

**POTVRDA O TIPNOM ODOBRENJU**
TYPE APPROVAL CERTIFICATE**Br /No** **03-001555/031257**

Potvrđuje se da je ovaj proizvod, u skladu s Pravilima za klasifikaciju brodova, Dio 1. - Opći propisi, Odjeljak 3. - Tipno odobrenje proizvoda, odobren za ugradnju na brodove i postrojenja pod nadzorom Hrvatskog registra brodova.

This is to certify that this product, on the basis of the Rules for the classification of ships, Part 1 - General requirements, Chapter 3 - Type approval of products, is approved for use on board ships and installations under supervision of the Croatian Register of Shipping.

TIP I OPIS PROIZVODA:**TYPE AND DESCRIPTION OF PRODUCT:**

Engine Control System and Engine Sensors

EDC17CV41-4.60-M0

PROIZVOĐAČ:
MANUFACTURER:**Robert Bosch GmbH**Wernerstrasse 51
70469 Stuttgart-Feuerbach

GERMANY

PROIZVOD UDOVOLJAVA SLIJEDEĆIM PRAVILIMA/PROPISIMA:
THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:

Hrvatski registar brodova: **Pravila za klasifikaciju brodova,**
 Dio 9. – Strojevi, Dio 13. – Automatizacija

Croatian Register of Shipping: *Rules for the classification of ships,*
 Part 9. – Machinery, Part 13. – Automation

IACS UR E10

DETALJI O PROIZVODU I UVJETIMA CERTIFIKACIJE DANI SU NA POLEDINI.
FURTHER DETAILS OF THE PRODUCT AND CONDITIONS FOR CERTIFICATION ARE GIVEN OVERLEAF.**ODOBRENJE VRIJEDI DO:** **2020-10-04**
APPROVAL IS VALID UNTIL:**Mjesto i datum:** Split, 2016-10-04
Place and date:**M.P.** _____
(Seal)

Marinko Popović, dipl.ing.

NAPOMENA: Ova potvrda nije valjana ako se proizvod ili način njegove proizvodnje promijenio u odnosu na tipno ispitani proizvod. Proizvođač treba obavijestiti Hrvatski registar brodova o bilo kojoj izmjeni na proizvodu kako bi ishodio valjanu potvrdu.

NOTE: *This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Croatian Register of Shipping of any modification or changes to the product in order to obtain a valid certificate.*

PODROBNJI OPIS PROIZVODA:
DETAILED PRODUCT DESCRIPTION:

EDC17CV41-4.60-M0 Engine Control Unit is controlling the fuel injectors and the high pressure fuel system on 4 stroke Diesel Engines with Common Rail system up to 16 cylinders. CAN-BUS communication with the ships control system provide speed commands as well as submission of diagnostics information.

This certificate covers the following components:

Item	Part #	Description
EDC17CV41-4.60-M0	Customer specific	Engine Control Unit
PG3.8	0281 006 448	CAM-Speed
DG6S	0281 006 449	Crank-Speed
RPS4-18	0281 006 433	High Pressure
TF-W	0281 006 450	Temperature
DS-M1	0281 006 434	Medium Pressure
DS-S3-TF	0281 006 435	Pressure & Temperature
DS-HD-Kv4.2-TF	0281 006 650	Temperature

PODRUČJE PRIMJENE / POSEBNI GRANIČNI UVJETI:
APPLICATION / LIMITATIONS:

These systems are to be used as engine control and monitoring system for multi engine propulsion plants only. In case with single engine propulsion, system is to be duplicated or added with separate different safety system. Alarm and safety systems are not included.

Correct configuration and set up for each delivery to be tested during commissioning, after installation on board, under the supervision of a Society Surveyor.

Approval also valid for ships to be granted with class notations: AUT 1, AUT 2 and AUT 3.

DOKUMENTACIJA ZA TIPNO ODOBRENJE:
TYPE APPROVAL DOCUMENTATION:

Item	AGZ Drawing	Technical Customer Information (TCI)
EDC17CV41-4.60-M0	0281A01091 - 01	0281 Y03 8ZD, 02
PG3.8	0232A00537 - 760	0232K00051-000
DG6S	0261A22317 - 01	0261K01490 – 000, 01
RPS4-18	0261A18565M - 04	0261K0349 – 000, 02
TF-W	0280A04317 - 01	0261K02426 – 000, 01
DS-M1	0261A16609 - 03	0261K01468 – 000, 01
DS-S3-TF	0261A20346 - 01	0261K01409 – 000, 01
DS-HD-Kv4.2-TF	0261A27287 - 01	0261K01702 – 000, 01

Test Reports – Phoenix Testlab: U141249E1 dated 2014-11-10 and E141249E1 dated 2015-01-28.

Test Reports – Phoenix Testlab: S120165E1 dated 2012-05-18 and S120165E2 dated 2012-05-18.

OZNAČAVANJE PROIZVODA:
MARKING OF PRODUCT:

In accordance with IEC60945 – Marking and identification (The Manufacturer and Type Designation of the product, serial number, date of manufacture, supply voltage, other particulars and software version...).

UVJETI ZA CERTIFIKACIJU:
CONDITIONS FOR CERTIFICATION:

All changes in components and software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to CRS for evaluation and approval.

Major changes in the software are to be approved before being installed.