



# Origo™ Arc 410c/650c/810c

## Heavy duty switching converter

### Robust and powerful

The Origo™ Arc 410c, 650c and 810c are sturdy and robust switching converter (chopper) power sources intended for manual heavy duty MMA welding with coated electrodes, TIG welding and Air Carbon Arc Gouging.

Well proven technology with a high level of reliability, outstanding weld performance, a strong metal housing and large wheels for ease of handling, make this range of machines ideal for use in the toughest of industrial environments.

### Easy to use

The wide current range of the Origo™ Arc makes it easy to optimise settings, allowing the machine to be used with an extensive range of filler materials. These units are equipped with such functions as hot start, arc force and anti stick. It is also possible to adjust parameters during welding process.

### Flexibility

The units have vertical static characteristics which means that regardless of cable length and arc voltage, the current remain constant.

The dynamic characteristics of the Origo™ Arc range ensures stable, spatter free arc and an easily controlled molten pool.

Due to the high power factor, energy consumption is low and installation costs can be kept to a minimum.



The welding properties of these units are configured to meet the requirements of welding with celluloid electrodes. The arc is very flexible when starting from the lowest currents.

When the arc is shortened arc force makes weld penetration easier, especially when the electrode is pressed against the welded material.

The Origo™ Arc 410c, 650c and 810c are available with control panels A11 or A12. The panel A11 is a basic solution with only current, hot start and arc force settings. The panel A12 is a full version with a V/A instrument and a receiver for wireless current setting.

As an option the Origo™ Arc range can be equipped with remote control.

The units are switched off automatically in case of overheating. They also conform to both EN 60974-1 and EN 60974-10

## Applications

- General fabrication and civil construction
- Repair and maintenance
- Power generation
- Pipelines
- Shipbuilding and offshore
- Process industry

- Best for cellulose electrodes.
- Outstanding welding characteristics- high efficiency and high quality welding.
- Wide current and voltage range- multiple purpose applications.
- Mains voltage compensation - stable welding controls.
- Stepless current control - exact settings with optional remote control facilities.
- Hot start, arc force and anti stick.
- Digital instrument.

## Technical data

|  | Origo™ Arc 410c  | Origo™ Arc 650c  | Origo™ Arc 810c  |
|--|--|--|--|
| <b>Mains voltage</b>                   | 230/400-415/500 V, 3-50 Hz<br>230/440-460/550 V, 3-60 Hz | 230/400-415/500 V, 3-50 Hz<br>230/440-460/550 V, 3-60 Hz | 230/400-415/500 V, 3-50 Hz<br>230/440-460/550 V, 3-60 Hz |
| <b>Permitted load at</b>               |  |  |  |
| 35% duty cycle                         | 400 A / 36V  | 650 A / 44V  | 800 A / 44V  |
| 60% duty cycle                         | 310 A / 33V  | 490 A / 40V  | 630 A / 44V  |
| 100% duty cycle                        | 240 A / 30V  | 400 A / 36V  | 500 A / 40V  |
| <b>Setting range (DC)</b>              | 20A/20V - 400 A/36V                                      | 20A/20V - 650 A / 44V                                    | 20A/20V - 800 A / 44V                                    |
| <b>Open circuit voltage</b>            | 53V-70V  | 53V-70V  | 53V-70V  |
| <b>Open circuit power</b>              | 390W   | 510W   | 520W   |
| <b>Power factor</b> at maximum current | 0,9  | 0,9  | 0,9  |
| <b>Efficiency</b> at maximum current   | 0,74   | 0,77   | 0,76   |
| <b>Dimensions l x w x h</b>            | 1310 x 800 x 780 mm                                      | 1310 x 800 x 780 mm                                      | 1310 x 800 x 780 mm                                      |
| <b>Weight</b>                          | 157 kg   | 223 kg   | 245 kg   |
| <b>Operating temperature</b>           | -10 till +40°C   | -10 till +40°C   | -10 till +40°C   |
| <b>Enclosure class</b>                 | IP 23  | IP 23  | IP 23  |
| <b>Application classification</b>      | S  | S  | S  |

## Ordering information

|                                 |              |
|---------------------------------|--------------|
| Origo™ Arc 410c, A11 stationary | 0349 312 100 |
| Origo™ Arc 410c, A12 offshore   | 0349 311 480 |
| Origo™ Arc 410c, A12 stationary | 0349 311 490 |
| Origo™ Arc 650c, A12 offshore   | 0349 311 500 |
| Origo™ Arc 650c, A12 stationary | 0349 311 510 |
| Origo™ Arc 810c, A12 offshore   | 0349 311 430 |

### Accessories

|  |              |
|--|--------------|
| N02 Remote control unit wireless                   | 0349 304 617 |
| MMA 1 Remote control, 10 m                         | 0349 501 024 |
| MMA 2 Remote control, 10 m                         | 0349 501 025 |
| AT1 Remote control                                 | 0459 491 896 |
| AT1 CoarseFine Remote control                      | 0459 491 897 |
| Remote interconnection cable 5 m analogue 12 pole  | 0459 552 880 |
| Remote interconnection cable 10 m analogue 12 pole | 0459 552 881 |
| Remote interconnection cable 15 m analogue 12 pole | 0459 552 882 |
| Remote interconnection cable 25 m analogue 12 pole | 0459 552 883 |

## Quality accessories for the quality welder

ESAB offers a wide range of accessories. The complete range, along with product information, is available at our local web-sites, look at [www.esab.com](http://www.esab.com) or contact your local ESAB dealer.

## Unrivalled service and support

Our commitment and ability to deliver the expected service and support starts immediately after the order is confirmed. We endeavour to offer our customers an After Sales service, which is second to none. A strong and skilful service organisation is prepared to offer service and maintenance, calibration, validation and upgrading of equipment and software.

The service organisation will offer standardised solutions for the reconditioning or modification of existing products.

Spare and wear parts are manufactured according to ESAB's quality plan. Exchange Printed Circuit Board (PCB), exchange modules and components are available for all our products in order to reduce downtime to an absolute minimum. ESAB is continuously upgrading authorised service partners for local service support. Customers who have their own service and maintenance personnel will always be offered a service-training package as part of a total ESAB offering. However, product and process training for end-users will form an additional part of the ESAB offering. Always ask your ESAB sales representative or distributor for a complete ESAB solution.



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