

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Termination and Joint for Cable

with type designation(s)

**CAE-I Indoor cable terminations for screened 1-core polymeric cables 12kV to 36kV,
CAE-3I Indoor cable terminations for screened 3-core polymeric cables 12kV to 36kV,
CHE-I Indoor cable terminations for screened 1-core polymeric cables 7,2kV to 36kV,
CHE-3I Indoor cable terminations for screened 3-core polymeric cables 7,2kV to 36kV**

Issued to

BEHR BIRCHER CELLPACK BBC MALAYSIA SDN BHD
Gelang Patah,, Johor, Malaysia

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Terminations for Medium Voltage cable 7.2, 12, 17 & 24 kV.

Indoor application for single core and three core.

Products approved by this certificate are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2021-07-26**

This Certificate is valid until **2026-07-25**.

for **DNV**

DNV local station: **Kuala Lumpur Verification**

Approval Engineer: **Ivar Bull**

Marta Alonso Pontes
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.

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

CAE-I Indoor cable terminations for screened 1-core polymeric cables 12kV to 36kV,
CAE-3I Indoor cable terminations for screened 3-core polymeric cables 12kV to 36kV,
Suitable for compression cable lugs.

Type designation and Voltage class [kV]	Number of cores	Length [mm]	Nominal conductor Cross-section [mm ²]	Min Ø over core insulation after removal of the outer conductive layer [mm]
CAE-I 12 kV	1 core	270	95-240	17,3
CAE-I 12 kV	1 core	270	150-400	19,9
CAE-I 12 kV	1 core	270	240-500	23,1
CAE-I 12 kV	1 core	270	300-800	27,3
CAE-I 17 kV	1 core	270	50-185	17,3
CAE-I 17 kV	1 core	270	95-240	19,9
CAE-I 17 kV	1 core	270	150-400	23,1
CAE-I 17 kV	1 core	270	240-630	27,3
CAE-I 24 kV	1 core	270	35-120	17,3
CAE-I 24 kV	1 core	270	70-240	19,9
CAE-I 24 kV	1 core	270	120-400	23,1
CAE-I 24 kV	1 core	270	240-630	27,3
CAE-I 36 kV	1 core	325	16-95	19,9
CAE-I 36 kV	1 core	325	50-240	23,1
CAE-I 36 kV	1 core	325	120-400	27,3
CAE-3I 12 kV	3 core	270	95-240	17,3
CAE-3I 12 kV	3 core	270	150-400	19,9
CAE-3I 17 kV	3 core	270	50-185	17,3
CAE-3I 17 kV	3 core	270	95-240	19,9
CAE-3I 17 kV	3 core	270	150-400	23,1
CAE-3I 24 kV	3 core	270	35-120	17,3
CAE-3I 24 kV	3 core	270	70-240	19,9
CAE-3I 24 kV	3 core	270	120-400	23,1
CAE-3I 36 kV	3 core	325	16-95	19,9
CAE-3I 36 kV	3 core	325	50-240	23,1
CAE-3I 36 kV	3 core	325	120-400	27,3

CHE-I Indoor cable terminations for screened 1-core polymeric cables 7,2kV to 36kV,
CHE-3I Indoor cable terminations for screened 3-core polymeric cables 7,2kV to 36kV
Suitable for compression cable lugs.

Type designation and Voltage class [kV]	Number of cores	Length [mm]	Nominal conductor Cross-section [mm ²]	Min Ø over core insulation after removal of the outer conductive layer [mm]
CHE-I 12 kV	1 core	300	10-25	9,9
CHE-I 12 kV	1 core	300	25-95	12,6
CHE-I 12 kV	1 core	300	95-240	17,3
CHE-I 12 kV	1 core	300	150-400	19,9
CHE-I 12 kV	1 core	300	240-500	23,1
CHE-I 12 kV	1 core	300	400-800	27,3
CHE-I 12 kV	1 core	300	800-1000	36,8

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Type designation and Voltage class [kV]	Number of cores	Length [mm]	Nominal conductor Cross-section [mm ²]	Min Ø over core insulation after removal of the outer conductive layer [mm]
CHE-I 17 kV	1 core	300	10-16	9,9

CHE-I 17 kV	1 core	300	16-50	12,6
CHE-I 17 kV	1 core	300	70-240	17,3
CHE-I 17 kV	1 core	300	120-300	19,9
CHE-I 17 kV	1 core	300	185-400	23,1
CHE-I 17 kV	1 core	300	300-630	27,3
CHE-I 17 kV	1 core	300	630-1000	36,8
CHE-I 24 kV	1 core	300	10-35	12,6
CHE-I 24 kV	1 core	300	25-150	17,3
CHE-I 24 kV	1 core	300	70-240	19,9
CHE-I 24 kV	1 core	300	120-300	23,1
CHE-I 24 kV	1 core	300	240-500	27,3
CHE-I 24 kV	1 core	300	630-1000	36,8
CHE-I 36 kV	1 core	500	35-70	19,9
CHE-I 36 kV	1 core	500	50-150	23,1
CHE-I 36 kV	1 core	500	150-400	27,3
CHE-I 36 kV	1 core	500	500-800	36,8
CHE-3I 12 kV	3 core	300	10-25	9,9
CHE-3I 12 kV	3 core	300	25-95	12,6
CHE-3I 12 kV	3 core	300	95-240	17,3
CHE-3I 12 kV	3 core	300	150-400	19,9
CHE-3I 17 kV	3 core	300	25-50	12,6
CHE-3I 17 kV	3 core	300	70-240	17,3
CHE-3I 17 kV	3 core	300	120-300	19,9
CHE-3I 17 kV	3 core	300	185-400	23,1
CHE-I 24 kV	3 core	300	10-35	12,6
CHE-I 24 kV	3 core	300	25-95	17,3
CHE-I 24 kV	3 core	300	70-240	19,9
CHE-I 24 kV	3 core	300	120-400	23,1
CHE-I 36 kV	3 core	500	35-70	19,9
CHE-I 36 kV	3 core	500	50-150	23,1
CHE-I 36 kV	3 core	5000	150-400	27,3

Application/Limitation

For indoor use.

Installation to be done in accordance with the installation instructions.

Type Approval documentation

Tests carried out

Tested according to CENELEC HD 629.1 S1 1996 and IEC 62502-4

Marking of product

CELLPACK BBC MALAYSIA –Type designation – Batch no.

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.



Job Id: **262.1-035744-1**
Certificate No: **TAE00004AY**

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