

## Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

<b>Manufacturer</b>	<b>Siemens AG</b>
<b>Address</b>	Werner-von-Siemens-Strasse 48, Amberg, 92220, Germany
<b>Type</b>	Relays - Electronic Monitors
<b>Description</b>	Thermistor Motor Protection Relay Refer to the Appendix for further details.
<b>Trade Name</b>	3RN2
<b>Application</b>	Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2 and ENV3 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – July,2015.
<b>Specified Standard</b>	IEC 60947-5-1: Edition 4.0 (2016-05) IEC 60947-8: Edition 1.2 (2011-10) IACS unified requirements E10 (Rev.8 Feb 2021)
<b>Ratings</b>	Rated supply voltage, $U_e$ : 24VAC/DC 24-240VAC/DC Rated Output: Relay: $I_{th}=5A$ $I_{e(AC-15)}= 3A/24V, 3A/125V, 3A/250V$ $I_{e(AC-13)}= 1A/24V, 0.2A/125V, 0.1A/250V$ Rated insulation voltage, $U_i$ : 300V

**Thorsten Wolff**

Senior Specialist to Lloyd's Register EMEA  
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

---

## Type Approval Certificate

Rated impulse withstand voltage:  $U_{imp}$ : 4kV  
Utilization categories: AC-15,DC-13  
Operational temperature: -25°C ... +60°C

**Additional Tests** Low temperature (-25°C/16h)

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

**Previous Version:** 17/20074

The Design Appraisal Document HPC1662203-22/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

## Appendix

### TYPES

3RN2	0	0	0	-	1	A	W	2	0
I	II	III	IV		V	VI	VII	VIII	IX

I. Basic type: 3RN2

II. Type of Sensor  
 0 - PTC, Mark A

III. Number of sensing elements and design  
 0 - one sensing element, compact unit  
 1 - one sensing element, standard unit  
 2 - two sensing elements, warning, switching off

IV. Applications  
 0 - auto reset  
 1 - manual reset, integrated evaluation of short circuit and open circuit detection  
 2 - auto-, manual - or remote operated reset with integrated evaluation of short circuit and open circuit detection, non-resetting on voltage fail  
 3 - auto-, manual - or remote operated reset with integrated evaluation of short circuit and open circuit detection, non-resetting on voltage fail, protective separation

V. Terminals  
 -1 - screw terminals  
 -2 - push-in terminals

VI. Auxiliary contact assembly  
 A - one changeover contact  
 B - two changeover contact  
 C - one NO and one NC contact  
 D - one NO and one changeover contact  
 G - two changeover contacts, gold plated

VII. Control voltage  
 A - 24V  
 W - 24V up to 240V

VIII. Voltage  
 3 - 50/60 Hz – ac/dc  
 4 - dc

---

IX. Output characteristic  
0 - monostable contact  
1 - bistable contact  
8 - manufacturers type identification

Accessory:  
3ZY1311-0AA0 - Push-in lug  
3ZY1440-1AA0 - Coding pin

