

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Enclosure for Electrical Equipment**

with type designation(s)

TS8

Issued to

Rittal RGS GmbH & Co. KG
Dietzhöhlztal-Rittershausen, Germany

is found to comply with

Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards**Application :****Modular enclosure system type TS 8 for use onboard ships and mobile offshore units.****Vibration test is carried out with empty enclosures.**

Enclosure protection	Up to IP 55
Vibration class	A (Empty enclosure)

This Certificate is valid until **2018-12-31**.Issued at **Høvik** on **2014-11-19**for **DNV GL**DNV GL local station: **Essen**Approval Engineer: **Andreas Kristoffersen**

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.

Certificate No: **E-13814**
File No: **829.20**
Job Id: **262.1-001054-3**

Product description

Modular enclosure system in steel of type TS 8 with minimum dimensions, 400 x 600 x 400 mm. (W x H x D) and maximum dimensions, 1000 x 2200 x 1000 mm for the single door model and 2100 x 2200 x 1000 for the two door model.

Type designation	Max dimension (W x H x D)
TS 8 (single-door)	1000 x 2200 x 1000
TS 8 (two-door)	2100 x 2200 x 1000

Type approval covers enclosure structure and standard steel doors.

Application/Limitation

The selection of material in the enclosure and IP degree is to be in accordance with the Rules requirements for the actual application.

Type approval covers enclosure structure and standard steel doors.

The vibration test has been carried out on an empty enclosure.

Type Approval documentation

Brochure:

Rittal TS 8 Top Enclosure System,Infinite possibilities, 2000 edition

Table TS8 - 1, rev. 0, dated 2001-02-19

Test reports/ certificates:

TUV Certificate no. B 00 01 12010 115 dated 2000-01-25.

Rittal test report no. 54/99, dated 2000-11-24

Rittal test report no. 69/99, dated 1999-05-03

Rittal test report no. 192/99, dated 2000-05-17

Rittal test report no. 33/00, dated 2000-03-27

EQE International Report no. 230-04-R-01, dated 1999-01-08

EQE International Report no. 230-05-R-01, dated 1999-08-09

Tests carried out

Type tests in accordance with IEC / EN 62208, IP test in accordance with IEC / EN 60529 and vibration test. (All tests on empty enclosures only.)

Marking of product

Rittal, manufacturing place and type number.

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 periodical 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.

Periodical assessment to be performed at least every second year.

END OF CERTIFICATE