ELDRO®

ELECTRO HYDRAULIC THRUSTERS

THE ORIGINAL. BE SAFE.

DC-SERIES EG
AREA OF APPLICATION

ELDRO® DC devices are used in systems with an existing direct current power supply.

The ELDRO® DC series Eg is used to open brakes in the event of a voltage breakdown of the three-phase supply. In this case, these devices are installed in the brake as an additional brake thruster and can then be supplied with a direct current voltage, for example, from a battery. This enables loads, for example in lifting units, to be lowered and set down safely.

TECHNICAL VALUES

<table>
<thead>
<tr>
<th>Type</th>
<th>Lifting force [N]</th>
<th>Stroke path [mm]**</th>
<th>Power consumption [W]</th>
<th>Current consumption [A] at 220 V DC</th>
<th>Switching frequency with S3 operation [c/h]</th>
<th>Weight [kg]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eg 50/...</td>
<td>500</td>
<td>60 – 120</td>
<td>350</td>
<td>1.60</td>
<td>600 – 1,000*</td>
<td>27 – 31*</td>
</tr>
<tr>
<td>Eg 80/...</td>
<td>800</td>
<td>60 – 120</td>
<td>330</td>
<td>1.50</td>
<td>600 – 1,000*</td>
<td>27 – 31*</td>
</tr>
<tr>
<td>Eg 121/...</td>
<td>1,250</td>
<td>60 – 120</td>
<td>330</td>
<td>1.50</td>
<td>500 – 1,000*</td>
<td>43 – 44*</td>
</tr>
<tr>
<td>Eg 201/...</td>
<td>2,000</td>
<td>60 – 120</td>
<td>430</td>
<td>2.00</td>
<td>500 – 1,000*</td>
<td>43 – 44*</td>
</tr>
<tr>
<td>Eg 301/...</td>
<td>3,000</td>
<td>60 – 120</td>
<td>470</td>
<td>2.20</td>
<td>400 – 800*</td>
<td>43 – 44*</td>
</tr>
</tbody>
</table>

* depending on stroke path

** further on request

Stroke work (N cm) = Lifting force x stroke path
### EG 50 TO EG 80

#### Type

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>O</th>
<th>P</th>
<th>R</th>
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<tbody>
<tr>
<td><strong>Short stroke thrusters</strong></td>
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<tr>
<td>Eg 50/...</td>
<td>570</td>
<td>60</td>
<td>36</td>
<td>18</td>
<td>20</td>
<td>30</td>
<td>20</td>
<td>23</td>
<td>195</td>
<td>97</td>
<td>120</td>
<td>60</td>
<td>254</td>
<td>22</td>
<td>90</td>
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<td>120</td>
<td>60</td>
<td>254</td>
<td>22</td>
<td>90</td>
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<tr>
<td><strong>Long stroke thrusters</strong></td>
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</table>

*All dimensions in mm | B = stroke path (variable)*
EG 121 TO EG 301

All dimensions in mm | B = stroke path (variable)
ELECTRICAL VERSION

MOTOR
- DC shunt motor
- Design according DIN VDE 0530
- For power data see “Technical values”
- Standard insulation per insulation class F

VOLTAGES AND FREQUENCIES
- Nominal load to form factor 1.05
- Standard: 220 V DC
- Special windings 24 V - 500 V DC on request

OPERATING MODES
- Continuous operation S1 and intermittent duty S3 – 60 % duty cycle standard
- With ambient temperatures > 35 °C deviating technical values (available on request)

TERMINAL BOX
- Terminal board 6-pole
- Supply line connection M4
- Internal protective conductor connection: M4
- External protective conductor connection: M6

CABLE INLET
- Threaded cable gland M 25 x 1.5 for cable cross-sections to 4 x 2.5 mm² (Ø 17 – 19 mm)
MECHANICAL VERSION

INSTALLATION VARIANTS
- The base fastening can be mounted offset through 90° for versions without limit switch
- The pressure strap at the top rotates in all types
- In case of versions with a limit switch, minor modifications are required in order to rotate the pressure strap or fasten the base as required

ENCLOSURE
- Standard IP 65, in special version up to IP 68

OPERATING FLUID
- Mineral hydraulic oil or silicone oil depending on the operating conditions, e.g. ambient temperature, factory-filled

PAINT APPLICATION PER DIN EN ISO 12944
- Standard for corrosion load Cl, layer thickness 70 µm
- Special paint up to corrosion load C5-M, coating thickness to 280 µm
- Standard colour RAL 7022 (umbra grey)

PROTECTIVE MEASURES
- Redundant dust protection seal
- Redundant seal with the hydraulic chamber
- Piston rod chromium plated to dimension
- With Eg 121, Eg 201 and Eg 301 additional piston rod protective tube against external mechanical influences
ELECTRICAL & MECHANICAL AUXILIARY EQUIPMENT

LIFTING AND/OR LOWERING VALVE (H, S, HS)
- The lifting and lowering times can be steplessly extended with an integrated lifting and/or lowering valve. The adjustable minimum values attain 10 to 20-times the normal values.
- Integrated valves in “open position” result in an extension of the lifting and lowering times with short stroke thrusters of up to approx. 0.1 to 0.2 seconds, and with long stroke thrusters of up to approx. 0.2 to 0.4 seconds.
- The desired lifting or lowering time is set externally on the device.

LIMIT SWITCH
- For the electrical display of the ventilation and braking positions, mechanical or inductive limit switches can be installed on all ELDRO® units.
- Detailed information available in the data sheet of the limit switches.

INCREASED CORROSION PROTECTION
- Increased corrosion protection is necessary with the use of ELDRO® devices in environments of aggressive media and/or high relative humidity with the resultant formation of condensation.
- Increased external protection: Through special paint application, see “Mechanical version”.

BRAKE SPRING (C-SPRING)
- Integrated C-spring for generating the brake force. The specified brake force of the C-spring is reached at 1/3 of the nominal stroke.

VERSIONS WITH BRAKE SPRING

<table>
<thead>
<tr>
<th>Type</th>
<th>Brake spring force (c-spring) [N]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eg 50/6</td>
<td>460</td>
</tr>
<tr>
<td>Eg 80/6</td>
<td>750</td>
</tr>
<tr>
<td>Eg 121/6</td>
<td>1,200</td>
</tr>
<tr>
<td>Eg 201/6</td>
<td>1,900</td>
</tr>
<tr>
<td>Eg 301/6</td>
<td>2,700</td>
</tr>
</tbody>
</table>