



DESIGN APPROVAL CERTIFICATE

Certificate No. : MIL05867-EL001 **Initial Approval** : 20th December, 2006.
Product : Electric Generator
Manufacturer : Mecc Alte S.p.A.
Via Roma n'20, 36051 Creazzo, Vicenza, ITALY

Product Description : Type : "ECP/ECO" Series

" See Appendix 1 "

Approval Condition : Individual Product Certification is required.

THIS IS TO CERTIFY that the design of the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".

Pt. 6, Ch. 1, Sec. 2 of the Rules for Classification, Steel Ships.

This Certificate is valid until 19th December, 2016.

Issued at Daejeon, Korea on 19th December, 2011.



KOREAN REGISTER OF SHIPPING

*General Manager of
Materials and Equipment Team*

Note :1 : The approval will be automatically suspended and the Certificate become invalid from the expiry date of the Certificate in the event that the extension has not been granted or the renewal of the Certificate is not underway.

2 : The manufacturer should notify this Society of any modification or changes that may affect the validity of this Certificate.

Appendix 1

Product Description and/or Approval Condition

Certificate No : MIL05867-EL001

Date of Issue : 19th December, 2011.

1. Product Description :

| Type | Class | Output (kW) | Speed (rpm) | Cycle (Hz) | Phase | Voltage (V) |
|-------------|-------|-------------------------------|-------------|------------|-------|-------------------------|
| ECP34-2S/4 | H | 84/84/84/68 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 92/101/101/101/101/101 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| | F | 76/76/76/61.6 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 83.2/91.2/91.2/91.2/91.2/91.2 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| ECP34-2L/4 | H | 120/120/120/100 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 120/136/140/140/144/144 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| | F | 109/109/109/90.4 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 106/120/128/128/130/130 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| EC038-3SN/4 | H | 180/180/180/168 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 208/216/216/216/216/216 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| | F | 166/166/166/152 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 192/200/200/200/200/200 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| EC038-1LN/4 | H | 200/200/200/184 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 232/240/240/240/240/240 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| | F | 184/184/184/172 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 216/224/224/224/224/224 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| EC038-2LN/4 | H | 240/240/240/232 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 260/272/280/280/288/288 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| | F | 220/220/220/212 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 240/248/256/256/264/264 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| EC040-2S/4 | H | 360/360/360/336 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 384/408/420/420/432/432 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| | F | 328/328/328/308 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 348/368/380/380/392/392 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| EC040-1L/4 | H | 440/440/432/400 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 456/504/516/516/528/528 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| | F | 400/400/392/363 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 412/456/468/468/480/480 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| EC040-2L/4 | H | 544/544/544/504 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 576/624/640/640/653/653 | 1800 | 60 | 3 | 415/440/445/450/460/480 |
| | F | 504/504/504/468 | 1500 | 50 | 3 | 380/400/415/440 |
| | | 532/576/592/592/605/605 | 1800 | 60 | 3 | 415/440/445/450/460/480 |

2. Approved Drawings :

| | |
|-------------|---|
| ECP34-2S/4 | - A5738/04, A5546/02, 9939/05, DS013A/4, DS013A/5, A2545_03, A6197/00 |
| ECP34-2L/4 | - A5738/04, A5544/02, 9939/05, DS015A/4, DS015A/5, A2545_03, A6197/00 |
| EC038-3SN/4 | - A5078/02, A5825/04, 9769/02, DS072A/4, DS072A/5, A2549_03, A2074/05 |
| EC038-1LN/4 | - A5078/02, A5826/05, 9769/02, DS073A/4, DS073A/5, A2549_03, A2074/05 |
| EC038-2LN/4 | - A5078/02, A5826/05, 9769/02, DS074A/4, DS074A/5, A2549_03, A2074/05 |
| EC040-2S/4 | - A4780/02, A4055/05, 9769/02, DS023A/4, DS023A/5, A2549_03, A1859/07 |
| EC040-1L/4 | - A4780/02, A4056/04, 9769/02, DS025A/4, DS025A/5, A2549_03, A1859/07 |
| EC040-2L/4 | - A4780/02, A4056/04, 9769/02, DS026A/4, DS026A/5, A2549_03, A1859/07 |

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