

TYPE APPROVAL CERTIFICATE

This is to certify:**That the DC Power Supply**

with type designation(s)

CP-C.1-24/5.0, CP-C.1-24/10.0, CP-C.1-24/20.0**CP-C.1-24/5.0-C, CP-C.1-24/10.0-C, CP-C.1-24/20.0-C**

Issued to

ABB Stotz-Kontakt GmbH
HEIDELBERG, Germany

is found to comply with

DNV GL rules for classification – Ships**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****Location classes:**

Temperature	B
Humidity	B
Vibration	A
EMC	A
Enclosure	A

This Certificate is valid until **2022-02-26**.Issued at **Hamburg** on **2017-02-27**DNV GL local station: **Augsburg**for **DNV GL**Approval Engineer: **Dariusz Lesniewski**

Duy Nam Le
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.

Product description

Primary switched mode power supply.

For all models:

Rated output voltage: 24 V DC

Adjustment range of the output voltage: 22.5-28.5 V DC

Mounting: DIN Rail (EN 60715)

Degree of protection: IP20

DC OK – signaling output (relay)

Power reserve signaling output (transistor)

Model related:	CP-C.1-24/5.0	CP-C.1-24/10.0	CP-C.1-24/20.0
	CP-C.1-24/5.0-C	CP-C.1-24/10.0-C	CP-C.1-24/20.0-C
Rated input voltage AC (50-60 Hz)	100-240 V	100-240 V	100-240 V
Rated input voltage DC (see limitation)	90-300 V	90-300 V	90-250 V
Rated output current ($\leq 60^{\circ}\text{C}$)	5.0 A	10 A	20 A
Derating of the output current ($60^{\circ}\text{C} < T_a \leq 70^{\circ}\text{C}$)	2.5 %/ $^{\circ}\text{C}$	2.5 %/ $^{\circ}\text{C}$	2.5 %/ $^{\circ}\text{C}$
Reserve output current ($\leq 40^{\circ}\text{C}$)	7.6 A	15.0 A	26.0 A
Rated output power	120 W	240 W	480 W

*(-C): with coated PCB

Application/Limitation

DC supply is only allowed on stabilized, controlled secondary circuits.

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Type Approval documentation

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

Marking of product

The products to be marked with:

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

Place of manufacture

Dongguan Teamwise Electronic Co. LTD.

1 Ao Bei Dao, Xiang Xin Xi Lu, Yantian, Fenggang, Dongguan, Guangdong 523701 CHINA

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:

Job Id:
Certificate No: **TAA00000YB**

- 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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE