Certificate No: LR25333698TA
Issue Date: 29/10/2025
Expiry Date: 28/10/2030

# Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

| | |
|---|---|
| **Manufacturer** | **Danfoss Drives AS** |
| **Address** | Ulsnæs 1, Gråsten, 6300, Denmark |
| **Place of Production** | Aucom Electronics Limited<br>123 Wrights Road, Addington, Christchurch, New Zealand |
| **Type** | Soft Starters |
| **Description** | MCD200 series soft starters for electric motors<br>MCD 20w-xxx-Ty-CVz<br>Where:-<br>W=Designates the features of the starter<br>1=without motor protection<br>2=with motor protection (overload, phase loss, excess start time, etc.)<br>xxx=designates the nominal motor rating;<br>007 kW to 110kW<br>Y=designates the maximum voltage rating;<br>6=575V a.c.<br>Z=designates the control supply voltage<br>3=110 to 240V a.c. & 380 to 440V a.c.<br>1=24V a.c. or d.c. |
| **Trade Name** | MCD200 |
| **Application** | Soft starter for three phase electric motors for Marine, offshore and industrial applications for use in environmental categories ENV2 in the “Bridge and Deck |

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**Ping Yuan Qi**

Electrical & Control - Senior Specialist to
Lloyd's Register Singapore Pte Ltd
A member of the Lloyd's Register group

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Zone" as defined in LR Type Approval System Test Specification No. 1 1-2002 where the Test Specification is satisfactory for the intended operation.

**Specified Standard**

Identical with CSX soft starters for electric motors in LR type approval certificate No. 04/10097(E2) issued to AuCom Electronics Limited. Correspondence between CSX series and MCD200 series: "Description of product" 720 04051-00A MCD200 Lloyd's Description.doc.

**Ratings**

| Type | Motor kW | Operational current(A) |
|---|---|---|
| 007 | 007 | 18 |
| 015 | 015 | 34 |
| 018 | 018 | 42 |
| 022 | 022 | 48 |
| 030 | 030 | 60 |
| 037 | 037 | 75 |
| 045 | 045 | 85 |
| 055 | 055 | 100 |
| 075 | 075 | 140 |
| 090 | 090 | 170 |
| 0110 | 110 | 200 |

Operational voltage (V): T6=200-575
Remarks: control supply: Freq.=45-66 Hz;
Volt.: CV3=11-240 V a.c.
380-440 V a.c.
CV1=24 V a.c./d.c.

**Additional Tests**

Low Temperature Test at -10°
Dry heat test at 60°C

**Other Conditions**

1. The certificate attests to the hardware's suitability for the environmental categories stated.
2. Suitability of the software and system configurations is subject to a separate plan appraisal according to Lloyd's Register Rules and Regulations when placed on Lloyd's Register classed vessels.

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# Type Approval Certificate

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register Singapore Pte Ltd of any modification or changes to the equipment in order to obtain a valid Certificate.

**Previous Version:** LR2037188TA

The Design Appraisal Document LR25333698TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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