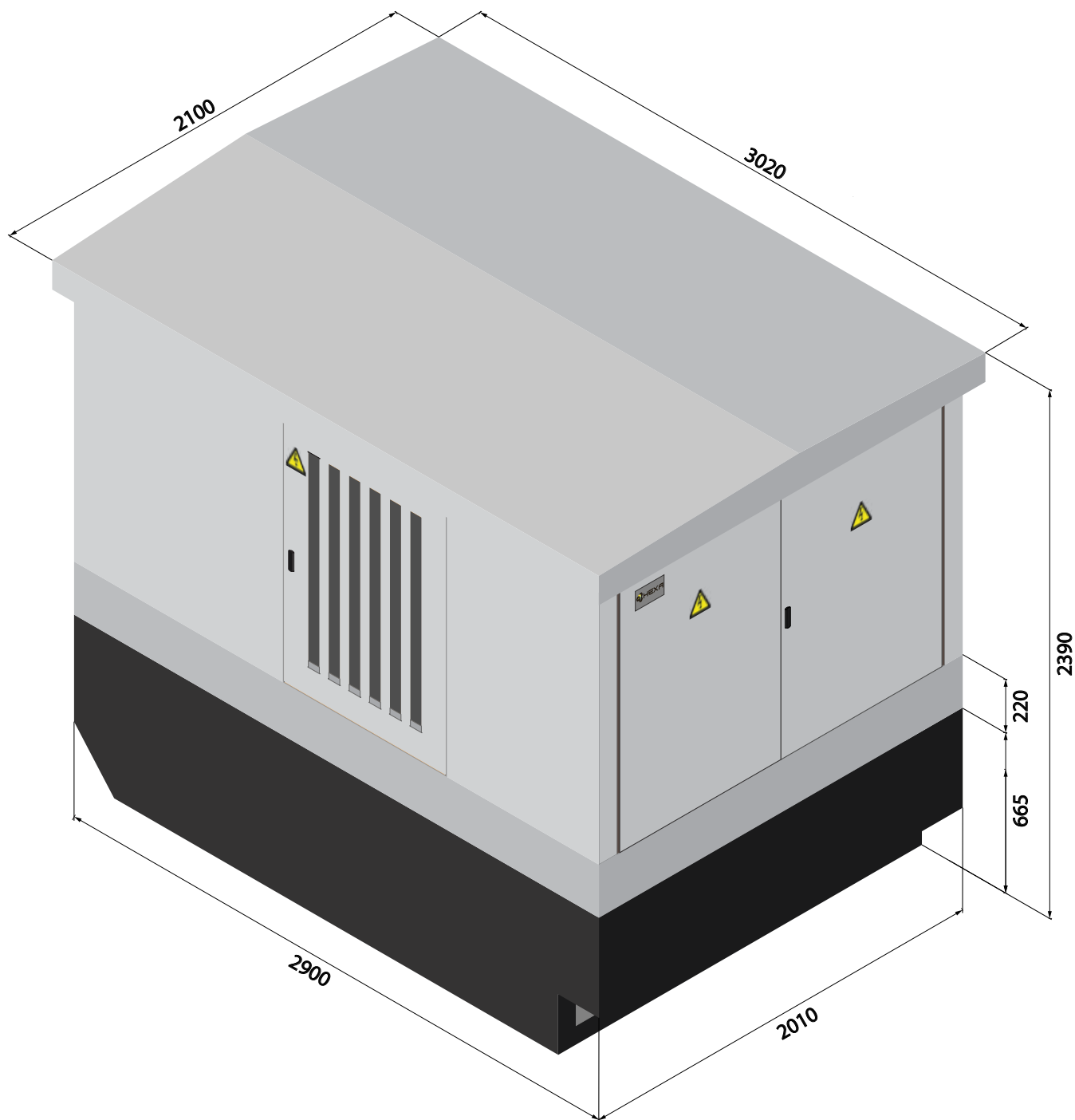
The housing includes an integrated oil retention sump designed to hold 100% of the transformer oil volume in the event of a leak. The doors are made of galvanized steel and coated with a polymer powder finish suitable for outdoor environments according to C4 class (**EN 12944-2:2012**), ensuring a service life of at least 40 years. The doors also meet RC2 anti-burglary standards (**LVS EN 1627:2021**).



Low voltage compartment features a standardized design with a modular architecture, enabling straightforward adaptation to various electrical configurations, protection devices. Custom layouts and customer-specific designs can be implemented to meet individual project specifications and operational requirements.

CCTS-630

ISOMETRIC VIEW



Compartment Specifications

Transformer Compartment

The base of the transformer compartment is designed as a sealed oil sump.

Rated Power: Up to 630 kVA

Voltage Ratio: 10(20) / 0.42 kV

Low Voltage (LV) Switchgear

Rated Current: Up to 630 A

Outgoing Feeders

Utilizing fuse switch disconnectors with a rated current up to 400 A

Supports up to 17 outgoing feeders

Dimensions & Weight

Overall dimensions (LxWxH): 2900 × 2010 × 2390 mm

Internal Room dimensions (LxWxH)

Transformer Room: 1255 × 1810 × 2160 mm

Low Voltage (LV) Room: 400 × 1810 × 2160 mm

Medium Voltage (MV) Room: 845 × 1810 × 2160 mm

Weight Profile

Body Weight: 7 tons*

Roof Weight: 2 tons

*Note: Additional equipment weight depends on the final order configuration.

Additional information

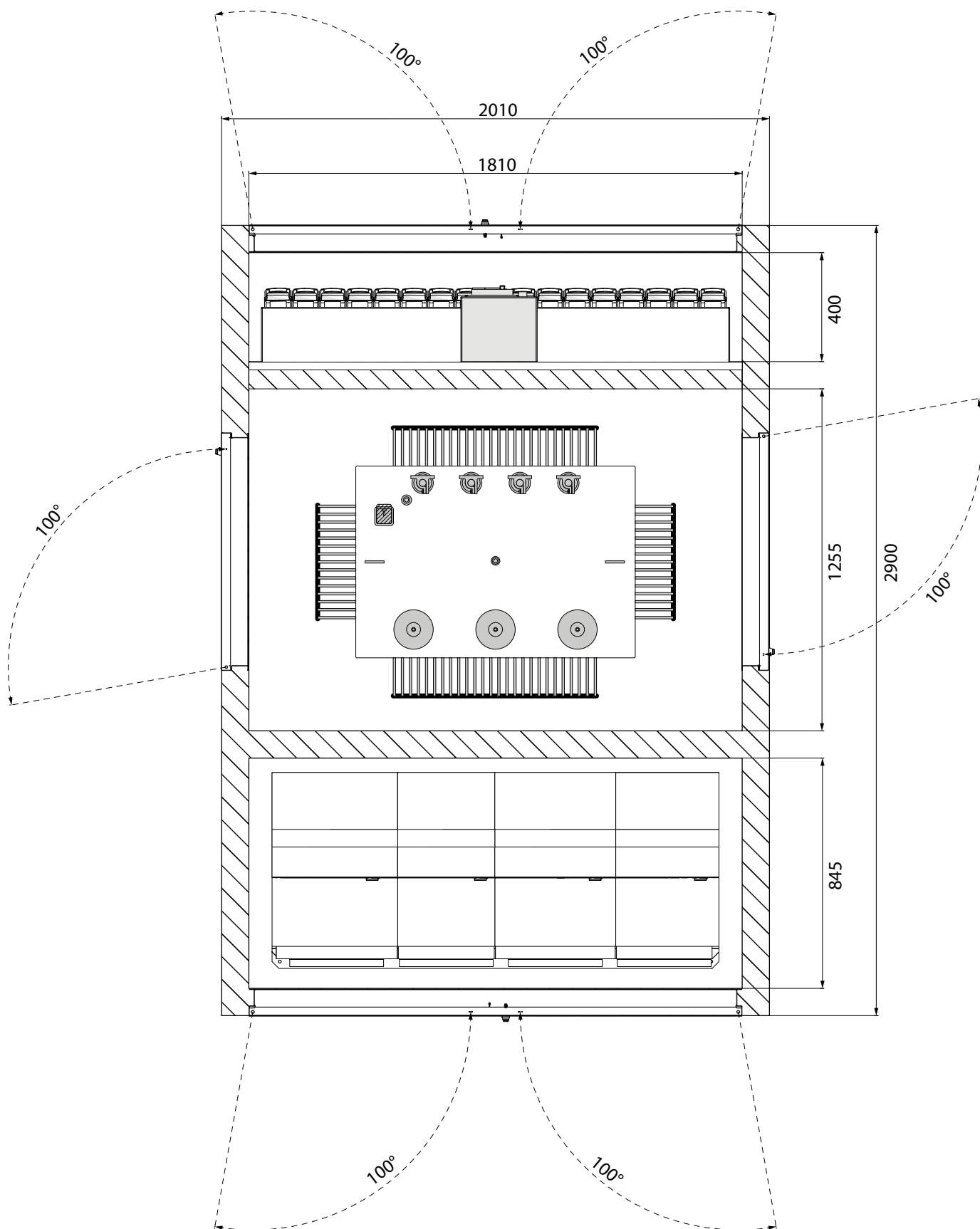
IP Class: IP43

Ventilation type: Passive

Operating Temp. limit: - 40°C to + 40°C

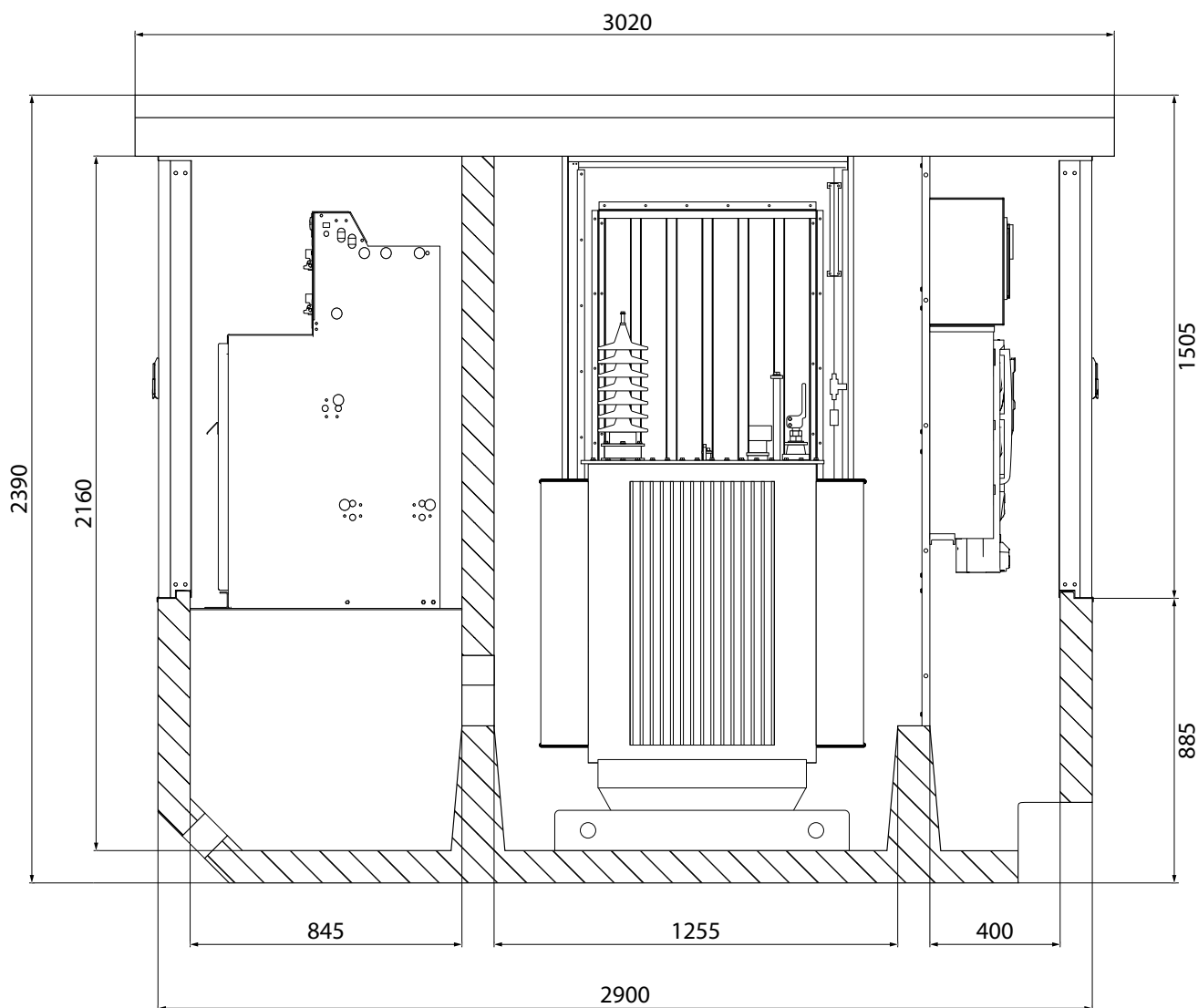
CCTS-630

TOP VIEW



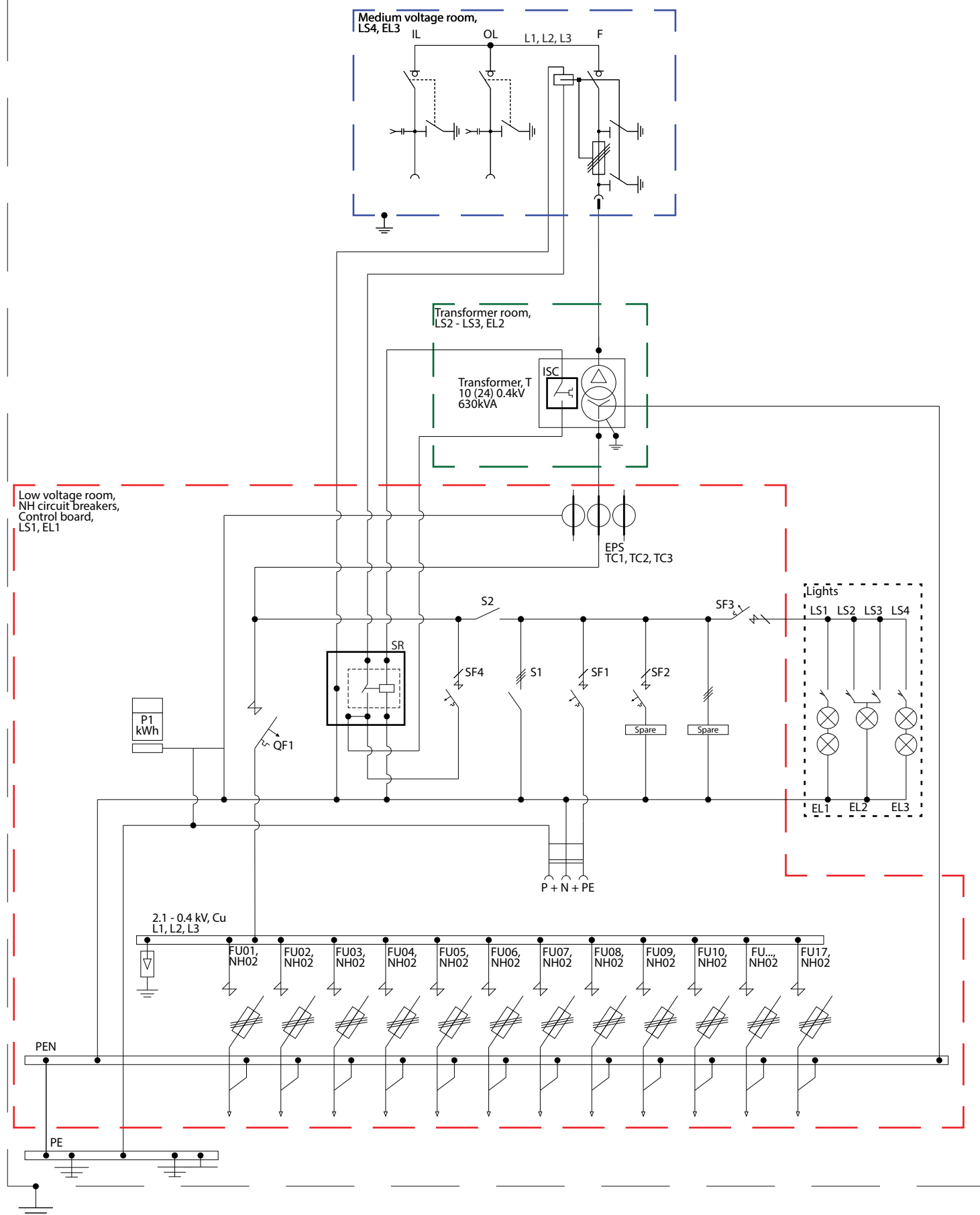
CCTS-630

SIDE VIEW



CCTS-630

CIRCUIT DIAGRAM



Circuit Diagram Component map

Medium Voltage (MV) Room

IL (Incoming Line): Incoming medium-voltage ring network cable connection equipped with a load break switch and integrated grounding switch.

OL (Outgoing Line): Outgoing medium-voltage ring network cable connection equipped with a load break switch and integrated grounding switch.

F (Transformer Feeder): Dedicated transformer protection branch bay with a fuse-switch combination and dual-grounding safety switches.

Transformer Room

Transformer (T): grounded power transformer with neutral point.

ISC: Integrated Safety Contact / Thermal Protection Contact point.

Low Voltage (LV) Room

SR: Safety control relay.

QF1: Dedicated circuit breaker switch feeding distribution busbar.

P1 (kWh): Power meter unit.

EPS: Electronic power supply / surge protection assembly node.

FU# (NH02): Low-voltage distribution busbar supplying up to 17 outgoing feeders equipped with size NH2 fuse switch disconnectors.

S# / SF#: Auxiliary low-voltage circuit control switches, breakers, and designated spare component slots.

PEN / PE: main combined protective earth and neutral (**PEN**) busbar linked to the dedicated protective earth (**PE**) grounding busbar.

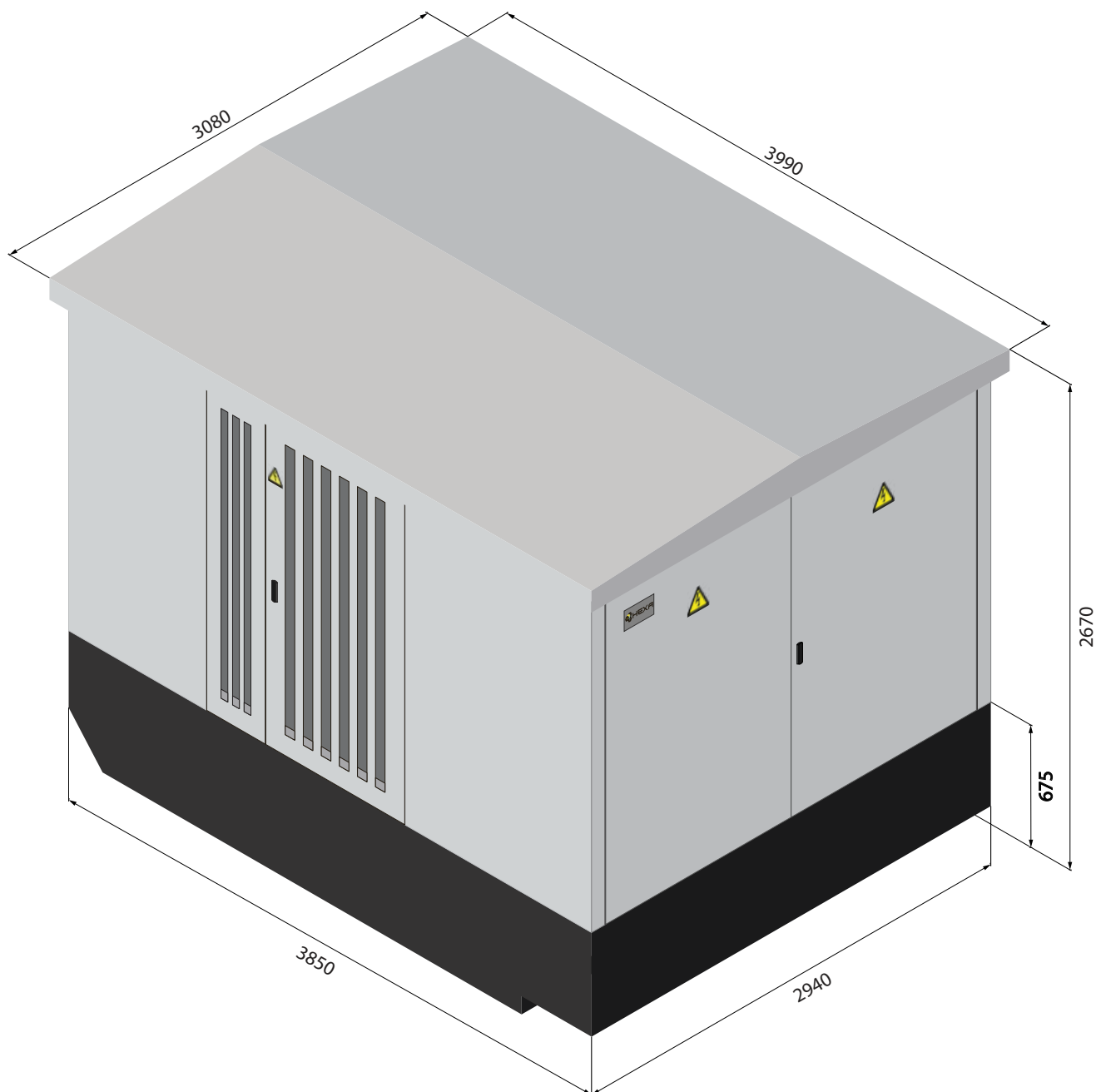
Lights

LS#, EL#: Door-operated light switch (**LS**) and internal lighting fixture (**EL**).

symbol serves as a generic placeholder for specific number.

CCTS-1250

ISOMETRIC VIEW



Compartment Specifications

Transformer Compartment

The base of the transformer compartment is designed as a sealed oil sump.

Rated Power: Up to 1250 kVA

Voltage Ratio: 10(20) / 0.42 kV

Low Voltage (LV) Switchgear

Rated Current: Up to 1250 A

Outgoing Feeders

Utilizing fuse switch disconnectors with a rated current up to 400 A.

Capacity: Supports up to 27 outgoing feeders.

Dimensions & Weight

Overall dimensions (LxWxH): 3990 × 3080 × 2670 mm

Internal Room dimensions (LxWxH):

Transformer Room: 2050 × 2740 × 2400 mm

Low Voltage (LV) Room: 550 × 2740 × 2400 mm

Medium Voltage (MV) Room: 900 × 2740 × 2400 mm

Weight Profile:

Body Weight: 10 tons*

Roof Weight: 3 tons

*Note: Additional equipment weight depends on the final order configuration.

Additional information

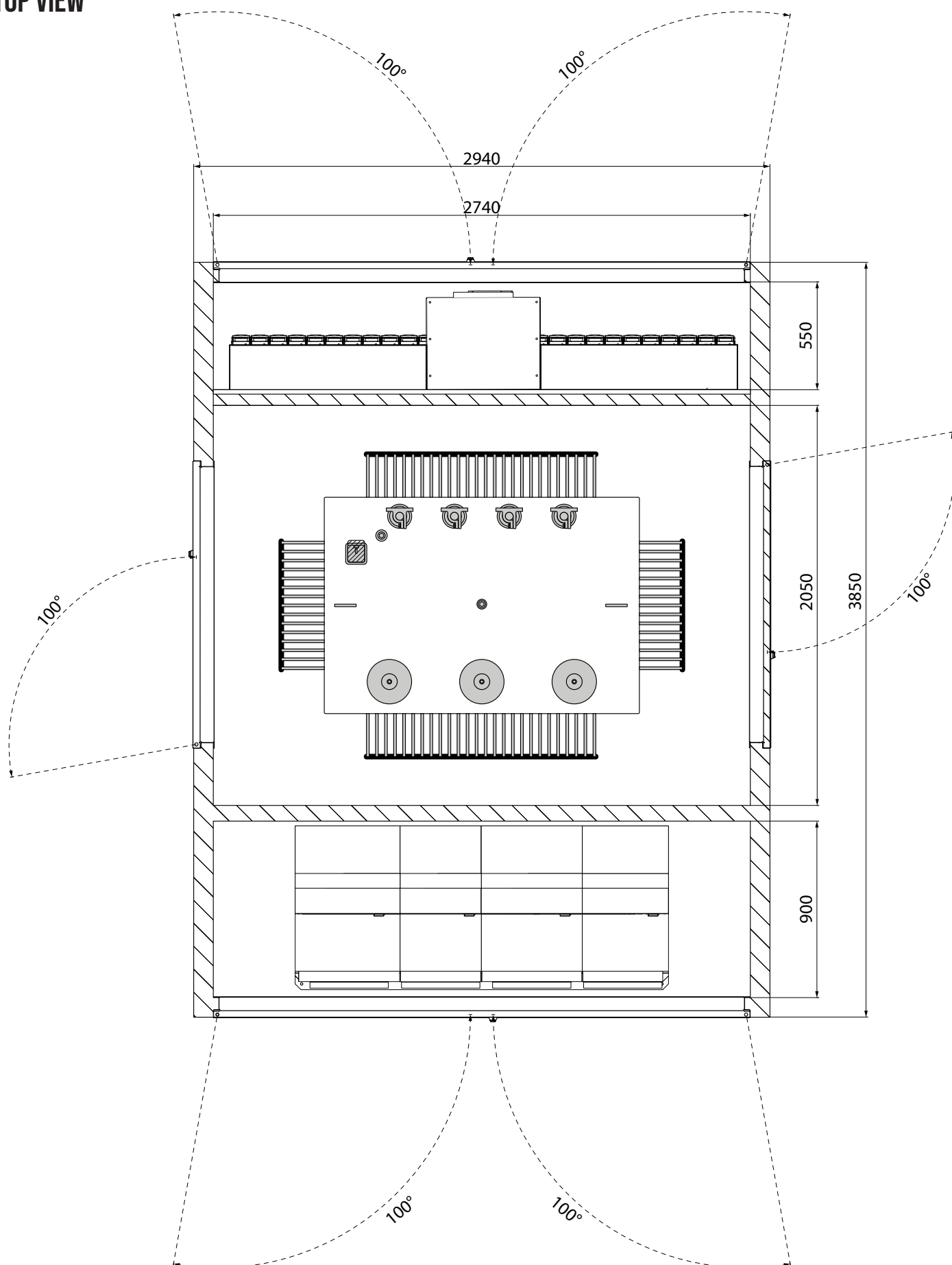
IP Class: IP43

Ventilation type: Passive/Forced

Operating Temp. limit: -40°C to +40°C

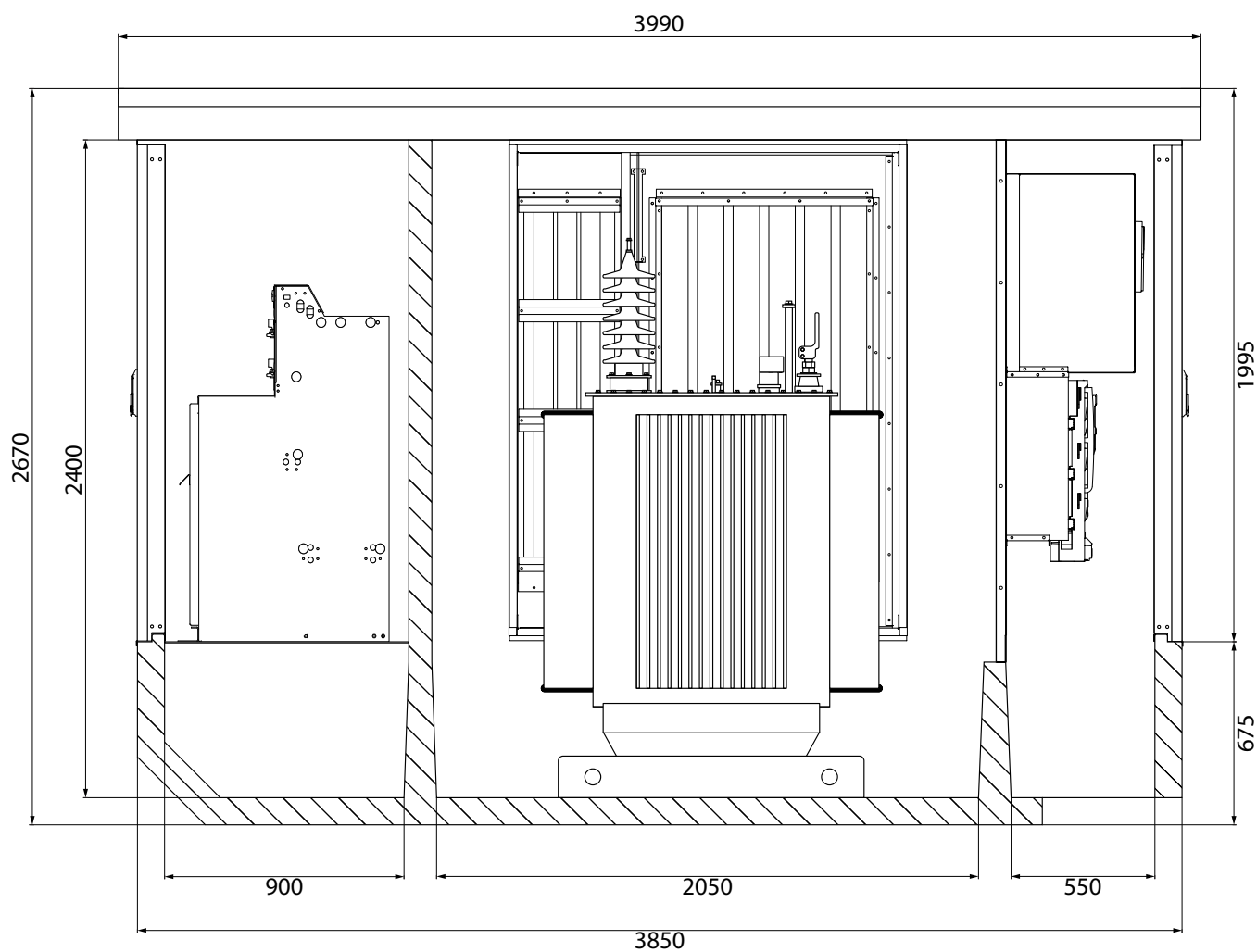
CCTS-1250

TOP VIEW



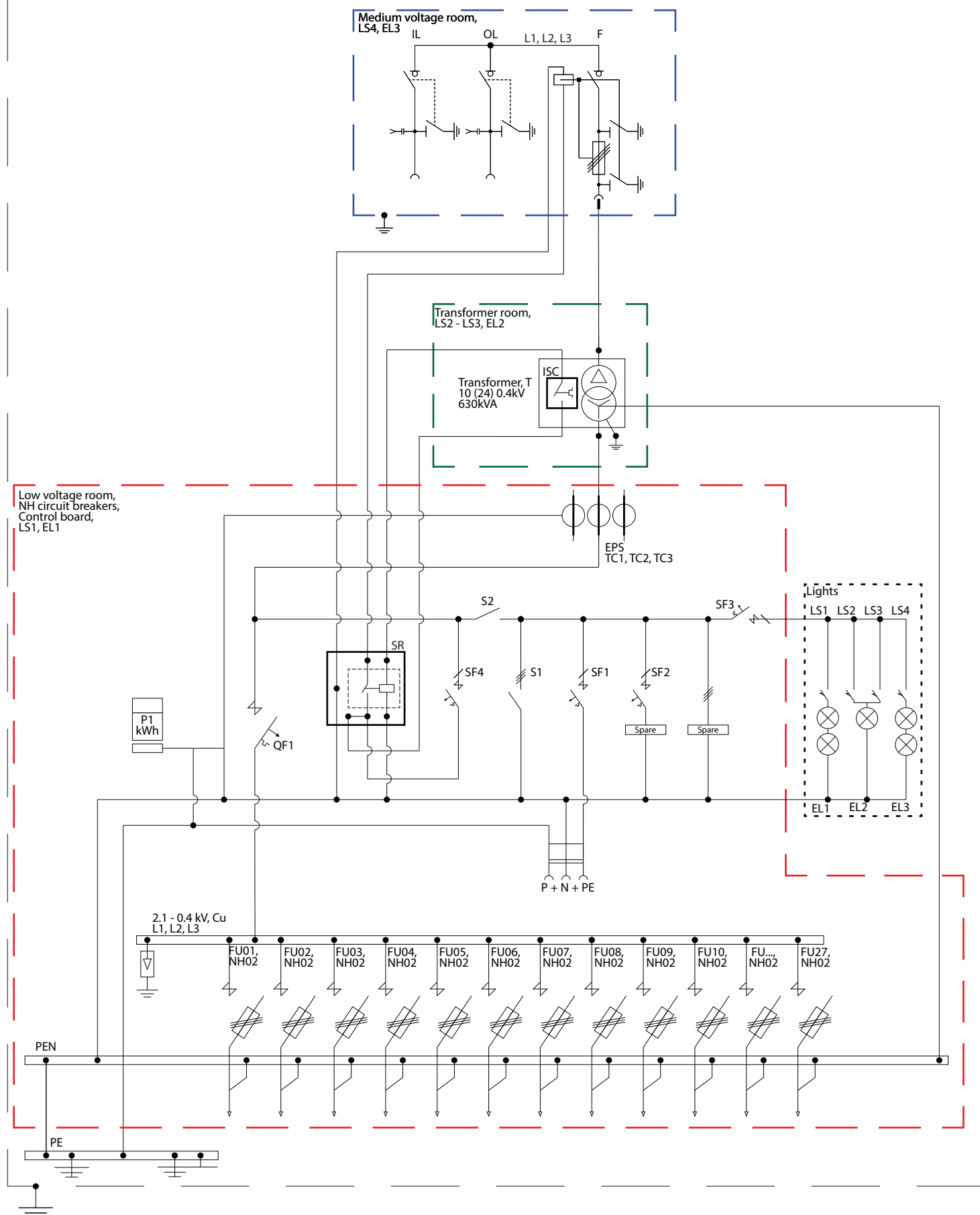
CCTS-1250

SIDE VIEW



CCTS-1250

CIRCUIT DIAGRAM



Circuit Diagram Component map

Medium Voltage (MV) Room

IL (Incoming Line): Incoming medium-voltage ring network cable connection equipped with a load break switch and integrated grounding switch.

OL (Outgoing Line): Outgoing medium-voltage ring network cable connection equipped with a load break switch and integrated grounding switch.

F (Transformer Feeder): Dedicated transformer protection branch bay with a fuse-switch combination and dual-grounding safety switches.

Transformer Room

Transformer (T): grounded power transformer with neutral point.

ISC: Integrated Safety Contact / Thermal Protection Contact point.

Low Voltage (LV) Room

SR: Safety control relay.

QF1: Dedicated circuit breaker switch feeding distribution busbar.

P1 (kWh): Power meter unit.

EPS: Electronic power supply / surge protection assembly node.

FU# (NH02): Low-voltage distribution busbar supplying up to 27 outgoing feeders equipped with size NH2 fuse switch disconnectors.

S# / SF#: Auxiliary low-voltage circuit control switches, breakers, and designated spare component slots.

PEN / PE: main combined protective earth and neutral (**PEN**) busbar linked to the dedicated protective earth (**PE**) grounding busbar.

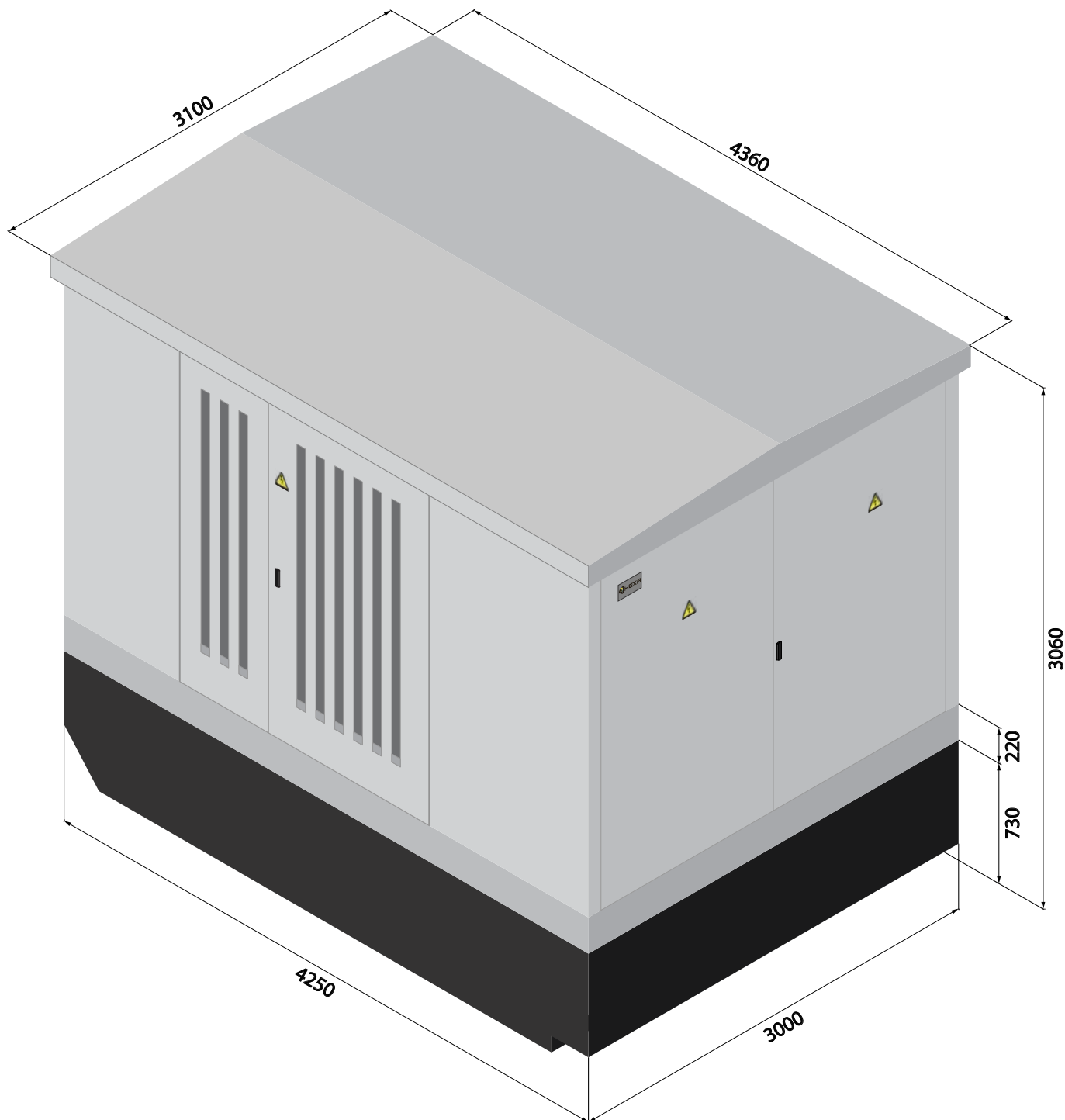
Lights

LS#, EL#: Door-operated light switch (**LS**) and internal lighting fixture (**EL**).

symbol serves as a generic placeholder for specific number.

CCTS-2500

ISOMETRIC VIEW



Compartment Specifications

Transformer Compartment

The base of the transformer compartment is designed as a sealed oil sump.

Rated Power: Up to 2500 kVA

Voltage Ratio: 10(20) / 0.42 kV

Low Voltage (LV) Switchgear

Rated Current: Up to 2500 A

Outgoing Feeders

Fuse switch disconnectors with a rated current up to 400 A.

Capacity: Supports up to 27 outgoing feeders.

Dimensions & Weight

Overall dimensions (LxWxH): 4250 × 3000 × 3060 mm

Internal Room dimensions (LxWxH):

Transformer Room: 2040 × 2800 × 2790 mm

Low Voltage (LV) Room: 810 × 2800 × 2790 mm

Medium Voltage (MV) Room: 1000 × 2800 × 2790 mm

Weight Profile:

Body Weight: 11 tons*

Roof Weight: 3 tons

*Note: Additional equipment weight depends on the final order configuration.

Additional information

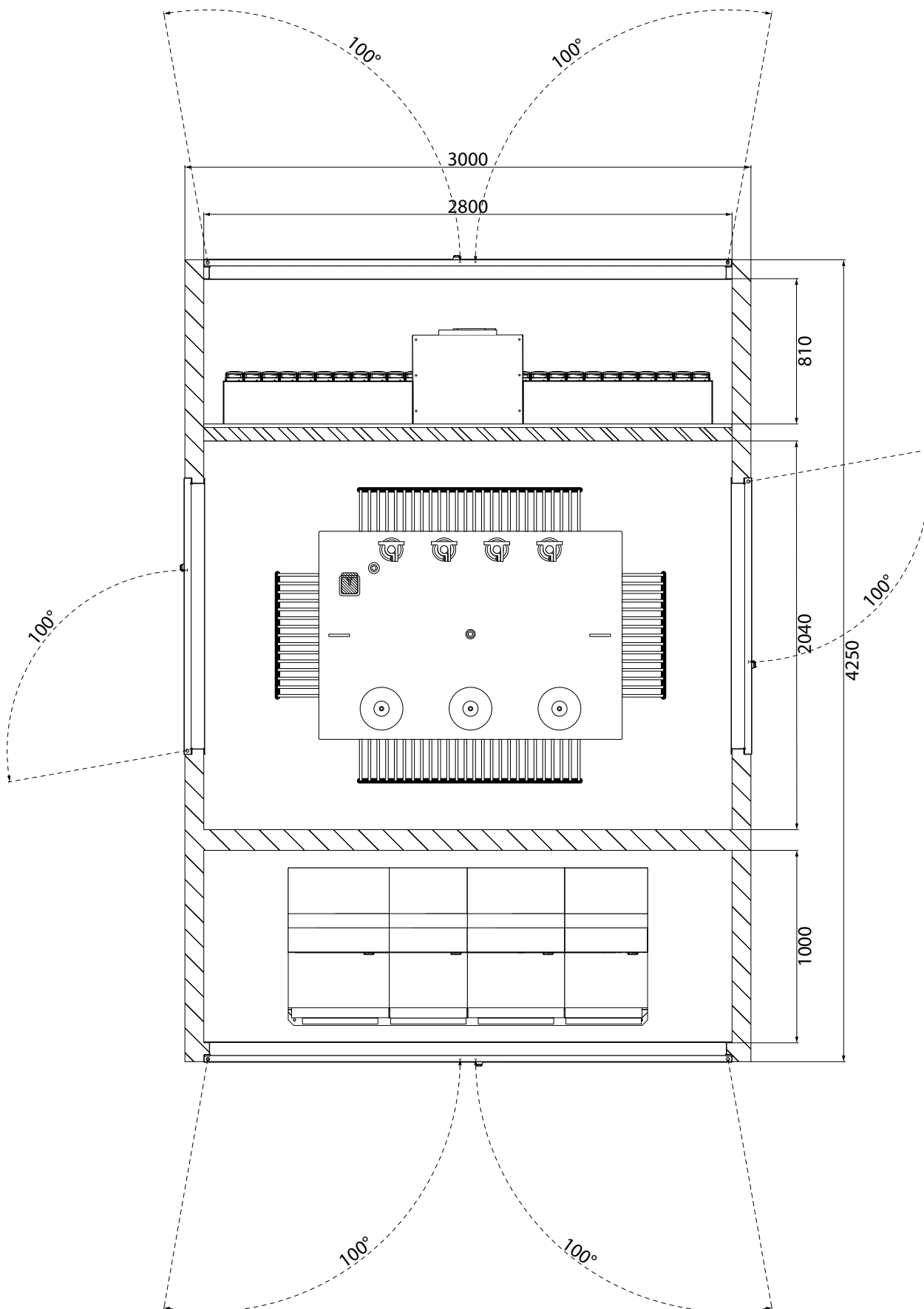
IP Class: IP43

Ventilation type: Passive/forced

Operating Temp. limit: -40°C to +40°C

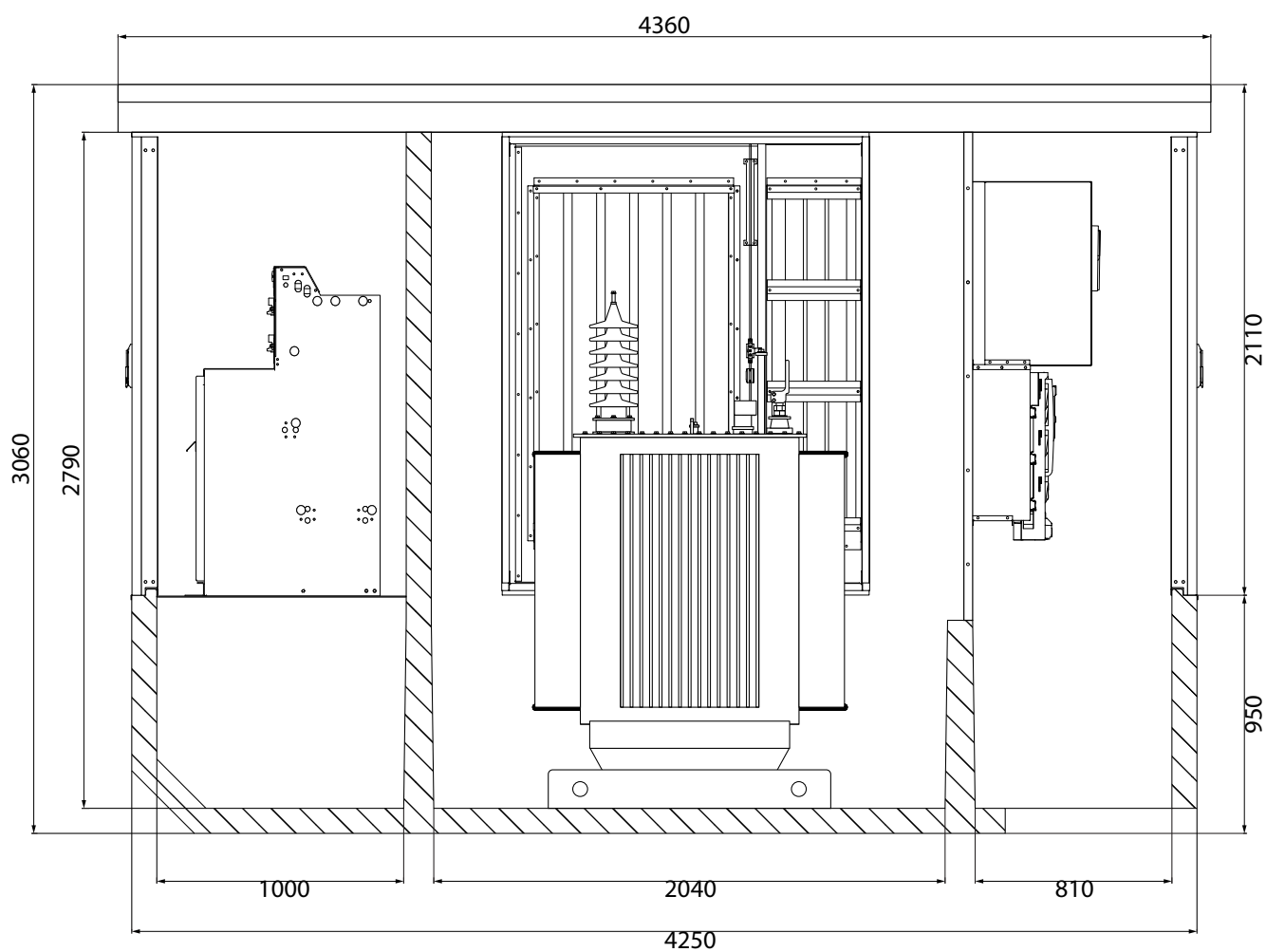
CCTS-2500

TOP VIEW



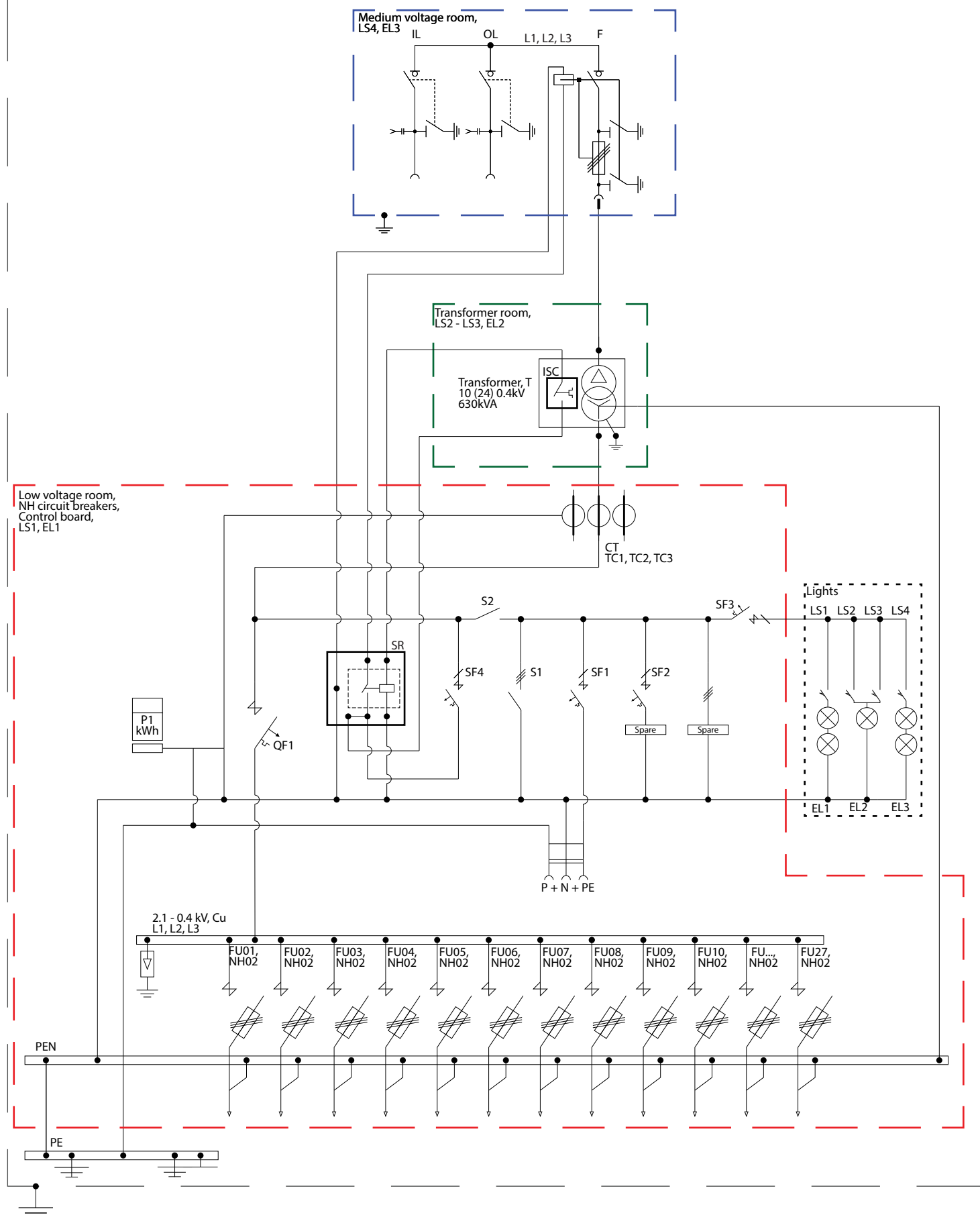
CCTS-2500

SIDE VIEW



CCTS-2500

CIRCUIT DIAGRAM



Circuit Diagram Component map

Medium Voltage (MV) Room

IL (Incoming Line): Incoming medium-voltage ring network cable connection equipped with a load break switch and integrated grounding switch.

OL (Outgoing Line): Outgoing medium-voltage ring network cable connection equipped with a load break switch and integrated grounding switch.

F (Transformer Feeder): Dedicated transformer protection branch bay with a fuse-switch combination and dual-grounding safety switches.

Transformer Room

Transformer (T): grounded power transformer with neutral point.

ISC: Integrated Safety Contact / Thermal Protection Contact point.

Low Voltage (LV) Room

SR: Safety control relay.

QF1: Dedicated circuit breaker switch feeding distribution busbar.

P1 (kWh): Power meter unit.

EPS: Electronic power supply / surge protection assembly node.

FU# (NH02): Low-voltage distribution busbar supplying up to 27 outgoing feeders equipped with size NH2 fuse switch disconnectors.

S# / SF#: Auxiliary low-voltage circuit control switches, breakers, and designated spare component slots.

PEN / PE: main combined protective earth and neutral (**PEN**) busbar linked to the dedicated protective earth (**PE**) grounding busbar.

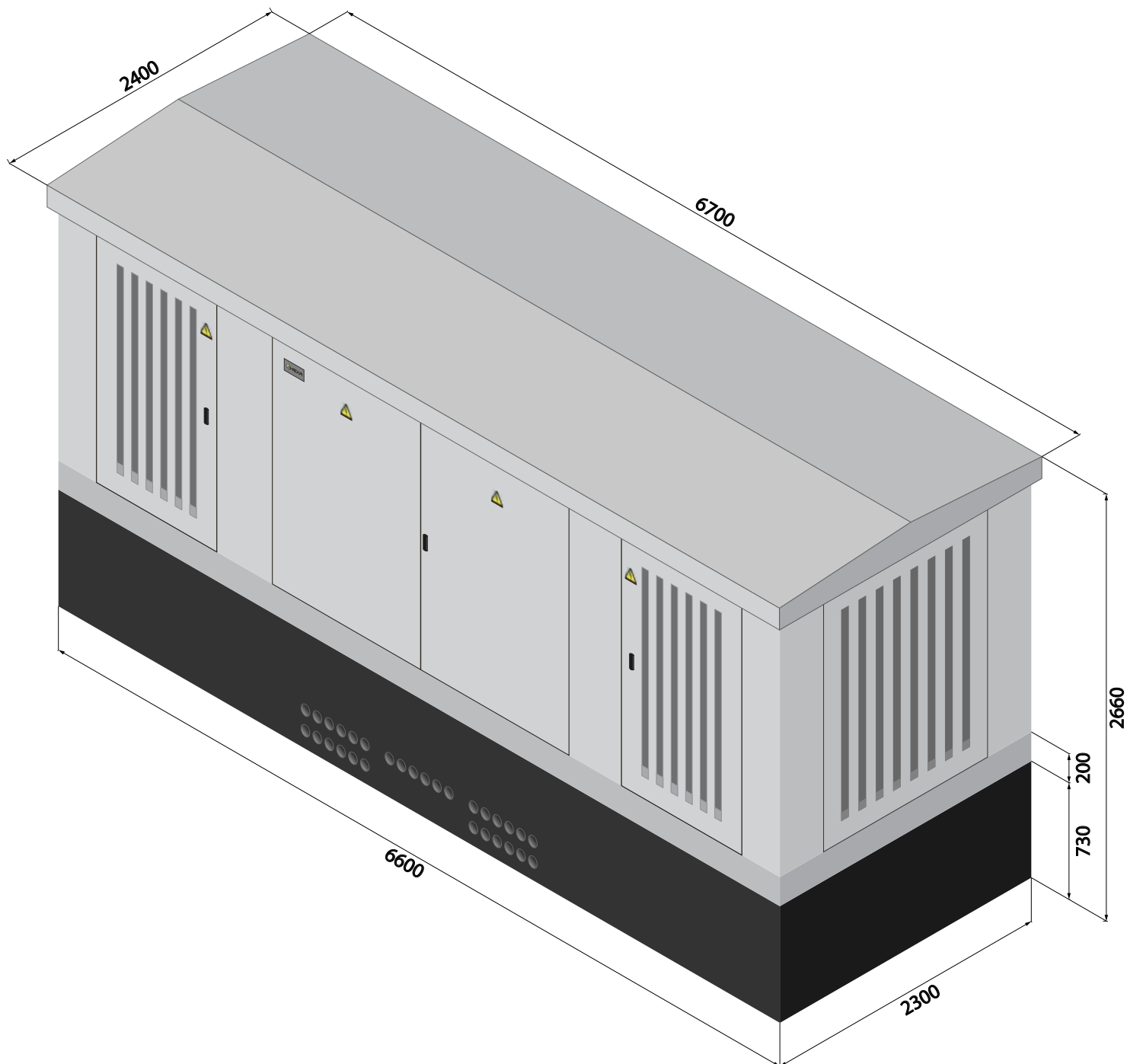
Lights

LS#, EL#: Door-operated light switch (**LS**) and internal lighting fixture (**EL**).

symbol serves as a generic placeholder for specific number.

CCTS-2-1000

ISOMETRIC VIEW



Compartment Specifications

Transformer Compartment

The base of the transformer compartment is designed as a sealed oil sump.

Rated Power: Up to 2x1000 kVA

Voltage Ratio: 10(20) / 0.42 kV

Low Voltage (LV) Switchgear

Rated Current: Up to 2x1000 A

Outgoing Feeders

Fuse switch disconnectors with a rated current up to 400 A.

Capacity: Supports up to 27 outgoing feeders.

Dimensions & Weight

Overall dimensions (LxWxH): 4250 × 3000 × 3060 mm

Internal Room dimensions (LxWxH):

Transformer Room: 1390 × 2100 × 2400 mm

Low Voltage (LV) Room: 3420 × 1100 × 2000 mm

Medium Voltage (MV) Room: 3420 × 1300 × 2400 mm

Weight Profile:

Body Weight: 14 tons*

Roof Weight: 5 tons

*Note: Additional equipment weight depends on the final order configuration.

Additional information

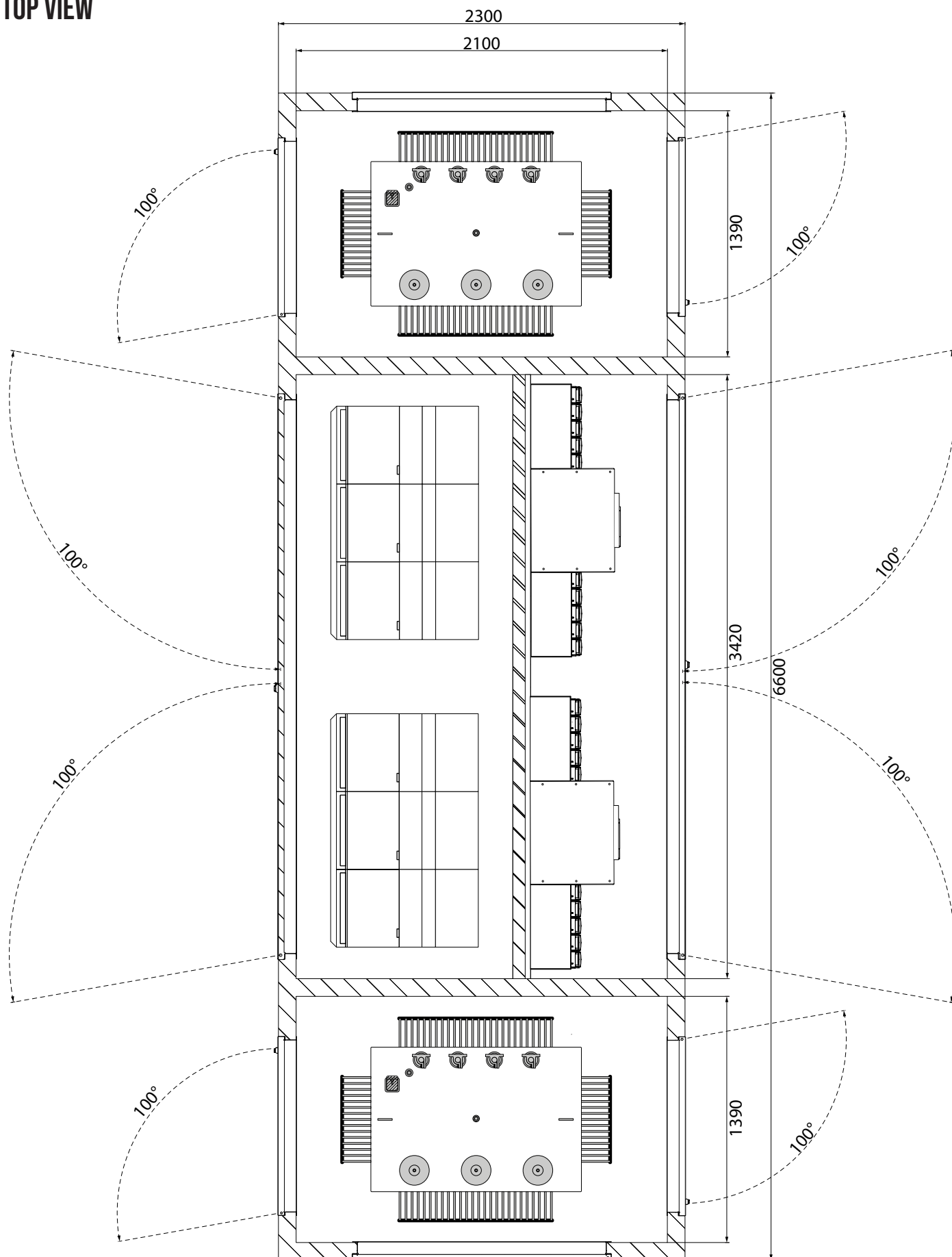
IP Class: IP43

Ventilation type: Passive/forced

Operating Temp. limit: -40°C to +40°C

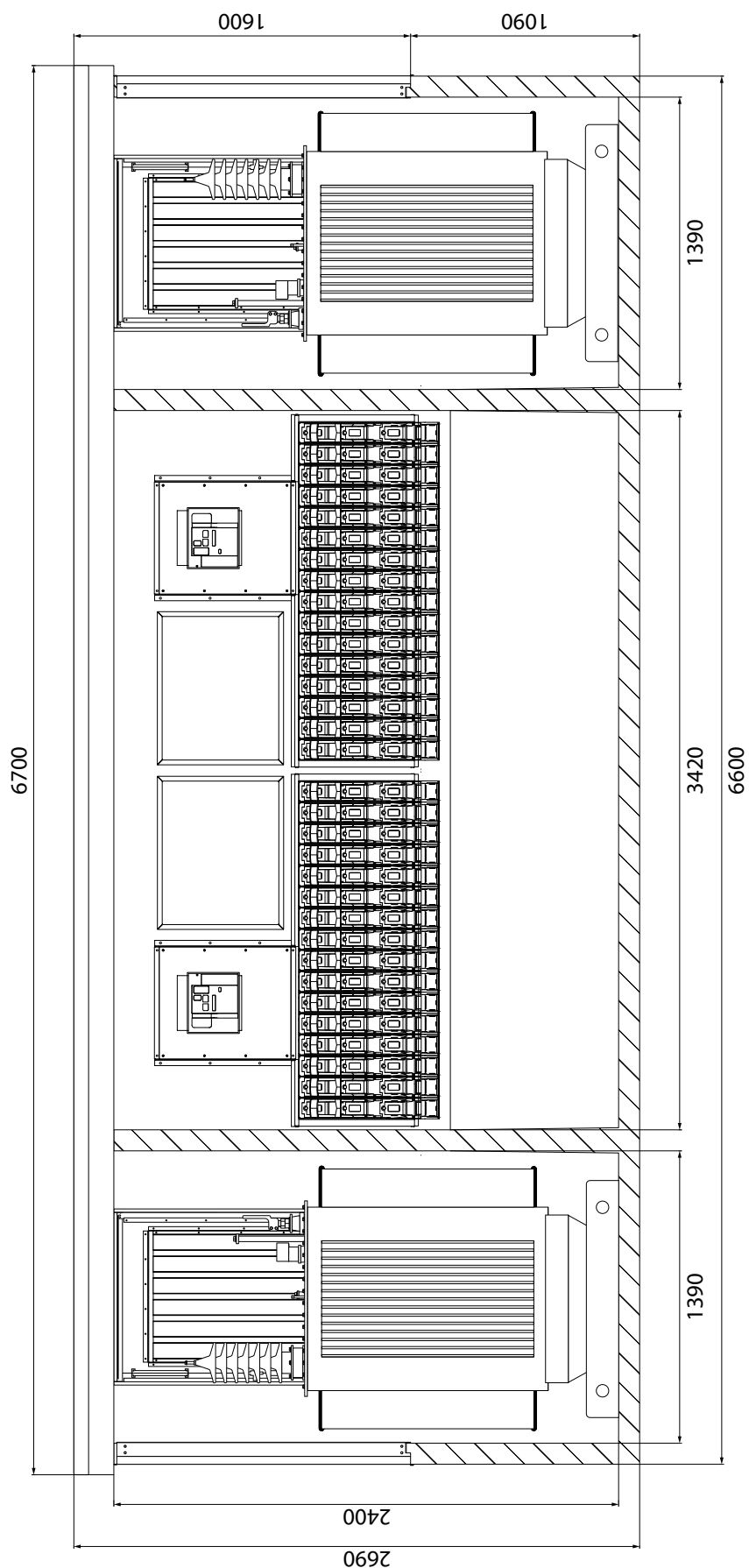
CCTS-2-1000

TOP VIEW



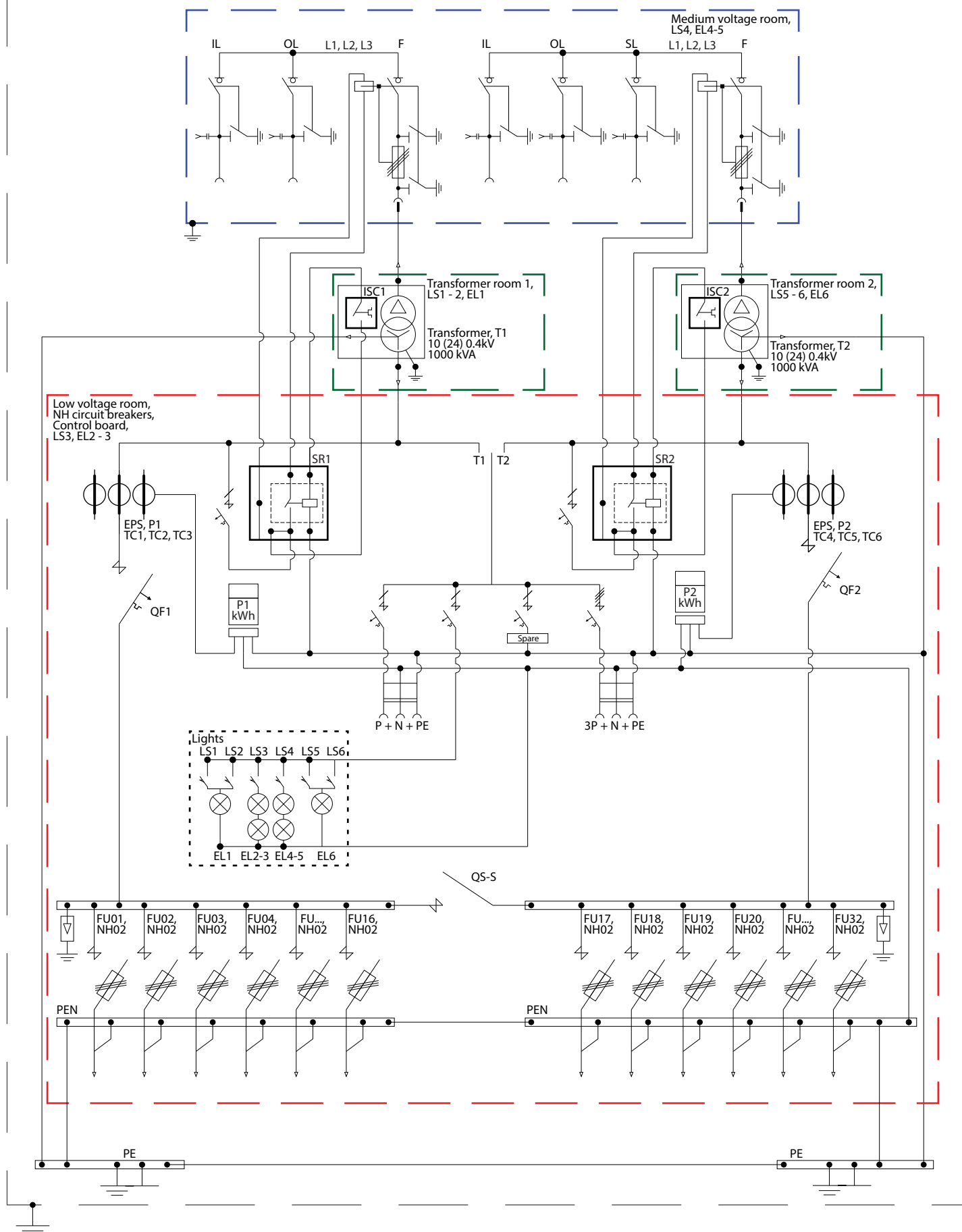
CCTS-2-1000

SIDE VIEW



CCTS-2-1000

CIRCUIT DIAGRAM



Circuit Diagram Component map

Medium Voltage (MV) Room

IL (Incoming Line): Incoming medium-voltage ring network cable connection equipped with a load break switch and integrated grounding switch.

OL (Outgoing Line): Outgoing medium-voltage ring network cable connection equipped with a load break switch and integrated grounding switch.

SL (Spare Line): Spare Line bay equipped with a load break switch, reserved for future ring network cable expansion or a secondary alternative power path.

F (Transformer Feeder): Dedicated transformer protection branch bay with a fuse-switch combination and dual-grounding safety switches.

Transformer Room 1 & 2

Transformer (T#): grounded power transformer with neutral point.

ISC#: Integrated Safety Contact / Thermal Protection Contact point.

Low Voltage (LV) Room

SR#: Safety control relay.

QF#: Dedicated circuit breaker switch feeding distribution busbar.

P# (kWh): Power meter unit.

EPS#: Electronic power supply / surge protection assembly node.

FU# (NH02): Low-voltage distribution busbar supplying up to 32 outgoing feeders equipped with size NH2 fuse switch disconnectors.

S# / SF#: Auxiliary low-voltage circuit control switches, breakers, and designated spare component slots.

PEN / PE: main combined protective earth and neutral (**PEN**) busbar linked to the dedicated protective earth (**PE**) grounding busbar.

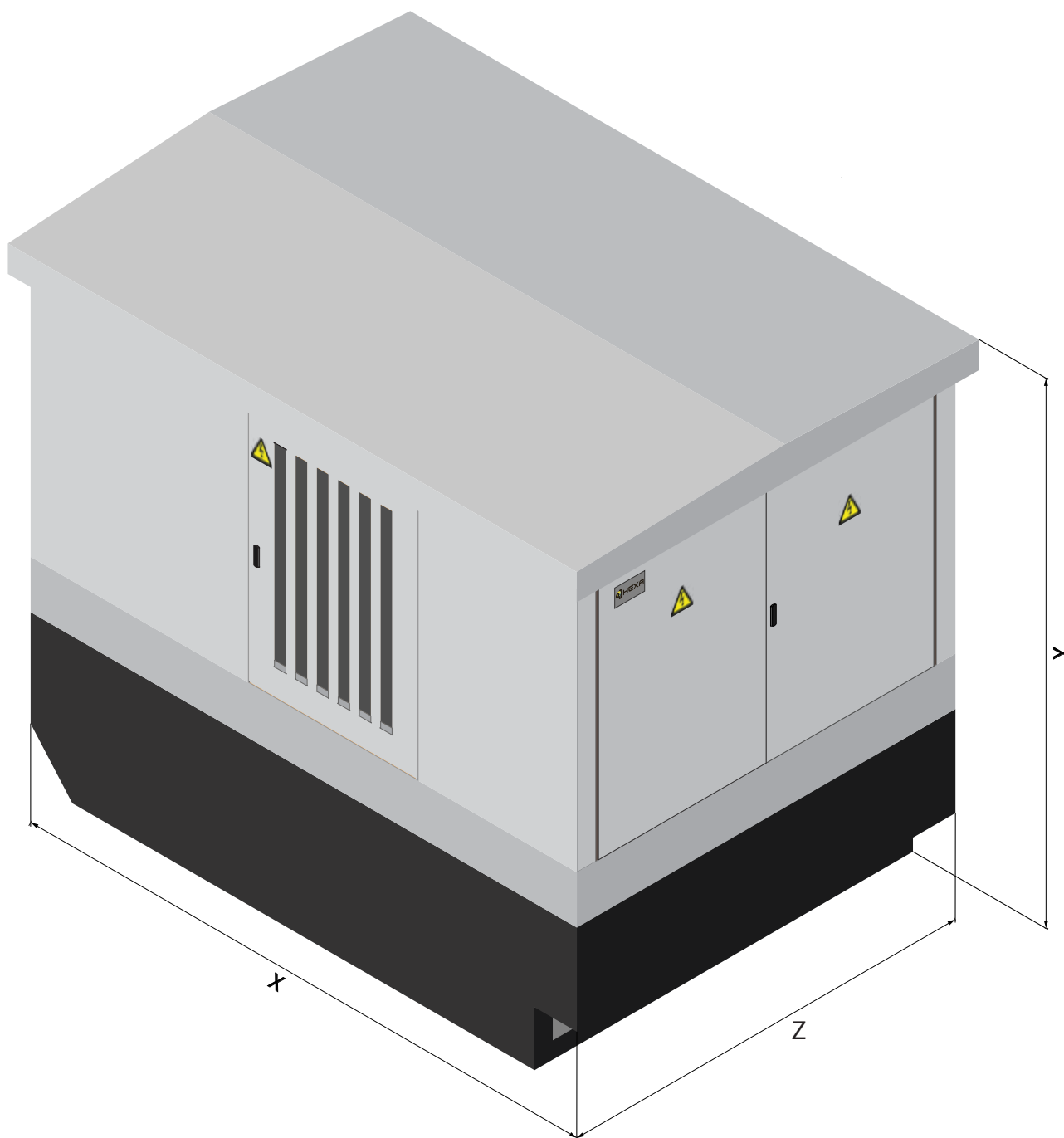
Lights

LS#, EL#: Door-operated light switch (**LS**) and internal lighting fixture (**EL**).

symbol serves as a generic placeholder for specific number.

CCTS-X

ISOMETRIC VIEW



Compartment Specifications

Transformer Compartment

The base of the transformer compartment is designed as a sealed oil sump.

Rated Power: Up to 4000 kVA

Voltage Ratio: 10((20)36)) / 0.42 kV

Low Voltage (LV) Switchgear

Rated Current: Up to 4000 A

Dimensions & Weight

Overall dimensions (LxWxH): depending on customer order.

Weight Profile

Body &Roof weight: c

*Note: Additional equipment weight depends on the final order configuration.

Additional information

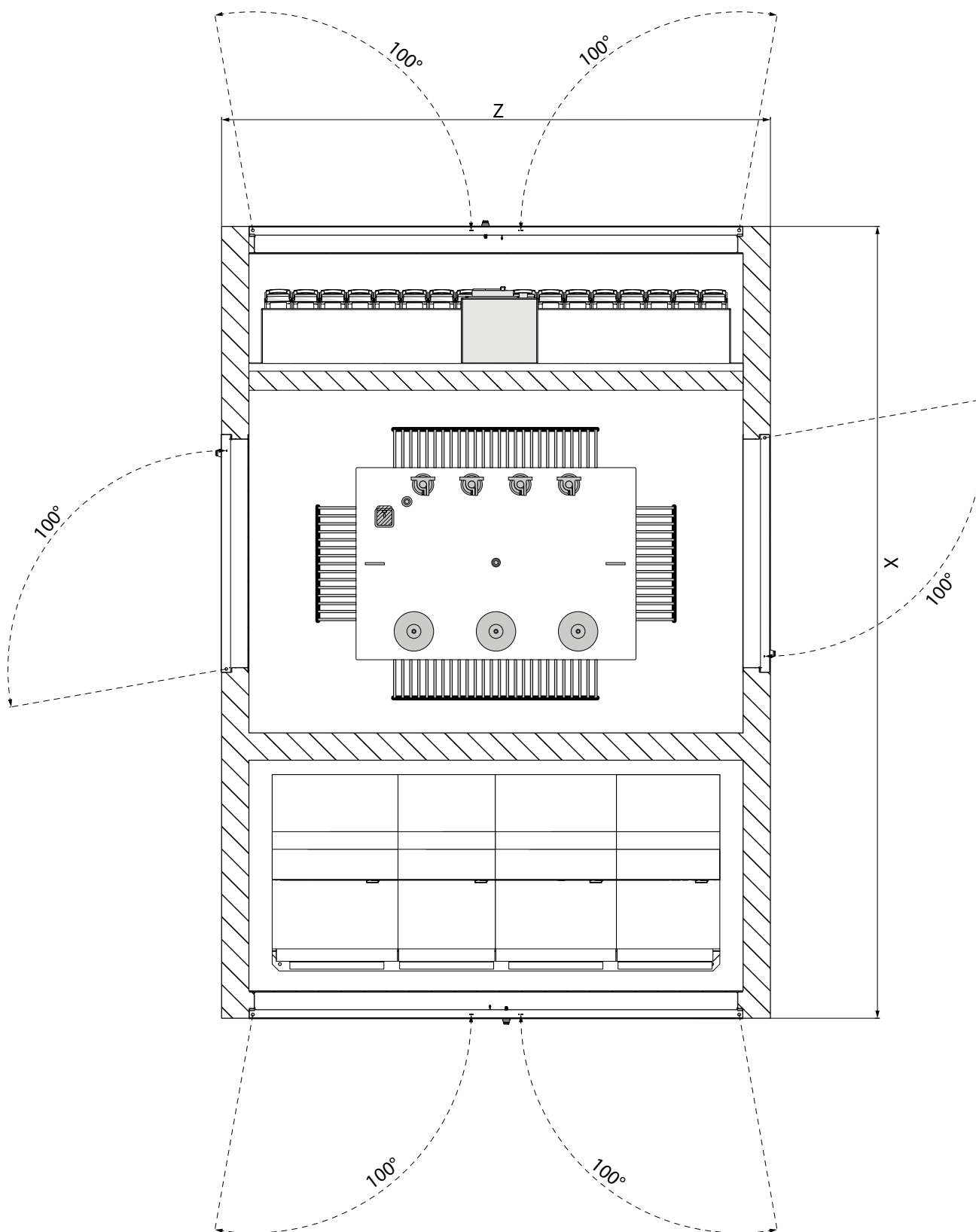
IP Class: IP43

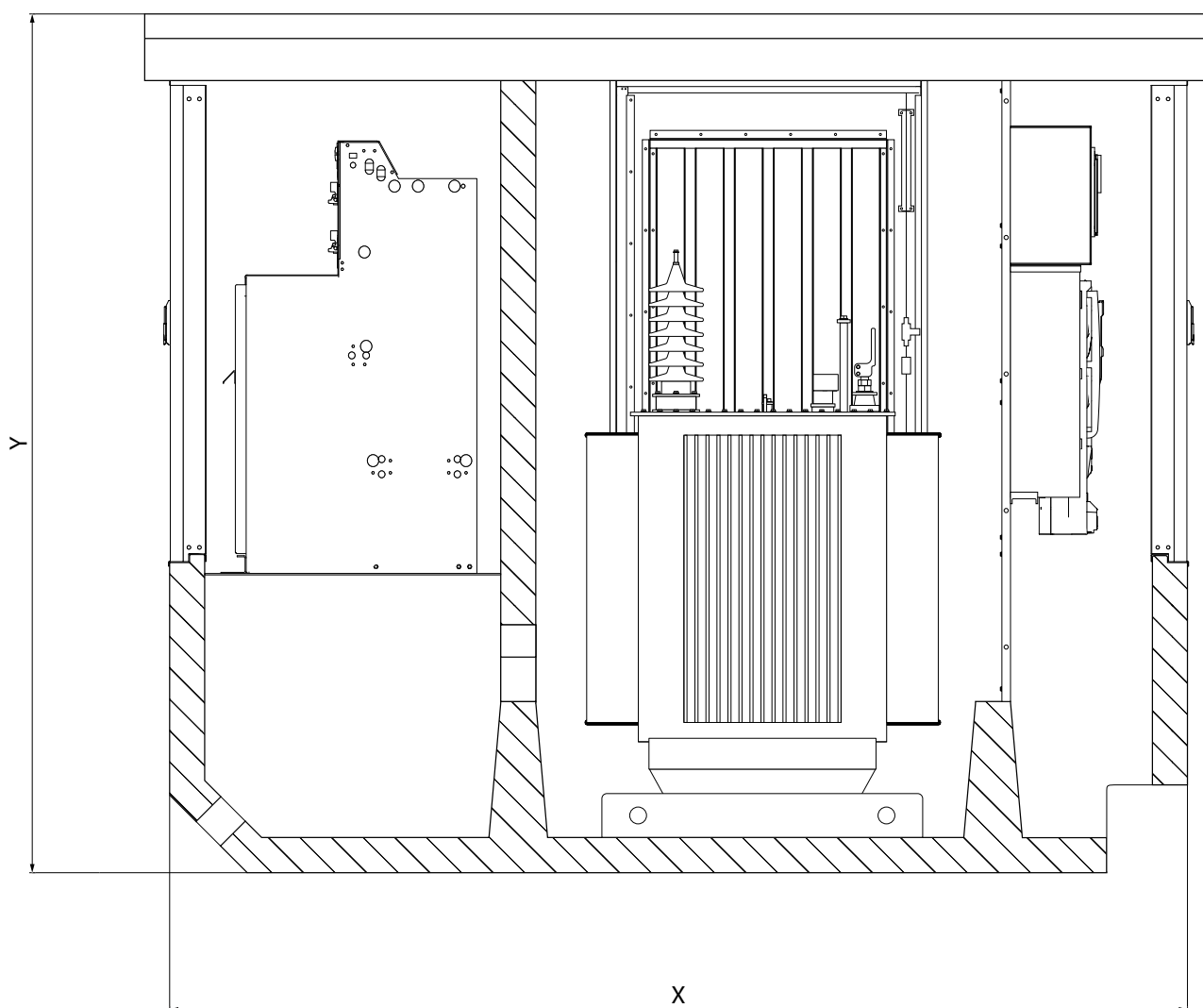
Ventilation type: Passive/Forced

Operating Temp. limit: - 40°C to + 40°C

CCTS-X

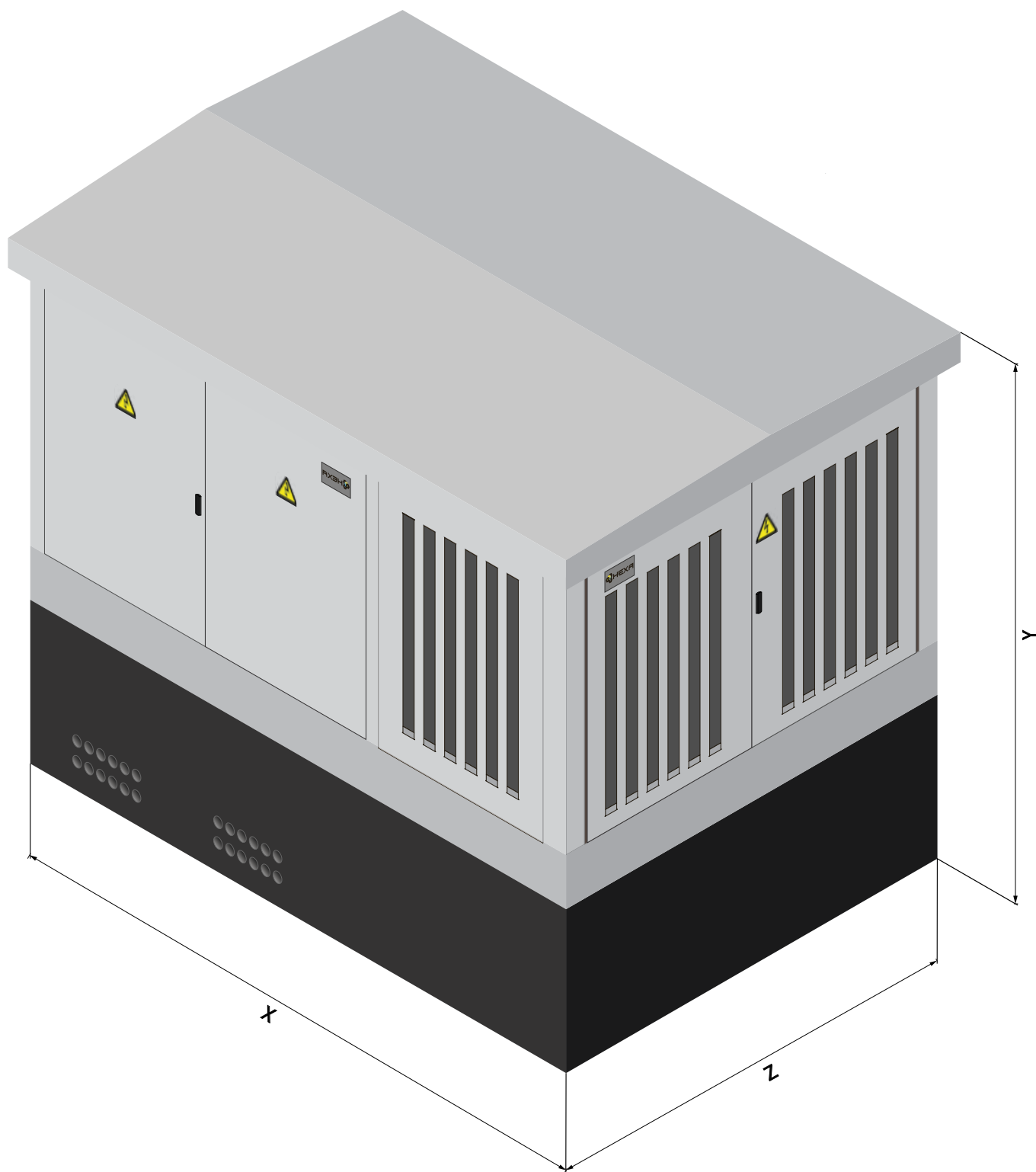
TOP VIEW





CCTS-T-X

ISOMETRIC VIEW



Compartment Specifications

Transformer Compartment

The base of the transformer compartment is designed as a sealed oil sump.

Rated Power: Up to 4000 kVA

Voltage Ratio: 10((20)36)) / 0.42 kV

Low Voltage (LV) Switchgear

Rated Current: Up to 4000 A

Dimensions & Weight

Overall dimensions (LxWxH): depending on customer order.

Weight Profile

Body & Roof weight: depending on customer order.

*Note: Additional equipment weight depends on the final order configuration.

Additional information

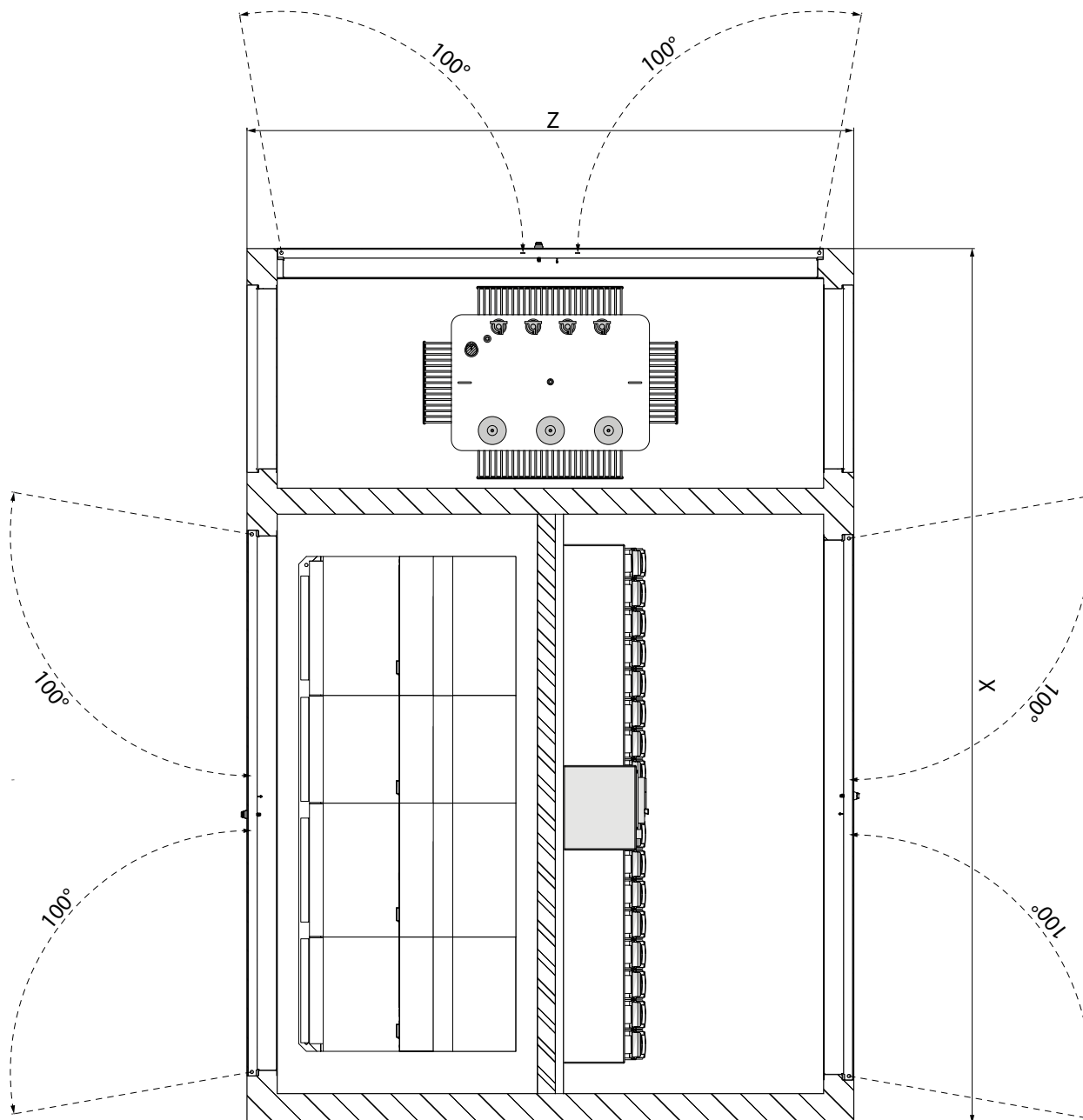
IP Class: IP43

Ventilation type: Passive/Forced

Operating Temp. limit: - 40°C to + 40°C

CCTS-T-X

TOP VIEW



NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

