

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Multifunction Relay

with type designation(s)
EKIP-UP

Issued to

ABB S.P.A. - ABB Sace Division
Bergamo BG, BG, Italy

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.

DNV GL. LOCATION CLASS

Type	Temperature	Humidity	Vibration	EMC	Enclosure
EKIP-UP	D	A	A	A	Required protection according to DNV GL Rules shall be provided upon installation on board

Issued at **Hamburg** on **2019-04-16**

for **DNV GL**

This Certificate is valid until **2024-02-19**.

DNV GL local station: **Milan**

Approval Engineer: **Didier Girardin**

Joannis Papanuskas
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.



Job Id: **262.1-028681-2**
Certificate No: **TAE00003DS**
Revision No: **2**

Product description

Ekip-UP digital unit for monitoring, Protection and Control System for low voltage plants
Operating in low voltage grids according to following ranges and characteristics:

Operating voltage	Ue [V]	Up to 1000
Operating current	In [A]	From 100 to 6300
Operating frequency	Hz	50 - 60
Protection degree	IP	40

Multifunctionalities according added submodules and Versions:

Ekip-UP Versions	Ordering Codes
EKIP UP (Monitor)	1SDA083359R1
EKIP UP (Protect)	1SDA083360R1
EKIP UP (Protect+)	1SDA083361R1
EKIP UP (Control)	1SDA083362R1
EKIP UP (Control+)	1SDA083363R1

Optional Accessories / Type	Ordering Codes
Ekip supply module 24 -48V	1SDA074173R1
Ekip measuring module	1SDA074184R1
Ekip 2K-1 signalling module	1SDA074167R1
Ekip 4K signalling module	1SDA074170R1
Ekip Synchrocheck	1SDA074183R1
Ekip COM Modbus RS-485	1SDA074150R1
Ekip COM R Modbus RS-485	1SDA074157R1
External AC/DC p. s. module CP-D24/0.42	1SVR427041R0000
Ekip COM Modbus TCP	1SDA074151R1 to 1SDA074163R1
CS 100-2000A 3P type A	1SDA083368R1
CS 100-2000A 4P type A	1SDA083369R1
CS 2000-4000A 3P type A	1SDA083370R1
CS 2000-4000A 4P type A	1SDA083371R1
CS 100-400A 3P type B	1SDA083364R1
CS 100-400A 4P type B	1SDA083365R1
CS 400-1600 3P type B	1SDA083366R1
CS 400-1600A 4P type B	1SDA083367R1
CS 400-2500 3P type B shaped	1SDA085561R1
CS 400-2500 4P type B shaped	1SDA085562R1
Open CS 3P type C 80	1SDA085566R1
Open CS 4P type C 80	1SDA085564R1
Open CS 3P type C 120	1SDA083372R1
Open CS 4P type C 120	1SDA083373R1
Open CS 3P type C 200	1SDA085565R1
Open CS 4P type C 200	1SDA085563R1
Open CS 3P type C 290	1SDA107696R1
Open CS 4P type C 290	1SDA107695R1

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Application/Limitation

Functionalities according submodules and versions listed under Product description are to be documented and approved by DNV GL for each specific installation on board

Type Approval documentation

Hidden

Test Reports: TR 22663, TR 15649, TR15415/TR15530, TR 15413, 326919-1TRFEMC/TR 22549, TR 16267/TR 16418, TR 15649 (IEC 60255-21-1), 326919-1TRFEMC/TR 22549 (IEC 60255-26), TR15415/TR15530 (IEC 60255-27), TR 22790, TR LBRP 17609/00 Rev. 0

ABB Technical specification:

1SDH002003A1002-A - Ekip UP manual

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016
IEC 60255-21-1, IEC 60255-26, IEC 60255-27

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings

Place of manufacture

ABB SpA – ABB Sace Division
Via Enrico Fermi 14 – 03100 Frosinone (Italy)

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the 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