CONTENT

1. MANUFACTURE

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2. GENERAL SAFETY INFORMATION'S

WARNING!

The user manual contains basic information about the product. Mounting, installation, usage and maintenance should be carried out under this user manual to provide and ensure safe operation within the nominal characteristics. This user manual complement national Regulation and Standards. The responsible person shall ensure their implementation. Failure off implement this user manual can reduce explosion protection and endanger people, property and the environment. Any improper and illegal actions as well as non-compliance with the provisions of this user manual excludes all responsibility by manufacturer side.

Before installation/commissioning:
- Carefully read all instructions,
- Execute proper training of responsible personnel,
- Check that the contents of these instructions is fully understandable by the responsible personnel,
- Make sure that all the requirements and national Regulations as well as all special security measures are applied.

In lack of understanding:
- Contact the manufacturer.

During operation:
- Ensure that this user manual and other work instructions are available to the responsible staff at all times,
- Check the implementation of these instructions and all other safety user's instructions.

3. PURPOSE

Explosion protected busbar system SKX 1008020 / SRU. . . . it is intended for connecting and distribution of armored and non-armored cables with cross-sections from 50 mm2 to 240 mm2 and currents from 90 A to 450 A in industrial areas in places with a potentially explosive atmosphere of gases, fumes and dust in danger zones 1, 2, 21, 22 , in accordance with EN 60079-10-1 and EN 60079-10-2 standards.

4. PRODUCT COMPLIANCE

The product complies with the standards:
- EN IEC 60079-0:2018,
- EN IEC 60079-7:2015/A1:2018,
- EN 60079-31:2014.

The product was developed, manufactured and tested according to the current state of the art, in accordance with EN ISO 9001, EN ISO 80079-34 and EN ISO 14001 standards.
The product complies with the ATEX Directive 2014/34/EU.
The product complies with the LVD Directive 2014/35/EU.
The product complies with the RoHS Directive 2011/65/EU.
The product complies with the EMC Directive 2014/30/EU.

5. DEGREE OF PROTECTION AND TECHNICAL DATA

Certificate	FIDI 19 ATEX 0055
Category and explosion protection:	CE 0722 Ex II 2G Ex eb IIC T6/T5 Gb II 2D Ex tb IIIC T80°C/T95°C Db
Ambient temperature:	-40°C ≤ Ta ≤ +40°C / +50°C
Mechanical protection:	IP 65, category 1
Resistance to shock:	IK 09
Class of protection:	I (PE - protective earthing)
Nominal voltage Un:	630 V AC
Operating voltage:	630 V AC ± 10%
Maximal current Imax:	according to the table of Max. thermal current of the terminal /cable
Short circuit peak current IPK:	70 kA
Short circuit current Ik:Ik:	22 kA/1s
Number of poles:	3L + N + PE
Connection terminals of the incoming and outgoing cable:	Terminal 300 mm2 for cables 120 mm2, 150 mm2, 185 mm2 and 240 mm2 screw tightening torque 30 Nm, Terminal 120 mm2 for cables 50 mm2, 70 mm2 and 95 mm2, screw tightening torque 15 Nm, Cables - multi-wire round s(r) or multi-wire sector s(s)
Terminal for internal grounding of the busbar:	Screw clamp M10 for cable ferrule DIN 46235: - housing grounding 50 mm2 H07V-K - cover grounding 50 mm2 H07V-K - grounding of the base plate 50mm2 H07V-K
Terminal for external grounding:	Saddle clamp max. 16mm2 s (r), f Clamp screw tightening torque 3.0 Nm
Removing the insulation from connecting cable:	Terminal 300 mm2 - 40 mm Terminal 120 mm2 - 30 mm
Cover screw:	Combi screw M5x35 A2, tightening torque 3.0 N
Dimensions (LxWxH):	1000 x 800 x 200mm (without cable gland and mounting brackets)
Housing and cover material:	Stainless steel, 2mm 1.4404, X2CrNiMo17-12-2, AISI 316L
Mass:	≈ 80 kg

Table of maximum currents:

Terminal	Cable cross-section	Max. thermal current of the terminal /cable			
		$-40°C \leq T_{amb} \leq +40°C$		$-40°C \leq T_{amb} \leq +50°C$	
		Cable tip: NYBY, NYRY, NYCY, NYY Cable stability 70°C Temperature class T6, Max. surface temp. of the housing 80°C	Cable tip: N2XBY, N2XRY, N2XCY, N2XY Cable stability 90°C Temperature class T5, Max. surface temp. of the housing 80°C	Cable tip: NYBY, NYRY, NYCY, NYY Cable stability 70°C Temperature class T6, Max. surface temp. of the housing 80°C	Cable tip: N2XBY, N2XRY, N2XCY, N2XY Cable stability 90°C Temperature class T5, Max. surface temp. of the housing 95°C
300mm^2	240mm^2	375A	450A	300A	425A
	185mm^2	345A	440A	270A	390A
	150mm^2	310A	400A	240A	350A
	120mm^2	265A	350A	210A	300A
120mm^2	95mm^2	225A	300A	175A	250A
	70mm^2	165A	220A	130A	185A
	50mm^2	120A	160A	90A	130A

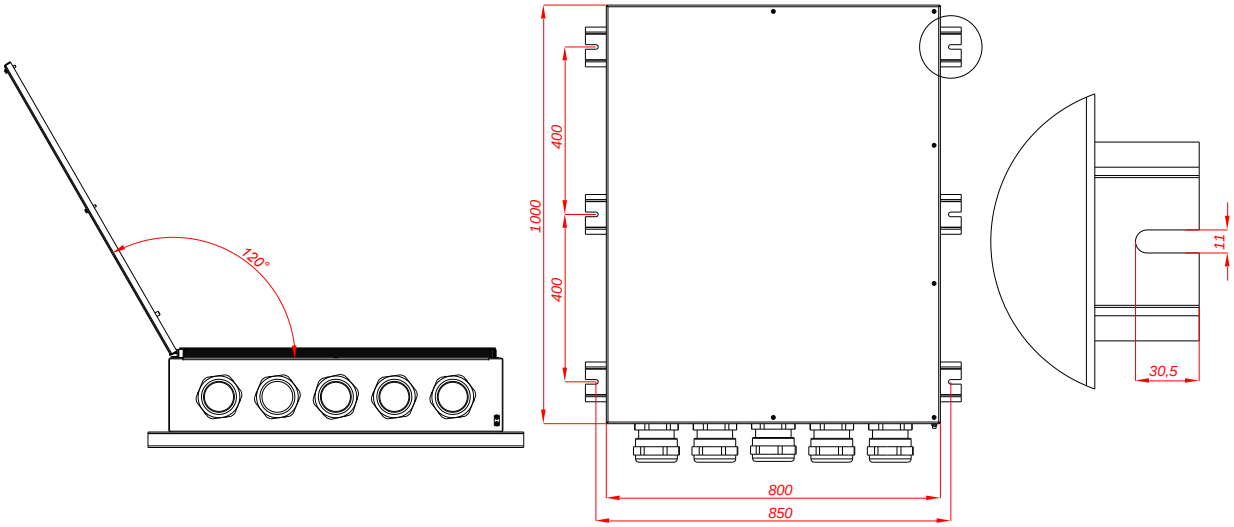
Note: the table of maximum currents is valid for busbar cabinets with one input and the same output cable per phase.

6. TYPES

SKX 1008020 / SRU . . . .
SRU the number represents the series number and is assigned in increments, e.g. SKX 1008020 / SRU 1234.

7. MOUNTING AND DIMENSION

The assembly of the busbar cabinet is performed by fixing it to a flat surface or wall using 6 M10 screws with the dimensions shown in the drawing:



The cover of the busbar cabinet can be rotated via a hinge up to max. 120°.

8. INSTALLATION AND COMMISSIONING

The cable should be unbraided for the connection of the conductor to the busbar terminal and prepared for the acceptance of the cable gland according to the instructions of the cable gland manufacturer. The insulation of the conductor should be removed in length according to the technical data. The cables should be introduced into the housing, relieved with clamps and the conductors should be connected to the appropriate terminal on the busbars. Tighten the terminal screws with the torque according to the technical data. The nuts of the cable gland are tightened with a torque according to the technical data of the cable gland manufacturer.
Close the housing with a cover. Tighten the cover screws with the torque according to the technical data.
Connect a protective IP conductor to the terminal for external grounding min. 6 mm2 Cu.

If short-term tolerable short-circuit current I k.s.(r.s.m.) > 15 kA is expected, considering the tripping time of the protective device, in accordance with IEC 60364-5-54, it should be re-examined whether the cross-section of the protective grounding conductor of the housing is sufficiently dimensioned.
The busbar cabinet is tested individually at the factory for dielectric strength of (2Un + 1000 V) r.m.s., 1 min.
During commissioning, the relevant national Regulations and norms for the execution of electrical installations in areas with a potentially explosive atmosphere should be observed.

9. INSPECTION, MAINTENANCE, REPAIR AND OVERHAUL

W A R N I N G !

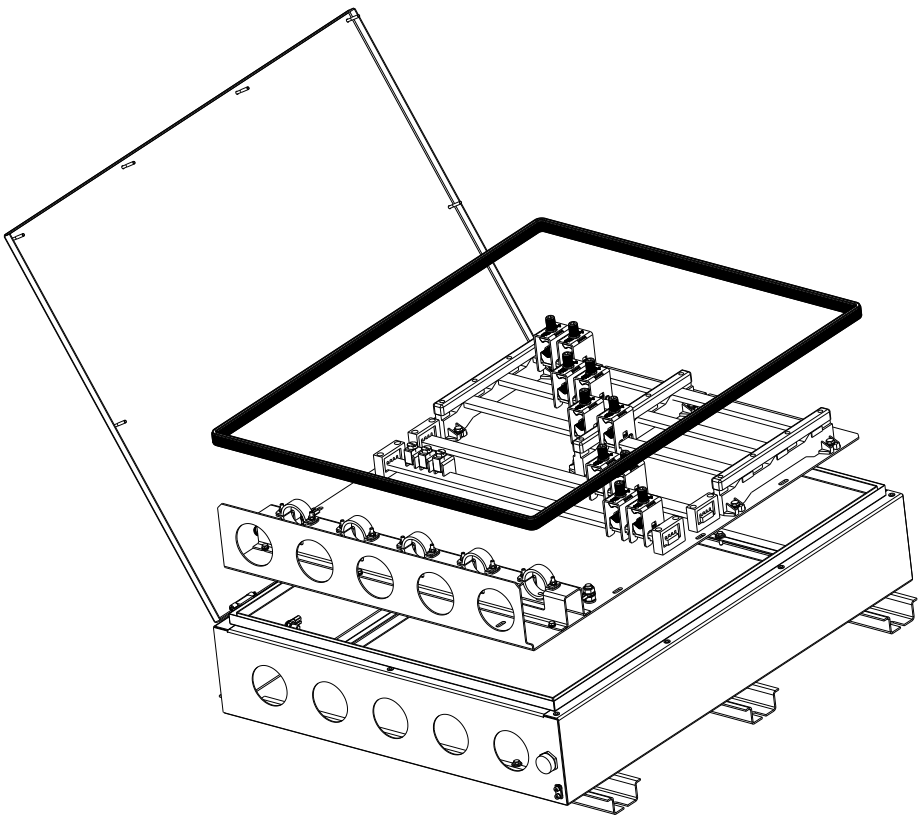
Before every opening of the busbar cabinet, the warning must be followed:

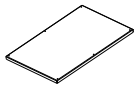
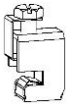
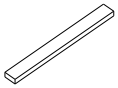
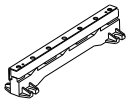
DO NOT OPEN WHEN ENERGIZED

It is necessary to carry out inspections and maintenance of all parts on which explosion protection depends in accordance with the EN 60079-17 standard, the general and special conditions of the manufacturer and the User Regulations, and in particular:
- that the case, all parts of the case, the cover and the cover seal are complete without cracks or damage, and that the cover screws are tightened to the nominal torque,
- that the screws of the clamps and the screws of the terminal for cable relief are tightened with rated torques,
- that the inlets and plugs are installed according to the manufacturer's instructions and that the inlet seals are undamaged and the compression nuts are tightened to the nominal torque.

The scope of maintenance also includes the replacement of parts provided by the manufacturer and specified in the list of spare parts.
All other procedures have a repair character. The repair is performed by the manufacturer or a legal entity authorized by the manufacturer, with original parts according to the production documentation, and everything in accordance with the norm EN 60079-19.
Reconstruction and renovation are not allowed.
If the repair or any other operation on the product is performed by an unauthorized person, all responsibility of the manufacturer for the product ends, and the manufacturer's warranty and declaration of conformity become invalid.

10. SPARE PARTS



SKETCH	DESCRIPTION	CODE	SKETCH	DESCRIPTION	CODE
	Housing cover	SKX 1008020 / 10-100		Terminal 300 mm^2	SKX 1008020 / 10-150
	Cover gasket	SKX 1008020 / 10-110		Terminal 120 mm^2	SKX 1008020 / 10-160
	Cover screw M5x35	SKX 1008020 / 10-120		Busbar ECu 30x10	SKX 1008020 / 10-170
	Busbar support 1p	SKX 1008020 / 10-130		Cable relief assembly	SKX 1008020 / 10-180
	Busbar support 3p	SKX 1008020 / 10-140		Drain plug M25	SKX 1008020 / 10-190

11. RESPONSIBILITY AND AUTHORIZATION

This instruction is the basic information about the product. It is completed by the corresponding national laws and regulations.

Production, use, certification and supervision are determined at the national level:

a) Regulations concerning equipment and protective systems intended for use in potentially explosive atmospheres EU directive 2014/34/EU and

b) Regulations on minimum requirements for safety and health protection of workers and technical inspection of facilities, equipment, installations and equipment in hazardous areas EU directive 1999/92/EC (ATEX 137).

The responsible person shall ensure their implementation at the working facility.

12. STORAGE AND TRANSPORT

Storage and transport should only be made in the original packaging.

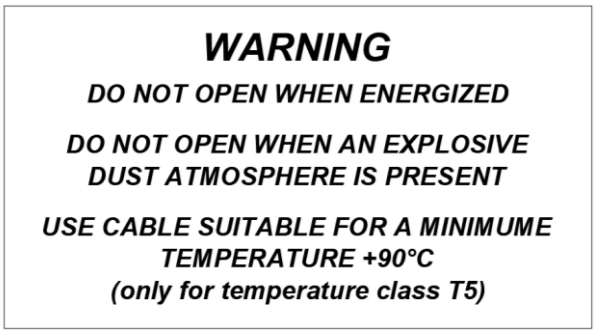
13. MANUFACTURER'S WARRANTY

The manufacturer gives guarantee on the product for a period of one year under the provisions of the Law on Obligations. This statement has the force of the guarantee list.

14. MARKING

Explosion protected busbar cabinet SKX 1008020 / SRU-.... is marked:
- plate with technical data on the housing cover:

- warning plate on the housing cover:



- with a label with technical data inside the housing