

**POTVRDA O TIPNOM ODOBRENJU**
TYPE APPROVAL CERTIFICATE**Br /No** **03-001457/031151**

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:***Cummins Generator Technologies**

Barnack Road
STAMFORD
Lincolnshire PE9 2NB

Velika Britanija – United Kingdom

Generators Type

UCM 224, 274; UCDM 274K & HCM 434, 534, 634

Brushless A.C. generators, 3 phases, 4 or 6 poles, single or 2 bearings

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

Hrvatski registar brodova: **Pravila za klasifikaciju brodova, Dio 12. – Električna oprema**
Croatian Register of Shipping: *Rules for the classification of ships, Part 12. – Electrical Equipment*

IACS UR E13**DETALJI O PROIZVODU I UVJETIMA CERTIFIKACIJE DANI SU NA POLEĐINI.***FURTHER DETAILS OF THE PRODUCT AND CONDITIONS FOR CERTIFICATION ARE GIVEN OVERLEAF.***ODOBRENJE VRIJEDI DO: 2019-04-02***APPROVAL IS VALID UNTIL:*

Mjesto i datum: Split, 2015-04-02
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:

A.C. generatora UCM i HCM, navedeni u donjoj tablici su 3 fazni s 4 ili 6 polova te s jednim ili 2 ležaja, bez četkica. Uzbuda preko AVR-a. Također je moguća ugradnja i permanentnog magneta.

A.C. generators UCM and HCM, listed in the table below, are 3 phases, 4 or 6 poles, single or 2 bearings, brushless. AVR excitation. A Permanent Magnet Generator (PMG) is available as an option.

Stupanj zaštite / Protection index:	IP 23
Izolacija namotaja / Winding insulation:	Class H
Granice porasta temperature / Temperature rise limits:	Class H, Class F and Class B
Faktor snage / Power factor:	0.8
Frekvencija / Frequency:	50/60 Hz
Broj okretaja /RPM:	1500/1800 min⁻¹
Napon / Voltage:	≤ 690 V

Primjerak tablice najviše snage za kontinuirani rad na temperaturi okoliša od 50°C i klasi temperature H:
Sample table with maximum power continuous rating for 50°C ambient temperature and temperature class H:

Type	50 Hz / 415 V			60 Hz / 480 V		
	kVA	kW (out)	kW (in)	kVA	kW (out)	kW (in)
UC.M224C	38.0	30.4	34.9	46.5	37.2	41.4
UC.M224D	44.0	35.2	39.4	56.3	45.0	50.7
UC.M224E	52.3	41.8	46.5	66.0	52.8	54.7
UC.M224F	63.3	50.6	55.5	80.0	64.0	65.9
UC.M224G	71.5	57.2	62.5	92.0	73.6	74.4
UC.M274C	81.5	65.2	74.3	108.8	87.0	88.3
UC.M274D	97.0	77.6	83.6	125.0	100.0	104.9
UC.M274E	120.0	96.0	106.6	144.0	115.2	123.9
UC.M274F	140.0	112.0	127.5	168.8	135.0	146.9
UC.M274G	159.0	127.2	140.0	205.7	164.0	168.4
UC.M274H	175.0	140.0	158.9	225.0	180.0	198.2
UCD.M274K	213.0	170.4	182.7	285.0	228.0	244.6
HC.M434C	215.0	172.0	187.8	270.0	216.0	230.9
HC.M434D	240.0	192.0	210.7	330.0	264.0	282.6
HC.M434E	295.0	236.0	252.1	370.0	296.0	315.9
HC.M434F	340.0	272.0	280.5	425.0	340.0	363.2
HC.M534C	390.0	312.0	330.1	520.0	416.0	440.6
HC.M534D	435.0	348.0	366.7	570.0	456.0	481.5
HC.M534E	530.0	424.0	445.4	650.0	520.0	547.4
HC.M534F	600.0	480.0	505.6	725.0	580.0	609.2
HC.M634G	675.0	540.0	570.2	875.0	700.0	740.7
HC.M634H	805.0	644.0	676.5	994.0	795.0	833.0
HC.M634J	870.0	696.0	730.3	1150.0	920.0	956.4

PODRUČJE PRIMJENE / POSEBNI GRANIČNI UVJETI:
APPLICATION / LIMITATIONS:

Da bi se realizirao stupanj zaštite IP23 potrebno je postaviti zaštitu na ventilacijskim otvorima koji sprečavaju prodor vode. Ukoliko se postavi i zračni filter na usisu zraka za hlađenje predviđenu snagu je potrebno umanjiti za 5%.

Za klasu porasta temperature F, nominalne snage iz tablice umanjiti za faktor 0,916.

Za klasu porasta temperature B, nominalne snage iz tablice umanjiti za faktor 0,797.

In order to comply with IP23 protection index, air outlets are to be fitted with a louvers. If air inlet filter is fitted the standard power rating is to be reduced by 5%.

For Class F temperature rises limit, table rating is to be multiply by 0,916.

For Class B temperature rises limit, table rating is to be multiply by 0,797.

DOKUMENTACIJA ZA TIPNO ODOBRENJE:
TYPE APPROVAL DOCUMENTATION:

STAMFORD UC Alternators – Installation, Service and Maintenance Manual – A040J848,

STAMFORD HC Alternators – Installation, Service and Maintenance Manual – A040J849,

STAMFORD UCM224C – Winding 311, Technical Data Sheet,

STAMFORD UCDM274K – Technical Data Sheet,

Technical Centre Report – REF/TR01 rev.04, Marine Society Type Appr. Test UCDM274K1 205kVA,

Technical Centre Report – REF/TR01 rev.04, Marine Society Type Appr. Test UCDM274K1 285kVA,

Technical Centre Report – REF/TR01 rev.08, Class “H” Temperature Rise Test HCM634G1 875kVA,

AC Generator Routine Test Certificate – REF/TR02 Rev.04, Type HCM534E2 dated 2015.01-23,

Stamford CRS witness Test dated 2015-03-12 : Insulation resistance, Winding resistance, High voltage,

Voltage regulation, Excitation voltage, Overload, Overspeed and Temperature at full load.

OZNAČAVANJE PROIZVODA:
MARKING OF PRODUCT:

Ime proizvođača, serijski broj, tip proizvoda, broj faza, nominalna snaga, nominalna struja, radni napon, frekvencija, IP zaštita, termalna klasa te najviša temperatura zraka u okolišu.

Manufacturer’s name, serial number, product type, number of phases, rated power, rated current, rated voltage, frequency, IP protection index, thermal class and maximum ambient air temperature.

UVJETI ZA CERTIFIKACIJU:
CONDITIONS FOR CERTIFICATION:

Registar pridržava pravo na mogući test provjere kod proizvođača u bilo koje vrijeme.

Proizvođač je odgovoran da dobavljača upozori na sve uvjete korištenja i održavanja generatora.

Society reserves the right to require check test at makers facility at any time.

Maker is responsible to inform purchaser on proper methods of use and generators maintenance.

- END OF CERTIFICATE -

Raščlana

Zamjenjuje potvrdu

12.01.01

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