



Mr. Javier Trillo, Inspector ECA SL, Group Bureau Veritas, Inspection and Auditing Entity certifies that the enclosures listed below have met the requirements of the standard UNE-EN ISO 9001:2008.

### CERTIFIES:

That at the request of the representative of the Company. "SCHNEIDER ELECTRIC INDUSTRIES S.A.S" Ms. Nuria Bas (Project Quality Leader) and Bureau Veritas as third party certification, carried out the inspection of the tests described below on the model enclosures SFHD: NSYSFHD16840 (1662x800x430 mm), NSYSFHD16860 (1681x800x630 mm), NSYSFHD12640 (1262x600x430mm) and NSYSFHD1612602D (1681x1200x630 mm)

In accordance with the requirements of the IEC 61969-3 : 2011, the enclosures GAMA SPACIAL SFHD have obtained **SATISFACTORY** results with the documentation submitted to the inspector and based on external inspection can not detect hidden failures.

Standard specifications IEC 61969-3: 2011

All the tests have been conducted according to the Class 1, except in those cases where specifically instructed another class.

### Point 5.2 of Standard. CLIMATIC TESTS

Table 1 – Climatic conditions for environmental classes 1 and 2

	Environmental parameters	Test severity		Duration	IEC method
		Class 1	Class 2		
a	Low air temperature	-45 °C	-95 °C	15 h	60068-2-1: A
b	High air temperature	80 °C	90 °C	15 h	60068-2-2: B
c	Damp heat	30 °C, 93 %	30 °C, 93 %	96 h	60068-2-7B: Cb
d	Rate of change of temperature	-50 °C to + 25 °C 1 °C/min	-50 °C to + 25 °C 1 °C/min	2 cycles	60068-2-14: Nb
e	Solar radiation	1 120 W/m <sup>2</sup>	1 120 W/m <sup>2</sup>	72 h/ 40 °C	60068-2-5 Sa
f	Condensation	40 °C 90 % to 100 % RH	40 °C 90 % to 100 % RH	96 h	60068-2-30: Db
g	Precipitation (rain, snow, hail, dust, etc.)	IP 54	IP 55	-	60529
h	Movement of the surrounding air	50 m/s	50 m/s	-	-
i	Formation of ice and frost	Yes	Yes	-	-
j	Ultraviolet degradation test	Yes	Yes	-	ISO 4892-2

NOTE For comparable conditions the International Standard Air, in accordance to ISO 2533 (15 °C at 1 013, 25 hPa) shall be used.

### Climatic tests, SATISFACTORIES

The test "g" in table 1 has been carried out in conditions higher than those of the standard. The degree of IP has been made according to IP55 according to the IEC 60529. To consider, that this test covers section 5.5 of this standard.

*This certificate is the English translation of the certificate n° 08/EK1/1/6223954-1001-15*

**Point 5.3 of Standard. BIOLOGICAL TESTS**

**Table 2 – Biological tests**

	Environmental parameters	Test severity		Purpose	IEC method
		Class 1	Class 2		
a	Flora: Presence of mould, fungus, etc.	Yes	Yes	To check the material for resistance	60088-2-10
b	Fauna: Presence of rodents and others harmful to the equipment	Yes, but without termites	Yes, but with termites		

**Biological test SATISFACTORY**

**Point 5.4 of Standard. TESTS OF RESISTANCE AGAINST CHEMICALLY ACTIVE SUBSTANCES.**

**Table 3 – Tests of resistance against chemically active substances**

(Similar to IEC 60721-3-4, Class 4C2)

	Environmental parameters	Test severity		Duration	IEC method
		Class 1 Mean value	Class 2 Maximum value		
a	Salts: Sea and road salt mist	Yes, at 35 °C 5 % NaCl		4 days	60088-2-11: Ka
b	Sulphur dioxide <sup>a</sup>	0,3 mg/m <sup>3</sup> 0,11 cm <sup>3</sup> /m <sup>3</sup>	1,0 mg/m <sup>3</sup> 0,37 cm <sup>3</sup> /m <sup>3</sup>	10 days	60088-2-00: Ke
c	Hydrogen sulphide: <sup>a</sup>	0,1 mg/m <sup>3</sup> 0,071 cm <sup>3</sup> /m <sup>3</sup>	0,5 mg/m <sup>3</sup> 0,36 cm <sup>3</sup> /m <sup>3</sup>		
d	Chlorine <sup>a</sup>	0,1 mg/m <sup>3</sup> 0,034 cm <sup>3</sup> /m <sup>3</sup>	0,3 mg/m <sup>3</sup> 0,1 cm <sup>3</sup> /m <sup>3</sup>		
e	Nitrogen oxides <sup>a</sup>	0,5 mg/m <sup>3</sup> 0,26 cm <sup>3</sup> /m <sup>3</sup>	1,0 mg/m <sup>3</sup> 0,52 cm <sup>3</sup> /m <sup>3</sup>		
<sup>a</sup> The tests may be performed by a four component mixture of these gases. Tests of Table 3 may be combined with tests of Table 1.					

**Test of resistance against chemically active substance SATISFACTORY**

**Point 5.5 of Standard. TESTS OF RESISTANCE AGAINST MECHANICALLY ACTIVE SUBSTANCES**

**Table 4 – Tests of resistance against mechanically active substances**

	Environmental parameters	Test severity Classes 1 and 2	IEC method
a	Sand	IP 50 (see note)	60529
b	Dust (suspension)		
c	Dust (sedimentation)		
<b>NOTE</b> No measurable dust shall have entered the enclosure (this assessment is more severe than IEC 60529).			

**Testing of mechanical resistance compared to active substances SATISFACTORY**

*This certificate is the English translation of the certificate n° 08/EK1/1/6223954-1001-15*



E C A

**Point 6.3 of Standard. LIFTING AND STIFFNESS TEST**

**Table 8 – Classifications levels for lifting and stiffness**

Classification	Nominal load L1 cabinet kg	Lifting test Force P1 N	Stiffness test Force P2 N
SL4	200	3 000	500
SL5	400	6 000	1 000
SL6	800	12 000	2 000

NOTE The nominal load is the stated load carrying capacity of the cabinet or rack.

Testing of lifting equipment and test the rigidity according classification SL5.  
**SATISFACTORY**

**Point 7.1 of Standard. SAFETY ASPECTS**

**Table 6 – Safety aspects**

Requirement	Test specification	
Earth bonding	The responsibility of the vendor is to provide sufficient conductivity between different parts of the enclosure and means for the earth bonding of equipment IEC 61140	Using IEC 60950 and IEC 61439-5 for equipped enclosure IEC 61010/60825
Lightning strike	To be observed in the total "Earth bonding" concept	IEC 62305-4
Mechanical safety	IK-Code according to IEC 62282	For testing IEC 60098-2-75
Vandalism	Requirements shall be part of the vendor specification	Tests may be part of the vendor specification
Warning labels	General warning, caution, risk of danger	ISO 3884, B.3.1
	Caution, risk of life	ISO 3884, B.3.2
	Caution, risk of electric shock	ISO 3884, B.3.6
	Caution, hot surface	IEC 60417
Security, vandalism protection	Requirements for the resistance of the enclosure and the locking devices against unauthorised access	Tests may be part of the user specifications
Flammability	Material properties may be specified by user	IEC 60895-11-10

**SATISFACTORY**

**N.A.**

**SATISFACTORY**

**N.A.**

**N.A.**

**N.A.**

**SATISFACTORY**

In: Barcelona  
Date: 08/06/2015

Inspector:  
Javier Trillo



Supervised by:  
Roberto Marino  
PC Manager Barcelona

*This certificate is the English translation of the certificate n° 08/EK1/1/6223954-1001-15*