



TYPE APPROVAL CERTIFICATE

Certificate no.:
TAE00004ZN
Revision No:
1

This is to certify:

that the **Electrical Equipment**

with type designation(s)

Blue e+ SK 3x84.837; Blue e+ SK 3x85.837, Blue e+ SK 3x86.937; Blue e+ SK 3x87.937

issued to

Rittal GmbH & Co. KG
Herborn, Hessen, Germany

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 **2025-01-13**

This Certificate is valid until **2030-01-12**.

for **DNV**

DNV local unit: **Essen**

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 USD 300 000.

Product description

Wall-mounted enclosure Cooling Unit:

Blue e+ SK 3x84.837,
 Blue e+ SK 3x85.837,
 Blue e+ SK 3x86.937,
 Blue e+ SK 3x87.937

x denominates type of refrigerant (x=1 for R513A, x=4 for R1234yf)

General characteristics Blue e+:		
Rated voltage U_N	230 440	V, 1~ V, 3~
Rated frequency f	50/60	Hz
Operating temperature range of Heat pipe	-20... 45	°C
Setting range	20... 50	°C
Ingress Protection - external air circuit ²⁾	IP24	
Ingress Protection - internal air circuit	IP55	

Blue e+ SK 3184.837		
Rated power P_N ¹⁾	0.7	kW
Cooling power DIN EN 14511 ¹⁾	L35/L35 L35/L50	1 0,67 kW kW

Blue e+ SK 3185.837		
Rated power P_N ¹⁾	0.7	kW
Cooling power DIN EN 14511 ¹⁾	L35/L35 L35/L50	1,6 1,2 kW kW

Blue e+ SK 3186.937		
Rated power P_N ¹⁾	0.73	kW
Cooling power DIN EN 14511 ¹⁾	L35/L35 L35/L50	2,0 1,29 kW kW

Blue e+ SK 3187.937		
Rated power P_N ¹⁾	1,05	kW
Cooling power DIN EN 14511 ¹⁾	L35/L35 L35/L50	2,6 1,7 kW kW

¹⁾ Other cooling media than R513A may affect rated power and cooling power. Consult Rittal technical datasheet for details.

²⁾ See RU-SHIP Pt.4 Ch.8 Sec.10 Table 1, column 5.

Application/Limitation

For installation onboard ships and offshore units. Installation conditions as per manufacture requirements to be observed.

Location Classes:

Temperature:	A
Humidity:	B
Vibration:	A
EMC:	A ¹⁾

¹⁾ Mains choke (Rittal SK 3124.010) to be installed in the supply line to the unit.

Data communication and remote access to the unit is subject to case-by-case approval.

Type Approval documentation

Tests carried out

60335-1 (Ed.5); 60335-2-40 (Ed.5); Applicable tests according to class guideline DNV-CG-0339, August 2021: Vibration, Dry heat, Cold, Damp heat, Inclination test, High voltage, Insulation resistance, EMC

Marking of product

Rittal - Type designation - Main data

Name and place of manufacture

Rittal RCS Cooling Solutions S.r.l.
Via degli Imprenditori, 15
37067 Valeggio sul Mincio (VR)
Italy

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