



Marine & Offshore

Certificate number: 73811/A0 BV

File number: MPA2204041

Product code: 2658I

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**SELCO**

Roskilde - DENMARK

*for the type of product*

**GENERATOR CONTROL AND PROTECTION UNITS**

T2000 , T2100 , T2200 , T2300 , T2400 , T2500 , T2600 , T2700 , T2800 ,  
T3000, T3100, & T3200 Relays

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships

EC: 31/41

*This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 13 May 2029**

**For Bureau Veritas Marine & Offshore,**

At BV FREDERICIA, on 13 May 2024,

Jesper JENSEN

***This certificate was created electronically and is valid without signature***



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION :

#### 1.1 Model Type :

T2000 - Reverse Power Relay ; T2100 - Excitation loss Relay ; T2200 - Overcurrent Relay ; T2300 - Short Circuit Relay ; T2400 - Dual Overcurrent Relay ; T2500 - Overcurrent Short Circuit Relay ; T2600 - Dual Current Relay ; T2700 - Power Relay ; T2800 - Over Current - Earth Fault Relay ; T3000 - Frequency Relay ; T3100 - Voltage Relay ; T3200 - Double Insulation Monitoring Relay.

#### 1.2 Technical Specifications :

Model Type	Contact Rating	Frequency Range	Delay	Trip Level	Operating Temperature	
T2000	AC : 400V , 5A , 1250VA DC : 150V , 5A , 120W	45 - 400Hz	2 - 20 sec	2 - 20% In	-20°C to +70°C	
T2100				0.5 - 1.5In		
T2200	AC : 400V , 5A , 2000VA DC : 150V , 5A , 150W	45 - 400 Hz	3 - 30 sec	0.5 - 1.4In		
T2300			0.1 - 1.0 sec	1.0 - 4.0In		
T2400			3 - 30 sec	0.5 - 1.4In		
T2500				0.5 - 1.4In - OC 1.0 - 4.0In - SC		
T2600	AC : 400V , 8A , 2000VA DC : 35V , 8A , 150W	40 - 65Hz	3 - 30 sec	30 - 120% * 20 - 80% **		
T2700	AC : 400V , 5A , 1250VA DC : 150V , 5A , 120W	45 - 400Hz	2 - 20 sec	15 - 150% n		
T2800	AC : 400V , 5A , 2000VA DC : 150V , 5A , 150W			0.1 - 1.0 sec or 1.0 - 10 sec		0.02 - 0.2In or 0.2 - 2In
T3000	AC : 250V , 2A , 250VA DC : 60V , 2A , 100W			40 - 70Hz		1 - 10 sec
T3100		40 - 400Hz	100 - 120 % - OV 80 - 100 % - UN			
T3200	AC : 400V , 2A , 250VA DC : 110V , 2A , 100W	45 - 65Hz	0 - 5MΩ			

OC - OverCurrent

SC - Short circuit

OV - Over voltage

UN - Under Voltage

\* - Start Level

\*\* - Stop Level

### 2. DOCUMENTS AND DRAWINGS :

- Datasheet of T2000 Reverse Power Relay, dated 01 / 2017
- Datasheet of T2100 Excitation Loss Relay, dated 01 / 2017
- Datasheet of T2200 Overcurrent Relay, dated 01 / 2017
- Datasheet of T2300 Short Circuit Relay, dated 01 / 2017
- Datasheet of T2400 Dual Overcurrent Relay, dated 01 / 2017
- Datasheet of T2500 Overcurrent and Short Circuit Relay, dated 01 / 2017
- Datasheet of T2600 Dual Current Relay, dated 01 / 2017
- Datasheet of T2700 Power Relay, dated 01 / 2017
- Datasheet of T2800 Overcurrent or Earth Fault Relay, dated 01 / 2017
- Datasheet of T3000 Frequency Relay, dated 01 / 2017
- Datasheet of T3100 Voltage Relay, dated 01 / 2017

- Datasheet of T3200 Insulation Monitoring Relay, dated 01 / 2017
- SELCO T-Line - Product Family comparison v2 dated 12-04-2024

### 3. TEST REPORTS :

- Type Test Report No. DANAK-1911045, dated 10 September 2010.
- Type Test Report No. DANAK - 19/13483, dated 08 November 2013.
- Supplementary Test Report No. P20-0110-1 , dated 2020-10-27
- Supplementary Test Report No. P20-0110-2 , dated 2020-10-27
- Supplementary Test Report No. P23-0077-2 , dated 2023-05-23
- Supplementary Test Report No. P23-0077-1 , dated 2023-05-23
- Test Report No. 09-1255 dated 22 Oct 2009

### 4. APPLICATION / LIMITATION :



- 4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships.
- 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3- BUREAU VERITAS Environmental Category, **EC Code : 31/41**
- 4.4 - The equipment fulfills the EMC requirements for an installation on the General Power Distribution Zone
- 4.5 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev 8

### 5. PRODUCTION SURVEY REQUIREMENTS :

- 5.1 - The above types of product are to be supplied by **SELCO** in compliance with the type and the requirements described in this certificate.
- 5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.
- 5.3 - BV product certificate is required.
- 5.4 - **SELCO** has declared to Bureau Veritas the following production site:

**SELCO**  
**Betonvej 11**  
**DK-4000 Roskilde**  
**DENMARK**

### 6. MARKING OF PRODUCT :

- Maker's name or trade mark.
- Serial number of the units.
- Equipment type number or model identification under which it was type-tested.
- Ex marking, as relevant.
-  or  conformity marking, as relevant

### 7. OTHERS :

It is **SELCO's** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

\*\*\* END OF CERTIFICATE \*\*\*