



***This Confirmation of Product Type Approval is valid only as of
18/NOV/2008 for the below listed product.***

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This is to certify that, pursuant to the Rules of American Bureau of Shipping (ABS), on 18/NOV/2008 the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) and a valid Product Design Assessment (PDA) for the below listed product, entitling the product to type approval.

The validity of the Manufacturing Assessment is dependent on satisfactory audits as required by the Rules.

The Product Design Assessment is valid only 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. For Date of ABS Rules used for evaluation; Please refer to the ABS Rules below. 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 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.

ABB Oy, Drives

**Model Name(s): ACS800-01 +C132, ACS800-U1 +C132, and ACS800-04 +C132
Frames R2-R6**

Presented to:

ABB Oy, Drives
P.O. Box 184
Hiomotie 13
Helsinki
FIN-00381
Finland

Intended Service:

Electrical drives for Ships and Offshore Units.

Description:

The ACS800-01 +C132 drives are suitable for controlling the speed and torque of induction motors up to 132 kW at 400V or 160 kW at 500V or 690V. The ACS800-U1 +C132 version is similar, except that a cable gland box suitable for use with U.S. standard cables is placed on the lower part of the unit for power cables. The above are suitable for wall-mounting and are either in IP 21 or IP 55 enclosures. The ACS800-04+C132 frames R2-R6 drive modules are based on ACS800-01 hardware (but without top cover and cable connection box) for installation into a cabinet. The ACS800-04 are suitable for motors up to 132 kW at 400 V or 160 kW at 500 V or 690 V. The modules can be supplied with an optional flange, which separates the air flow to control part and cooling heat sink, and allows the location of the heat sink outside the cabinet enclosure. This optional flange mounting makes it possible to use outside air for cooling the heat sink, and filtered air inside the cabinet for cooling the control part. Protection class IP20 or UL open type.

Ratings:

Nominal 3-phase supply : range 208-690 V. For full ratings, refer to attachment ACS800-01 and ACS800-04 ratings table at 45 degrees ambient temperature to the PDA certificate.

Service Restrictions:

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the

specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments: For marine applications vibration dampers are to be used as specified by manufacturer. Vibration dampers are however not required for ACS800-04+C132 module installation into a cabinet.

Notes / Documentation: 3AFE 6889979, 3AFE68942748, T08-560A-EMC, VTT-06037-07, 3AFE68991668, 3AFE68998905, T08-540A-EMC, VTT-S-01192-07.

Term of Validity: This Design Assessment Certificate number 04-LD417612/3-PDA, dated 24/Sep/2008 will expire on 23/Sep/2013 or at an earlier date should there be alterations to the product's design or changes to the referenced ABS Rules and other specifications, which affect the product. Product use on or after 1 January 2009, will be subject to compliance with the ABS Rules or specifications in effect when the vessel, MODU or facility is contracted. The product's acceptability on board ABS-classed vessels or facilities is defined in the service restrictions of this certificate.

ABS Rules: 2008 Steel Vessel Rules 1-1-4/7.7, 4-8-3/7.5, and 4-9-7/Table 9 and Table 10

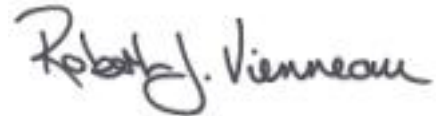
National Standards:

International Standards: IEC60092, IEC61000, IEC60068, IEC60947, IEC60529, IEC60533, IEC61800 (relevant sections)

Government Authority:

EUMED:

Others:



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.