



**Marine & Offshore  
Division**

**Certificate number:** 23317/B0 BV

**File number:** ACE14/917/1

**Product code:** 2601D

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

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**ABB France - Activite Raccordement**  
CHASSIEU CEDEX - FRANCE

*for the type of product*

**TERMINAL BLOCKS (LOW VOLTAGE)**  
SCREW CLAMP TERMINAL BLOCKS SNK Series.

### Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

IEC 60947-7-1 (2009), IEC 60947-7-2 (2009), IEC 60947-7-3 (2009).

*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: 14 Nov 2021**

**For BUREAU VERITAS,**

At BV LYON, on 14 Nov 2016,

Jean-Marc Cabuzel



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](http://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.

## **THE SCHEDULE OF APPROVAL**

### **1. PRODUCT DESCRIPTION:**

SCREW CLAMP TERMINAL BLOCKS - SNK Series (including accessories)

<b>TYPES</b>	<b>RATED VOLTAGE (V)</b>	<b>RATED CROSS-SECTION (mm<sup>2</sup>)</b>	<b>RATED CURRENT A</b>	<b>Remarks</b>
ZS4	1000	4	32	Feed-through
ZDS4-22	800	4	29	Pluggable feed-through with 4 connections (2 fixed and 2 plugs)
ZDS4-22-R1	800	4	29	Pluggable feed-through with 4 connections (2 fixed and 2 plugs)
ZS4-PE	-	4	-	Ground
ZS4-D1	800	4	29	Double deck with 1 Feed-Through circuit
ZS4-D2	800	4	29	Double deck with 2 Feed-Through circuits
ZS4-S	400	4	25	Disconnect with blade
ZS4-S-R1	400	4	26	Disconnect with blade
ZS4-S-R2	400	2.5	18	Disconnect with lever
ZS4-S-R3	500	2.5	18	Disconnect with lever
ZS4-S-T2-R1	400	4	26	Disconnect with blade + Test Socket Screws
ZS4-S-T2.3-R1	400	4	26	Disconnect with blade + Test Socket Screws
ZS4-SF	250	4	6.3	5x20 fuses
ZS4-SF-T2	250	4	6.3	5x20 fuses + Test Socket Screws
ZS4-SF-R1	250 (1)	4	6.3	5x20 fuses + blown fuse Indicator
ZS4-SF-R2	250 (1)	4	6.3	5x20 fuses + blown fuse Indicator + Test Socket Screws
ZS4-SF-R3	250	4	6.3	5x20 fuses + blown fuse Indicator
ZS4-SF-R4	250	4	6.3	5x20 fuses + blown fuse Indicator+ Test Socket Screws
ZS4-R1	800	2.5	24	Feed-through
ZS4-SF1	250	4	6.3	5x20 & 5x25 fuses
ZS4-SF1-T2	250	4	6.3	5x20 & 5x25 fuses + test Socket Screws
ZS4-SF1-R1	250 (1)	4	6.3	5x20 & 5x25 fuses + blown fuse Indicator
ZS4-SF1-R2	250 (1)	4	6.3	5x20 & 5x25 fuses + blown fuse Indicator+ Test Socket Screws
ZS4-SF1-R3	250	4	6.3	5x20 & 5x25 fuses + blown fuse Indicator
ZS4-SF1-R4	250	4	6.3	5x20 & 5x25 fuses + blown fuse Indicator + Test Socket Screws
ZS4-R2	800	4	32	Feed-through
ZS4-PE-R2	-	4	-	Ground
ZS4-D2-S	630	4	25/29(3)	Double deck with 1 disconnect circuit and 1 feed-through circuit
ZS4-D2-S-T2	630	4	25/29(3)	Double deck with 1 disconnect circuit with test socket screws and 1 feed-through circuit
ZS4-D2-SF1	800	4	6.3/25(4)	Double deck with 1 fuse circuit and 1 feed-through circuit
ZS4-D2-SF1-R1	800(1)	4	6.3/25(4)	Double deck with 1 fuse circuit with blown fuse indicator and 1 feed-through circuit
ZS4-D2-SF1-R3	800(2)	4	6.3/25(4)	Double deck with 1 fuse circuit with blown fuse indicator and 1 feed-through circuit
ZS4-T3	800	4	32	Triple deck with 3 feed-through circuits
ZS4-T3-R1	800	4	32	Triple deck with 3 feed-through circuits
ZS6	1000	6	41	Feed-through
ZS6-PE	-	6	-	Ground
ZS6-D1	800	6	40	Double deck with 1 Feed-through circuit
ZS6-D1-PE	-	6	-	Double deck with 1 ground circuit
ZS6-D2	800	6	40	Double deck with 2 Feed-through circuits
ZS6-D2-PE	800	6	41	Double deck with 1 feed-through circuit and 1 ground circuit
ZS6-S	500	4	25	Disconnected with blade
ZS6-3S	800	4	32	Feed-through with 3 connections

ZS6-3S-PE	-	4	-	Ground with 3 connections
ZS6-4S	800	4	32	Feed-through with 4 connections
ZS6-4S-PE	-	4	-	Ground with 4 connections
ZS6-S-4S-T2	500	4	27	Disconnect with blade - with test socket screws
ZS10	1000	10	57	Feed-through
ZS10-S	630	4	25	Disconnected with blade
ZS10-ST	630	10	50	Test disconnect with sliding link
ZS10-ST-1	630	10	50	Test disconnect with sliding link for potential transformer circuits
ZS10-ST-T4	630	10	50	Test disconnect with sliding link for current transformer circuits
ZS10-SF	630	10	10	For 6.3x32 fuses
ZS10-R1	630	10	57	Feed-through
ZS10-SF-R1	630(1)	10	10	For 6.3x32 fuses - with blown fuse indicator
ZS10-SF-R3	630(2)	10	10	For 6.3x32 fuses - with blown fuse indicator
ZS10-S-R2	630	4	25	Disconnect with lever
ZS10-PE	-	10	-	Ground
ZS10-PE-R1	-	10	-	Ground
ZS16	1000	16	76	Feed-through
ZS16-PE	-	16	-	Ground
ZS25	1000	16	76	Feed-through
ZS25-PE	-	16	-	Ground
ZS35	1000	35	125	Feed-through
ZS35-PE	-	35	-	Ground
ZS50	1000	50	150	Feed-through
ZS50-PE	-	50	-	Ground
ZS70	1000	70	192	Feed-through
ZS70-PE	-	70	-	Ground
ZS95	1000	95	232	Feed-through
ZS95-PE	-	95	-	Ground
CDS4	800	4	29	Female plug
CDS4-R1	800	4	29	Female plug
CDS4-E	800	4	29	Female plug without outer nubs
ZS150	1000 AC 1500 DC	150	309 (5)	Feed-through
ZS240	1000 AC 1500 DC	240	415 (5)	Feed-through

(1): Operating voltage limited to 110V due to fuse indicator circuit, rated for 24-110V.

(2): Operating voltage limited to 250V due to fuse indicator circuit rated for 115-250V

(3): Disconnect circuit / feed-through circuit.

(4): Fuse circuit / feed-through circuit.

(5): ZS150/ZS240 derivation circuit rated current: 57A.

## **2. DOCUMENTS AND DRAWINGS:**

As per drawings Terminals Assembly, filed under BV ACE 14/917/01.

### **For B0 version:**

Drawing ref. 1SNP200167-0201 A.1, dated 22.Jan.2016.

Drawing ref. 1SNP200168-0201 A.1, dated 22.Jan.2016.

**3. TEST REPORTS:**

As per IEC CB Scheme test certificates FR 594321A to K, FR 594321B/A1, FR 599000 A to C, FR 602675, FR578472/M1, FR, 602677, FR578475/M1, FR578496/M1 issued by LCIE and SE-61023, SE-61024 issued by Intertek Semko AB.

Environmental tests at ABB Laboratory : 20100605 dated 05/11/2010, 20070864-M1 dated 27/11/2007, 20071023-M1 dated 26/12/2007, 20071025-M1 dated 13/03/2008, 20071146-M1 dated 28/04/2008, 20071147-M1 dated 27/04/2009, 20071148-M1 dated 11/05/2009, 20071149-M1 dated 25/02/2010, 20071150-M1 dated 26/02/2010, 20080167-M2 dated 03/12/2009, 20080168-M1 dated 15/12/2009, 20080205-M1 dated 14/03/2008, 20080252-M1 dated 21/04/2009, 20080253-M1 dated 12/05/2009, 20080254-M1 dated 09/06/2009, 20080255-M1 dated 09/06/2009, 20080526-M1 dated 10/11/2009, 20080774-M1 dated 10/11/2009, 20080915-M1 dated 10/11/2009, 20090178-M dated 14/04/2009, 20090179-M dated 14/04/2009, 20090180-M dated 14/04/2009, 20090181-M dated 14/04/2009, 20090259-M1 dated 10/11/2009, 20090260-M1 dated 06/11/2009.

IECEE CB Scheme Certificate N°FR663430, dated 12.Dec.2014.

**ABB France:**

Test Report N°20110412-M, dated 28.Jan.2013.  
Test Report N°20140343, dated 1. Oct.2014.

**For B0 version:****IECEE:**

- CB Scheme No. FR 679391, dated 10.Feb.2016.
- CB Scheme No. FR 679387, dated 10.Feb.2016.

**ABB:**

- Environmental tests report No. 20160317, dated 12.Jul.2016.

**4. APPLICATION / LIMITATION:**

- 4.1 - BV Rules for the Classification of Steel Ships, BV Rules for the Classification of Offshore Units and IEC 60092 series.
- 4.2 - Approval also valid for ships to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

**5. PRODUCTION SURVEY REQUIREMENTS:**

- 5.1 - The terminal blocks are to be supplied by **ABB France** in accordance with the type described in this certificate.
- 5.2 - This type of product is within the category DBV of Bureau Veritas Rule Note NR320.

**6. MARKING OF PRODUCT:**

- 6.1 - According to IEC 60947 specification.
- 6.2 - Trade Mark ABB.

**7. OTHERS:**

- 7.1 - It is **ABB France** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.
- 7.2 - This certificate supersedes the Type Approval Certificate N° 23317/A2 BV issued on 105.02.2015. by the Society.

\*\*\* END OF CERTIFICATE \*\*\*