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Enclosure-System VX25
acc. to VW Group standards
Specification

ENCLOSURES POWER DISTRIBUTION CLIMATE CONTROL IT INFRASTRUCTURE SOFTWARE & SERVICES

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Important Note:
When selecting the components, the current project specifications of the corre-
sponding Volkswagen AG project must always be taken into account!

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Enclosure System VX 25 according to VW Group standards

According to specification for worldwide use except for the USA plants.
Stable symmetrical extrusion frame, consisting of welded hollow sections with 25 mm DIN pitch pattern, that is symmetrical across all levels and can be accessed from all sides.
Vertical sections with two pairs of mounting angles for space-saving interior installation, same mounting rails for the vertical and horizontal frame profiles, the mounting levels of the frame are accessible from the outside. Stable floor design for easy fastening to the base or subsurface.
The option to bay is easy and stable on all four sides.
Door(s) with foamed-in seal and locking rod with 4-point latching.

Material:
- Enclosure frame, roof plate, rear panel and gland plates: 1.5 mm sheet steel
- Doors: 2 mm sheet steel
- Base/plinth: sheet steel

Surface finish:
- Enclosure frame: dipcoat-primed
- Panels: dipcoat-primed and textured power-coated
- Gland plates: zinc-plated

Colour:
- Enclosure: RAL 7035, light grey
- Base/plinth: RAL 9005, black

Protection category:
- IP 05 to IEC 60 529

Including the following modifications:

Door(s):
- With fitted 180° hinges 8618.330,
- Lock: 3 mm double-bit,
- Enclosures up to a width of 600 mm with single door, hinged on the right,
- 800 mm and 1000 mm width enclosure with asymmetrical door design, with two overlapping doors, 800 mm width enclosure with lockable door, hinged on the left (600 mm width) and 200 mm small door, hinged on the right, 1000 mm width enclosure with lockable door, hinged on the left (600 mm width) and 400 mm small door, hinged on the right
- 1200mm width enclosure with symmetrical divided, overlapping doors, lockable door, hinged on the right

Rear panel:
- Screw-fastened standard rear panel

Enclosure System VX 25 according to VW Group standards

Roof:
- With screwed roof plate, without eye bolts

Sides:
- Open, without side wall panels

Base:
- Underlying 200 mm high plinth, system "VX", containing of:
    - 4 sheet steel corner pieces, in the front with closed trim panel
    - laterally closed trim panels 8660.043
    - rear plinth trims divided horizontally, lower trim with cutout at top, upper trim with cutout at bottom for cable entry, including brush strips 8620.09x
- Zinc-plated gland plate, three-piece, with cutout for cable entry and brush strip

Interior:
- Without mounting plate
- With mounted LED system light 2500.300, rated operating voltage 100 V – 240 V, 1~, 50/60 Hz, without socket (service socket box see accessories). The LED system light is mounted at the top of the front frame profile, in the 600 mm and 800 mm wide cabinet in the middle and the 1000 mm and 1200 mm wide cabinet in the 5th or 9th hole, measured from the right corner piece

Earthing:
- Potential equalization for roof, side walls and gland plates is achieved automatically upon assembly by way of contact elements (provided no equipment is mounted)
- Door(s) earthed to the enclosure frame at the top by way of EMC earthing strap 2412.316

Loose attached:
- 1 comfort handle 8618.240 with integrated VW-E1 lock (key not included in delivery[1])
- 2 floor-fastening plates 8660.100

Width mm	Packs of:	600	800	1000	1200
Height mm		2000 + 200	2000 + 200	2000 + 200	2000 + 200
Depth mm		600	600	600	600
Order No.	1 pc(s)	**7993.806**	**7993.808**	**7993.810**	**7993.812**
Base/plinth trim panels front		8660.022	8660.023	8660.024	8660.025
Base/plinth trim panels rear		8660.092	8660.093	8660.094	8660.095

[1] According to BV 1.09 § 1.1.2, all locks mounted to machines are always to be delivered without keys.
  For internal use by the supplier, the required cylinder keys can be ordered separately under the model no. 2532.002.

Accessories

Accessories for enclosures system VX25

Side panels, screw-fastened

- Time-saving assembly thanks to clip-in side panel holders
- Automatic potential equalization and higher EMC protection, thanks to enclosure panel holders with earthing inserts located on the inside
- Easy positioning in the height and depth with the location aid
- One-person assembly
- Earthing bolts with large, paint-free contact surface for optimum contact

Packs of	Order No.
2 pc(s)	**8106.245**

Material:
- Sheet steel, 1.5 mm

Surface finish:
- Dipcoat-primed, powder-coated on the outside

Colour:
- RAL 7035

Protection category IP to IEC 60 529:
- IP 55

Supply includes:
- Assembly parts

Wiring plan pocket

For fastening to tubular door frames at any height, to fit door width 600 mm, Clearance openings (WxHxD): 455 x 210 x 90 mm.

Material:
- Sheet steel, spray-finished

Colour:
- RAL 7035

Packs of	Order No.
1 pc(s)	**4116.000**

Supply includes:
- Assembly parts

Utility lectern

Prepared for mounting on the perforated door strip or on any sufficiently large surface. When required for servicing, it folds down quickly with a maximum support area, and after use is stowed away in a space-saving design, to fit door width: 600 mm. Support area: 413 x 400 mm.

Material:
- Sheet steel, spray-finished

Colour:
- RAL 7035

Packs of	Order No.
1 pc(s)	**4638.600**

Supply includes:
- Assembly parts

Accessories

Accessories for enclosures system VX25

Service socket box

The modular system allows a simple and expandable connection in combination with our LED system lights. Without additional mounting accessories, the socket strip can be used on all profiles with a 25 mm dimension grid.
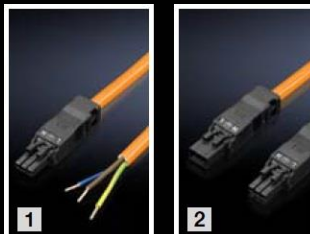
Material:
- Plastic

Colour:
- RAL 7016

Socket		UL	PU	Order No.
	Schuko	-	1 pc.	**2500.710**
	GB	-	1 pc.	**2500.711**
	F/B	-	1 pc.	**2500.712**
	CZ/SK	-	1 pc.	**7993.229**
	CH	-	1 pc.	**2500.713**
	US	■	1 pc.	**2500.714**
	CN	-	1 pc.	**2500.715**

Supply includes:
- Assembly parts

Connection cables

for Rittal System lights LED and Service socket box.
100 – 240 V AC, 3-pole.

Cable colour:
- Orange

Connection cable for:	Length mm	UL	PU	Order No.
1 Power supply	3000	-	5 pc.	**2500.400**
2 Through wiring	200	-	1 pc.	**2500.435**
2 Through wiring	1000	-	5 pc.	**2500.430**
3 T-distributor	-	-	5 pc.	**2500.680**

Security key VW

The cabinets for the VW group are generally delivered without keys (VW lock no. E1 –E20).
According to VW BV 1.09 §1.1.2 all installed locks on machines and other equipment are delivered without keys. For the supplier´s own requirements, the required cylinder keys can be ordered separately.

Lock No.	Packs of	Order No.
E1	1 pc(s).	**2532.002**
E7	1 pc(s).	**2532.007**
E9	1 pc(s).	**2532.015**

Keys for other lock No. on request.

Accessories for enclosures system VX25

Baying accessories

In order to ensure a stable baying during transport, 3 baying brackets internal must be inserted on the inside of the vertical profile, on each side.

Material:
- Sheet steel

Surface finish:
- Zinc plated, passivated

Supply includes:
- Baying seal

Baying connector external

Packs of	Order No.
6 pc(s).	**8617.502**

Angular baying bracket internal

Packs of	Order No.
6 pc(s).	**8617.500**

Comfort handle

To replace the enclosed comfort handle with E1 lock for areas where no E1 lock is used (e.g. Porsche).
Prepared for the installation of semi-cylinders with a total length of 40 or 45 mm (to DIN 18 252), e.g. order.-No. 2467.000.

Packs of	Order No.
1 pc(s).	**8618.250**

Material:
- Die-cast zinc

Colour:
- RAL 7035

Supply includes:
- Assembly parts

Lock insert

For installation in comfort handle 8618.250.
Security lock insert No. 3524E.
Only for sections where no E1 lock is necessary.

Packs of	Order No.
1 pc(s).	**2467.000**

Supply includes:
- Assembly parts

Eyebolts

For crane transportation of enclosures, thread: M12,
to replace the existing roof bolts.

Material:
- Steel C 15E

Surface finish:
- Zinc plated

Packs of	Order No.
1 pc(s).	**4568.000**

Supply includes:
- Serrated lock washers

Accessories for enclosures system VX25

Base/plinth trim panels
100 mm high, with brush strips.

Material:
- Sheet steel, spray-finished

Colour:
- RAL 9005

Packs of:
- 2 pc(s).

for enclosure width / depth mm	Order No.
600	**8660.092**
800	**8660.093**
1000	**8660.094**
1200	**8660.095**

Bracket for base/plinth
For configuring the base/plinth with punched sections with mounting flanges or cable clamp rails.

Material:
- Stainless steel 1.4301 (AISI 304)

Packs of	Order No.
2 pc(s).	**8660.400**

Supply includes:
- Assembly parts

Cable clamp rails
For mounting in the base/plinth by using the bracket 8620.400.

Material:
- Steel

Surface finish:
- Zinc plated

Supply includes:
- Assembly parts

for enclosure width mm	Length mm	Packs of	Order No.
600	585	2 pc(s).	**8619.410**
800	785	2 pc(s).	**8619.420**
1000	985	2 pc(s).	**8619.430**
1200	1185	2 pc(s).	**8619.440**

Cable clamps
To fasten cables to cable clamp rails, included plastic insert.

Material:
- Sheet steel

Surface finish:
- Zinc plated, passivated

Packs of:
- 25 pc(s).

F. cable-∅ mm	Order No.
6 – 12	**2350.000**
12 – 16	**2351.000**
14 – 18	**2352.000**
18 – 22	**2353.000**
22 – 26	**2354.000**
26 – 30	**2355.000**
30 – 34	**2356.000**
34 – 38	**2357.000**
38 – 42	**2358.000**
42 – 46	**2359.000**
46 – 50	**2360.000**

Accessories

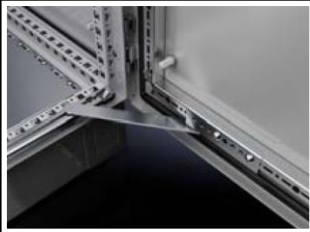## Accessories for enclosures system VX25

Ride-up roller

Lifts up the door when there is heavy installed equipment (e.g. cooling unit) as a closing aid.
Attaching to the tubular door frame.
Must always be used with a cooling unit installed in the door.

Packs of	Order No.
10 pc(s).	**8618.420**

Supply includes:
- Assembly parts

Door stay

To secure the door in the open position. Can be mounted on the enclosure without mechanical processing.
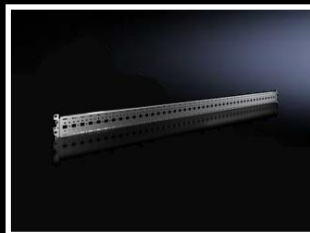
Material:
- Sheet steel

Surface finish:
- Zinc plated

Packs of	Order No.
1 pc(s).	**8618.430**

Supply includes:
- Assembly parts

Punched section with mounting flange

For variable, individual interior installation of the enclosure frame on the outer mounting level. Simply locate into the system punchings from the outside and screw-fasten.

Material:
- Sheet steel

Surface finish:
- Zinc plated

Supply includes:
- Assembly parts

for enclosure width mm	Packs of	Order No.
800	4 pc(s).	**8617.040**
1200	4 pc(s).	**8617.060**

Wall-mounted cooling units Blue e+S

Benefits:
- Up to 75% energy saved due to speed-regulated compo-nents and heat pipe technology
- Suitable for international use due to a unique multi-voltage capability

- Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- User-friendly operation with the Rittal Scan & Service app

Temperature control:
- e+ controller (factory setting +35°C)

Protection category IP to IEC 60 529:
- Internal circuit IP 55

Supply includes:
- Cooling unit
- Fully wired ready for connection
- Assembly parts

Note:
- Please observe the mounting instructions

Output class W	500	1000
Order No.	**3179.800**	**3184.840**
Total cooling output 50 Hz L35L35 to EN 14511 kW	**0.52**	**1.0**
Rate operating voltage V, ~, Hz	110 – 230V, 1~, 50/60 Hz	400/460V, 3~, 50/60Hz
Dimensions (WxHxD) mm	300 x 570 x 199	400 x 950 x 260
Operating temperature range	-20°C … +60°C	
Setting range	+20°C … +50°C	
Electric condensate evaporator included	■	■
Energy efficiency ratio (EER) 50 Hz L35L35	1.4	2.37
Refrigerant g	R-513A, 100	R-513A, 310
Weight kg	13.0	26.6

Wall-mounted cooling units Blue e+

Benefits:
- Up to 75% energy saved due to speed-regulated components and heat pipe technology
- Suitable for international use due to a unique multi-voltage capability

- Longer service life of the components inside the enclosure and the cooling unit due to component-friendly cooling
- Intuitive operation due to touch display and intelligent interfaces

Temperature control:
- e+ controller (factory setting +35°C)

Protection category IP to IEC 60 529:
- Internal circuit IP 55

Supply includes:
- Cooling unit
- Fully wired ready for connection
- Assembly parts

Note:
- Please observe the mounting instructions

Output class W	1600	2000
Order no.	**3185.830**	**3186.930**
Colour	RAL 7035	
Total cooling output 50 Hz L35L35 to EN 14511 kW	**1.6**	**2.0**
Rated operating voltage V, ~, Hz	110 – 240, 1~, 50/60 / 380 – 480, 3~, 50/60	
Dimensions (WxHxD) mm	400 x 950 x 310	450 x 1600 x 294
Operating temperature range	-20°C … +60°C	
Setting range	+20°C … +50°C	
Electric condensate evaporator included	■	■
Energy efficiency ratio (EER) 50 Hz L35L35	2.96	3.23
Seasonal energy efficiency ratio (SEER) 50/60 Hz	6.4	8.1
Refrigerant g	R-513A, 740	R-513A, 1070
Weight kg	37.1	55.2

TopTherm Air/air heat exchanger

Temperature control:
- Electronic control with digital display (factory setting +35°C)

Protection category IP to IEC 60 529:
- Internal circuit IP 54

Colour:
- RAL 7035

Supply includes:
- Complete unit ready for connection
- Plug-in terminal strip
- Floating fault signal contact in case of overtemperature

Specific thermal output W/K	45
Order No.	**3128.100**
Output per fan W	70 / 90
Air throughput of fans (unimpeded air flow), external circuit m³/h	600 / 625
Air throughput of fans (unimpeded air flow), internal circuit m³/h	600 / 625
Rated operating voltage V, ~, Hz	230, 1~, 50/60
Dimensions (WxHxD) mm	400 x 950 x 205
Operating temperature range	-5°C … +55°C
Weight kg	19.0

Accessories

Accessories for climate control

Thermostat

The thermostat is especially suitable both for controlling fan-and-filter units, heaters and heat exchangers, and for monitoring the enclosure inside temperature.
Bi-metal sensor as the temperature-sensitive element with thermal feedback.
Contact: Single-pole changeover contact as a quick-break contact.
Permissible contact load:
Cat. 5-3 (heating) AC 10 (4) A,
Cat. 5-4 (cooling) AC 5 (4) A,
(inductive load at cos φ = 0.6),
DC = max. 30 W.

Packs of	Order No.
1 pc(s).	**3110.000**

Setting range:
- + 5°C to + 55°C

Dimensions (WxHxD):
- 71 x 71 x 33.5 mm

Hysteresis:
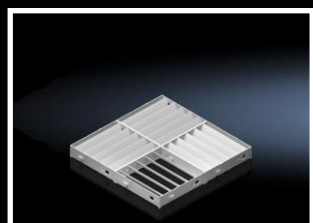- approx. 1K ± 0.8 K

Supply includes:
- Assembly parts

Door operated switch
for cooling units
without connection cable,
rated operating voltage: 400 V AC,
for rated insulation voltage 240 V AC, 6A.
Rated impulse withstand voltage, phase to phase: 6000 V AC.

Packs of	Order No.
1 pc(s).	**4127.010**

Supply includes:
- Assembly parts

Air diverter

Targeted routing of the cold air flow to avoid hot spots in the enclosure. Particularly well-suited for densely-packed electrical components in the enclosure.
Simple, tool-free assembly.

Material:
- ABS, fire protection corresponding to UL 94-V0

Colour:
- RAL 7035

To fit	Order No.
3185.830	**3213.340**
3184.840 3186.930	**3213.360**

Pack of:
- 1 pc(s).

Climate control checklist

To ensure efficient and reliable climate control, the following points should be observed during configuration:

The power loss of the components installed in the enclosure must not exceed the specific cooling output of the cooling unit

The installation location of a cooling unit should be kept as free as possible from heavy dirt and contamination

A minimum clearance of 200 mm should be maintained between two cooling units or between a cooling unit and the wall

The enclosure must be sealed to prevent the intake of ambient air

The lowest possible enclosure inside temperature is not the best. The preset value (35°C) is a good compromise between component service life and condensate formation

Door-operated switches interrupt cooling when the doors are open and thus prevent excessive condensate formation

Cooling units must be provided with filter mats if the ambient air is heavily contaminated with dust or dirt particles. Always use metal filter mats

Provide safe drainage for condensate. Observe the notes given in the operating instructions of the cooling unit concerned

Allow for ventilation spaces above and below components

To prevent hot spots, it is imperative to ensure an adequate air flow around the components in the enclosure

Provide holders in the enclosure for necessary documents

The cooling air should be routed over the components from bottom to top

Do not target cold air directly at active components

Observe the flow direction of components with integrated ventilation (fans)

Change history

Changes

Topic	Remarks	Date
All	First version of this data sheet.	02/27/2018
Climate control	New generation „blue e+" replaced „TopTherm"	09/11/2018
Climate control	Door operated switch for cooling units added	09/11/2018
Accessories	Security key versions E7 and E9 added	09/19/2018
Order numbers	Product group for article number added	01/02/2019
Lighting	Cabinets with mounted light, without socket	01/02/2019
Climate control	0,55 & 1,0 KW units added	01/02/2019
Climate control	External condensate evaporation added	01/02/2019
Climate control	Interior fan deleted	01/02/2019
Accessories	Brackets for VX base/plinth added	01/02/2019
Accessories	Mounting rails „Flex Block" deleted	01/02/2019
Accessories	Connection cable TS 8014.938 deleted	01/02/2019
Accessories	Packing unit of eyebolts added	01/02/2019
Accessories	Utility lectern & door stay added	01/09/2019
Climate control	Cooling unit (1.0 kw) rated operating voltage changed to 400V	01/09/2019
Accessories	The service socket box is still under development	01/09/2019
VX25 enclosure	Position of LED light changed	03/01/2019
VX25 enclosure	Base trim panels mounted, for transport reasons	03/04/2019
VX25 enclosure	Gland plate, three-piece, included sliding panel	09/01/2020
Accessories	Change of the packaging unit for the connection cable 2500.435	05/15/2020
Accessories	Change of execution and order no. the door stay	07/10/2020
Document	Note inserted on page 2	10/01/2020
Accessories	Service socket box 7993.229 for CZ and SK added	10/15/2020
Accessories	Punched section with mounting flange 8617.060 added	06/05/2023
VX25 enclosure	Base/plinth system changed	12/13/2023
Climate control	Cooling units 3303.500 and 3304.540 replaced by 3179.800 and 8184.840	10/07/2024
Climate control	Air diverter added	10/07/2024
Climate control	Refrigerant changed	10/07/2024
Accessories	Punched section with mounting flange 8617.040 added	10/28/2025

Contacts

Contacts

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