



### ***Confirmation of Product Type Approval***

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product. This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 17-DC T-2018. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And, a Product Design Assessment (PDA) valid until subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that, whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

**Product Name:** Bridge Navigational Watch Alarm System (BNWAS)  
**Model Name(s):** TEKWAS-3000, BZ-300, TR-300

**Presented to:**

TEKSEA SISTEMAS DE ENERGIA LTDA-ME  
RUA D.R. ARTHUR BALSINI, N 51, BAIRRO VELHA CEP 89036-240  
SANTA CATARINA  
Brazil

<b>Intended Service:</b>	Bridge Navigation Watch and Alarm System (BNWAS) to monitor the awareness of the officer of the Watch (OOW) and automatically alerts the Master or another qualified OOW if for any reason the OOW becomes incapable of performing the OOW duties.
<b>Description:</b>	TEKWAS-3000 Bridge Watch Alarm Main Unit with interfaces to vessel heading/track control/autopilot and VDR systems. Main Power 24 VDC, Back-up power 24 VDC and Officer Selector Unit; BZ-300 Remote Visual and Audible Alarm and Duty Call Local Reset; TR-300 Bridge Watch Timer Rest Main Unit.
<b>Tier:</b>	3
<b>Ratings:</b>	Main and Alternative Power Supply: 18 ~36 VDC; Current Consumption : 50 mA / 24 VDC
<b>Service Restrictions:</b>	Unit Certification is not required for this product.
<b>Comments:</b>	Not Applicable
<b>Notes / Documentation:</b>	
<b>Term of Validity:</b>	This Product Design Assessment (PDA) Certificate 13-RJ1057050-PDA, dated 18/Oct/2013 remains valid until 17/Oct/2018 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or