KEMA Quality

TEST CERTIFICATE

Issued to:	Schneider Electric Industries SAS 35, rue Joseph Monier 92500 Rueil Malmaison France
For the product:	Empty enclosure for low-voltage switchgear and controlgear assemblies
Trade name:	Schneider Electric
Type/Model:	Spacial CRN, Spacial CRNG
Ratings:	IP66 (single door), IP55 (double door), IK 10 (plain door), IK 08 (glass door), indoor / outdoor For more details see annex
Manufactured by:	Schneider Electric España, S.A. C/Call, 64 08786 Capellades-Barcelona Spain (Spacial CRN products) Sarel Appareillage Electrique, SAS (Schneider group) 52, route de Phalsbourg BP106 - 67260 Sarre-Union Cedex France (Spacial CRNG products)
Subject:	Design verification
Requirements:	IEC 62208:2011 (ed. 2.0) Clauses 9.3, 9.4, 9.7, 9.8, 9.9, 9.11, 9.12, 9.13 and 9.14
Remarks:	For details on production sites refer to annex.

This Test Certificate is granted on account of an examination by DEKRA, the results of which are laid down in report no. 2178929.03-INC, dated 28 April 2015.

The examination has been carried out on one single specimen of the product, submitted by the manufacturer. The Attestation does not include an assessment of the manufacturer's production. Conformity of his production with the specimen tested by DEKRA is not the responsibility of DEKRA.

Arnhem, 28 April 2015

Number: 2178929.102

DEKRA Certification B.V.

H.R.M. Barends
Certification Manager

Overview of product evaluation according to IEC 62208:

IEC 62208 Clause	Clause description	Tested ratings	Results
9.3	Marking		Pass
9.4	Static loads	Mounting plate: 250 kg / m^2 Plain door: 50 kg / m^2 (maximum 50 kg) Base: 50 kg / m^2	Pass
9.7	Degree of protection against external mechanical impacts (IK code)	IK 10 (plain door) IK 08 (glass door)	Pass
9.8	Degree of protection against access to hazardous parts and against ingress of solid objects and/or water (IP code)	IP66 (single door) IP55 (double door)	Pass
9.9	Properties of insulating materials		
9.9.1	Thermal stability		Pass
9.9.2	Resistance to heat		Pass
9.9.3	Resistance to abnormal heat and fire		Pass
9.11	Continuity of the protective circuit	Resistance < 0,1 Ω	Pass
9.12	Resistance to ultra-violet (UV) radiation		Pass
9.13	Resistance to corrosion	Severity test A: internal metallic parts Severity test B: external metallic parts	Pass
9.14	Thermal power dissipation capability		Pass

Product details:

Enclosure	Description
NSYCRN ...	Metal monobloc wall-mounting enclosure made from steel painted with texturised epoxy-polyester resin. Plain door without mounting plate. Locking system: 3-mm standard double bar lock Size: - 9 heights: 200, 250, 300, 400, 500, 600, 700, 800, 1000 mm - 8 widths: 200, 250, 300, 400, 450, 500, 600, 800 mm (1 door) - 4 depths: 150, 200, 250, 300 mm
NSYCRN ...P	Same as NSYCRN ... with mounting plate.
NSYCRN ...T	Same as NSYCRN ... with glazed door.
NSYCRNG ...	Metal monobloc wall-mounting enclosure made from steel painted with texturised epoxy-polyester resin. Plain door without mounting plate. Locking system: Three-point locking system for 1 and 2 doors. Standard 5-mm double bar lock. Size: - 4 heights: 800, 1000, 1200, 1400 mm - 4 widths: 600, 800, 1000 mm (1 door) and 1000, 1200 mm (2 doors) - 2 depths: 300, 400 mm
NSYCRNG ...T	Same as NSYCRNG ... with glazed door.

Production sites:

Schneider Electric España, S.A.
C/Call, 64
08786 Capellades-Barcelona
Spain
(Spacial CRN products)

Sarel Appareillage Electrique, SAS
(Schneider group)
52, route de Phalsbourg
BP106 - 67260 Sarre-Union Cedex
France
(Spacial CRNG products)

Applicant	:	Schneider Electric Industries SAS 35, rue Joseph Monier 92500 Rueil Malmaison France
Application Date	:	8 January 2015
Order Number	:	2178929.00-INC
Product	:	Empty enclosure for low-voltage switchgear and controlgear assemblies
Trade name	:	Schneider Electric
Type/Model	:	Spacial CRN, Spacial CRNG

Arnhem, 28 April 2015

Manufacturer:	Schneider Electric España, S.A. C/Call, 64 08786 Capellades-Barcelona Spain	
Production sites:	Schneider Electric España, S.A. C/Call, 64 08786 Capellades-Barcelona Spain (Spacial CRN products)	Sarel Appareillage Electrique, SAS (Schneider group) 52, route de Phalsbourg BP106 - 67260 Sarre-Union Cedex France (Spacial CRNG products)
Subject	:	Type tests
Requirements	:	IEC 62208:2011 (ed. 2.0) Clauses 9.3, 9.4, 9.7, 9.8, 9.9, 9.11, 9.12, 9.13 and 9.14
Conclusion	:	The product complies with the specified requirements
Tested by	:	R. Verhagen
Checked by	:	H.G.M. Kormelink

RVer 15-0171

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1 Subject

Empty enclosure for low-voltage switchgear and controlgear assemblies

Product information

Trademark	: Schneider Electric
Type	: Spacial CRN, Spacial CRNG
Type of material	: Steel externally and internally painted with texturised epoxy-polyester resin
Method of fixing	: Wall mounting

2 Tested characteristics

Degree of protection	: IP66 (single door) IP55 (double door)
Mechanical impact protection	: IK 10 (plain door) IK 08 (glass door)
Resistance to corrosion	: indoor / outdoor
Resistance to ultra-violet (UV) radiation	: yes
Permissible loads	: 250 kg / m^2 (mounting plate) : 50 kg / m^2 (maximum 50 kg) (plain door) : 50 kg / m^2 (base)

3 Object identification

Specifications						Spacial CRN - CRNG		
Dimensions			No. of doors	IP	Weight (1)	Plain door with mounting plate	Plain door without mounting plate	Glazed door without mounting plate
H	W	D				Page 48		
CRN Wall-mounting steel enclosures								
200	200	150	1	66	2,5	-	NSYCRN22150 (2)	-
	300	150	1	66	3,9	-	NSYCRN23150 (2)	-
250	200	150	1	66	3,2	NSYCRN252150P	NSYCRN252150	-
300	250	150	1	66	4,2	NSYCRN325150P	NSYCRN325150	NSYCRN325150T
		200	1	66	4,9	NSYCRN325200P	NSYCRN325200	NSYCRN325200T
	300	150	1	66	5,0	NSYCRN33150P	NSYCRN33150	NSYCRN33150T
		200	1	66	6,0	NSYCRN33200P	NSYCRN33200	NSYCRN33200T
	400	200	1	66	6,4	-	NSYCRN34200	NSYCRN34200T
	450	150	1	66	6,7	-	NSYCRN345150 (2)	-
400	300	150	1	66	6,0	NSYCRN43150P	NSYCRN43150	NSYCRN43150T
		200	1	66	6,8	NSYCRN43200P	NSYCRN43200	NSYCRN43200T
	400	200	1	66	8,0	NSYCRN44200P	NSYCRN44200	NSYCRN44200T
	600	250	1	66	10,0	NSYCRN46250P	NSYCRN46250	NSYCRN46250T
		300	1	66	11,2	NSYCRN46300P	NSYCRN46300	NSYCRN46300T
500	400	150	1	66	8,7	NSYCRN54150P	NSYCRN54150	NSYCRN54150T
		200	1	66	9,8	NSYCRN54200P	NSYCRN54200	NSYCRN54200T
		250	1	66	11,0	NSYCRN54250P	NSYCRN54250	NSYCRN54250T
	500	250	1	66	12,8	NSYCRN55250P	NSYCRN55250	NSYCRN55250T
600	400	150	1	66	9,3	NSYCRN64150P	NSYCRN64150	NSYCRN64150T
		200	1	66	10,8	NSYCRN64200P	NSYCRN64200	NSYCRN64200T
		250	1	66	12,3	NSYCRN64250P	NSYCRN64250	NSYCRN64250T
	500	150	1	66	11,3	NSYCRN65150P	NSYCRN65150	NSYCRN65150T
		200	1	66	14,3	NSYCRN65200P	NSYCRN65200	NSYCRN65200T
		250	1	66	16,2	NSYCRN65250P	NSYCRN65250	NSYCRN65250T
	600	200	1	66	16,3	-	NSYCRN66200	NSYCRN66200T
		250	1	66	18,2	NSYCRN66250P	NSYCRN66250	NSYCRN66250T
		300	1	66	19,8	NSYCRN66300P	NSYCRN66300	NSYCRN66300T
	800	300	1	66	26,0	-	NSYCRN68300	NSYCRN68300T
700	500	200	1	66	17,3	NSYCRN75200P	NSYCRN75200	NSYCRN75200T
		250	1	66	19,3	NSYCRN75250P	NSYCRN75250	NSYCRN75250T
800	600	200	1	66	21,8	NSYCRN86200P	NSYCRN86200	NSYCRN86200T
		250	1	66	24,8	NSYCRN86250P	NSYCRN86250	NSYCRN86250T
		300	1	66	26,3	NSYCRN86300P	NSYCRN86300	NSYCRN86300T
	800	200	1	66	29,5	NSYCRN88200P	NSYCRN88200	NSYCRN88200T
		300	1	66	32,5	NSYCRN88300P	NSYCRN88300	NSYCRN88300T
1000	600	250	1	66	28,4	NSYCRN106250P	NSYCRN106250	NSYCRN106250T
		300	1	66	30,6	NSYCRN106300P	NSYCRN106300	NSYCRN106300T
	800	250	1	66	34,5	NSYCRN108250P	NSYCRN108250	NSYCRN108250T
		300	1	66	37,4	NSYCRN108300P	NSYCRN108300	NSYCRN108300T

Specifications						Spacial CRN - CRNG		
Dimensions			No. of doors	IP	Weight (1)	Plain door with mounting plate	Plain door without mounting plate	Glazed door without mounting plate
H	W	D				Page 48		
CRN Wall-mounting steel enclosures								
CRNG Wall-mounting steel enclosures with three-point locking system								
800	600	400	1	66	30.0	-	NSYCRNG86400	NSYCRNG86400T
	1000	300	2	55	40.0	-	NSYCRNG810300D	-
	1200	300	2	55	46.0	-	NSYCRNG812300D	-
1000	600	400	1	66	36.0	-	NSYCRNG106400	NSYCRNG106400T
	800	400	1	66	43.0	-	NSYCRNG108400	NSYCRNG108400T
	1000	300	2 (3)	55	47.0	-	NSYCRNG1010300D	NSYCRNG1010300T
	1200	300	2	55	55.0	-	NSYCRNG1012300D	-
		400	2	55	60.0	-	NSYCRNG1012400D	-
1200	600	300	1	66	37.0	-	NSYCRNG126300	NSYCRNG126300T
		400	1	66	42.0	-	NSYCRNG126400	NSYCRNG126400T
	800	300	1	66	45.0	-	NSYCRNG128300	NSYCRNG128300T
		400	1	66	50.0	-	NSYCRNG128400	NSYCRNG128400T
	1000	300	2	55	56.0	-	NSYCRNG1210300D	-
		400	2	55	61.0	-	NSYCRNG1210400D	-
	1200	300	2	55	64.0	-	NSYCRNG1212300D	-
		400	2	55	90.0	-	NSYCRNG1212400D	-
1400	1000	300	2	55	80.0	-	NSYCRNG1410300D	-

(3) Except glazed door in single door.

The dimensions are stated in the drawings included in this report. For drawings see Appendix C.

For customised products the following rules apply:

- The height dimension shall not exceed the maximum size listed in the tables above.
- When an intermediate height (between two existing in the tables) is used to perform a customization, the locking system and the number of hinges / locks should be based on the largest of both. When a height less than the minimum height specified in the tables is used to perform a customisation, the locking system and their number of fixing points and hinges shall correspond to the smallest height in the tables above.
- The width dimension shall not exceed the maximum size listed in the tables above.
- The depth dimension shall not exceed the maximum size listed in the tables above.

4 Summary of type tests

Construction:

Clause 9.3	Marking
Clause 9.4	Static loads
Clause 9.7	Degree of protection against external mechanical impacts (IK code)
Clause 9.8	Degree of protection against access to hazardous parts and against ingress of solid objects and/or water (IP code)
Clause 9.9	Strength of materials and parts
- Clause 9.9.1	Thermal stability
- Clause 9.9.2	Resistance to heat
- Clause 9.9.3	Resistance to abnormal heat and fire
Clause 9.11	Continuity of the protective circuit
Clause 9.12	Resistance to ultra-violet (UV) radiation
Clause 9.13	Resistance to corrosion
Clause 9.14	Thermal power dissipation capability

5 General Items

Location of the tests

Resistance to UV radiation was performed at:

- AITEX laboratory in Plaza Emilio Sala, 1, E-03801 Alcoy-Alicante, Spain (UV exposure)
- AIMPLAS laboratory in Calle Gustave Eiffel, 4, 46980 Paterna-Valencia, Spain (flexural strength and charpy impact tests)
- AIMME laboratory in Avda. Leonardo Da Vinci, 38, 46980 Paterna-Valencia, Spain (cross-cut test)

IP dust tests and continuity of the protective circuit test on large size enclosures were performed at:

- AIMME laboratory in Avda. Leonardo Da Vinci, 38, 46980 Paterna-Valencia, Spain

All other tests were performed at the laboratories of Schneider Electric, UE at locations:

- C/Call 64, 08786 Capellades-Barcelona, Spain
- C/Llobregat, 7-13, 08750 Molins de Rei-Barcelona, Spain

Tests were carried out by

Jose Antonio Baño	Schneider Electric, UE, Capellades-Barcelona, Spain
Marta Calveras	Schneider Electric, UE, Capellades-Barcelona, Spain
Francisco Alfaro	Schneider Electric, UE, Molins de Rei-Barcelona, Spain
Isabel Soriano	AITEX, Alcoy-Alicante, Spain
Maria Luisa Gil Rojo	AIMPLAS, Paterna-Valencia, Spain
Carmen Caniego	AIMME, Paterna-Valencia, Spain

The tests were supervised by

R. Verhagen	DEKRA Certification B.V., Arnhem, the Netherlands

General notes on tests

The tests were performed as per the sequence of tests described in chapter 9.2 of IEC 62208.

Subclause:	Test	Sample 1 Order	Sample 2 Order	Sample 3 Order	Representative sample
9.4	Static loads	1			
9.5	Lifting	2 / N/A			
9.6	Axial loads of metal inserts	3 / N/A			
9.7	Degree of protection against external mechanical impacts (IK code)	4			
9.8	Degree of protection against access to hazardous parts and against ingress of solid objects and/or water (IP code)	5			
9.9.1	Thermal stability		1		
9.9.2	Resistance to heat		2		
9.9.3	Resistance to abnormal heat and fire		3		
9.10	Dielectric strength	6 / N/A			
9.11	Continuity of the protective circuit	7		3	
9.12	Resistance to ultra-violet (UV) radiation				1
9.13	Resistance to corrosion			2	
9.14	Thermal power dissipation capability			1	
9.3	Marking	8			

Concerning sample 1 in the previous table the following samples were tested and considered as representative for the whole range:

- NSYCRN108300P: Steel with epoxy-polyester painting with plain door
  Size: 1000 x 800 x 300 mm
  Test on largest model within the plain door range is considered to cover all NSYCRN… and NSYCRN…P models with smaller dimensions and plain door (with and without mounting plate on door).
- NSYCRN108300T: Steel with epoxy-polyester painting with glass door
  Size: 1000 x 800 x 300 mm
  Test on largest model within the glass door range is considered to cover all NSYCRN…T models with smaller dimensions and glass door.
- NSYCRNG1410300D: Steel with epoxy-polyester painting with double door.
  Size: 1400 x 1000 x 300 mm
  Test on largest model within the range is considered to cover all NSYCRNG… models with smaller dimensions and plain door (single and double door).

- NSYCRNG1010300T: Steel with epoxy-polyester painting with glass door
  Size: 1000 x 1000 x 300 mm
  Test on largest model within the range is considered to cover all NSYCRNG… and NSYCRNG…T models with smaller dimensions and transparent and plain single door.

Note: Tests were conducted in combination with wall fixing lugs: NSYAEFPFSC, NSYAEFPFXSC, NSYPFCR, NSYPFC2X and mounting plates: NSYMM..., NSYMS...

6 Type tests

6.1 Marking

The verification of the marking is done in conformity with IEC 62208, clause 9.3.

The marking was rubbed by hand for 15 s with a piece of cloth soaked in water and then for 15 s with a piece of cloth soaked with petroleum spirit.

After the test the marking was legible to normal or corrected vision without additional magnification.

Result: Pass

6.2 Static loads

The verification of the static loads is done in conformity with IEC 62208, clause 9.4.

The static load test is done on the enclosure fitted with all its required components to support the maximum permissible load. The enclosure is tested as in normal use. The enclosure is loaded with a weight of 1,25 times the maximum load as specified by the manufacturer.

The following loads were applied:

Enclosure	Max. permissible load [kg/m^2]	Required test load [kg]	Actual test load [kg]
NSYCRN108300P	50 (door) 250 (mounting plate) 50 (base)	50 (door) 250 (mounting plate) 15 (base)	50,4 (door) 256,75 (mounting plate) 19,15 (base)
NSYCRN108300T	250 (mounting plate) 50 (base)	250 (mounting plate) 15 (base)	256,75 (mounting plate) 19,15 (base)
NSYCRNG1410300D	50 (max. 50 kg) (door) 250 (mounting plate) 50 (base)	43,31 (left door) 43,31 (right door) 400,78 (mounting plate) 18,75 (base)	43,4 (left door) 43,4 (right door) 402,1 (mounting plate) 19,15 (base)
NSYCRNG1010300T	250 (mounting plate) 50 (base)	312,50 (mounting plate) 18,75 (base)	314,25 (mounting plate) 19,15 (base)

Table 1: Static loads

The loads are retained for 1 h in the closed position at normal ambient temperature because none of the enclosures, hinges and locks are constructed of insulating material.

After this period, the closed door is opened five times through 90°, resting at least 1 min in the open position.

Pictures of the test can be found in Appendix A.1.

After the test, with the test loads in place, the enclosure shows no cracks or permanent distortions and during the test no deflections which could impair any of its characteristics.

Result: Pass

6.3 Degree of protection against external mechanical impacts (IK code)

The mechanical impact test is performed in conformity with IEC 62208 clause 9.7 and IEC 62262.

The test equipment consists of a test hammer as described in IEC 60068-2-75 suitable for the dimensions of the enclosure. The enclosure was placed on a rigid support as for normal use.

The following impacts were applied:

Enclosure	IK rating	Impact [J]	Weight [kg]	Height [m]
NSYCRN108300P	IK 10	20	5	400
NSYCRN108300T (glass door)	IK 08	5	1,7	300
NSYCRN108300T (other surfaces)	IK 10	20	5	400
NSYCRNG1410300D	IK 10	20	5	400
NSYCRNG1010300T (glass door)	IK 08	5	1,7	300
NSYCRNG1010300T (other surfaces)	IK 10	20	5	400

Table 2: Mechanical impacts

The impacts were applied with even distribution over the faces of the enclosure:
- three times to each exposed surface in normal use whose largest dimension is not above 1 m;
- five times to each exposed surface in normal use whose largest dimension is greater than 1 m.

The impacts were applied with even distribution over the faces of the enclosure. The test was not applied to the enclosure components (e.g. locks, hinges, etc.) and the backside surface of the enclosure.

Pictures of the test can be found in Appendix A.2.

After the test, the enclosure continued to provide the IP code. It is possible to remove and reinstall removable covers and to open and close doors.

Result: Pass

6.4 Degree of protection of assembly

The verification of the degree of protection is done in conformity with IEC 62208, clause 9.8.

The tests were made according to IEC 60529. The degree of protection is given below:

Enclosure	IP code
NSYCRN108300P	IP66
NSYCRN108300T	IP66
NSYCRNG1410300D	IP55
NSYCRNG1010300T	IP66

Table 3: Degree of protection

Pictures of the test can be found in Appendix A.3.

6.4.1 Tests for the first numeral 5

Protection against access to hazardous parts.
This test was done with a straight rigid steel wire with a diameter of 1 mm and a length of 100 mm. The access probe was pushed against any openings of the enclosure with a test force of 1 N ± 10%.

The wire did not enter the enclosure and adequate clearance to hazardous parts was kept.

Result: Pass

Protection against solid foreign objects.
The test was made using a dust chamber incorporating the basic principles shown in figure 2 of IEC 60529 in which talcum powder was maintained in suspension. The talcum powder used is able to pass through a square-meshed sieve with a nominal wire diameter of 50 μm and a nominal width of a gap between wires of 75 μm.
The enclosure under test was supported in its normal operating position inside the test chamber and was not connected to a vacuum pump. Any drain-hole normally open was left open for the duration of the test. The duration of the test was 8 hours.

After the test there was no dust found inside the enclosure.

Result: Pass

6.4.2 Tests for the first numeral 6

Protection against access to hazardous parts.
This test was done with a straight rigid steel wire with a diameter of 1 mm and a length of 100 mm. The access probe was pushed against any openings of the enclosure with a test force of 1 N ± 10%.

The wire did not enter the enclosure and adequate clearance to hazardous parts was kept.

Result: Pass

Protection against solid foreign objects.
The test was made using a dust chamber incorporating the basic principles shown in figure 2 of IEC 60529 in which talcum powder was maintained in suspension. The talcum powder used is able to pass through a square-meshed sieve with a nominal wire diameter of 50 μm and a nominal width of a gap between wires of 75 μm.
The enclosure under test was supported inside the test chamber and the pressure inside the enclosure was maintained below the surrounding atmospheric pressure by a vacuum pump. The suction connection was made to a hole specially provided for this test. This hole was in the vicinity of the vulnerable parts. The depression did not exceed 2 kPa (20 mbar) on the manometer. The duration of the test was 8 hours.

After the test there was no dust found inside the enclosure.

Result: Pass

6.4.3 Test for the second numeral 5

Protection against water jets
The test was made using a test nozzle according to fig. 6 of IEC 60529 with an internal diameter of 6,3 mm. The enclosure was sprayed from all practicable directions with a rate of water flow of 12,5 l/min ± 5%. The distance from nozzle to the enclosure surface was between 2,5 and 3 meters. The duration of the test was 4,2 minutes.

After the test there was no water found inside the enclosure.

Result: Pass

6.4.4 Test for the second numeral 6

Protection against powerful water jets
The test was made using a test nozzle according to fig. 6 of IEC 60529 with an internal diameter of 12,5 mm. The enclosure was sprayed from all practicable directions with a rate of water flow of 100 l/min ± 5%. The distance from nozzle to the enclosure surface was between 2,5 and 3 meters. The duration of the test was 3 minutes.

After the test there was no water found inside the enclosure.

Result: Pass

6.5 Properties of insulating materials

6.5.1 Thermal stability

The verification of thermal stability of enclosures is done in conformity with IEC 62208, clause 9.9.1.

The dry heat test was done on representative samples of the enclosure made of insulating materials, in line with IEC 60068-2-2 Test Bb, at a temperature of 70 °C, with natural air circulation, for a duration of 168 h and with a recovery of 96 h.

The material types are listed in Table 5. Pictures of the tested materials can be found in Appendix A.4.

The samples showed no crack visible to normal or corrected vision without additional magnification nor has the material become sticky or greasy.

Result: Pass

6.5.2 Resistance to normal heat

The verification of resistance of insulating materials to normal heat is done in conformity with IEC 62208, clause 9.9.2.

The suitability of the insulating materials to resist effects of heat was verified by reference to the insulation temperature index specified by the material supplier.

Insulating material	Insulation temperature index
4. PA6 + 15% GF (Polyamide 6 + 15% Glass Fiber)	Heat Deflection Temperature at 0,45 Mpa: 210 °C
5. PA6 + 30% GF (Polyamide 6 + 30% Glass Fiber)	Heat Deflection Temperature at 0,45 Mpa: 215 °C
6. PA6.6 + 30% GF (Polyamide 6.6 + 30% Glass Fiber)	Heat Deflection Temperature at 0,4 N: 250 °C
7. PA6 (Polyamide 6)	Heat Deflection Temperature at 0,46 Mpa: 190 °C
8. PA6.6 (Polyamide 6.6)	Heat Deflection Temperature at 1,8 Mpa: 105 °C
11. ASA+PC	Heat Deflection Temperature at 0,45 Mpa: 99 °C
13. Silicone	Heat stability: up to 200 °C
14. Neoprene	Maximum service temperature: 90 °C
17. Adhesive Polyurethane Monocomponent	Maximum service temperature: 90 °C
18. Polyethylene foam	Maximum service temperature: 100 °C
19. Pur Gasket (Polyol + Isocyanate) Fermapor K31 (Sonderhoff)	Maximum service temperature: 80 ºC
21. Scotch tape	Maximum service temperature: 120 °C
23. Thermoplastic elastomer	Maximum service temperature: 100 °C
24. Low density polyethylene	Vicat softening temperature: 93 °C
28. Bakelite	Thermal class: 120 °C
30. Pur Gasket (Polyol + Isocyanate) RAKU-PUR 32 (Rampf)	Maximum service temperature: 100 ºC

Table 4: Insulation temperature index

Result: Pass

6.5.3 Resistance to abnormal heat and fire

The verification of the resistance of insulating materials to abnormal heat and fire is done in conformity with IEC 62208, clause 9.9.3.

The glow-wire test was done on all insulating materials, in line with IEC 60695-2-10 and IEC 60695-2-11. Insulating materials retaining current-carrying parts in position were tested at a temperature of 960 °C. Parts intended to be installed in hollow walls were tested at 850 °C. Other insulating materials were tested at a temperature of 650 °C. The duration of the tests was each time 30 seconds. The tip of the glow-wire was both times applied at a place where the section is thinnest and not less than 15 mm from the upper edge of the specimen. See Table 5 for the tested materials and their test results.

Insulating material	Glow wire	Remark
4. PA6 + 15% GF (Polyamide 6 + 15% Glass Fiber)	650 °C	No visible flame and sustained glowing
5. PA6 + 30% GF (Polyamide 6 + 30% Glass Fiber)	650 °C	No visible flame and sustained glowing
6. PA6.6 + 30% GF (Polyamide 6.6 + 30% Glass Fiber)	650 °C	No visible flame and sustained glowing
7. PA6 (Polyamide 6)	650 °C	No visible flame and sustained glowing
8. PA6.6 (Polyamide 6.6)	650 °C	No visible flame and sustained glowing
11. ASA+PC	650 °C	No visible flame and sustained glowing
13. Silicone	850 °C*	No visible flame and sustained glowing
14. Neoprene	960 °C*	No visible flame and sustained glowing
18. Polyethylene foam	650 °C	No visible flame and sustained glowing
19. Pur Gasket (Polyol + Isocyanate) Fermapor K31 (Sonderhoff)	650 °C	No visible flame and sustained glowing
23. Thermoplastic elastomer	650 °C	No visible flame and sustained glowing
24. Low density polyethylene	650 °C	No visible flame and sustained glowing
28. Bakelite	960 °C*	Flames and glowing extinguish in 3 s after removal of the glow-wire
30. Pur Gasket (Polyol + Isocyanate) RAKU-PUR 32 (Rampf)	650 ºC	No visible flame and sustained glowing

Table 5: Glow wire test results

* Tested at higher temperature on request from the manufacturer.

Pictures of the glow-wire test are given in Appendix A.5. Pictures of the tested materials can be found in Appendix A.4.

All materials comply with the requirements.

Result: Pass

6.6 Continuity of the protective circuit

The verification of the continuity of the protective circuit is done in conformity with IEC 62208, clause 9.11.

The effectiveness of the protective circuit has been verified by measuring the voltage drop from the PE terminal to several points of the enclosure. This measurement is done by injecting a DC-current of at least 10 A at several points of the assembly. Subsequently the resistance is calculated.

Enclosure	Max. resistance [mΩ]
NSYCRN108300P	4
NSYCRN108300T	10
NSYCRNG1410300D	35
NSYCRNG1010300T	10

Table 6: Continuity of the protective circuit test

Note: To ensure consistent effective earth continuity of the door a flexible wire between door and enclosure body is required.

All of the resistances are below the maximum allowed 100 mΩ.

Result: Pass

6.7 Resistance to ultra-violet (UV) radiation

The verification of the resistance to ultra-violet (UV) radiation is done in conformity with IEC 62208, clause 9.12.

This test applies to enclosures and external parts of enclosures intended to be installed outdoors and which are constructed of insulating materials or metals that are entirely coated by synthetic material. The tests on the insulating materials and on the painted metals are described separately.

16 samples of each insulating material were subjected to the test. The dimensions of the samples are 80 x 10 mm with thicknesses in the range of 2 to 4,5 mm (depending on the material). The UV test was performed according to ISO 4892-2 method A, cycle 1 with a total test period of 500 hours.

After the UV exposure 6 samples were subjected to the flexural strength test according ISO 178:2010. The surface of the sample exposed to UV was turned face down and the pressure was applied to the non-exposed surface. As reference material 6 new unexposed samples were also subjected to the flexural strength test. Verification of flexural strength (according to ISO 178) shall have 70 % minimum retention meaning the flexural strength of the exposed samples shall be at least 70 % of the flexural strength of the new samples. The width and thickness of each sample was measured and used to calculate the flexural strength in MPa.

After the UV exposure 10 samples were subjected to the charpy impact test according ISO 179-1:2010. The impacts were applied to the exposed surface side of the sample. As reference material 10 new unexposed samples were also subjected to the charpy impact test. Verification of charpy impact (according to ISO 179) shall have 70 % minimum retention meaning the absorbed energy of the exposed samples shall be at least 70 % of the energy absorbed by the new samples. The width and thickness of each sample was measured and used to calculate the impact resistance in kJ/m^2.

The test results are summarized in the table below. All listed values are the average of all samples and the uncertainty (k=2) is given:

Material	Conditioning	Charpy impact resistance [kJ/m^2]	Flexural modulus [Mpa]	Flexural strength [Mpa]	Deflection at flexural strength [mm]
1. Polyamide 6 + 30% Glass Fiber (thickness 4,3 mm)	unexposed	52 ±3	5930 ±370	182 ±9	9.6 ±1,3
	exposed	47 ±4	5510 ±690	174 ±13	10 ±2
2. Polyamide 6 + 15% Glass Fiber (thickness 4,3 mm)	unexposed	47 ±3	3520 ±140	134 ±5	12 ±1
	exposed	47 ±3	3270 ±210	129 ±6	13 ±1
3. Thermoplastic elastomer of polyethylene (thickness 4,4 mm) **	unexposed	NB	-	-	-
	exposed	NB	-	-	-
15. Thermoplastic elastomer of polyester (thickness 2,9 mm) **	unexposed	NB	-	-	-
	exposed	NB	-	-	-
NB = did not break * Charpy impact resistance cannot be compared to the new condition. 5 out of 10 samples did not break. The average value in kJ/m^2 is higher than all other materials tested. ** Materials are flexible, flexural strength test and charpy impact test are not applicable. The samples showed no visible deterioration after the UV exposure.					

Table 7: Resistance to ultra-violet (UV) radiation test (insulating materials)

All materials comply with the requirements.

Result: Pass

Samples of painted metal (100 x 150 mm) representative for the enclosure were subjected to the test. Three samples of each type of painting were tested. The UV test was performed according to ISO 4892-2 method A, cycle 1 with a total test period of 500 hours.

After the UV exposure the samples were subjected to the cross-cut test according ISO 2409. For compliance, enclosures constructed of metals entirely coated by synthetic material, the adherence of the insulating material shall have a minimum retention of category 3 according to ISO 2409. Based on the measured coating thickness a blade gap of 2 mm was selected for the cross-cut test.

The test results are summarized in the table below.

	Sample	Average coating thickness [µm]	Classification
Polyester paint (AKZO)	A	110 ± 12	0
	B	100 ± 10	0
	C	89 ± 10	0
Epoxy polyester paint (AXALTA)	A	74 ± 9	0
	B	77 ± 10	0
	C	79 ± 18	0
Epoxy polyester paint (AKZO)	A	62 ± 10	0
	B	54 ± 7	0
	C	70 ± 14	0
Epoxy polyester paint (INVER)	A	76 ± 7	0
	B	83 ± 10	0
	C	64 ± 6	0

Table 8: Resistance to ultra-violet (UV) radiation test (painted metal sheet)

The average coating thickness was calculated from 10 measurements on each sample and are listed for uncertainty k=2. The organic coating has a very rough finish.

The edges of the cuts are completely smooth; none of the squares of the lattice is detached. The test result has classification category 0 and therefore meets the minimum retention requirement.

Result: Pass

6.8 Verification of resistance to corrosion

The verification of the resistance to corrosion of the internal metallic parts is done in conformity with IEC 62208, clause 9.13.2.1, severity test A.

The test consists of:

- 6 cycles of 24 h each to damp heat cycling test according to IEC 60068-2-30 (Test Db) at (40 ± 3) °C and relative humidity of 95% and
- 2 cycles of 24 h each to salt mist test according to IEC 60068-2-11 (Test Ka: salt mist), at a temperature of (35 ± 2) °C

The verification of the resistance to corrosion of a representative enclosure and the external metallic parts separately is done in conformity with IEC 62208, clause 9.13.2.2, severity test B.

The test consists of two identical 12 day periods each comprising:

- 5 cycles of 24 h each to damp heat cycling test according to IEC 60068-2-30 (Test Db) at (40 ± 3) °C and relative humidity of 95% and
- 7 cycles of 24 h each to salt mist test according to IEC 60068-2-11 (Test Ka: salt mist), at a temperature of (35 ± 2) °C

Pictures of the tested materials can be found in Appendix A.6.

All materials comply with the following requirements:

- there is no evidence of iron oxide, cracking or other deterioration more than that allowed by ISO 4628-3 for a degree of rusting Ri1
- the mechanical integrity is not impaired
- seals are not damaged
- doors, hinges, locks, and fastenings work without abnormal effort

Result: Pass

6.9 Thermal power dissipation capability

The verification of the thermal power dissipation capability is done in conformity with IEC 62208, clause 9.14.

The thermal power dissipation data provided by the manufacturer is determined by a calculation method according to IEC/TR 60890 and are verified by Dekra.

The maximum allowed temperature-rise of air at internal top of the enclosure is considered 45 K for this calculation. The allowed effective power losses of equipment installed inside the enclosure are calculated for all combinations of the following:

- Each enclosure size available within the range
- Different types of installation relevant for the enclosure

The calculations in this test report are valid if the following conditions in the practical application of the enclosures are fulfilled (refer to chapter 4 of IEC/TR 60890):

- There is an approximately even distribution of power losses inside the enclosure.
- The installed equipment is so arranged that air circulation is but little impeded.
- The equipment installed is designed for direct current or alternating current up to and including 60 Hz with the total supply currents not exceeding 3150 A.

- Conductors carrying high currents and structural parts are so arranged that eddy-current losses are negligible.
- There are no horizontal partitions in the enclosure.

The calculation results are provided in Appendix B.

Result: Pass

Appendix A Type test pictures

A.1 Photos of static loads test

Photo 1: NSYCRN108300P (1)

Photo 2: NSYCRN108300P (2)

Photo 3: NSYCRN108300T (1)

Photo 4: NSYCRN108300T (2)

Photo 5: NSYCRNG1410300D

Photo 6: NSYCRNG1010300T

A.2 Photos of mechanical impact (IK) test

Photo 7: NSYCRN108300P

Photo 8: NSYCRN108300T

Photo 9: NSYCRNG1410300D

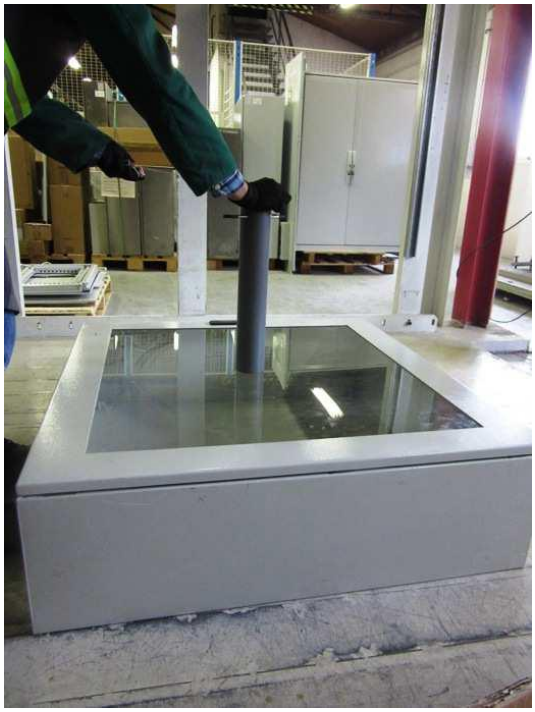


Photo 10: NSYCRNG1010300T

A.3 Photos of degree of protection (IP) test

Photo 11: IP6X test NSYCRN108300P (1)

Photo 12: IP6X test NSYCRN108300P (2)

Photo 13: IPX6 test NSYCRN108300P

Photo 14: IP6X test NSYCRN108300T (1)

Photo 15: IP6X test NSYCRN108300T (2)

Photo 16: IPX6 test NSYCRN108300T

Photo 17: IP5X test NSYCRNG1410300D

Photo 18: IPX5 test NSYCRNG1410300D

A.4 Photos of thermal stability test

Photo 19: Insulating materials (1)

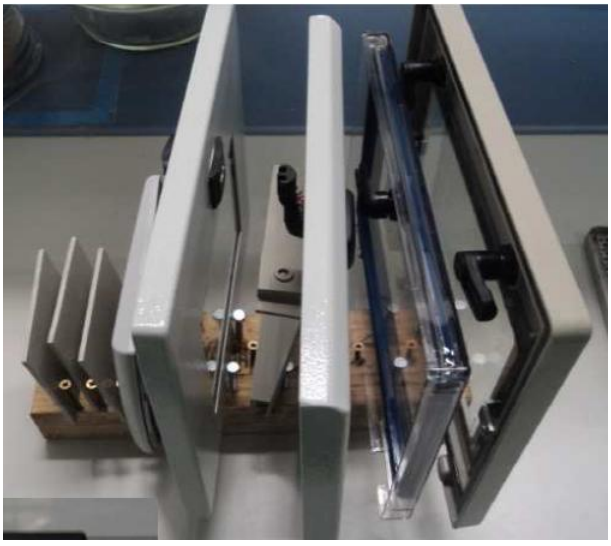


Photo 20: Insulating materials (2)

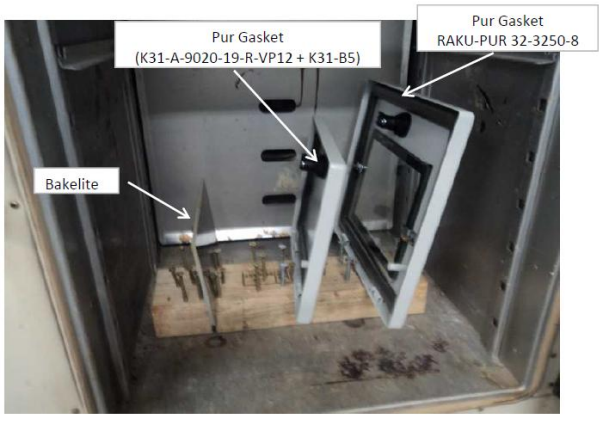


Photo 21: Insulating materials (3)

A.5 Photos of resistance to abnormal heat and fire test

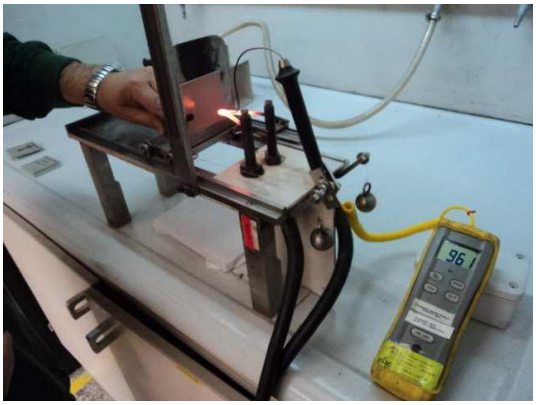


Photo 22: Glow-wire test setup (1)

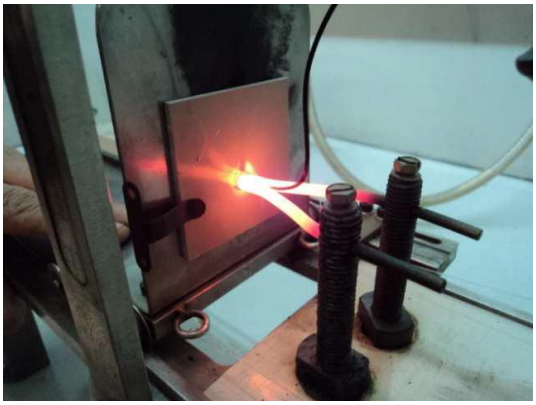


Photo 23: Glow-wire test setup (2)

A.6 Photos of resistance to corrosion test

Photo 24: Internal metallic parts CRNG (severity A)

Photo 25: Representative enclosure CRNG (AXALTA paint) (severity B)

Photo 26: Lock CRNG (severity B)

Photo 27: Hinge CRNG (severity B)

Photo 28: Spreader bar CRNG (severity B)

Photo 29: M8 nuts for CRN (severity B)

Photo 30: Wall Mounting fixing NSYPFCR (severity B)

Photo 31: Wall Mounting fixing NSYAEFPFSC (severity B)

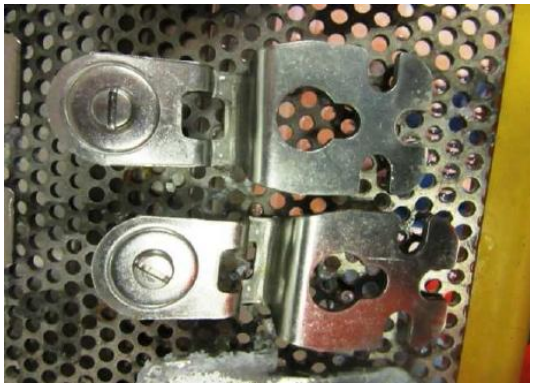


Photo 32: Wall Mounting fixing NSYAEFPFXSC (severity B)

Photo 33: Polyester paint (AKZO), Epoxy polyester paint (AKZO / INVER / AXALTA) (Severity B)

Photo 34: Internal metallic parts CRN (severity A)

Photo 35: Representative enclosure CRN (AKZO paint) (severity B) (1)

Photo 36: Representative enclosure CRN (AKZO paint) (severity B) (2)

Photo 37: Representative enclosure CRN (AKZO paint) (severity B) (3)

Photo 38: Representative enclosure CRN (AKZO paint) (severity B) (4)

Photo 39: Wall Mounting fixing NSYPFC2X (severity B)

Photo 40: Mounting plate NSYMM… / NSYPMM… (severity A)

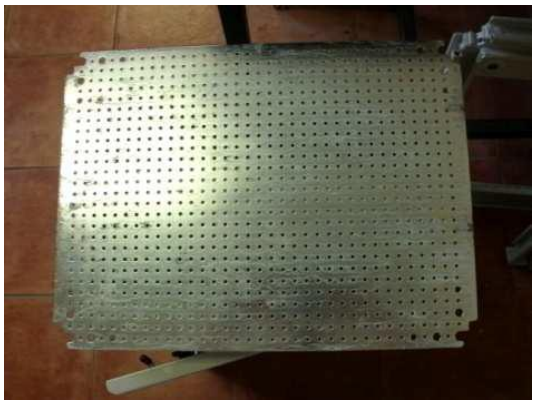


Photo 41: Mounting plate NSYMF… / NSYPMF… (severity A)

Photo 42: Mounting plate NSYMR… / NSYPMR… (severity A)

Appendix B Thermal power dissipation capability calculation

Power Dissipation (External Temperature = 35ºC) — **SPACIAL CRN Series**

REFERENCES			DIMENSIONS (in mm.) HxWxD																	
Plain door without mounting plate	Transparent door without mounting plate (T)	Plain door with mounting plate (P)	H	W	D	Pd (W)	m²	Pd (W)	m²	Pd (W)	m²	Pd (W)	m²	Pd (W)	m²	Pd (W)	m²	Pd (W)	m²	Pd (W)	m²
NSYCRN22150	NSYCRN22150T	NSYCRN22150P	200	200	150	31	0,17	28	0,15	29	0,16	26	0,14	27	0,14	24	0,13	20	0,11		
NSYCRN23150	NSYCRN23150T	NSYCRN23150P	200	300	150	43	0,23	39	0,20	41	0,21	36	0,19	39	0,20	34	0,18	28	0,15		
NSYCRN252150	NSYCRN252150T	NSYCRN252150P	250	200	150	35	0,20	32	0,18	33	0,18	29	0,16	30	0,17	27	0,15	23	0,13		
NSYCRN325150	NSYCRN325150T	NSYCRN325150P	300	250	150	46	0,27	42	0,24	44	0,25	39	0,22	41	0,23	36	0,20	31	0,18		
NSYCRN325200	NSYCRN325200T	NSYCRN325200P	300	250	200	54	0,31	49	0,28	50	0,29	45	0,26	46	0,27	41	0,24	35	0,20		
NSYCRN33150	NSYCRN33150T	NSYCRN33150P	300	300	150	54	0,31	48	0,27	51	0,29	45	0,25	48	0,27	42	0,23	37	0,20		
NSYCRN33200	NSYCRN33200T	NSYCRN33200P	300	300	200	62	0,35	56	0,32	58	0,33	52	0,29	54	0,31	48	0,27	41	0,23		
NSYCRN34200	NSYCRN34200T	NSYCRN34200P	300	400	200	78	0,44	70	0,39	74	0,41	66	0,36	70	0,39	62	0,34	52	0,28		
NSYCRN345150	NSYCRN345150T	NSYCRN345150P	300	450	150	76	0,42	67	0,36	73	0,40	64	0,35	70	0,38	61	0,33	53	0,28		
NSYCRN43150	NSYCRN43150T	NSYCRN43150P	400	300	150	65	0,39	57	0,34	61	0,36	53	0,32	57	0,34	50	0,29	45	0,26		
NSYCRN43200	NSYCRN43200T	NSYCRN43200P	400	300	200	73	0,44	66	0,40	68	0,41	61	0,36	64	0,38	56	0,33	49	0,29		
NSYCRN44200	NSYCRN44200T	NSYCRN44200P	400	400	200	92	0,54	82	0,48	87	0,51	77	0,45	82	0,48	72	0,42	63	0,36		
NSYCRN46250	NSYCRN46250T	NSYCRN46250P	400	600	250	143	0,82	127	0,73	136	0,78	121	0,69	130	0,74	114	0,65	97	0,54		
NSYCRN46300	NSYCRN46300T	NSYCRN46300P	400	600	300	155	0,90	140	0,80	148	0,85	132	0,76	140	0,80	124	0,71	104	0,58		
NSYCRN54150	NSYCRN54150T	NSYCRN54150P	500	400	150	95	0,58	82	0,50	90	0,55	78	0,47	85	0,52	73	0,44	67	0,40		
NSYCRN54200	NSYCRN54200T	NSYCRN54200P	500	400	200	106	0,65	94	0,57	100	0,61	90	0,53	94	0,57	81	0,49	73	0,44		
NSYCRN54250	NSYCRN54250T	NSYCRN54250P	500	400	250	117	0,73	105	0,65	109	0,68	97	0,60	102	0,63	89	0,55	79	0,48		
NSYCRN55250	NSYCRN55250T	NSYCRN55250P	500	500	250	139	0,85	124	0,75	131	0,80	116	0,70	124	0,75	108	0,65	95	0,56		
NSYCRN64150	NSYCRN64150T	NSYCRN64150P	600	400	150	108	0,68	93	0,58	102	0,64	88	0,55	97	0,61	83	0,51	76	0,47		
NSYCRN64200	NSYCRN64200T	NSYCRN64200P	600	400	200	120	0,76	106	0,66	113	0,71	99	0,62	106	0,66	91	0,57	83	0,51		
NSYCRN64250	NSYCRN64250T	NSYCRN64250P	600	400	250	132	0,84	118	0,75	123	0,78	109	0,69	114	0,72	100	0,63	90	0,56		
NSYCRN65150	NSYCRN65150T	NSYCRN65150P	600	500	150	129	0,81	111	0,69	124	0,77	106	0,65	119	0,74	100	0,62	92	0,56		
NSYCRN65200	NSYCRN65200T	NSYCRN65200P	600	500	200	142	0,90	125	0,78	135	0,85	117	0,73	128	0,80	110	0,68	100	0,61		
NSYCRN65250	NSYCRN65250T	NSYCRN65250P	600	500	250	156	0,99	138	0,87	147	0,93	129	0,81	138	0,87	120	0,75	107	0,66		
NSYCRN66200	NSYCRN66200T	NSYCRN66200P	600	600	200	166	1,03	145	0,89	159	0,98	137	0,84	152	0,94	130	0,79	117	0,71		
NSYCRN66250	NSYCRN66250T	NSYCRN66250P	600	600	250	180	1,13	159	0,98	172	1,07	150	0,92	163	1,01	141	0,86	125	0,76		
NSYCRN66300	NSYCRN66300T	NSYCRN66300P	600	600	300	195	1,22	173	1,08	184	1,15	163	1,01	173	1,08	152	0,94	133	0,81		
NSYCRN68300	NSYCRN68300T	NSYCRN68300P	600	800	300	230	1,52	208	1,33	222	1,45	202	1,26	215	1,38	198	1,19	171	1,02		
NSYCRN75200	NSYCRN75200T	NSYCRN75200P	700	500	200	158	1,02	138	0,88	150	0,97	130	0,83	142	0,91	122	0,77	112	0,70		
NSYCRN75250	NSYCRN75250T	NSYCRN75250P	700	500	250	173	1,12	152	0,98	162	1,05	142	0,91	152	0,98	132	0,84	119	0,75		
NSYCRN86200	NSYCRN86200T	NSYCRN86200P	800	600	200	177	1,32	174	1,13	171	1,26	165	1,06	184	1,19	156	1,00	144	0,92		
NSYCRN86250	NSYCRN86250T	NSYCRN86250P	800	600	250	199	1,43	191	1,24	191	1,35	179	1,16	182	1,27	168	1,08	153	0,98		
NSYCRN86300	NSYCRN86300T	NSYCRN86300P	800	600	300	220	1,55	199	1,36	209	1,45	190	1,26	199	1,36	180	1,16	161	1,04		
NSYCRN88200	NSYCRN88200T	NSYCRN88200P	800	800	200	232	1,66	203	1,41	226	1,60	199	1,34	221	1,54	189	1,28	186	1,17		
NSYCRN88300	NSYCRN88300T	NSYCRN88300P	800	800	300	279	1,92	251	1,66	269	1,82	242	1,57	260	1,73	228	1,47	202	1,30		
NSYCRN106250	NSYCRN106250T	NSYCRN106250P	1000	600	250	229	1,74	203	1,50	219	1,64	194	1,40	209	1,54	181	1,30	181	1,20		
NSYCRN106300	NSYCRN106300T	NSYCRN106300P	1000	600	300	253	1,87	228	1,63	241	1,75	217	1,51	228	1,63	200	1,39	182	1,27		
NSYCRN108250	NSYCRN108250T	NSYCRN108250P	1000	800	250	297	2,17	262	1,85	288	2,07	254	1,75	279	1,97	240	1,65	220	1,51		
NSYCRN108300	NSYCRN108300T	NSYCRN108300P	1000	800	300	325	2,32	289	2,00	312	2,20	279	1,88	301	2,08	261	1,76	237	1,59		

Power Dissipation (External Temperature = 35ºC) — **SPACIAL CRNG Series**

REFERENCES		DIMENSIONS (in mm.) HxWxD															
Plain door without mounting plate	Transparent door without mounting plate (T)	Plain door with mounting plate (P)	H	W	D	Pd (W)	m²	Pd (W)	m²	Pd (W)	m²	Pd (W)	m²	Pd (W)	m²	Pd (W)	m²
NSYCRNG86400	NSYCRNG86400T	(*)	800	600	400	259	1,78	239	1,58	244	1,65	225	1,46	229	1,52	206	1,33	179	1,16
NSYCRNG810300D	(*)	(*)	800	1000	300	338	2,29	301	1,97	329	2,20	294	1,88	320	2,10	280	1,78	248	1,57
NSYCRNG812300D	(*)	(*)	800	1200	300	397	2,66	352	2,28	388	2,57	346	2,18	380	2,47	331	2,09	292	1,84
NSYCRNG106400	NSYCRNG106400T	(*)	1000	600	400	300	2,14	275	1,90	282	1,98	259	1,74	264	1,82	235	1,58	211	1,41
NSYCRNG108400	NSYCRNG108400T	(*)	1000	800	400	376	2,61	341	2,29	358	2,45	326	2,13	341	2,29	302	1,97	268	1,74
NSYCRNG1010300D	NSYCRNG1010300T	(*)	1000	1000	300	395	2,76	349	2,36	383	2,64	340	2,24	372	2,52	323	2,12	291	1,91
NSYCRNG1012300D	(*)	(*)	1000	1200	300	464	3,20	409	2,72	453	3,08	401	2,60	444	2,96	383	2,48	345	2,23
NSYCRNG1012400D	(*)	(*)	1000	1200	400	524	3,55	470	3,07	508	3,39	457	2,91	493	3,23	433	2,75	381	2,42
NSYCRNG126300	NSYCRNG126300T	(*)	1200	600	300	284	2,20	254	1,91	269	2,05	240	1,76	254	1,91	221	1,62	204	1,49
NSYCRNG126400	NSYCRNG126400T	(*)	1200	600	400	338	2,50	308	2,21	316	2,30	289	2,02	295	2,11	262	1,82	238	1,66
NSYCRNG128300	NSYCRNG128300T	(*)	1200	800	300	366	2,71	325	2,33	352	2,57	312	2,18	338	2,42	292	2,04	269	1,87
NSYCRNG128400	NSYCRNG128400T	(*)	1200	800	400	425	3,04	384	2,66	404	2,85	366	2,46	384	2,66	338	2,27	305	2,05
NSYCRNG1210300D	(*)	(*)	1200	1000	300	447	3,23	394	2,75	433	3,08	383	2,60	420	2,94	362	2,46	332	2,25
NSYCRNG1210400D	(*)	(*)	1200	1000	400	511	3,58	458	3,10	491	3,39	441	2,91	472	3,20	413	2,72	371	2,44
NSYCRNG1212300D	(*)	(*)	1200	1200	300	528	3,74	462	3,17	515	3,60	452	3,02	503	3,46	431	2,88	395	2,63
NSYCRNG1212400D	(*)	(*)	1200	1200	400	596	4,13	531	3,55	576	3,94	516	3,36	559	3,74	487	3,17	437	2,83
NSYCRNG1410300D	(*)	(*)	1400	1000	300	496	3,70	435	3,14	480	3,53	422	2,97	420	3,36	398	2,80	369	2,59

(*) These models can be supplied as no standard.
Dissipation values according the corresponding dimension.

Appendix C Product information

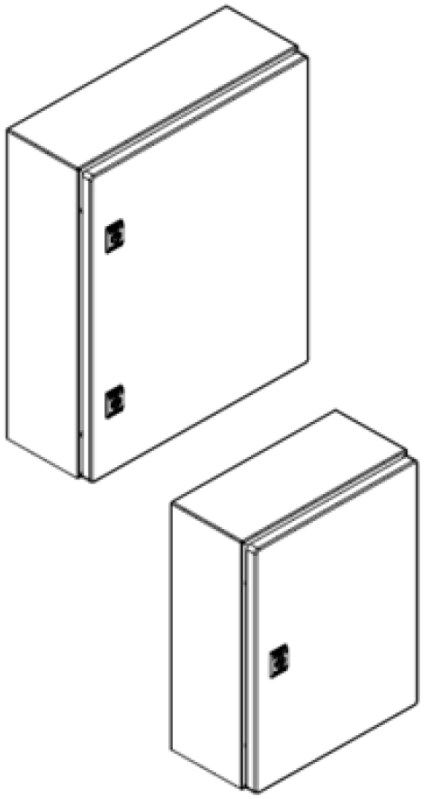
Dimensions

Reference	DIMENSIONS (in mm.) HxWxD		
	H	W	D
NSYCRN22150...	200	200	150
NSYCRN23150...	200	300	150
NSYCRN252150...	250	200	150
NSYCRN325150...	300	250	150
NSYCRN325200...	300	250	200
NSYCRN33150...	300	300	150
NSYCRN33200...	300	300	200
NSYCRN34200...	300	400	200
NSYCRN345150...	300	450	150
NSYCRN43150...	400	300	150
NSYCRN43200...	400	300	200
NSYCRN44200...	400	400	200
NSYCRN46250...	400	600	250
NSYCRN46300...	400	600	300
NSYCRN54150...	500	400	150
NSYCRN54200...	500	400	200
NSYCRN54250...	500	400	250
NSYCRN55250...	500	500	250
NSYCRN64150...	600	400	150
NSYCRN64200...	600	400	200
NSYCRN64250...	600	400	250
NSYCRN65150...	600	500	150
NSYCRN65200...	600	500	200
NSYCRN65250...	600	500	250
NSYCRN66200...	600	600	200
NSYCRN66250...	600	600	250
NSYCRN66300...	600	600	300
NSYCRN68300...	600	800	300
NSYCRN75200...	700	500	200
NSYCRN75250...	700	500	250
NSYCRN86200...	800	600	200
NSYCRN86250...	800	600	250
NSYCRN86300...	800	600	300
NSYCRN88200...	800	800	200
NSYCRN88300...	800	800	300
NSYCRN106250...	1000	600	250
NSYCRN106300...	1000	600	300
NSYCRN108250...	1000	800	250
NSYCRN108300...	1000	800	300

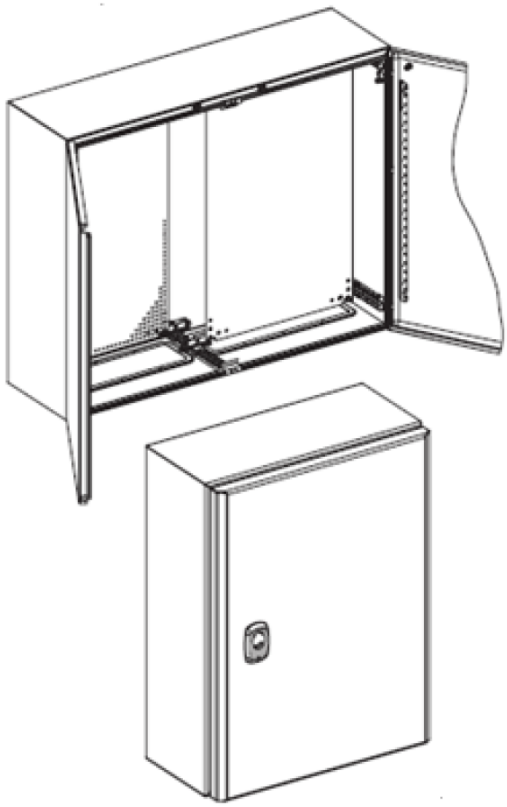
Reference	DIMENSIONS (in mm.) HxWxD		
	H	W	D
NSYCRNG86400...	800	600	400
NSYCRNG810300...	800	1000	300
NSYCRNG812300...	800	1200	300
NSYCRNG106400...	1000	600	400
NSYCRNG108400...	1000	800	400
NSYCRNG1010300...	1000	1000	300
NSYCRNG1012300...	1000	1200	300
NSYCRNG1012400...	1000	1200	400
NSYCRNG126300...	1200	600	300
NSYCRNG126400...	1200	600	400
NSYCRNG128300...	1200	800	300
NSYCRNG128400...	1200	800	400
NSYCRNG1210300...	1200	1000	300
NSYCRNG1210400...	1200	1000	400
NSYCRNG1212300...	1200	1200	300
NSYCRNG1212400...	1200	1200	400
NSYCRNG1410300...	1400	1000	300

General View

Spacial CRN (1 door)

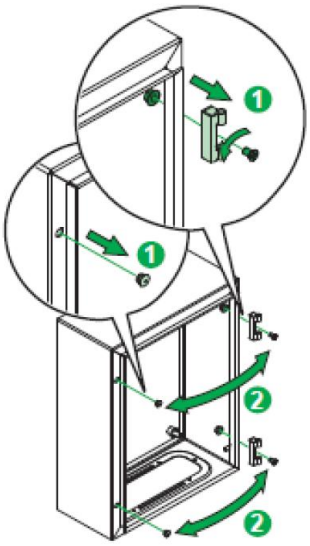


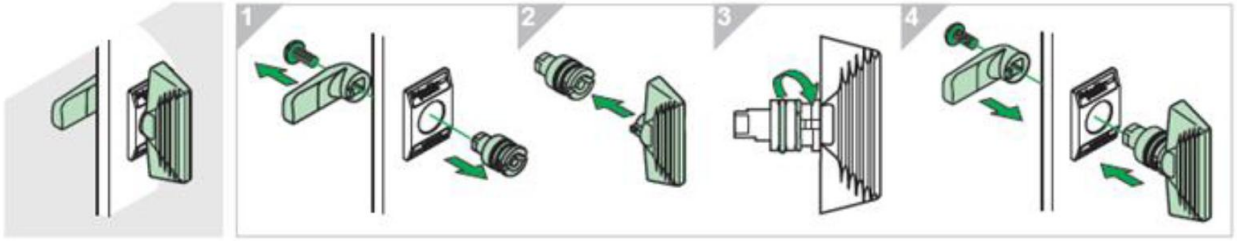
Spacial CRNG (1 - 2 doors)

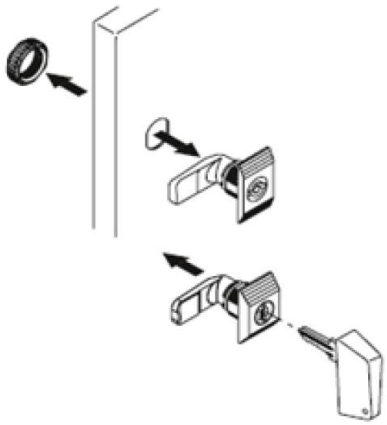


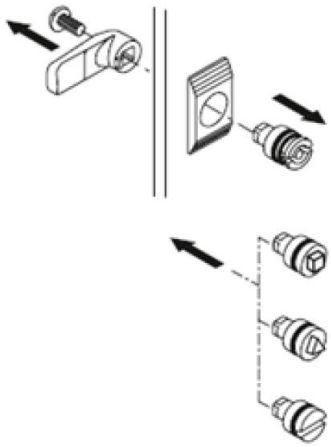
Fastening system

CRN:

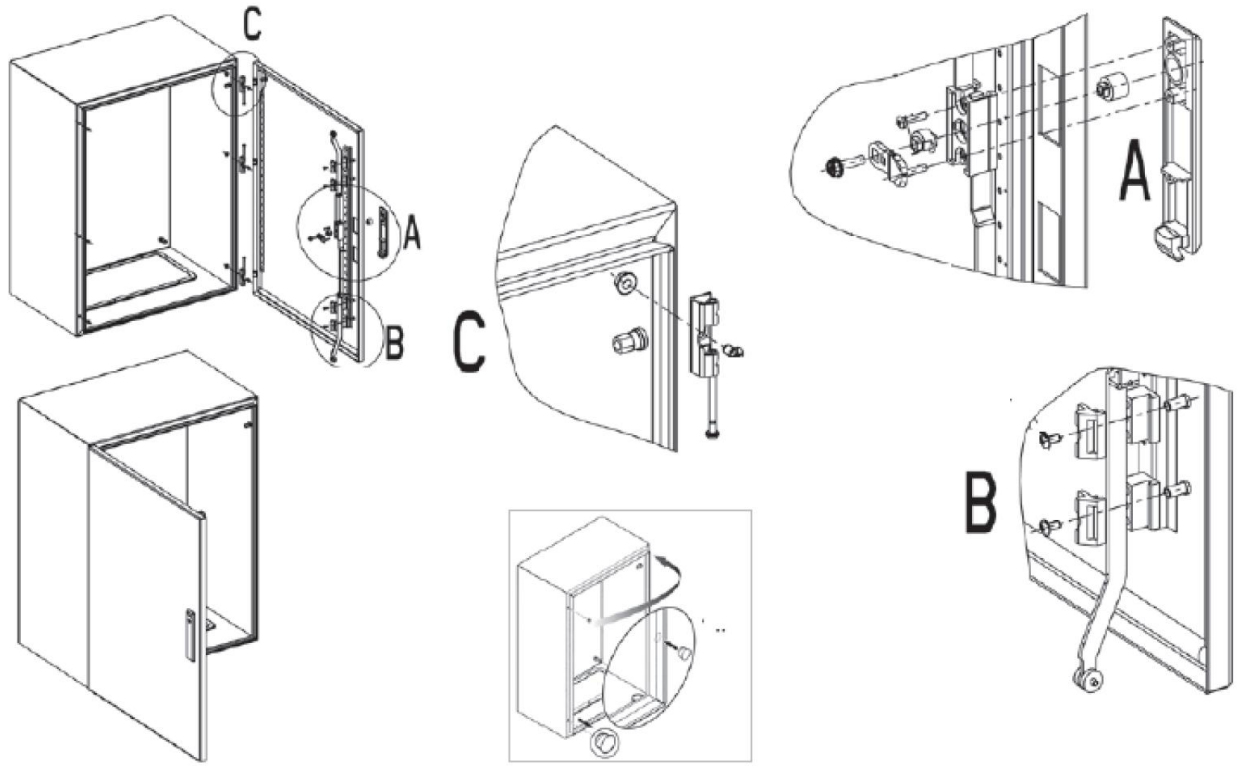




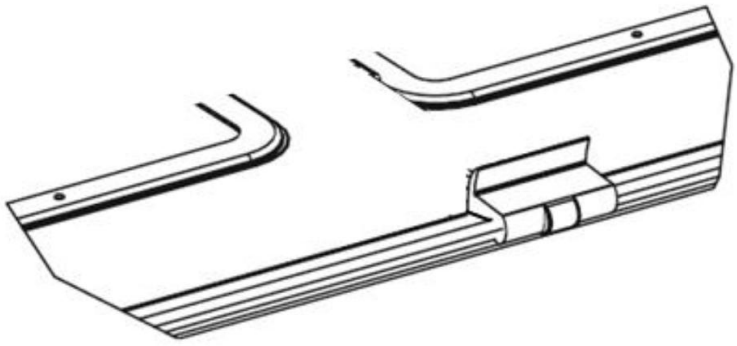




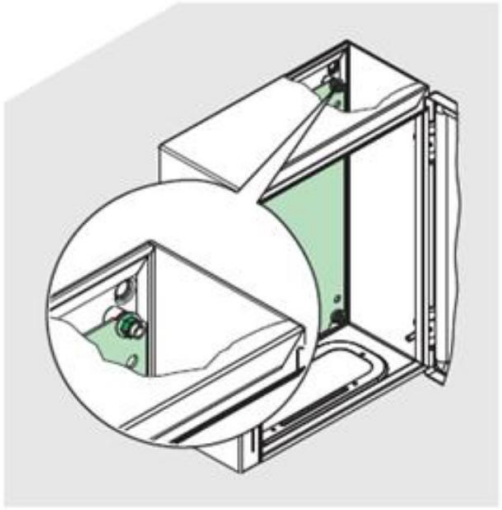
CRNG:

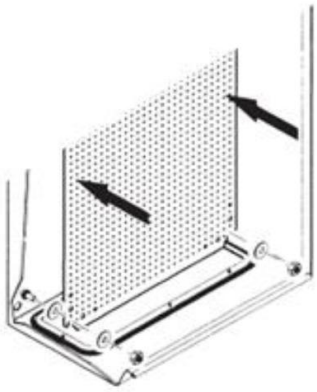


Two door stop:



Mounting plate fixing system

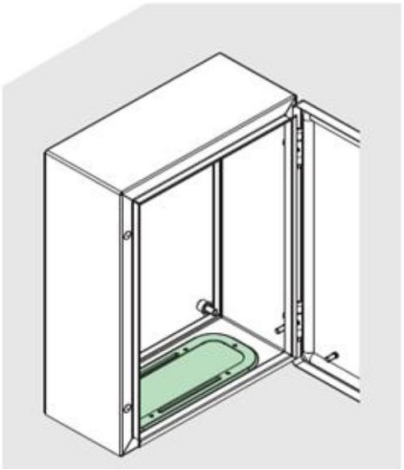


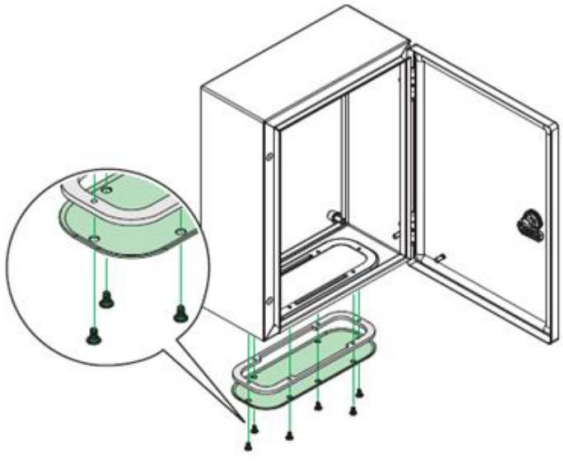


				
Plain	Silkscreened	Microperforated	Telequick	Bakelite
NSYMM...	NSYMS...	NSYMF...	NSYMR...	NSYMB...

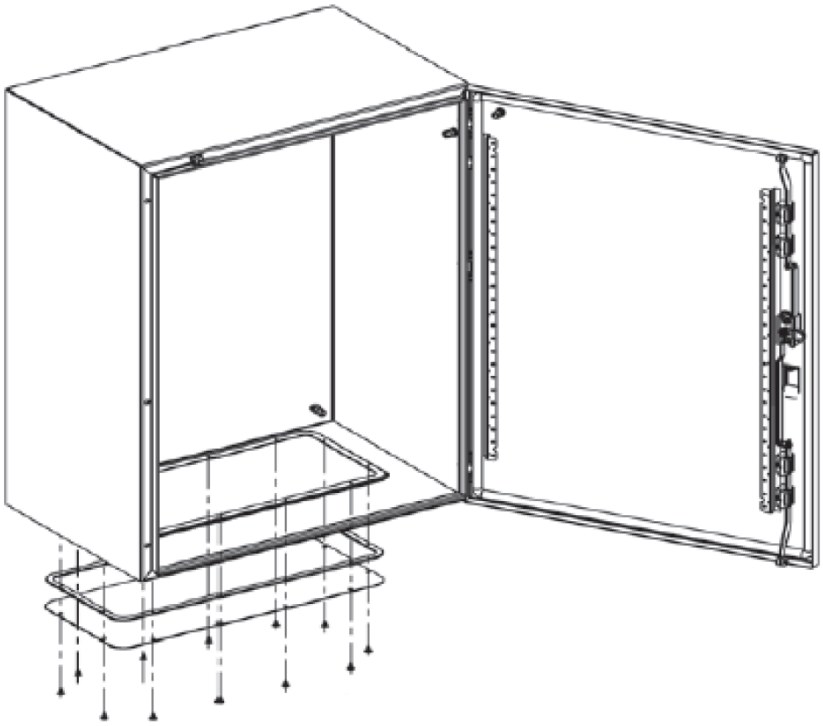
Gland plate fixing system

CRN:





CRNG:

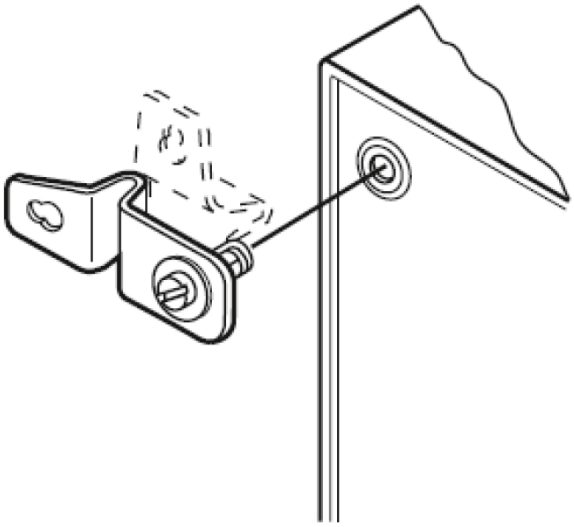


Wall-fixing lugs

CRN:

NSYPFCR: Steel

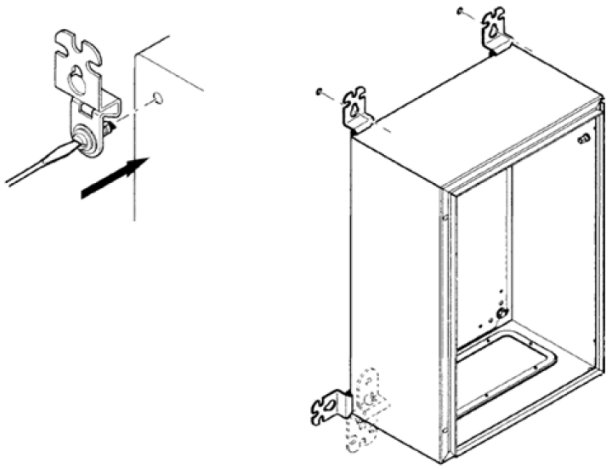
NSYPFC2X: Stainless steel



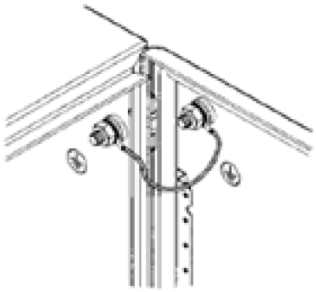
CRNG:

NSYAEFPFSC: Steel

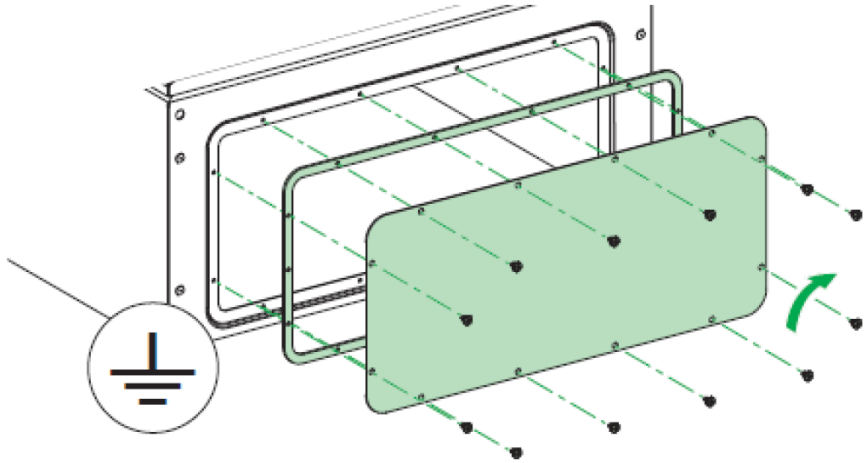
NSYAEFPFXSC: Stainless steel



Earth connection



Gland plate – body:



Mounting plate – body: