

# Origo™ Mig 402c/502c/652c

## Flexible heavy duty solutions

### Robust and powerful

Origo™ Mig 402c/502c/652c are sturdy and robust switching converter (chopper) power sources intended for heavy duty MIG/MAG welding, MMA welding and air-arc gouging.

Well proven technology together with ESAB developed software provides high reliability and outstanding welding performance.

Multi process properties with stepless electronic inductance, very good starting characteristics and control in the lower current range.

A strong metal casing makes these units the perfect solution for harsh environments.

The large wheels, sturdy lifting eyelets and an under carriage designed to allow the Origo™ Mig to be lifted by a forklift, makes these units highly manoeuvrable.

### Easy to use

The wide current and voltage range together with stepless, dial adjusted inductance make it easy to optimise settings for a wide variety of filler materials and gases.

The patented ELP, ESAB LogicPump, automatically starts the cooling water pump in the machine when a water-cooled torch is connected to either the, Origo™ Feed 304, M13 or Origo™ Feed 484, M13 wire feeder. It helps to eliminate the risk of overheating the welding torch and prevents costly repairs. When an air-cooled torch is used, the pump will automatically shut off, giving a lower noise level and longer working life for the cooling pump.



### Flexibility

In many industries fast changes within production lines are essential. The need for flexibility and high productivity can be met by the ESAB Origo™ Mig as the unit is capable of MIG/MAG welding, MMA welding and air-arc gouging.

The Origo™ Mig 402c, 502c and 652c meet the demands of the cost-conscious fabricator for high productivity, versatility and high quality production with low overall welding costs. IP23 makes it a perfect solution for tough, outdoor working environments.

The unit will switch off automatically to prevent overheating and it conforms to EN 60974-1, EN 60974-10.

## Applications

- Civil construction
- Mobile machinery
- Foundries
- Pipe workshops
- Ship and Offshore yards

- With A13 panel power source for MIG/MAG, MMA and air-arc gouging - a cost efficient combination
- Sturdy metal casing with air filter as option - made to withstand tough corrosive and dirty environments
- Mains voltage compensation - stable welding controls
- Stepless voltage control – for precise settings and remote control facilities
- Built-in water cooler (“w” version)
- ELP, ESAB LogicPump - automatically starts water pump when a water-cooled torch is connected.
- Digital V/A meter on feeder display – extended functionality

## Technical data

	Origo™ Mig 402c	Origo™ Mig 502c	Origo™ Mig 652c
<b>Mains voltage V, Hz</b>	400-415, 3~ 50/60	400-415, 3~ 50/60	400-415, 3~ 50/60
<b>MMC Panel</b>	-*	A13	A13
<b>Permitted load at</b>			
60% duty cycle A/V	400 / 34	500 / 39	650 / 41
100% duty cycle A/V	310 / 30	400 / 34	500 / 39
<b>Setting range (DC) A/V MIG/MAG</b>	20 / 14 - 400 / 34	20 / 14 - 500 / 39	20 / 14 - 650 / 44
<b>MMA</b>	20 / 21- 400 / 36	20 / 21 - 500 / 40	20 / 21 - 650 / 44
<b>Open circuit voltage V</b>	53-58	53-60	53-60
<b>Open circuit power W</b>	500	550	670
with cooling unit W	700	750	870
<b>Power factor</b> at maximum current	0,88	0,90	0,90
<b>Efficiency</b> at maximum current %	70	72	76
<b>Control voltage V, Hz</b>	42, 50/60	42, 50/60	42, 50/60
<b>Dimensions lxwxh mm</b>	830 x 640 x 835	830 x 640 x 835	830 x 640 x 835
<b>Weight kg</b>	158	194	228
with cooling unit kg	172	208	242
<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

\* See Accessories

## Ordering information

Origo™ Mig 402c (400-415V 50/60Hz)	0349 310 750
Origo™ Mig 402c (230/400-415/500V 50Hz ; 230/440-460 60Hz)	0349 311 220
Origo™ Mig 402cw (400-415V 50/60Hz)	0349 308 500
Origo™ Mig 402cw (230/400-415/500V 50Hz ; 230/440-460 60Hz)	0349 311 230
Origo™ Mig 502c, A13 (400-415V 50/60Hz)	0349 310 770
Origo™ Mig 502c, A13 (230/400-415/500V 50Hz ; 230/440-460 60Hz)	0349 311 240
Origo™ Mig 502cw, A13 (400-415V 50/60 Hz)	0349 310 760
Origo™ Mig 502cw, A13 (230/400-415/500V 50Hz ; 230/440-460 60Hz)	0349 311 250
Origo™ Mig 652c, A13 (400-415V 50/60Hz)	0349 311 060
Origo™ Mig 652c, A13 (230/400-415/500V 50Hz ; 230/440-460 60Hz)	0349 311 260
Origo™ Mig 652cw, A13 (400-415V 50/60 Hz)	0349 310 800
Origo™ Mig 652cw, A13 (230/400-415/500V 50Hz ; 230/440-460 60Hz)	0349 311 270

### Accessories:

Air filter	0349 302 252
Digital V/A-meter for A13 MMC panel (Mig 502c/652c)	0455 173 882
Transformer for CO <sub>2</sub> -heater	0349 302 250
Water flow guard	0349 302 251
Cable holder kit	0349 303 362
Remote control AT1	0459 491 896
Remote control AT1 Coarse fine	0459 491 897
Feed selector	0349 311 680
LiftArc™ start kit	0349 311 530
A13 MMC Panel with V/A-meter (Mig 402c)	0349 310 396
Mounting kit "Fan on demand"	0349 311 690
Strain relief for interconnection cables	0349 311 700

**Delivery content:** 5m mains cable incl plug for 400V, wheels, return cable with clamps, gas bottle platform, guide pin for the wire feeder and instruction manual.

## Interconnection cables 19 pole

Length	Air 70 mm <sup>2</sup>	Water 70 mm <sup>2</sup>
1,7 m 19 pole	0459 836 880	0459 836 890
5,0 m 19 pole	0459 836 881	0459 836 891
10,0 m 19 pole	0459 836 882	0459 836 892
15,0 m 19 pole	0459 836 883	0459 836 893
25,0 m 19 pole	0459 836 884	0459 836 894
35,0 m 19 pole	0459 836 885	0459 836 895
	Air 95 mm <sup>2</sup>	Water 95 mm <sup>2</sup>
1,7 m 19 pole	0459 836 980	0459 836 990



**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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