



ORBIMAT CAdvanced - compact orbital welding power supply!

## Orbital Welding Power Supplies

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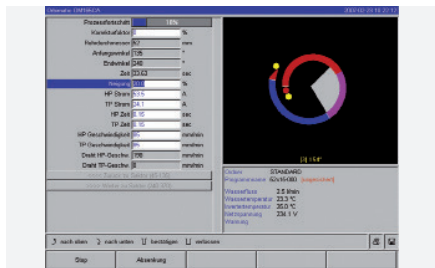
Simple and convenient operation thanks to multifunctional rotary actuator



Clearly laid-out 10.5" swivel monitor



Integrated job printer allows actual values to be printed out



Automatic programming and multilingual menu navigation via color display



PSS Pro-Service System:  
Simple functional test with no need to open the unit

## Orbital welding power supplies ORBIMAT CA

The ORBIMAT CAdvanced series of orbital welding power supplies are equipped with a new and unique operating concept.

In addition to the reliable automatic programming which generates welding parameters by entering the tube diameter, wall thickness, material, and welding gas all ORBIMAT CA models also have the exclusive new development FLOW FORCE to reduce the pre-flow gas time when the weld heads are closed in the standard model and BUP control function with controllable, position-dependent tube internal pressure control as an optional extra.

The basic model of the ORBIMAT CA series includes the following functions and equipment:

- Simple and convenient operation thanks to multifunctional rotary actuator.
- Control option for cold wire feed.
- DC welding.
- Optimal visibility and operating conditions thanks to clearly laid-out 10.5" swivel monitor.
- Graphically-supported operating interface and multilingual menu navigation via color display.
- Capacity to store over 5,000 welding programs, providing systematic and clear program management thanks to the creation of folder structures.
- Welding data logging and printout of actual values.
- A multcard reader enables data to be transferred easily to an external PC.
- It is possible to extend memory and data exchange using CompactFlash card (CF), SD, MMC, Sony memory stick.
- (Optional) PC-offline software with the capability to convert data protocols to PDF.
- Extremely easy to service thanks to PSS (Pro Service System):
  - Simple functional test with no need to open the unit.
  - Easy to service and components can be replaced quickly thanks to systematic component structure.
- Power and motor slope adjustment between the individual sectors.
- Coolant water and welding gas are monitored.
- Option to program up to 99 sectors.
- Possibility of connecting a monitor or printer (through VGA).
- Integrated printer.
- Metric and imperial units.

Scope of delivery ORBIMAT CA power supplies:

- 1 orbital welding power supply of the ORBIMAT CA series
- 1 connection hose set ORBIMAT
- 1 blind plug
- 1 welding connector adapter 165A/300A
- 1 external keyboard
- 1 liter antifreeze
- 1 filling funnel
- 2 keys for key switch
- 1 operation manual

## ORBIMAT 165 CA

Computer-controlled 165 A compact power supply for orbital welding  
– ideal for mobile use on building sites.

See page 8 for the basic model; additional functions and equipment:

- Integrated water cooling system for cooling the connected weld heads.
- WIDE RANGE input voltages for safe operation of power sets or voltage networks with extreme fluctuations in voltage.

|                                 |  |
|---------------------------------|--|
| Technical Data                  | ORBIMAT 165 CA   |
| Connection voltage (WIDE-RANGE) | 90 - 260 V, 50/60 Hz, single-phase   |
| Control range                   | 2 - 165 A for a connection voltage > 160 V<br>2 - 110 A for a connection voltage < 160 V |
| Power-on time                   | 30% at 165 A<br>100% at 120 A  |
| Weight                          | 26 kg  |
| Dimensions                      | 510 x 360 x 220 mm   |

| Article        | Code        | kg     |
|----------------|-------------|--------|
| ORBIMAT 165 CA | 871 000 001 | 26,000 |

## ORBIMAT 300 CA

Computer-controlled 300 A power supply for orbital welding.

See page 8 for basic model.

Please note that the ORBIMAT 300 CA may only be operated in conjunction with a water cooling system that must be ordered separately (see page 14).

|                    |   |
|--------------------|---|
| Technical Data     | ORBIMAT 300 CA                                |
| Connection voltage | 400 V +/- 15%, 50/60 Hz, 3 phase              |
| Control range      | 5 - 300 A                                     |
| Power-on time      | 40% at 300 A<br>60% at 260 A<br>100% at 220 A |
| Weight             | 33 kg   |
| Dimensions         | 530 x 400 x 400 mm                            |

| Article        | Code        | kg     |
|----------------|-------------|--------|
| ORBIMAT 300 CA | 872 000 001 | 33,000 |



ORBIMAT 165 CA



ORBIMAT 300 CA



ORBIMAT 300 CA AC/DC

## ORBIMAT 300 CA AC/DC

Computer-controlled 300 A power supply for orbital welding, also for aluminum materials.

See page 8 for the basic model; additional functions and equipment:

- Alongside the benefits of the ORBIMAT 300 CA power supply, this device also offers the option of AC welding.
- Option to set a positive and negative half-cycle in the ratio 20 - 80%.
- Frequency setting 50 - 200 Hz.
- Detection of actual values for the welding reports in the DC regime.

Please note that the ORBIMAT 300 CA AC/DC may only be operated in conjunction with a water cooling system that must be ordered separately (see page 14).

| Technical Data                          | ORBIMAT 300 CA AC/DC                          |
|---|---|
| Connection voltage                      | 400 V +/- 15%, 50/60 Hz, 3 phase              |
| Control range                           | 5 - 300 A                                     |
| DC and AC currently (switch selectable) | 40% at 300 A<br>60% at 260 A<br>100% at 220 A |
| Power-on time                           |   |
| Weight                                  | 41,4 kg                                       |
| Dimensions                              | 530 x 400 x 400 mm                            |

| Article              | Code        | kg     |
|----------------------|-------------|--------|
| ORBIMAT 300 CA AC/DC | 877 000 001 | 41,400 |



ORBIMAT 300 CA AVC/OSC  
incl. remote control

## ORBIMAT 300 CA AVC/OSC

Computer-controlled 300 A power supply for orbital welding with arc voltage control (AVC) and oscillation (OSC).

See page 8 for the basic model; additional functions and equipment:

- The new arc voltage control calculates and programs the length of the arc automatically in „mm“ from the current voltage characteristics. This avoids the usual time spent calculating the necessary arc voltage each time the weld power changes to maintain the arc at a consistent length in the individual sectors.
- During oscillation each of the edge holding times can be synchronized with the high-pulse settings.
- The center of the seam can be accessed manually and be determined using an automatic scanner. The electrode accesses each of side of the seam and then calculates the center of the path automatically. For asymmetric weld seam configurations this is compensated by an OFFSET function.
- Including remote control (cable length: 7,5 m) Code 875 050 001.
- There is the option of an HF-free touch start ignition.

Please note that the ORBIMAT 300 CA AVC/OSC may only be operated in conjunction with a water cooling system that must be ordered separately (see page 14).

| Technical Data     | ORBIMAT 300 CA AVC/OSC                        |
|--------------------|---|
| Connection voltage | 400 V +/- 15%, 50/60 Hz, 3 phase              |
| Control range      | 5 - 300 A                                     |
| Power-on time      | 40% at 300 A<br>60% at 260 A<br>100% at 220 A |
| Weight             | 37,3 kg                                       |
| Dimensions         | 530 x 400 x 400 mm                            |

| Article                | Code        | kg     |
|------------------------|-------------|--------|
| ORBIMAT 300 CA AVC/OSC | 872 000 002 | 37,300 |