DNV·GL

Certificate No:
TAE00003VF

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Electrical Equipment

with type designation(s)
Snappy CSI 32..., Power Tower PT..., Power Pack PP..., Twinny

Issued to
Karl Dose GmbH
Hamburg, 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.

Type	Temperature	Humidity	Vibration
Snappy CSI 32...	**D**	**B**	**A**
Power Tower PT...	**D**	**B**	**A**
Power Pack PP...	**D**	**B**	**A**
Twinny	**D**	**B**	**A**

Issued at **Hamburg** on **2020-06-10**
This Certificate is valid until **2025-06-09**.
DNV GL local station: **Hamburg**

Approval Engineer: **Maik Gagern**

for **DNV GL**

Arne Schaarmann
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

Multiple-Socket-Outlet-System for reefer containers, with or without monitoring outlets (Snap in technique)

Each CEE-socket outlet: 3 pole + PE, up to max. 500V AC 32A.
Housing, cover, fixing nuts of stainless steel.
Cast brass or plastic flange for socket outlets..
Bayonet cap of plastic or cast brass.
Circuit breaker : PKZM0-32
Ingress protection: IPX6, X7

Snappy: No. 321 to 3212 correspond with -1- to -12- gang sockets CEE 32A
Power tower: PT6 2-6 gang ; PT10 7-10gang
Power Pack : PP 1 - 10
Twinny: 2 sockets CEE 32A

Additional No.: M - monitoring socket outlet

Application/Limitation

The TA was carried out according to DNV GL Class Guideline DNVGL-CG-0339. MSC.1/Circ.1352 should be taken into account, when installing on a vessel, if mandatory by the Administration.

Operating instruction of the manufacturer to be observed

Type Approval documentation

Tests carried out

DNV GL Class Guideline DNVGL-CG-0339, Edition Dec. 2016
IEC 60529:2000

Marking of product

Maker - Type

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