

# Arc 400i

## Compact Inverter for MMA Welding



Arc 400i

### Compact and Efficient

Arc 400i is an IGBT based inverter controlled power source designed for MMA welding. The power source is designed as a compact power source for easy portability.

- Inverter controlled – efficient power usage
- Light weight – for improved portability
- Wide mains voltage tolerance – for stable welding controls
- Protection against Over-Temperature, Under-Voltage, Over-Voltage and Single-phasing
- User friendly controls – Adjustable Arc force and Hot start

Visit [www.esabindia.com](http://www.esabindia.com) for more information.

### Industry

- General fabrication
- Construction
- Repair and Maintenance



## Specifications / Technical data

Mains supply, V/Ph, Hz	400 ± 15% / 3, 50
Max input power, KVA	16
Permitted load at 60% duty cycle, A	400
Permitted load at 100% duty cycle, A	310
Power factor (max)	0.90
Efficiency at maximum current, %	85
Current range, A	60 - 400
No load power, W	210
Open Circuit Voltage (OCV), V	74
Reduced (VRD), V	< 35
Dimensions l x w x h, mm	512 x 255 x 400
Weight, Kg	24.5
Enclosure class	IP21S
Insulation class	H
Cooling	Forced Air
Hot Start	Adjustable
Arc Force	Adjustable

## Ordering Information

Description	Part number	Description	Part number
Arc 400i	4610 210 400	Eco Arc Helmet (83x108mm)	0700 000 941
Holder Confort 600	2002 001 002	Welding Hand Gloves, L	2001 005 001
Holder Handycool HC600	2002 001 001	HFR Weld Cable Cu 70sq mm	4600 600 183
Warrior Tech 9-13 Helmet	0700 000 401	HFR Weld Cable Al 70sq mm	4600 600 191

Note: Arc 400i is delivered with 3m mains cable, 2 OKC connectors and 5m remote

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COMPANY WITH  
MANAGEMENT SYSTEM  
CERTIFIED BY DNV  
= ISO 9001 =  
= ISO 14001 =  
= OHSAS 18001 =

# Buddy™ Arc 400i / 400i XC

## Compact and Powerful Inverter MMA Welder

### Robust and Powerful

The Buddy™ Arc 400i and 400i XC are heavy duty, fan cooled, IGBT based inverter controlled power sources meant for MMA / TIG (scratch-start) welding.

### MMA Welding

A wide current range and powerful welding performance make the Buddy™ Arc machines suitable for a wide range of applications and electrode types such as:

- General purpose
- Low-hydrogen
- Stainless steel
- Cellulosic

The Buddy™ Arc 400i XC model has controlled welding dynamics that provides excellent weld properties for welding pipe root passes.

### TIG Welding

The Buddy™ Arc machines are capable of performing TIG welding with precise current control. All you need is an optional TIG-torch with a gas valve, a gas regulator and a cylinder of gas. You can weld mild steel or stainless steel material with or without filler material.

### Voltage Reduction Device – VRD

In some areas a voltage reduction device, or VRD, is required. VRD is a safety function that limits the open circuit voltage from the machine to less than 35V. The Buddy™ Arc are prepared for VRD and the function can easily be activated inside the power source.

### Easy Settings

The simple control panel of the Buddy™ Arc makes it easy to optimise settings, reducing the time taken for achieving the best weld characteristics. These units are equipped with hot start and arc force with the possibility to adjust parameters during welding. Hot start helps to avoid starting problems while arc force sets the intensity of the arc for improved weld quality.

As an option the Buddy™ Arc can be equipped with a remote control unit.

### Applications

- **General fabrication**
- **Railways**
- **Shipbuilding**
- **Civil construction**
- **Pipe workshops**



### Energy Efficient

The Buddy™ Arc machines are constructed to maintain a high power factor and efficiency, thus keeping the energy cost to a minimum without affecting the weld quality.

### Safety and Reliability

The Buddy™ Arc machines conform to the International Standards that ensure the reliability and safe use of these machines.

These units are equipped with overheating and mains over/under voltage protection that will temporarily switch off the machines automatically to prevent any potential damage that the components might sustain.

- **Inverter controlled** - more efficient power usage
- **Light weight** - improved mobility
- **Easy-to-use control panel** - quick setup
- **Adjustable hot start** - easy to strike the electrode, helps you to avoid starting problems.
- **Adjustable arc force** - sets the intensity of the arc for improved weld quality.
- **Wide mains voltage tolerance** - stable welding controls

## Technical Data

	<b>Buddy™ Arc 400i</b>
	<b>Buddy™ Arc 400i XC</b>
<b>Mains voltage, V/Ph Hz</b>	400V ± 15%, 3ph, 50Hz
<b>Effective input current, A</b>	21.4A
<b>Fuse (slow), A</b>	32
<b>Mains cable, Ø mm²</b>	4C x 4
<b>Permitted load at (MMA)</b>	
60% duty cycle, A/V	400 / 36
100% duty cycle, A/V	310 / 32.4
<b>Permitted load at (TIG)</b>	
60% duty cycle, A/V	400 / 26
100% duty cycle, A/V	310 / 22.4
<b>Power factor at maximum current</b>	0.93
<b>Efficiency at maximum current, %</b>	85
<b>Setting range (TIG/MMA), A</b>	20 - 400
<b>Open circuit voltage (OCV), V</b>	68 (400i)
	78 (400i XC)
<b>Reduced OCV (VRD), V</b>	<35
<b>Dimensions l x w x h, mm</b>	540 x 280 x 510
<b>Weight, kg</b>	29 (400i)
	31 (400i XC)
<b>Operating temperature</b>	-10 till 40°C
<b>Application class</b>	S
<b>Standards</b>	IEC 60974-1
	IEC 60974-10



## Ordering Information

<b>Buddy™ Arc 400i</b>	<b>46F0226400</b>
<b>Buddy™ Arc 400i XC</b>	<b>46F0227400</b>
<b>Remote Control 5m</b>	<b>46F1004001</b>
<b>Remote Control 10m</b>	<b>46F1005001</b>

**Delivery Content:** 3m mains cable, 2 nos. male quick connectors for Buddy Arc 400i / 400i XC.

### Optional Accessories

TXH 200V – 4m TIG Torch (for Scratch TIG)	1620607292
TXH 200V – 8m TIG Torch (for Scratch TIG)	1620607293
Welding Cable Cu 50 sq mm (100m Roll)	4600600162
Welding Cable Cu 70 sq mm (100m Roll)	4600600163
Holder Handicool HC 600	2002001001
Holder Confort 600	2002001002
Heavy Duty Earth Clamp 600	2002002001
Hand Shield Armour (83 x 108mm)	2001001004
Eco Arc Helmet (83 x 108mm)	2001001003
Welding Hand Gloves	2001005001



## 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.

## Quality Accessories For Quality Welding

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



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