



Germanischer Lloyd

Type Approval Certificate

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

Certificate No. **99 194 - 96 HH**

Company **ABB Oy
Motors
Strömbergin Puistotie 5 A
65320 Vaasa, FINLAND**

Product Description **Induction motors**

Type **M2CA 280 up to M2CA 400
Steel motors**

Environmental Category **H**

Technical Data /
Range of Application **Rated voltage : 220 V up to 690 V
Rated power : S1 12 kW up to 710 kW
Synchronous speed : 500 1/min up to 3600 1/min
Rated frequency : 50 Hz, 60 Hz
Ambient temperature : 45° C
Duty type : S1
S2-30 min, P = appr. 1.3 ... 1.4 x PN S1
S6-40%, P = appr. 1.4 ... 1.5 x PN S1
Insulation class : F
Degree of protection : IP 55
No. of poles : 2, 4, 6, 8, 10, 12, 2/4, 4/6, 4/8, 6/8
Spec. model : For marine applications / environments**

Test Standard **IEC 60034-1, 1996
Germanischer Lloyd Regulations for the Performance of Type Tests, Part 4**

Documents **Drawings, descriptions and technical data
Catalogue: BU/M2CA GB 99-05
Test reports dated 30.09.96, 01.10.96, 02.10.96**

Remarks **None**

Valid until **2011-10-15**

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Type Approval Symbol



File No. I.G.03

Hamburg, 2007-07-19

Germanischer Lloyd

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This certificate is issued on the basis of "Guidelines for the Performance of Type Approvals Part 1, Procedure".