TYPE APPROVAL CERTIFICATE

Certificate No:
TAE00000WY

This is to certify:

That the Electric Bus Bar

with type designation(s)
I-LINE / Canalis Busway

Issued to
Schneider Busway (GuangZhou) Limited
Guangzhou, China

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

Bus bar trunking system for installation between switchboards and enclosures onboard ships and offshore units.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2020-12-31**.

Issued at **Høvik** on **2016-01-12**

for **DNV GL**

DNV GL local station: **China South CMC/ SIO**

Approval Engineer: **Nicolay Horn**

Marit Laumann
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.

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Product description

I) Busbar Trunking System Type I-LINE® / Canalis Series B Busway (Conductor material copper contact – aluminium)

Technical data:

Type	Rated operating voltage [V]	Rated insulation voltage [V]	Frequency [Hz]	Structural load	IP degree
I-LINE / Canalis Series	1000	1000	50 / 60	Heavy load	40, 41, 54 or

Current rating:

Type	Rated Current at 35 °C [A]	Icw [kA]	Ipk [kA]
800	800	40	84
1000	1000	50	105
1250	1250	50	105
1350	1350	50	105
1600	1600	65	143
2000	2000	65	143
2500	2500	90	198
3200	3200	100	220
4000	4000	120	264
5000	5000	150	330

II) Busbar Trunking System Type I-LINE® / Canalis Series C Busway (Conductor material copper)

Technical data:

Type	Rated operating voltage [V]	Rated insulation voltage [V]	Frequency [Hz]	Structural load	IP degree
I-LINE / Canalis series C	1000	1000	50 / 60	Heavy load	40, 41, 54 or 65

Current rating:

Type	Rated Current at 35 °C [A]	Icw [kA]	Ipk [kA]
800	800	40	84
1000	1000	50	105
1250	1250	50	105
1350	1350	50	105
1600	1600	60	132
2000	2000	60	132
2500	2500	75	165
3000	3000	80	176
3200	3200	90	198
4000	4000	100	220
5000	5000	120	264
6000	6000	120	264

Application/Limitation

Current ratings given are for nominal temperature of 35 °C. When used for ship and offshore nominal current ratings to be modified for ambient conditions temperature of 45 °C.with a derating factor of 0.95.

Installation and use shall be in accordance with DNV Rules and Schneider Electric installation procedures. All branched of circuits shall have separate protection.

Type Approval documentation

Tests carried out

Salt mist cyclic, Vibration and Electrical tests (IEC 60439-2) according to DNV type approval program 811.91 Bus Trunk.

A60 marine bulkhead and deck penetration according to 2010FTP Code Annex 1, Part 3.

Marking of product

Product marking: I-LINE® Busway - Type designation, nominal voltage and current.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval is 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 Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and 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.

Assessment to be performed at least every second year.

END OF CERTIFICATE