



Lloyd's  
Register

## Type Approval Certificate Extension

This is to certify that Certificate No. 05/10059(E1) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

<b>PRODUCER</b>	Danfoss Drives A/C DK-6300, Graasten, Denmark
<b>PLACE OF PRODUCTION</b>	AuCom Electronics Limited 123 Wrights Road, Addington, Christchurch, 8440 New Zealand
<b>DESCRIPTION</b>	MCD200 Series Soft Starters for Electric Motors
<b>TYPE</b>	MCD 20w - xxx - Ty - CVz Where:- w=Designates the Features of the Starter; 1 =Without Motor Protection 2=With Motor Protection (Overload, Phase Loss, Excess Start Time, etc.) xxx=Designates the Nominal Motor Rating; 007 kW to 110 kW y=Designates the Maximum Voltage Rating; 6=575 V a.c. z=Designates the Control Supply Voltage; 3=110 to 240 V a.c. & 380 to 440 V a.c. 1=24V a.c. or d.c.
<b>APPLICATION</b>	Soft starter for three phase electric motors for Marine, Offshore and Industrial applications for use in environmental categories ENV2 in "Bridge and Deck Zone" as defined in LR Type Approval System Test Specification No. 1-2002 where the Test Specification is satisfactory for the intended operation.
<b>ADDITIONAL TEST</b>	- Low temperature test at -10°C - Dry heat test at 60°C
<b>Certificate No.</b>	05/10059(E2)
<b>Issue Date</b>	27 October 2015
<b>Expiry Date</b>	26 October 2020
<b>Sheet</b>	1 of 2

S. Fujii  
Yokohama Technical Support Office  
Lloyd's Register Group Limited

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**DESIGN CODE  
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 Lloyds Description.doc.

**RATINGS**

Type	Motor			Remark
	Operational Voltage (V)	kW	Operational Current (A)	
- 007	T6=200-575	007	18	Control Supply: Freq.=45-66Hz Volt Volt. CV3=110-240 Va.c. 380-440 Va.c. CV1=24Va.c./d.c.
- 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	
- 110		110	200	

**OTHER CONDITIONS**

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

*"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 Group Limited of any modification or changes to the equipment in order to obtain a valid certificate."*

*The attached Design Appraisal Document No. 05/10059(E2) and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

All other details remain as the previous Certificate No. 05/10059(E1) to which this extension should be attached.

**Certificate No.** 05/10059(E2)  
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