

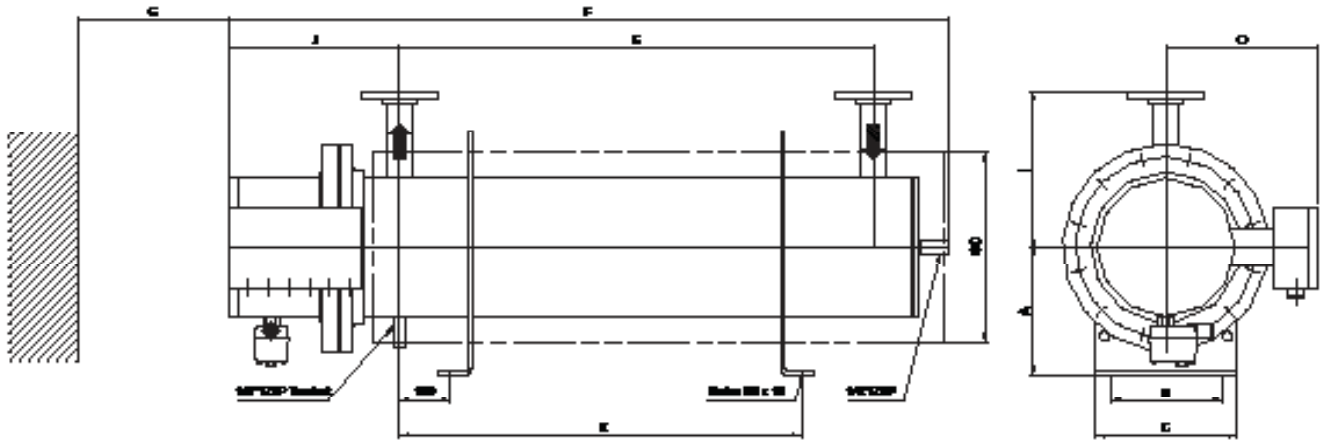


## Aalborg EH

Versatile electrical booster, auxiliary oil and water heater



Aalborg EH is a flow-through electrical heater, ideal for heating of oil or water. Its heat load capacities range from 3 to 367 kW, with design conditions up to 16 bar and 160°C. The standard Aalborg EH can be mounted both vertically and horizontally, but is also available as outflow suction heater or tank mounted immersion heater. The Aalborg EH heater is approved by all major marine classification societies, and is CE/PED approved.



All dimensions are a guideline only.  
Dimension drawing will be made upon request.

Electric power supply terminals (110-690 V AC/DC), safety thermostat and the optional control thermostat are located on the top hood.

**Design pressure:** 16 bar (EH40-15 bar)

**Design temperature:** 160°C

**Flanges:** PN 16/JIS-16K/EN1092-1 PN16

**Mounting style:**

Vertically or horizontally

Dimensions in mm

Weights in kg

**Surface loads:**

Lubrication oil 1.0 W/cm<sup>2</sup>

Heavy fuel oil 1.4 W/cm<sup>2</sup>

Water 3.0 W/cm<sup>2</sup>

**Accessories (optional):**

Safety valve

Drain valve

Pressure gauge

Thermometer

Pt. 100 sensor (optional)

**Standard product range**

**Capacity and dimensions**

| Type                | EH 15         |      |      | EH 20                 |      |      | EH 25         |      |      |      | EH 30             |      |      |      | EH 35             |      |      |      | EH 40         |      |      |                         |      |      |      |     |
|---------------------|---------------|------|------|-----------------------|------|------|---------------|------|------|------|-------------------|------|------|------|-------------------|------|------|------|---------------|------|------|-------------------------|------|------|------|-----|
| Capacity kW         | Lub. oil (kW) | 5    | 7    | 8.5                   | 12   | 14   | 17            | 21   | 23   | 26   | 29                | 33   | 37   | 40   | 45                | 48   | 51   | 59   | 63            | 74   | 78   | 96                      | 100  | 111  | 116  | 121 |
|                     | Fuel oil (kW) | 7    | 10   | 12                    | 17   | 20   | 24            | 30   | 33   | 36   | 40                | 47   | 52   | 56   | 63                | 68   | 72   | 83   | 88            | 104  | 110  | 135                     | 141  | 156  | 164  | 171 |
|                     | Water (kW)    | 15   | 21   | 26                    | 36   | 42   | 51            | 64   | 70   | 77   | 85                | 101  | 111  | 120  | 135               | 146  | 154  | 178  | 188           | 223  | 235  | 289, 302, 335, 351, 369 |      |      |      |     |
| No of elements      | 9             |      |      | 18                    |      |      | 27            | 30   | 27   | 30   | 42                | 39   | 42   | 39   | 42                | 54   | 51   | 54   | 51            | 54   | 66   | 69                      | 63   | 66   | 69   |     |
| Flange size DN      | DN 25, 30, 40 |      |      | DN 25, 32, 40, 50, 65 |      |      | DN 32, 40, 50 |      |      |      | DN 40, 50, 65, 80 |      |      |      | DN 40, 50, 65, 80 |      |      |      | DN 50, 65, 80 |      |      |                         |      |      |      |     |
| Elements length     | 600           | 850  | 1000 | 850                   | 850  | 1000 | 850           | 850  | 1000 | 1000 | 850               | 1000 | 1000 | 1200 | 1200              | 1000 | 1200 | 1200 | 1500          | 1500 | 1500 | 1500                    | 1800 | 1800 | 1800 |     |
| A                   | 200           |      |      | 250                   |      |      | 250           |      |      |      | 250               |      |      |      | 250               |      |      |      | 300           |      |      |                         |      |      |      |     |
| B                   | 220           |      |      | 220                   |      |      | 220           |      |      |      | 220               |      |      |      | 300               |      |      |      | 300           |      |      |                         |      |      |      |     |
| C                   | 270           |      |      | 280                   |      |      | 280           |      |      |      | 280               |      |      |      | 350               |      |      |      | 350           |      |      |                         |      |      |      |     |
| E                   | 420           | 670  | 820  | 670                   | 670  | 820  | 670           | 670  | 820  | 820  | 670               | 820  | 820  | 1020 | 1020              | 820  | 1020 | 1020 | 1320          | 1320 | 1300 | 1300                    | 1600 | 1600 | 1600 |     |
| F                   | 891           | 1141 | 1291 | 1137                  | 1137 | 1287 | 1142          | 1142 | 1292 | 1292 | 1152              | 1302 | 1302 | 1502 | 1502              | 1309 | 1509 | 1509 | 1809          | 1809 | 1814 | 1814                    | 2114 | 2114 | 2114 |     |
| G                   | 570           | 820  | 970  | 820                   | 820  | 970  | 820           | 820  | 970  | 970  | 820               | 970  | 970  | 1170 | 1170              | 970  | 1170 | 1170 | 1470          | 1470 | 1470 | 1470                    | 1770 | 1770 | 1770 |     |
| I                   | 254           |      |      | 280                   |      |      | 307           |      |      |      | 332               |      |      |      | 348               |      |      |      | 373           |      |      |                         |      |      |      |     |
| J                   | 327           |      |      | 322                   |      |      | 337           |      |      |      | 342               |      |      |      | 347               |      |      |      | 363           |      |      |                         |      |      |      |     |
| K                   | 280           | 530  | 680  | 530                   | 530  | 680  | 530           | 530  | 680  | 680  | 530               | 680  | 980  | 1020 | 1020              | 680  | 880  | 880  | 1180          | 1180 | 1160 | 1160                    | 1460 | 1460 | 1460 |     |
| ØD incl. insulation | ø270          |      |      | ø324.5                |      |      | ø380          |      |      |      | ø425              |      |      |      | ø460              |      |      |      | ø510          |      |      |                         |      |      |      |     |
| O                   | 255           |      |      | 275                   |      |      | 300           |      |      |      | 335               |      |      |      | 380               |      |      |      | 400           |      |      |                         |      |      |      |     |
| Net weight kg.      | 55            | 65   | 71   | 102                   | 109  | 112  | 137           | 140  | 163  | 166  | 206               | 225  | 228  | 254  | 258               | 294  | 327  | 331  | 381           | 386  | 486  | 495                     | 555  | 560  | 565  |     |

Dimensions in mm

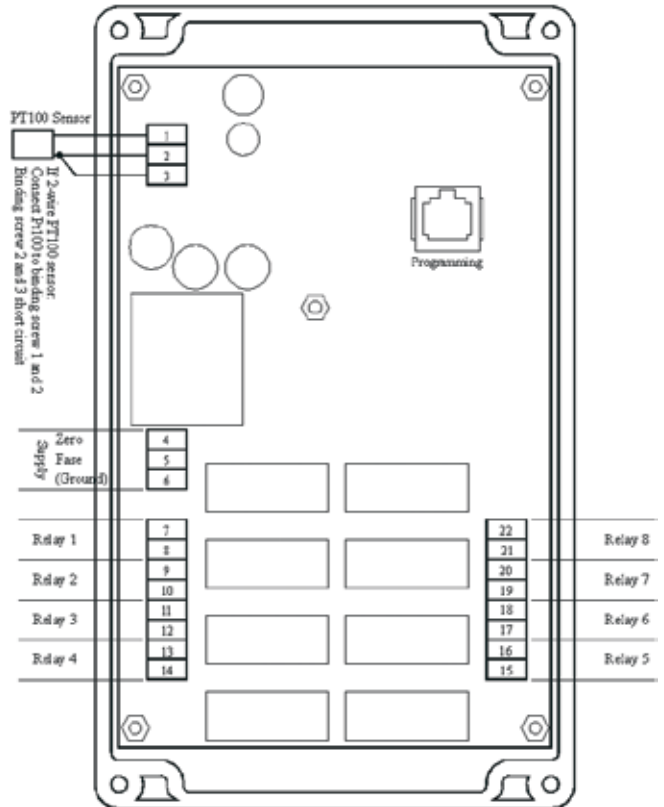
### Electronic thermostat

The Aalborg thermostat type TC-E 8/4 is an electronic P-controller for use with electrical heaters.

The thermostat is based on a PT100 sensor mounted in the electric heater and is operating the up to 8 individual power relays.

The desired outlet temperature is programmed on the unit and the actual temperature is indicated on the display. Fluctuations in flow will result in changes of the measured temperature and thus the signal to the controller which in return will further engage or disengage the number of heating elements in the electrical heater.

The thermostat is very accurate and used in applications where it is essential that the temperature is kept constant at all times.



### Ordering key

| Part No. | Number of steps   | Size in mm<br>L x W x H | Supply                   | Enclosure |
|----------|-------------------|-------------------------|--------------------------|-----------|
| 60T3006  | 4                 | 120 x 80 x 70           |                          | IP54      |
| 56L1030  | 3, 4, 5, 6, 7 & 8 | 200 x 120 x 80          | 1 x 220/240 V - 50/60 Hz | IP56      |

### Main technical data

| Part No.                        | 807000019<br>Mechanical<br>4 steps | 56L1030<br>Electronic<br>3, 4, 5, 6, 7 & 8 steps |
|---------------------------------|------------------------------------|--|
| Range °C                        | 20 - 200°C                         | 0 - 200°C  |
| Ambient temp. °C                | -20 - 0 +70°C                      | -20 - 0 - +60°C                                  |
| Hysteresis °C                   | 3.0 °C                             | 2.0 °C   |
| Min- temp. between each step °C | 1.5 °C                             | 1.0°C  |
| Supply max. Volt/Amp            | 250 VAC / 10 Amp                   | 250 VAC / 10 Amp                                 |
| Cable entries                   | 1 x PG13.5                         | 1 x PG13.5                                       |
| Sensor                          | Thermostatic expansion in Cu probe | 1 x Pt100 in stainless steel                     |

**Control panel for Aalborg heaters for regulation in steps inclusive of indicating lamps.**



Control panel for the Aalborg EH electrical heater



Control panel for the Aalborg EH-S heater

MDD00239EN 1507

**How to contact Alfa Laval**

Contact details for all countries are continually updated on our website. Please visit [www.alfalaval.com](http://www.alfalaval.com) or e-mail to [aalborgheaters@alfalaval.com](mailto:aalborgheaters@alfalaval.com) to access the information..