Certificate no.:
TAE00004WZ

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Termination and Joint for Cable

with type designation(s)
PC5-VX04-T, PC5-SX04-T

issued to
Cavotec Specimas S.p.A.
Nova Milanese, MB, Italy

is found to comply with
DNV 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.

Issued at **Høvik** on **2024-08-14**
This Certificate is valid until **2029-08-13**.
DNV local unit: **Italy/Malta CMC**

for **DNV**

Approval Engineer: **Thomas Hartmann**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

High voltage plugs and socket-outlets with three (3) phases, one (1) Protective Earth (PE) and three (3) pilot contacts. Dimensional specification as per Annex I – of IEC 62613-2 (2016)

Technical Data

Technical Data		
Maximum voltage (U_m)	7,2	kV
Rated lightning impulse withstand voltage (U_p)	60	kV
Rated power-frequency withstand voltage (U_d)	20	kV
Rated normal current (I_n)	350	A
Rated short-time withstand current (I_k)	16	kA
Rated duration of short-circuit (t_k)	1	s
Rated peak withstand current (I_p)	40	kA
Rated frequency (f_r)	50/60	Hz
Pilot signal ratings (I_{Pilot})		
- up to 250 V AC	10	A
- up to 300 V DC	1	A
IP Protection	IP66/IP67H	

Application/Limitation

Location Classes:

Temperature:	D
Humidity:	B
Vibration	A
Enclosure	C

According to IEC/IEEE 80005-1:2019+AMD1:2022, Compatibility assessment before shore connection must be performed.

Operating instruction of the manufacturer to be observed.

Type Approval documentation

Tests carried out

Tests according to IEC 62613-1 (2019) and DNV-CG-339 (Aug-2021) dry, damp, cold, dielectric, salt mist, vibration

Marking of product

Acc. IEC 62613-1 subclause 7

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