

se.com





Content PrismaSeT

Index p. A-2

Index of Commercial References > p. A-2

Presentation p. B-1

PrismaSeT P4000 Active -Reliable, Easily Connected > p. B-3 Communication Architecture > p. B-6 HeatTag - Early Detection of overheating Cables

> p. B-11

Architecture

p. C-1

Functional units Connection - Device installation and distribution

> p. C-2

Horizontal busbars - Linergy LGYE profile or Linergy BS busbars

> p. C-3

Characteristics p. D-1

Electrical characteristics Determining the busbars

> p. D-2

P4000 Active

Index p. A-1 P4000 Switchboard P4000 Switchboard Cubicle configuration Characteristics Presentation Presentation > p. B-14 > p. B-13 > p. B-12 p. B-1 Enclosures IP31 enclosures IP55 enclosures IP30 enclosures > p. C-6 > p. C-7 Architecture > p. C-5 p. C-1 Characteristics p. D-1

Version : 4.0 - 08/10/24 Life Is On Schneider 3

Index Of Commercial References With Description

| Com. no. | Description | Page |
|----------|---|------------------|
| L | | |
| LVS03500 | Mounting plate for NW | C-2 |
| LVS03710 | Front plate for withdrawable NW | C-2 |
| LVS03803 | Plain front plate, 3 modules | C-2 |
| LVS03804 | Plain front plate, 4 modules | C-2 |
| LVS03895 | IP30 ventilated front plate, 3 modules | C-2 |
| LVS04552 | Horizontal flat bar Linergy BS 120 x 10 L2000 | C-3 |
| LVS04568 | Linergy LGYE profile 4000 A L2000 | C-3 |
| LVS04607 | Linergy LGYE vertical connection 4000A | C-3 |
| LVS04623 | Linergy LGYE horizontal connection 4000A | C-3 |
| LVS04624 | Isolating screen neutral Linergy LGYE | C-3 |
| LVS04638 | 4000 A connection 10 mm horizontal busbar with Linergy BS vertical flat bar | C-3 |
| LVS04643 | Joint for 120 mm bar for Linergy BS horizontal busbar | C-3 |
| LVS04644 | 4000 A conn.PAD | C-2 |
| LVS04646 | 12 spacers 150 mm for Linergy LGYE profile | C-2, C-3 |
| LVS04662 | Free 5/10 mm busbars support Linergy | C-2, C-3 |
| LVS04664 | Horizontal 5/10 mm busbar support Linergy LGYE/BS | C-3 |
| LVS04671 | Support mounting hardware for bars > 80 mm | C-2, C-3 |
| LVS04678 | Free 5/10 mm busbar support D600 Linergy BS | C-2 |
| LVS04694 | Connection support, 115 mm between centres | |
| LVS04737 | Canalis connection, 4000 A, NW, 3P | C-2 |
| LVS04738 | Canalis connection, 4000 A, NW, 4P | C-2 |
| LVS04915 | Plain barrier for horizontal busbars W400 D400 | C-4 |
| LVS04919 | Plain barrier for horizontal busbars W800 D400 | C-4 |
| LVS04963 | Form 2 cover for horizontal busbars, W = 300 mm, D = 600 mm, 4000 A | C-4 |
| LVS04964 | Form 2 cover for horizontal busbars, W = 400 mm,D = 600 mm, 4000 A | C-4 |
| LVS04966 | Form 2 cover for horizontal busbars, W = 650 mm, D = 600 mm, 4000 A | C-4 |
| LVS04968 | Form 2 cover for horizontal busbars, W = 800 mm, D = 600 mm, 4000 A | C-4 |
| LVS08406 | Framework, W = 650 mm, D = 400 mm | C-5, C-6, C-7 |
| LVS08436 | IP30 plain roof, W = 650 mm, D = 400 mm | C-5, C-6 |
| LVS08456 | IP55 plain roof, W = 650 mm, D = 400 mm | C-7 |
| LVS08516 | IP30 plain door, W = 650 mm | C-5, C-6 |
| LVS08526 | IP55 plain door, W = 650 mm | C-7 |
| LVS08556 | Hinged front plate support frame, W = 650 mm | C-5 |

| Com. no. | Description | Page |
|-----------------|--|------------------|
| LVS08566 | Hinged front plate support frame, W = 650 mm | C-5, C-6, C-7 |
| LVS08606 | Framework, W = 650 mm, D = 600 mm | C-5, C-6, C-7 |
| LVS08656 | IP55 plain roof, W = 650 mm, D = 600 mm | C-7 |
| LVS08676 | IP30 ventilated roof, W = 650 mm, | C-5, C-6 |
| LVS08711 | IP31 sealing kit | C-6 |
| LVS08736 | IP30 rear panel, W = 650 mm | C-5, C-6 |
| LVS08746 | IP55 rear panel, W = 650 mm | C-7 |
| LVS08750 | 2 IP30 side panels , W = 400 mm | C-5, C-6 |
| LVS08755 | 2 IP55 side panels , W = 400 mm | C-7 |
| LVS08760 | 2 IP30 side panels , W = 600 mm | C-5, C-6 |
| LVS08765 | 2 IP55 side panels , W = 600 mm | C-7 |
| LVS08988 | Grill with filter | C-5, C-6, C-7 |
| LVS08990 | Filters, 5 fine | C-7 |
| N | | |
| NSYCVF850M230PF | IP55 230 V front or side fan | C-7 |
| NSYCVF850M400PF | IP55 400 V front or side fan | C-7 |

A-3

Α

Version : 4.0 - 8/10/2024

Life Is On Schneider Electric

Presentation

PrismaSeT P4000 Active - Presentation

www.se.com

R

Contents

General presentation

| PrismaSeT P4000 Active - Reliable, Easily connected | B-2 |
|---|------|
| Communication Architecture | B-6 |
| HeatTag Early detection of Overheating Cables | B-11 |
| General Presentation | B-12 |
| Characteristics | B-13 |
| Cubicle Configuration | B-14 |

Version: 4.0 - 8/10/2024

PrismaSeT P4000 Active - Reliable, Easily connected

The new PrismaSeT P Active switchboard is the market forerunner with built-in cloud connectivity, allowing instant access to smart alarm system, energy usage analysis, trends, and preventative maintenance plans. Built-in cloud connectivity allows users to be notified of the round-the-clock electrical distribution as well as voltage loss if any. This maximizes efficiency and power availability, while creating the basis for future innovations. The PrismaSeT P Active switchboard also allows easy wireless integration of sensors.

Offer values

목 Simplicity

'⊒::: Robustness and Design

Min more business.

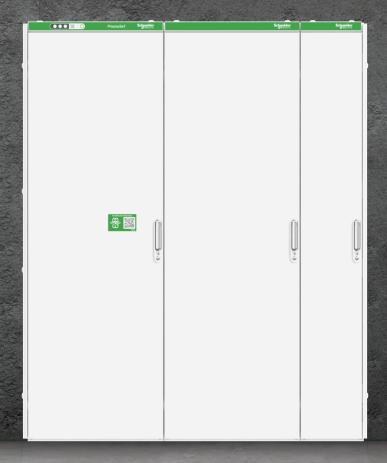
Deliver connectivity without any complexity

Simple-to-install connected solution

New design with new structure color, increased frame and door robustness

Increase the service business opportunities while offering an affordable connected panel

Deliver greater peace of mind



Digital journey



- Electrical Fire Prevention
- Power availability at no cost
- Energy awareness



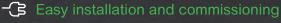
Built-in connectivity

- Voltage loss alert free of charge
- Connection to cloud in less than 5 min without any IT skill



ξ Easy-to-install 100% wireless communication

- User friendly installation instructions
- Independent from customer IT



 Less than 30 minutes for setting up the communication devices

PrismaSeT P4000 Active - Reliable, Easily connected

New design with sustainable packaging

Enhance buildings with in-built connectivity and efficient design

The new design of PrismaSeT P Active increases the robustness of the panels, helps to gain efficiency on every level and provides peace of mind to the panel builders, electrical contractors and facility managers.

In addition, the new 100% green packaging decreases the quantity of waste and its disposal cost by using only cartons.

Green Packaging

- Progressive cancellation of plastic and polystyrene of packaging.
- 100% recyclable cardboards.
- Time & money saving to sort
- New cross beam in cardboard for a more robust packaging.



New Improved Handle

- More robust handle.
- Keyless entry door.
- Ergonomic and Aesthetically handle design.



Reinforced Frame

- Easier transportation and perception during assembly.
- Reinforcement on the lower angle levels using additional accessories.



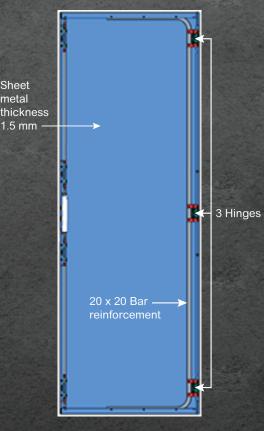
Reinforced Plain Door

- 3 hinges

Sheet metal

- Sheet metal thickness 1.5 mm
- 20 x 20 bar reinforcement

IP 30/31 Plain Door



Digital Instruction Sheets

- Cancellation of systematic printed instruction in each packaging.
- 1 printed 'Super Leaflet' with all instructions (available to order once).
- 1 systematic QR code to link to the right instruction sheets.







EcoStruxure™ Facility Expert

Cloud software to improve operations efficiency



Mobility to improve maintenance & operations

Register easily and overview all your assets status

QR code ready, Schneider Electric devices are already configured to communicate with EcoStruxure[™] Facility Expert in a simple way and enable automatic download of ID, technical documentation and maintenance plan.

Located on the map, visualize all assets in real time, navigate and filter by area or status.

Remain connected and Informed

Providing relevant information on critical assets, sending instant and documented alarms EcoStruxure[™] Facility Expert allows to diagnose remotely in case of issue and to manage maintenance efficiently.

- · Instant alarms on threshold and status change
- Real-time assets status and map localization.
- · Maintenance plan, asset log history, asset doc repository.
- · Task manager and task reminder.
- 1 click to edit intervention and activity reports including voice memos, notes, photos and measurements.
- Remain connected, comment, share information and get support in the field from colleagues or experts if needed.







Web-application to monitor & analyze energy

EcoStruxure[™] Facility Expert energy features give insights into energy data and provide visibility to reduce energy consumption.

On their web portal, Facility Managers get a clear vision on real time energy consumption for all managed buildings from any location.

- Main energy consumptions tracking (main, usage, zone, meter)
- · Multi-site comparision capacity
- Cost monitoring
- Power demand and power factor monitoring
- Building performance: benchmarking against local energy performance scale (regulatory compliance to ISO50001, LEED, NABERS)
- · Monthly score cards
- Energy kiosk: displayed on building public TV screens, this option shows your green image to visitors and promotors occupant ecofriendly behaviours.

Schneider Electric partners network

Schneider Electric local partners are trained and certified to sell, install and commission EcoStruxure™ Facility Expert. They can also operate the solution if the site manager wants to delegate this task.

For Commercial and Industrial application



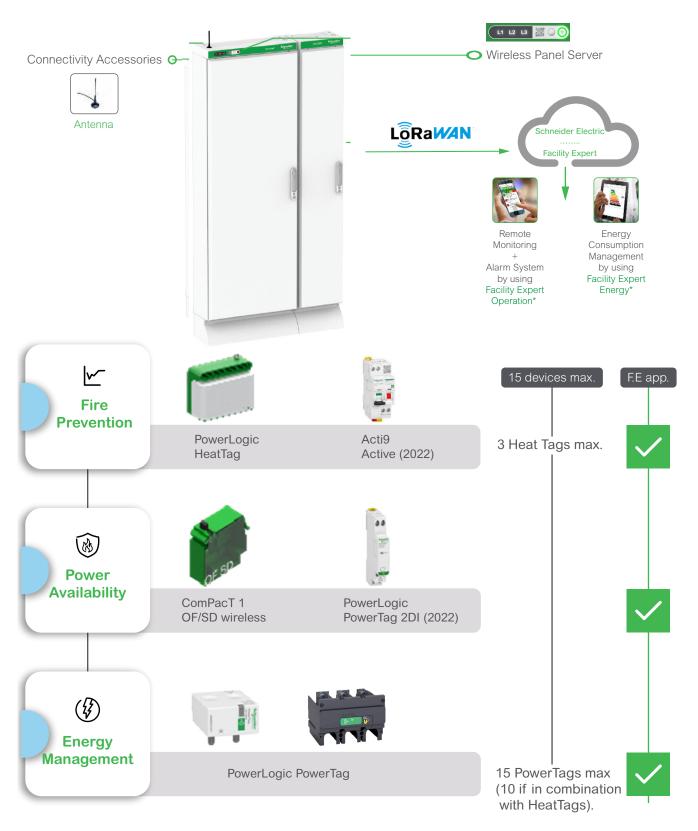
Note: The voltage presence indication of the Wireless Panel Server is only indicative and cannot replace all safety measures required before any intervention into the Low Voltage Switchboard



PrismaSeT Active wireless panel server installed into its environment.

Communication Architecture

General Principle



*Facility Expert Energy

It is a Cloud software for energy efficiency. The app generates alarms when the consumption exceeds set targets while monitoring the energy consumption 24/7 with comparison by site or usage.

*Facility Expert Operation:

It is a cloud software for operation efficiency that alerts the user to optimize the maintenance procedures.



Schneider

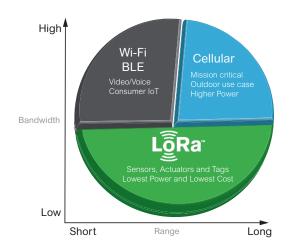
Communication Architecture

Main Features

LoRaWAN (Long Range Wide Area Network) is a networking protocol designed to connect wirelessly in order to assure end-to-end communication services.

The followings are the differentiating factors compared to other networking protocols:

- > Long range coverage
- ➤ Low energy consumption
- > Better penetration in buildings
- > No SIM needed
- > No additional fees to pay (included in Facility Expert subscription).





Schneider Electric

Simple 3-wire cable connections for ease of connectivity to Voltage Presence indicator.

Free real time alarming in case of losing power.

EcoStruxure Power Commission application simplifies sensor integration and commissioning (upto 15 Nos. under 30 mins).



QR code compatible for scanning through any device.

Quick activation and subscription for the LoRa connection without paying any additional fees.

Periodic report and updates.

Wireless Sensor for Early Detection of Overheating Cables



SMT10020

HeatTag is a smart sensor for early detection of overheating wire connections or overheating cables. HeatTag helps prevent electrical switchboards from being damaged, by analyzing gas and particles in the air and sending alerts before any smoke or insulator browning.

Standards

The HeatTag smart sensor complies with the following standards:

- IEC 61010-1:2017 UL/CSA/EU CENELEC deviations
- IEC/EN 61326-1b FCC Part 15B and 15C
- ETSI/EN 300328
- ETSI/EN 301489-1
- IEEE 802.15.4

Note:

Do not use HeatTag as a safety device. HeatTag does not replace the fire protection devices of the building.

Presentation

HeatTag smart sensor:

- Sends three levels of alert depending on the severity of the situation it detects.
- Helps prevent potential fire damages by analyzing gas and micro-particles emitted by cable sheaths when overheating.
- Measures temperature and humidity.
- Communicates with all Schneider Electric EcoStruxure panel servers or gateways.
- Is integrated in EcoStruxure solutions.

The HeatTag sensor must be installed only in non-forced air ventilated switchboards. It must be mounted on a DIN rail.

During the first 30 minutes after commissioning, HeatTag can generate an alert for test. It then takes another 8 hours for HeatTag to define its nominal environment and to be fully operational. Each time the HeatTag sensor is powered on, these 30-minute and 8-hour sequences are repeated.

Operation

Paired with Schneider Electric panel servers or gateways, HeatTag reports:

- Alerts
- Air quality index
- Temperature and humidity measurement
- Self-diagnosis information

Air Quality

HeatTag provides an air quality index, ranging from 0 to 10, and displays the air quality evolution trend in a table.

When the air quality index is equal or above 10, HeatTag sends an alert. It has detected abnormal cable sheath heating in the switchboard.

Detection Alert

An alert is triggered when HeatTag detects abnormal cable sheath heating in the switchboard, which can be caused by:

- One or more loose connections (too high contact resistance)
- A poorly sized cable compared to the rated current
- Overcurrent and poorly regulated protective equipment

Alerts are triggered with three severity levels:

- Low level: a cable is slowly overheating in the installation, you must plan a maintenance visit of the installation.
- Medium level: a cable is overheating in the installation, you must go quickly to the installation for maintenance.
- High level: a cable overheats very quickly, you must check the installation immediately.

The orange application led flashes when HeatTag sends an alert to the panel servers or gateways.

Temperature

HeatTag provides a temperature value with a 30 second default transmission period. The transmission period can be increased by the system in case of high wireless data traffic.

Humidity

The HeatTag provides a humidity rate with a 30 second default transmission period. The transmission period can be increased by the system in case of high wireless data traffic.

Self-Diagnosis

HeatTag carries out two types of diagnosis:

- A minor alert is sent when the fan rpm is 80% of its nominal rpm, which means fan clogging.
- A major alert is sent when HeatTag is faulty. In this case it cannot report measures at all, nor reports incorrect measures.



Wireless Sensor for Early Detection of Overheating Cables

HeatTag Smart Design

- No settings
- Nominal environment auto-learning to avoid false alerts
- Concentrator auto-discovery
- Alerts generated by a powerful algorythm integrated in HeatTag

| Electrical Characteristics | | |
|-----------------------------------|-----------------------------------|--|
| Supply voltage | 110-277 V AC, -15 % / +15 % | |
| Frequency | 50-60 Hz | |
| Max. consumption | 0.1 A | |
| Operating temperature | -15 °C / +70 °C (5 °F to 158 °F) | |
| Storage temperature | -20 °C / +85 °C (-4 °F to 185 °F) | |
| Relative humidity in operation | 15-90 % | |
| Altitude of use | 0-2000 m (0-6500 ft) | |
| Degree of pollution (IEC 60664-1) | 3 | |
| Overvoltage category | OVC III | |

| Sensor Characteristics | | | |
|---------------------------------|-----------------------------|---|--|
| Temperature | Measurement range | -15 °C / +70 °C (5 °F to 158 °F) | |
| measurement | Measurement accuracy | -1.1 °C / +1.1 °C | |
| | Default transmission period | 30 seconds (higher in case of high wireless data traffic) | |
| Humidity measurement | Measurement range | 15–90 % | |
| | Measurement accuracy | ±9 RH % | |
| | Default transmission period | 30 seconds (higher in case of high wireless data traffic) | |
| Air quality | | Index (0 to 10), alert generation when index ≥ 10 | |
| Test alert after pairing | | During the first 30 minutes | |
| Environment auto-learning phase | | 8 hours after the first 30 minutes | |

Installation

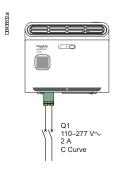
Communication Architecture

List of compatible communicators:

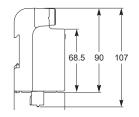
- EcoStruxure Panel Servers
- PowerTag Link
- PrismaSeT Wireless Panel Server

Wiring

HeatTag must be protected by 2 A breaker. It is delivered with a separate connector.



| DB430338.a | |
|------------|---------------------------|
| | S-typidar regioner S V |
| | |

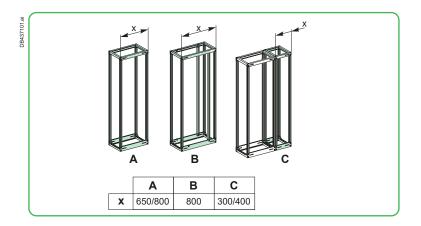


| Mechanical Characteristics | | |
|----------------------------------|-------------------|--|
| Dimensions (w x h x d) | 108 x 107 x 55 mm | |
| Weight | 270 g | |
| Degree of protection (IEC 60529) | IP30 | |

Wireless Sensor for Early Detection of Overheating Cables

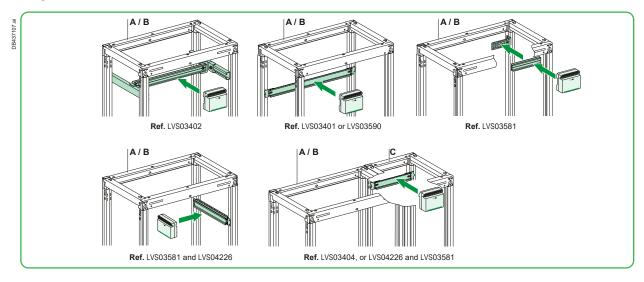
Integration in PrismaSeT P Active

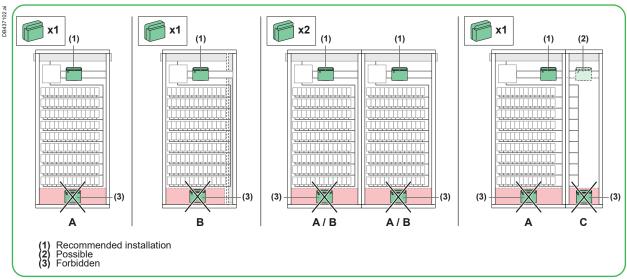
HeatTag must be installed following the Instruction Sheet recommendations (MFR5173801).



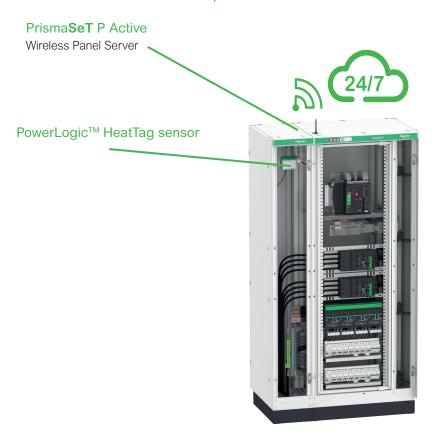


HeatTag must be installed on a DIN rail.





PowerLogic[™] HeatTag sensor installed with Prisma**SeT** P Active Panel server and paired with EcoStructure[™] Facility Expert





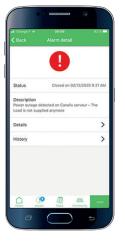
Easy to install: directly on a DIN rail in non-forced air-ventilated switchboards.

Easy to commission from your mobile with $EcoStruxure^{TM}$ Power Commission.



EcoStructure™ Facility Expert





Alert detail



Cause and recommendations

P4000 Switchboard - Presentation



Presentation

In response to the ever increasing performance levels of electrical switchboards incommercial and industrial buildings, Schneider Electric offers a solution for fast and easy installation of a Masterpact MTZ2 in a dedicated PrismaSeT cubicle, thus enhancing the existing offer.

The switchboard is created using standard components, but with busbars sized to handle the thermal effects inherent to such high power levels. Installed alone in a cubicle, the Masterpact MTZ2 is connected upstream via cables or Canalis busbar trunking and supplies horizontal busbars which may consist of Linergy LGYE profile or Linergy BS bar. Current is generally distributed using Linergy busbars installed in adjacent Prisma cubicles.

A dependable electrical installation

The total compatibility of Schneider Electric devices with the Prisma**SeT** system is a key advantage in ensuring a high level of installation dependability. System design has been validated by type tests as per standards IEC 61439-1 and IEC 61439-2 and benefits from the combined experience of Schneider Electric customers over many years.

The P4000 switchboard is made up of:

- A dedicated incoming cubicle, 650 mm wide, containing the Masterpact MTZ2. The circuit breaker is always installed in the same position, whether it is fixed or drawout, and whether it is connected using Canalis busbar trunking or cables.
- Combined cubicles for the outgoing circuits.

Linergy LGYE 4000 A profile, supplied by the Masterpact and connected downstream to vertical Linergy LGY, LGYE profile or BS busbars, are used for current distribution. The depth of the cubicles and the selected cover panels are decisive factors (see the electrical characteristics opposite).



P4000 Switchboard - Characteristics

Mechanical characteristics

- Steel sheet
- Surface treatment: electrophoresis + hot-polymerised polyester epoxy powder, white colour RAL 9003.
- Degree of protection:
- □ IP30/31, IK08
- □ IP55, IK10.
- Dimensions of the dedicated cubicle for the Masterpact MTZ2:
- \square W = 650 mm
- □ D = 600 mm (front connection) or 1000 mm (rear connection)
- □ H = 2000 mm.
- Inside cubicles.

Electrical characteristics

- Rated insulation level of main busbars: 1000 V.
- Rated operational current: see table below.
- Rated peak withstand current: Ipk up to 220 kÂ.
- Rated short-time withstand current: Icw up to 100 kA rms/1 s.
- Frequency: 50/60 Hz.
- Compliant with standards IEC 61439-1 & 2.
- Form 1 (covers for upstream and downstream terminals on all devices).

In a dedicated incoming cubicle, it is not necessary to cover the busbars.

Rated operational current

The rated operational current depends on:

the ambient temperature around the switchboard.

The values indicated below are for device connections to the busbars and customer connections in a switchboard where the ambient temperature is 35 °C

- the degree of protection for the cubicle
- the depth of the cubicle
- the type of front cover (door or cover frame).

In all cases, it is necessary to install ventilation accessories.

| Rated current | Cubicle depth | Front cover | Connection mode | Ventilation accessories |
|------------------|---|--|------------------------|--|
| IP30 switch | board | | | |
| 3440 A | 600 mm | plain door (for cut-outs) | front cables | ventilated roof + grill with filter |
| 3520 A | 600 mm | cover frame (no door) | front cables | ventilated roof |
| | or 1000 mm | plain door (for cut-out) or cover frame (no door) | or Canalis | + grill with filter |
| IP31 switch | board | | | |
| 3440 A | 600 mm | plain door (for cut-outs) | front cables | ventilated roof + grill with filter |
| 3520 A | 1000 mm | plain door (for cut-outs) | rear cables or Canalis | ventilated roof + grill with filter |
| IP55 switchboard | | | | |
| 3520 A | 600 mm | plain door (for cut-outs) | front cables | IP55 front or side fan (1) + IP55 grill with filter |
| | or 1000 mm | plain door (for cut-outs) | rear cables | IP55 front or side fan (1) + IP55 grill with filter |
| minstalled or | (1) Installed on a side panel that must be cut out. | | | |

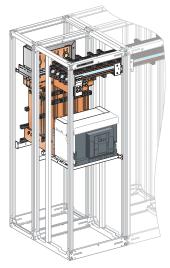
P4000 Switchboard - Cubicle Configuration

Cubicle, D = 600, front connection

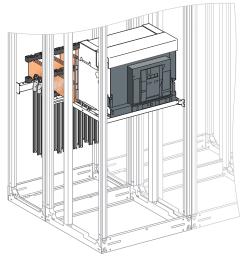


P4000 switchboard with front connection.

Cubicle, D = 1000, rear connection



Connection using Canalis busbar trunking.



Connection using cables via top or bottom.



Architecture

www.se.com

Contents

| 1 | ` |
|---|---|
| | |

| Functional unit | ts | |
|-----------------|---|-----|
| | Connection - Device installation and distribution | C-2 |
| | Horizontal busbars - Linergy LGYE profile or Linergy BS busbars | C-3 |
| Enclosures | | |
| | IP30 enclosures | C-5 |
| | IP31 enclosures | C-6 |
| | IP55 enclosures | C-7 |

Connection - Device installation and distribution

Functionnal units

Mounting

Front connection using cables (from bottom)



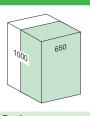


| Devices | Fixed MTZ2 | Drawout MTZ2 |
|--------------------------------------|--|--|
| Downstream connection adapter 4000 A | 3P: LVS04644 x 3 4P: LVS04644 x 4 | 3P: LVS04644 x 3 4P: LVS04644 x 4 |
| Busbar supports | 3P/4P: LVS04694 x 2 | 3P/4P: LVS04694 x 2 + LVS04678 x 2 |
| Connection bars | must be made | must be made |

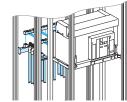
Mounting

Rear connection using Canalis busbar trunking (from bottom)









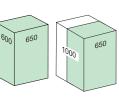
| Devices | l |
|---|---|
| Downstream connection adapter 4000 A | |
| Busbar supports | |
| Connection bars | Γ |
| Connection + Canalis support + Canalis/device interface | |

| Fixed MTZ2 | Drawout MTZ2 |
|--|--|
| 3P: LVS04644 x 3 4P: LVS04644 x 4 | 3P: LVS04644 x 3 4P: LVS04644 x 4 |
| 3P/4P: LVS04694 x 2 | 3P/4P: LVS04694 x 2 + LVS04678 |
| must be made | must be made |
| 3P: LVS04737 4P: LVS04738 | 3P: LVS04737 4P: LVS04738 |

| Fixed MTZ2 | Drawout MTZ2 |
|--|--|
| 3P: LVS04644 x 3 4P: LVS04644 x 4 | 3P: LVS04644 x 3 4P: LVS04644 x 4 |
| 3P/4P: LVS04694 x 2 | 3P/4P: LVS04694 x 2 |
| must be made | must be made |
| - | - |

Mounting

Device installation



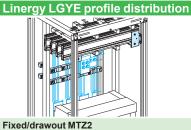


| Devices | Fixed MTZ2 3P/4P | Drawout MTZ2 3P/4P |
|---------------------------|------------------------------------|---------------------------------|
| No. of vertical modules | 36 | 36 |
| Mounting plates | LVS03500 | LVS03500 |
| Front plate with cut-outs | LVS03710 | LVS03710 |
| Upstream front plate | LVS03804 x 2 + LVS03895 x 2 [1] | LVS03804 x 2 + LVS03895 x 2 [1] |
| Downstream front plate | LVS03895 x 2 + LVS03804 + LVS03803 | LVS03895 x 2 + LVS03803 x 2 |

(1) Front plate LVS03895: ventilated front plate.

Mounting 600 650 1000 650 Devices

| Downstream conr 4000 A | nection adapter |
|--------------------------------------|-----------------|
| Busbar supports f between device / I | |
| Connection between | en |



| 3P: LVS04644 x 3 4P: LVS04644 x 4 |
|---|
| 3P: (LVS04664 + LVS04646) x 2 + LVS04678 x 2 4P: (LVS04662 + LVS04646) x 3 + LVS04678 x 2 |
| must be made |

Linergy BS distribution



| Fixed/drawout MTZ2 |
|--|
| 3P: LVS04644 x 3 4P: LVS04644 x 4 |
| 3P: (LVS04664 + LVS04671) x 2 + LVS04678 x 2 4P: (LVS04662 + LVS04671) x 3 + LVS04678 x 2 |
| must be made |

device / busbars

Horizontal busbars - Linergy LGYE profile or Linergy BS bar

Functional units

| Mounting | | | Horizontal bu | sbars for comb | ined cubicles | |
|--|-----------------------------|------|-----------------|-----------------|-----------------|----------------|
| | No. of supports | ≤25 | 1 | 1 | 2 | 2 |
| LVM04662 LVM04664 | lcw (kArms/1 s) | ≤30 | 1 | 1 | 2 | 2 |
| | | ≤40 | 1 | 1 | 2 | 2 |
| | | ≤50 | 1 | 2 | 2 | 2 |
| | | ≤60 | 2 | 2 | 2 | 2 |
| | | ≤65 | 2 | 2 | 3 | 3 |
| | | ≤75 | 2 | 2 | 3 | 3 |
| | | ≤85 | 2 | 2 | 3 | 3 |
| | | ≤100 | - | - | - | 4 |
| Framework width No. of bars Linergy LGYE | Framework width | | W = 300 | W = 400 | W = 650/800 | W = 650/800 |
| | No. of bars Linergy LGYE | | Profile 4000 A | Profile 4000 A | - | Profile 4000 A |
| | No. of bars Linergy E | 3S | 2 bars 120 x 10 | 2 bars 120 x 10 | 2 bars 120 x 10 | - |

Note: the permissible current values for the busbars are given for an ambient temperature of 35 °C around the switchboard.

| Mounting | Profile/bar selection | | | |
|--------------------------|--|------------------------------|--|--|
| | | | | |
| | Linergy LGYE | Linergy BS | | |
| Width | 2000 | 2000 | | |
| Bars | Profile 4000 A | 120 x 10 | | |
| Catalog numbers | LVS04568 | LVS04552 | | |
| Number of bars per phase | 1 | 2 | | |
| Mounting | Selection of busbar supp | Selection of busbar supports | | |
| | Linergy LGYE | Linergy BS | | |
| Fixed support | LVS04664 + LVS04646 | LVS04664 + LVS04671 | | |
| Free support | LVS04662 + LVS04646 | LVS04662 + LVS04671 | | |
| Characteristics | Two fixed supports for frameworks W = 650 and one fixed support for frameworks W = 300/400 are mandatory. If more supports are required, use free supports. | | | |

Busbars connection

| Mounting | Connection betwee vertical busbars 4 | | Joints | | |
|-----------------|--------------------------------------|--|---|------------|--|
| | | | | | |
| | Linergy LGYE | Linergy BS | Linergy LGYE | Linergy BS | |
| Catalog numbers | LVS04607 | LVS04638 | 3P: LVS04623 4P: LVS04623 + LVS0462 4 | LVS04643 | |
| Characteristics | Used to connect the hori | Used to connect the horizontal busbars to vertical busbars (Linergy LGYE profile or Linergy BS bar). | | | |

Note: the vertical bars:

Version: 4.0 - 8/10/2024

- Linergy LGY profile and BS bar must be shortened 50 mm.
- Linergy LGYE profile must be shortened 375 mm. (order one catalog number per phase)

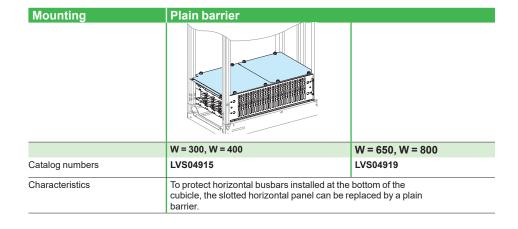


Horizontal busbars - Linergy LGYE profile or Linergy BS bar

Functionnal units

| Mounting | Busbar dimension |
|-----------------|--|
| | m m |
| No. of modules | 4 |
| Characteristics | Horizontal Linergy LGYE profile or Linergy BS bar installed at the bottom or top of cubicle. |

| Mounting | Cover for | horizonta | l busbars | | |
|--------------------------|---|-----------|-----------|---------------|----------|
| | | | | | |
| Framework width | W = 300 | W = 400 | W = 650 | W = 650 + 150 | W = 800 |
| No. of modules | 4 | 4 | 4 | 4 | 4 |
| Catalog numbers | LVS04963 | LVS04964 | LVS04966 | LVS04966 | LVS04968 |
| Number of bars per phase | Set of two barriers (front and rear), plus a slotted rear panel for efficient naturalconvection in the switchboard. The set can be used to partition horizontal busbars installed at the top or bottom of the cubicle. The space required for the busbars is not increased. | | | | |



Horizontal busbars

| Tionzontal baobaro | | | | | | | | | | | | |
|----------------------------------|--|---------|---------|---------|----------------|---------|---------|---------|---------|---------|---------|---------|
| Size / phase | Permissible current (A) Ambient temperature around the switchboard | | | | | | | | | | | |
| | 25 °C | | 30 °C | | 35 °C | | 40 °C | | 45 °C | | 50 °C | |
| | IP ≤ 31 | IP > 31 | IP ≤ 31 | IP > 31 | IP ≤ 31 | IP > 31 | IP ≤ 31 | IP > 31 | IP ≤ 31 | IP > 31 | IP ≤ 31 | IP > 31 |
| Linergy LGYE, profile 4000 A | 3800 | 3510 | 3710 | 3430 | 3620 | 3350 | 3450 | 3180 | 3280 | 3020 | 3120 | • |
| Linergy BS, two bars 120 x 10 | 4160 | 3760 | 3960 | 3550 | 3760 | 3340 | 3560 | 3100 | 3340 | 2880 | 3120 | • |

[•] Connection impossible due to temperature limits for the devices.

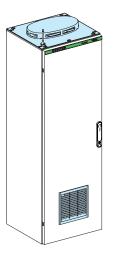


Characteristic: derating of horizontal busbars is indicated for natural ventilation.

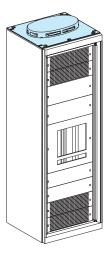
IP30 Enclosures

Enclosures

Front connection using cables



Front connection using cables



Rear connection using cables or Canalis busbar trunking



Version: 4.0 - 8/10/2024

Rated operational current In 3440 A for an ambient temperature of 35 °C around the switchboard

Framework LVS08606

W = 650 mm.

D = 600 mm.

Hinged front plate

Support frame LVS08566.

Cover panels

IP30 cover panels with:

- plain door LVS08516, must be cut out for grill with filter LVS08988 (supplied with a standard filter)
- ventilated roof LVS08676
- side panel LVS08760
- rear panel LVS08736

Rated operational current In 3520 A for an ambient temperature of 35 °C around the switchboard

Framework LVS08606

W = 650 mm.

D = 600 mm.

Hinged front plate

Support frame LVS08566.

Cover panels

IP30 cover panels with:

- cover frame LVS08556
- ventilated roof LVS08676
- side panel LVS08760
- rear panel LVS08736

Framework LVS08606 + LVS08406

W = 650 mm.

D = 1000 mm.

Hinged front plate

Support frame LVS08566

Cover panels

IP30 cover panels with:

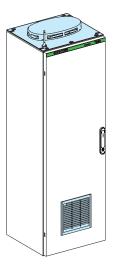
- cover frame LVS08556 or plain door LVS08516, must be cut out for grill with filter LVS08988 (supplied with a standard filter)
- ventilated roof D = 600, LVS08676
- plain roof LVS08436
- side panel LVS08760 + LVS08750
- rear panel LVS08736



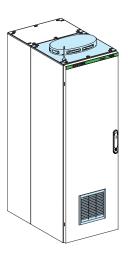
IP31 Enclosures

Enclosures

Front connection using cables



Rear connection using cables or Canalis busbar trunking



Rated operational current In 3440 A for an ambient temperature of 35 °C around the switchboard

Framework LVS08606

W = 650 mm.

D = 600 mm.

Hinged front plate

Support frame LVS08566

Cover panels

IP30 cover panels with:

- plain door LVS08516, must be cut out for grill with filter LVS08988 (supplied with a standard filter)
- ventilated roof LVS08676
- IP30 sealing kit LVS08711
- side panel LVS08760
- rear panel LVS08736

Rated operational current In 3520 A for an ambient temperature of 35 °C around the switchboard

Framework LVS08606 + LVS08406

W = 650 mm.

D = 1000 mm.

Hinged front plate

Support frame LVS08566.

Cover panels

IP30 cover panels with:

- plain door LVS08516, must be cut out for grill with filter LVS08988 (supplied with a standard filter)
- ventilated roof D = 600, LVS08676
- IP30 sealing kit LVS08711
- plain roof LVS08436
- side panel LVS08760 + LVS08750
- rear panel LVS08736



IP55 Enclosures

Enclosures

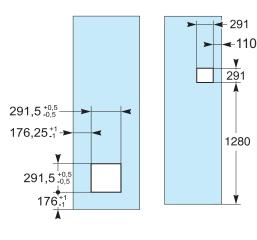
Front connection using cables



Rear connection using cables



Cut-outs in cover panels



Version: 4.0 - 8/10/2024

Rated operational current In 3520 A for an ambient temperature of 35 °C around the switchboard

Framework LVS08606

W = 650 mm. D = 600 mm.

Hinged front plate Support frame LVS08566

Cover panels

IP55 cover panels with:

- plain door LVS08526, must be cut out
- side panel LVS08765, must be cut out
- plain roof LVS08656
- rear panel LVS08746

Ventilation accessories (1)

IP55 grill with filter. IP55 front or side fan.

Framework LVS08606 + LVS08406

W = 650 mm.

D = 1000 mm.

Hinged front plate

Support frame LVS08566

Cover panels

IP55 cover panels with:

- plain door LVS08526, must be cut out
- side panel LVS08765, must be cut out
- plain roof LVS08656 + LVS08456
- rear panel LVS08746
- side panel LVS08755

Ventilation accessories (1)

IP55 grill with filter.

IP55 front or side fan.

(1) Ventilation accessories (see catalog "Universal Enclosure" in ClimaSys CV part).

| Designation | Catalog number | | |
|---|----------------|------------------------------------|--|
| IP55 grill with filter (supplied wit maximum throughput 350 m³/h) | LVS08988 | | |
| IP55 front or side fan (throughput 850 m³/h) | 230 V 400 V | NSYCVF850M230PF NSYCVF850M400PF | |
| 5 fine filters | 400 V | LVS08990 | |
| | | | |



Life Is On

Characteristics

Contents

Electrical characteristics

Determining the busbars

D-2

 \bigcap



Determining the busbars

Electrical characteristics

Dedicated incoming cubicle

Customer connection and connection between device and busbars with three 120 x 10 bars

Use the tables below to determine the maximum permissible currents in three 120 x 10 bars used for customer connections and the connections between the Masterpact MTZ2 and the busbars, as a function of the ambient temperature around the switchboard and its IP level.

Connections must be made using the supplied plans.

| IP30 switchboard | Permissible current (A) Ambient temperature around the switchboard | | | | | | | |
|--|--|-------|-------|-------|-------|-------|--|--|
| Enclosures | 25 °C | 30 °C | 35 °C | 40 °C | 45 °C | 50 °C | | |
| D = 600 mm front cover frame | 3680 | 3600 | 3520 | 3440 | 3340 | 3120 | | |
| D = 600 mm plain door for cut-outs | 3600 | 3520 | 3440 | 3340 | 3120 | 2900 | | |
| D = 1000 mm cover frame or plain door for cut-outs | 3680 | 3600 | 3520 | 3440 | 3340 | 3120 | | |

| IP31 switchboard | Permissible current (A) Ambient temperature around the switchboard | | | | | | | |
|-------------------------------------|--|-------|-------|-------|-------|-------|--|--|
| Enclosures | 25 °C | 30 °C | 35 °C | 40 °C | 45 °C | 50 °C | | |
| D = 600 mm plain door for cut-outs | 3600 | 3520 | 3440 | 3340 | 3120 | 2900 | | |
| D = 1000 mm plain door for cut-outs | 3680 | 3600 | 3520 | 3440 | 3340 | 3120 | | |

| IP55 switchboard | Permissible current (A) Ambient temperature around the switchboard | | | | | | | |
|---|--|-------|-------|-------|-------|-------|--|--|
| Enclosures | 25 °C | 30 °C | 35 °C | 40 °C | 45 °C | 50 °C | | |
| D = 600 mm plain door for cut-outs D = 1000 mm plain door for cut-outs | 3680 | 3600 | 3520 | 3440 | 3340 | • | | |

^{■ -} Impossible connection due to limited temperature for the device

Canalis connection

For Canalis connections, apply the appropriate derating coefficient K.

| Device | NW40 |
|------------------------|------|
| Derating coefficient K | 0.91 |

⁽¹⁾ For NW40 IP >31, performances realized with forced ventilation. (2) Contact Schneider Electric for 4000 A dedicated cubicle.

Note: the values indicated above have been validated for PrismaSeT P switchboards.







Schneider Electric Industries SAS

35, rue Joseph Monier CS 30323 92506 Rueil Malmaison Cedex France

RCS Nanterre 954 503 439 Capital social 896 313 776 € www.se.com

10-2024 430E25000

© 2024 - Schneider Electric. All Rights Reserved.
All trademarks are owned by Schneider Electric Industries SAS or its affiliated companies.
Document reference: 430E25000



