

DECLARATION OF CONFORMITY



Lopolight ApS
Bakkegaardsvej 513
DK-3050 Humlebaek
Denmark

We, as manufacturer, hereby declare that the following product

Lopolight Navigation Light Control System

Consisting of the following part numbers:

400-018; 400-018/P; 400-018/Q
500-100-3; 500-100-4; 500-100-5; ... ; 500-100-28
500-101-3; 501-100-4; 501-100-5; ... ; 501-100-28
500-110

For use in the following applications:

Marine, offshore and industrial applications in environmental categories ENV1 "Bridge and Deck Zone"

On vessels classed by:

LR, BV, ABS, DNV/GL or RINA

Conforms with the functionality and required specifications of the following standards:

IEC 60945
MSC 253(83) Annex 31
MSC 79/23/Add.2 Annex 33
IEC 62288
IEC 61162-1

Approvals & certificates:

LR: 12/70035/(E2)
BV: 44621/A0 BV; 27662/B0 BV; 35054/B0 BV; 34074/B0 BV
DNV-GL: TAA0000249; TAE00000UU; 20 922 – 04 HH

Hoersholm, Denmark, August 19th 2019

A handwritten signature in black ink, appearing to read "Jan Møller".

Jan Møller
Managing Director



Lloyd's
Register

Type Approval Certificate Extension

This is to certify that Certificate No. 12/ 70035(E1) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	Lopolight Aps
PLACE OF PRODUCTION	Bakkegaardsvej 513 Humblebaek DK-3050 Denmark
DESCRIPTION	Power supply unit for LED lights with monitoring and automatic voltage supply adjustment to maintain constant power output. The unit has built-in overcurrent protection set at 0.95A. In detection of a s/c the power will immediately be cut. The relay has internal monitoring and LED for read-out of status. Limited remote control/status indication by RS485
TYPE	P/N 400-018 Monitoring Relay
APPLICATION	Marine, offshore and industrial applications for use in environmental categories ENV1, as defined in Test Specification No.1:2015 in "Bridge and Deck Zone" where the test specification is satisfactory for the intended operation
STANDARD	IEC 60945

Certificate No.	12/ 70035(E2)
Issue Date	11 June 2018
Expiry Date	10 June 2023
Sheet	1 of 2



Andrei Petrov
UK&I Technical Support Office
Lloyd's Register EMEA

Lloyd's Register EMEA
71 Fenchurch Street, London EC3M 4BS

Lloyd's Register EMEA
Is a subsidiary of Lloyd's Register Group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



Lloyd's
Register

ADDITIONAL TESTS

Extreme variations in power supplies: 18.0 – 31.2 VDC
Excessive conditions – Reverse polarity
Low temperature -15°C – 16 hrs
Compass safe distance
Ingress Protection to IP2X

OTHER CONDITIONS

Generally electrical installations in LR Classed Ships are subject to compliance with LR Rules Part 6, Chapter 2

“This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate.”

The attached Design Appraisal Document No. 12/70035(E1) and its supplementary Type Approval Terms and Conditions form part of this Certificate

All other details remain as the previous Certificate No. 12/ 70035(E1) to which this extension should be attached.

Certificate No. 12/ 70035(E2)
Issue Date 11 June 2018
Expiry Date 10 June 2023
Sheet 2 of 2



Andrei Petrov
UK&I Technical Support Office
Lloyd's Register EMEA

*Lloyd's Register EMEA
71 Fenchurch Street, London EC3M 4BS*

Lloyd's Register EMEA
Is a subsidiary of Lloyd's Register Group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



Marine & Offshore

Certificate number: 44621/A0 BV

File number: AP4754

Product code: 2670H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to
Phoenix Contact GmbH & Co. KG
 Blomberg - GERMANY

for the type of product
POWER SUPPLY UNITS
 QUINT4-PS/1AC and QUINT4-PS/3AC

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships
 EC Code: 31

FOR information only

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 26 Apr 2023

For Bureau Veritas Marine & Offshore,
 At BV HAMBURG, on 26 Apr 2018

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.



Marine & Offshore
Division

Certificate number: 27662/B0 BV

File number: AP4279

Product code: 2670H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

Phoenix Contact GmbH & Co. KG

Blomberg - GERMANY

for the type of product

POWER SUPPLY UNITS

QUINT-PS/...

DC/DC converter series

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 31B / 41B

FOR information only

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 09 May 2022

For BUREAU VERITAS,

At BV HAMBURG, on 09 May 2017

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.



Marine & Offshore

Certificate number: 35054/B0 BV

File number: ACE2/162/5

Product code: 2644H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to
SCHNEIDER ELECTRIC INDUSTRIES SAS
 Grenoble Cedex 09 - FRANCE

for the type of product
MINI-BREAKERS
 iC60 series
 Miniature circuit breakers

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships
 IEC 60947-2 (2013)

FOR information only

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 10 Aug 2023

For Bureau Veritas Marine & Offshore,
 At BV LYON, on 10 Aug 2018

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.



Marine & Offshore

Certificate number: 34074/B0 BV

File number: ACE 15/280/08

Product code: 2661H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

SCHNEIDER ELECTRIC INDUSTRIES SA

Sarre-Union - FRANCE

for the type of product

ENCLOSURES / CABINETS / BOXES (LOW VOLTAGE)

Series: SPACIAL NSYS3D, SPACIAL NSYS3DEX, SPACIAL NSYSBS, SPACIAL NSYS3DM and SPACIAL NSYVDM.

Requirements:

BV Rules for the Classification of Steel Ships.

IEC 60529 (2013)

IEC 62208 (2011)

FOR information only

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate is a renewal of certificate N° 34074/A1 BV expiring on 23/05/2018

This certificate will expire on: 23 May 2023

For Bureau Veritas Marine & Offshore,

At BV MULHOUSE, on 12 Mar 2018

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

TYPE APPROVAL CERTIFICATE

This is to certify:**That the DC Power Supply**with type designation(s)
QUINT- PS

Issued to

**Phoenix Contact GmbH & Co. KG
Blomberg, Nordrhein-Westfalen, Germany**

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****Location classes:****Temperature D*****Humidity B****Vibration A****EMC A****Enclosure Required protection according to the Rules shall be provided upon installation on board.*****see Application/Limitation**Issued at **Hamburg** on **2019-02-26**This Certificate is valid until **2024-02-25**.DNV GL local station: **Essen**for **DNV GL**Approval Engineer: **Heinz Scheffler****Joannis Papanuskas
Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

Switch mode power supply 1- and 3-phase AC/DC and DC/DC.

Type	Input Voltage AC	Input freq.	Output voltage	Output Current
Quint-PS-100-240AC/24DC/2.5	100 V-240 VAC, -15% + 10%, 90 - 350 V DC	45-65 Hz	24 V ± 1 %	2.5 A (3.75)#
Quint-PS-100-240AC/24DC/5	100 V-240 VAC, -15% + 10%, 90 - 350 V DC	45-65 Hz	24 V ± 1 %	5 A (7.5)#
Quint-PS-100-240AC/24DC/5/EX	100 V-240 VAC, -15% + 10%, 90 - 350 V DC	45-65 Hz	24 V ± 1 %	5 A (7.5)#
Quint-PS-100-240AC/24DC/10	100 V-240 VAC, -15% + 10%, 90 - 350 V DC	45-65 Hz	24 V ± 1 %	10 A (15)#
Quint-PS-100-240AC/24DC/10/EX	100 V-240 VAC, -15% + 10%, 90 - 350 V DC	45-65 Hz	24 V ± 1 %	10 A (15)#
Quint-PS-100-240AC/24DC/20	100 V-240 VAC, -15% + 10%, 90 - 350 V DC	45-65 Hz	24 V ± 1 %	20A (26)#
Quint-PS-100-240AC/24DC/40	100 V-240 VAC, -15% + 10%, 90 - 350 V DC	45-65 Hz	24 V ± 1 %	40A (45)#
Quint-PS-3x400-500AC/24DC /5	3 x400 V-500 VAC, -20% +15%, 450 - 800 V DC	45-65 Hz	24 V± 1 %	5 A (7.5)#
Quint-PS-3x400-500AC/24DC/10	3 x400 V-500 VAC, -20% +15%, 450 - 800 V DC	45-65 Hz	24 V ± 1 %	10 A (15)#
Quint-PS-3x400-500AC/24DC /20	3 x400 V-500 VAC, -20% +15%, 450 - 800 V DC	45-65 Hz	24 V ± 1 %	20 A (27)#
Quint-PS-3x400-500AC/24DC /30	3 x400 V-500 VAC, -20% +15%, 450 - 800 V DC	45-65 Hz	24 V ± 1 %	30 A (35)#
Quint-PS-3x400-500AC/24DC/40	3 x400 V-500 VAC, -20% +15%, 450 - 800 V DC	45-65 Hz	24 V ± 1 %	40 A (45)#
Quint-PS-24DC/24DC/10	24 V DC (18...32V DC)	-	24 V ± 1 %	10 A
Quint-Diode/40	24VDC (0...30V DC)	-	24	40 A

With power boost

Application/Limitation

Temperature-dependent derating: At ambient temperatures above +60 °C, the output power must be decreased by 2.5 % per Kelvin increase in temperature.

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case.

Reference is made to DNV GL Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Job Id: **262.1-010560-4**
Certificate No: **TAA0000249**

Type Approval documentation

Documents: Installation notes for electricians 5156438_00_gb; 9012470_ia_04; 9012472_ia_04; 9012473_ia_08; 9012474_ia_07; 9012475_ia_08; 9023040_ia_03; 9011669_ia_05; 9011668_ia_07; 9015431_ia_07; 9011670_ia_06; 9015432_ia_07; 9012469_ia_07; 9021738_ia_08

Test reports: 01STS003-Rev.1.0; 01STS095-Rev.5.0; T223-0039/05; T223-0179/03; T223-0205/03; E40082F; E211944-A14-UL-1 Amendment 1; E211944-A17-UL-1 Amendment 2; E135392; 78-2B1-030 & 1641-5/02; 2938620 Rev.00; 2938578 Rev.00; 2490/03 Rev. 00

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.
Safety/ type tests in accordance with IEC 60950, 3rd Edition 1999 and 1st 2001.

Marking of product

The products to be marked with:

- Model name
- Manufacturer name
- Serial number

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Miniature Circuit Breaker**with type designation(s)
iC60

Issued to

Schneider Electric Industries S.A.S.
Eybens Isere, France

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.**This Certificate is valid until **2022-12-31**.Issued at **Høvik** on **2018-04-20**DNV GL local station: **Marseille**for **DNV GL**Approval Engineer: **Nicolay Horn**

Andreas Kristoffersen
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Job Id: **262.1-015865-4**
 Certificate No: **TAE00000UU**
 Revision No: **2**

Name and Place of manufacturer

Schneider Electric / Merlin Gerin
 F-30319 Alès Cedex, France

M/s. Schneider Electric India Pvt. Ltd.
 Chennai-600056, India

Schneider Electric Bulgaria EOOD
 4202 Radinovo, Bulgaria

Product description

Miniature Circuit Breakers with the following type designations:

AC

Type iC60N:

Number of poles:	1, 1+N, 2, 3, 4	
Rated operation voltage AC (V):	12-60 (ph/N), 12-133 (ph/ph), 100-133 (ph/N), 220-240, 380 -415 (ph/ph), 440 (ph/ph)	
Uimp (kV):	6	
Rated current (A):	0.5 - 63, (1 - 63 in DC)	
Frequency (Hz):	50 - 60	
Rated Ambient Temperature:	50°C	
Utilization Category	A	
Tripping characteristics:	B, C, D	
Breaking capacity Icu:	Ph / N	Ph / Ph
12 - 60V	50 kA (0.5 - 4A), 36 kA (6 - 63A)	-
12 -133V	-	50 kA (0.5 - 4A), 36 kA (6 - 63A)
100 - 133V	50 kA (0.5 - 4A), 20 kA (6 - 63A)	-
220 - 240V	50 kA (0.5 - 4A), 10 kA (6 - 63A)	50 kA (0.5 - 4A), 20 kA (6 - 63A)
380 - 415V	-	50 kA (0.5 - 4A), 10 kA (6 - 63A)
440V	-	25 kA (0.5 - 4A), 6 kA (6 - 63A)
Breaking capacity Ics:	100% of Icu (0.5 - 4A) 75% of Icu (6 - 63A)	
Power factor:	0.2 - 0.85	

Type iC60H:

Number of poles:	1, 1+N, 2, 3, 4	
Rated operation voltage AC (V):	12-60 (ph/N), 12-133 (ph/ph), 100-133 (ph/N), 220-240, 380 -415 (ph/ph), 440 (ph/ph)	
Uimp (kV):	6	
Rated current (A):	0.5 - 63, (1 - 63 in DC)	
Frequency (Hz):	50 - 60	
Rated Ambient Temperature:	50°C	
Utilization Category:	A	
Tripping characteristics:	B, C, D	
Breaking capacity Icu:	Ph / N	Ph / Ph
12 - 60V	70 kA (0.5 - 4A), 42 kA(6 - 63A)	-
12 -133V	-	70 kA (0.5 - 4A), 42 kA (6 - 63A)
100 - 133V	70 kA (0.5 - 4A), 30 kA(6 - 63A)	-
220 - 240V	70 kA (0.5 - 4A), 15 kA(6 - 63A)	70 kA (0.5 - 4A), 30 kA (6 - 63A)
380 - 415V	-	70 kA (0.5 - 4A), 15 kA (6 - 63A)
440V	-	50 kA (0.5 - 4A), 10 kA (6 - 63A)
Breaking capacity Ics:	100% of Icu (0.5 - 4A) 50% of Icu (6 - 63A)	
Power factor:	0.2 - 0.85	

Job Id: **262.1-015865-4**
 Certificate No: **TAE00000UU**
 Revision No: **2**

Type iC60L

Number of poles:	1, 1+N, 2, 3, 4	
Rated operation voltage AC (V):	12-60 (ph/N), 12-133 (ph/ph), 100-133 (ph/N), 220-240, 380 -415 (ph/ph), 440 (ph/ph)	
Uimp (kV):	6	
Rated current (A):	0.5 - 63, (1 - 63 in DC)	
Frequency:	50 - 60 Hz	
Rated Ambient Temperature:	50 °C	
Utilization Category	A	
Tripping characteristics:	B, C, K, Z	
Breaking capacity Icu:	Ph / N	Ph / Ph
12 - 60V	100 kA (0.5 - 4A), 70 kA (6 - 63A)	100 kA (0.5 - 4A), 80 kA (6 - 63A)
12 -133V	-	-
100 - 133V	100 kA (0.5 - 4A), 50 kA (6 - 25A) 36 kA (32/40A), 30 kA(50/63A)	100 kA (0.5 - 4A), 70 kA (6 - 63A)
220 - 240V	100 kA (0.5 - 4A), 25 kA(6 - 25A)	100 kA (0.5 - 4A), 50 kA (6 - 25A)
380 - 415V	20 kA (32/40A), 15 kA(50 /63A)	36 kA (32 / 40A), 30 kA (50/63A)
	-	100 kA (0.5 - 4A), 25 kA (6 - 25A)
	-	20 kA (32 / 40A), 15 kA (50/63A)
440V	-	70 kA (0.5 - 4A), 20 kA (6 - 25A)
	-	15 kA (32 / 40A), 10 kA (50/63A)
Breaking capacity Ics:	100% of Icu (0.5 - 4A) 50% of Icu (6 - 63A)	
Power factor:	0.2 - 0.85	

DC

Type	iC60N	iC60H	iC60L
Number of poles	1P, 1P+N, 2, 3, 4P	1P, 1P+N, 2, 3, 4P	1P, 2, 3, 4P
Rated operation voltage DC (V):	12-72 (1 ph), ≤125 (2P in series), ≤180 3P in series, ≤250 (4P in series)		
Uimp (kV):	6		
Ratings (A) In	0.5 to 63		
Rated Ambient Temperature:	50°C		
Utilization Category	A		
Tripping characteristics:	B, C, D	B, C, D	B, C, K, Z
DC Breaking capacity Icu:			
12 V up to 60 V (1P)	15	20	25
≤ 72 V (1P)	10	15	20
≤ 125 V (2P in series)	10	15	20
≤ 180 V (3P in series)	10	15	20
≤ 250 V (4P in series)	10	15	20
DC Breaking capacity Ics:	100 % of Icu	100 % of Icu	100 % of Icu

Application /limitation

For installation inside switchboard, distribution board and control gear enclosures.

Environmental classes:

Vibration class	A
Humidity class	B
Temperature class	A

Job Id: **262.1-015865-4**
Certificate No: **TAE00000UU**
Revision No: **2**

Type Approval documentation

Tests carried out

Type tested according to IEC 60947-2. Vibration test in accordance with IEC 60068-2-6 & DNV Sfc 2.4. Dry heat test in accordance with IEC 60068-2-2 & DNV Sfc 2.4. Damp heat test in accordance with IEC 60068-2-30 & DNV Sfc 2.4.

Marking of product

Manufacturer name - Type designation – Data according to IEC 60947-2 specifications - date/manufacturing code

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials. The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE

TYPE APPROVAL CERTIFICATE

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the DNV GL Type Approval System.

Certificate No.	20 922 - 04 HH
Company	Schneider Electric Industries S.A.S. 35, Rue Joseph Monier 92500 Rueil-Malmaison, FRANCE
Product Description	Empty steel enclosure
Type	Series Spacial NSYS3D, NSYS3DB, NSYS3DM, NSYVDM
Environmental Category	F
Technical Data / Range of Application	Wall mounting steel enclosures: - NSYS3D: Universal enclosure - NSYS3DB: Terminals enclosure - NSYS3DM: Modular distribution enclosure - NSYVDM: 19" 1-body enclosure Material: steel, powder-coated, colour RAL 7035 Gasket material: polyurethan gasket Degree of protection: types with 1 door: IP 66, types with 2 doors: IP 55 - Typ / Reference no. according to Spacial S3D catalog (Degree of protection IP 55): NSYS3D81030D, NSYS3D81230D, NSYS3D101030D, NSYS3D121030D, NSYS3D101230D, NSYS3D101240D, NSYS3D121040D, NSYS3D121230D, NSYS3D121240D, NSYS3D141030D, NSYS3D101030DP, NSYS3D121030DP, NSYS3D101230DP, NSYS3D81030DP, NSYS3D101240DP, NSYS3D121040DP, NSYS3D121230DP, NSYS3D121240DP, NSYS3D141030DP, NSYS3D101030DT, NSYS3D121030DT, NSYS3D81230P
Test Standard	Guidelines for the Performance of Type Approvals, Chapter 2- Test Requirements for Electrical / Electronic Equipment and Systems (VI-7-2), Edition 2003
Documents	Test reports: Schneider no. VIBR040016A (15.03.2004), LCIE no. 60056820-557658 (21.04.2008); Drawings: 40547-S Rev. H, 40548-S Rev. H, 40549 Rev. H, 40550 Rev. H, 40551-S Rev. I, 40584 Rev. G, 40585-S Rev. H, 40586-S Rev. L, 40592-S Rev. H
Remarks	This certificate is issued on the basis of GL Guidelines for the Performance of Type Approvals, Chapter 1 - Procedure (VI-7-1), Edition 2007.

Valid until **2020-01-04**

Page **1** of **2**

File No. **I.J.02**

Hamburg, 2015-04-21

Type Approval Symbol



TYPE APPROVAL CERTIFICATE

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the DNV GL Type Approval System.

Certificate No. **20 922 - 04 HH**

Further Technical Data / Range of Application

- Typ / Reference no. according to Spacial S3D catalog (Degree of protection IP 66):

NSYS3D32515, NSYS3D3315, NSYS3D3320, NSYS3D3420, NSYS3D3415, NSYS3D3215, NSYS3D4315, NSYS3D4320, NSYS3D4420, NSYS3D5320, NSYS3D5520, NSYS3D5420, NSYS3D5425, NSYS3D5525, NSYS3D6420, NSYS3D6425, NSYS3D6620, NSYS3D6625, NSYS3D6630, NSYS3D4620, NSYS3D4625, NSYS3D7525, NSYS3D6830, NSYS3D6640, NSYS3D6525, NSYS3D8620, NSYS3D8640, NSYS3D8825, NSYS3D8830, NSYS3D81030, NSYS3D10625, NSYS3D8625, NSYS3D8630, NSYS3D10630, NSYS3D10640, NSYS3D10825, NSYS3D10830, NSYS3D10840, NSYS3D12830, NSYS3D12840, NSYS3D101030, NSYS3D121030, NSYS3D12630, NSYS3D12640

NSYS3DM4315T, NSYS3DM5415T, NSYS3DM6415T, NSYS3DM6615T, NSYS3DM7515T, NSYS3DM8615T, NSYS3DM10615T, NSYS3DM10815T

NSYS3DB25315, NSYS3DB25415, NSYS3DB25515, NSYS3DB3315, NSYS3DB3415, NSYS3DB3515, NSYS3DB3615, NSYS3DB4815, NSYS3DB4315, NSYS3DB5415, NSYS3DB6415

NSYS3D32515P, NSYS3D3315P, NSYS3D3320P, NSYS3D3420P, NSYS3D3415P, NSYS3D3215P, NSYS3D4315P, NSYS3D4320P, NSYS3D4420P, NSYS3D5320P, NSYS3D5520P, NSYS3D5420P, NSYS3D5425P, NSYS3D5525P, NSYS3D6420P, NSYS3D6425P, NSYS3D6620P, NSYS3D6625P, NSYS3D6630P, NSYS3D4620P, NSYS3D4625P, NSYS3D7525P, NSYS3D6830P, NSYS3D6640P, NSYS3D6525P, NSYS3D8620P, NSYS3D8640P, NSYS3D8825P, NSYS3D8830P, NSYS3D81030P, NSYS3D10625P, NSYS3D8625P, NSYS3D8630P, NSYS3D10630P, NSYS3D10640P, NSYS3D10825P, NSYS3D10830P, NSYS3D10840P, NSYS3D12830P, NSYS3D12840P, NSYS3D101030P, NSYS3D121030P, NSYS3D12630P, NSYS3D12640P

NSYS3D32515T, NSYS3D3315T, NSYS3D3320T, NSYS3D3420T, NSYS3D3415T, NSYS3D4315T, NSYS3D4320T, NSYS3D4420T, NSYS3D5320T, NSYS3D5520T, NSYS3D5420T, NSYS3D5425T, NSYS3D5525T, NSYS3D6420T, NSYS3D6425T, NSYS3D6620T, NSYS3D6625T, NSYS3D6630T, NSYS3D4620T, NSYS3D4625T, NSYS3D7525T, NSYS3D6830T, NSYS3D6640T, NSYS3D6525T, NSYS3D8620T, NSYS3D8640T, NSYS3D8825T, NSYS3D8830T, NSYS3D10625T, NSYS3D8625T, NSYS3D8630T, NSYS3D10630T, NSYS3D10640T, NSYS3D10825T, NSYS3D10830T, NSYS3D10840T, NSYS3D12830T, NSYS3D10830T, NSYS3D101030T, NSYS3D121030T, NSYS3D12630T, NSYS3D12640T, NSYS3D81240T

NSYVDM4U4P, NSYVDM7U4P, NSYVDM9U4P, NSYVDM13U4P, NSYVDM16U4P, NSYVDM5U4F, NSYVDM8U4F, NSYVDM10U4F, NSYVDM14U4F, NSYVDM17U4F

Valid until **2020-01-04**

Page **2** of **2**

File No. **I.J.02**

Hamburg, 2015-04-21

Type Approval Symbol

