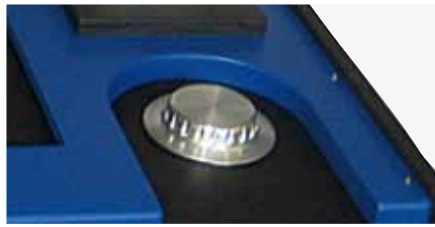




ORBIMAT CAdvanced - compact orbital welding power supply!

Orbital Welding Power Supplies

7



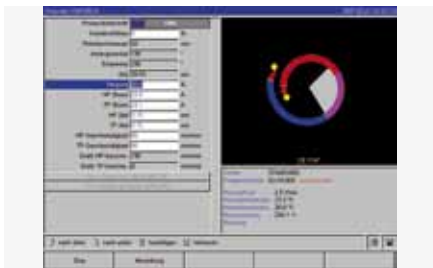
Simple and convenient operation thanks to multifunctional rotary actuator



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 CAAdvanced 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 2 - 110 A for a connection voltage < 160 V
Power-on time	30% at 165 A 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 60% at 260 A 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 60% at 260 A 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 60% at 260 A 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

Water cooling systems for ORBIMAT power supplies

ORBICAR W trolley with integrated water coolant

The ORBICAR W trolley is the perfect accessory for the Orbitalum 300 A power supplies due to the integrated water cooling. In addition to the water cooling the trolley has a gas bottle holder.



*ORBICAR W trolley
with integrated water coolant*

Article	Suitable for ORBIMAT	Code	kg
ORBICAR W trolley with integrated water coolant	300 CB, 300 CA, 300 CA AC/DC	884 000 002	58,200
ORBICAR W trolley with integrated water coolant*	165 CA, 165 CB	884 000 004	58,200

ORBICOOL Active

Very efficient compressor cooling device with constant and adjustable water temperature. Including water flow sensor. Significantly increases cooling performance for the weld heads. Particularly suitable for welding units in series production.

Suitable for all* ORBIMAT orbital welding power supplies.



ORBICOOL Active

Technical Data	ORBICOOL Active
Coolant capacity	814 W
Connected load	0,58 kW
Maximum power consumption	6,2 A
Mains voltage	230 V, 50 Hz
Water tank capacity	6 l
Coolant type	air-cooled
Dimensions (lxwxh)	565 x 440 x 335 mm

Article	Code	kg
ORBICOOL Active for OM 165 CA/CB*	889 000 001	40,000
ORBICOOL Active for OM 300 CA/CB	889 000 002	40,000

**The power supply ORBIMAT 165A series has to be modified in our plant.*

Other accessories for ORBIMAT power supplies

ORBITWIN switching device

To increase productivity, the switching unit ORBITWIN is available, with which 2 welding heads can be operated alternately on the ORBIMAT. The previously assigned program is recalled automatically when the start key of the weld head is actuated. The welding head that is not being used is locked and can be prepared for the next welding operation.



ORBIMAT 300 switching device

Article	Suitable for ORBIMAT	Code	kg
ORBIMAT 165 CB switching device	165 CB	860 000 001	8,800
ORBIMAT 165 CA switching device	165 CA	861 000 001	8,800
ORBITWIN 300 switching device*	all ORBIMAT 300	876 000 001	8,800

* not suitable for AVC/OSC machines.

ORBICAR S trolley

The ORBICAR S is a practical trolley with storage shelf and an option of securing a gas cylinder. The ORBICAR S trolley can be combined with all power supplies of the ORBIMAT series. This trolley is most commonly used an orbital welding power supply of the ORBIMAT 165 A series.



ORBICAR S trolley

Article	Code	kg
ORBICAR S trolley	884 000 001	19,100

Durable carrying case

With castors. Protects the power supply during transport and during on-site storage. Can be supplied for ORBIMAT 165 CB/CA and ORBIMAT 300 CB/CA (incl. ORBICOOL Compact).

Article	Suitable for ORBIMAT	Code	kg
Carrying case	165 CB, 165 CA	875 050 002	17,500
Carrying case	300 CB, 300 CA, 300 CA AC/DC	874 050 001	20,800



Durable carrying case
(the ORBIMAT 300 CA series shown here is not supplied)

Oxygen meter ORB 1001

To determine the residual oxygen in forming gases. Maintenance-free. Complete in a dust-and water-proof transport container.

See page 67 for detailed information and the order number.



Oxygen Meter ORB 1001

Orbital Welding Power Supplies



ORBIPURGE forming set



BUP Control Box
incl. ORBIPURGE forming set



CompactFlash Card



Soft-/Hardware package

ORBIPURGE forming set

Complete with Teflon gas hose and quick release couplings.

The ORBIPURGE forming set for tube internal diameter 12 - 110 mm (0.472 - 4.331 inch) includes all accessories for fast and efficient internal forming during orbital welding.

See page 68 for detailed information and the order number.

BUP Control Box

The power supplies of the ORBIMAT CA-series offer the option in conjunction with the BUP control attachment to adjust the forming gas pressure in the inner tube via a pressure sensor, which compensates almost entirely for the often otherwise annoying entry of the seam weld into the sump position. At the same time, the gas pressure is modified automatically during welding by the system between a programmable minimum and maximum value depending on the position of the electrodes.

Including ORBIPURGE forming set for tube internal diameter 12 - 110 mm (0.472 - 4.331 inch). Complete with (3) Teflon gas hoses and rapid-action couplings.

Article	Suitable for ORBIMAT	Code	kg
BUP Control Box	165 CA, 300 CA	886 000 001	2,700

CompactFlash Card

For storing weld data protocols or for extending the program memory (one is already included in the soft/hardware package). Capacity to store over 5,000 welding programs.

Article	Code	kg
CompactFlash Card	875 012 056	0,010

Soft-/Hardware package

Suitable for all ORBIMAT orbital welding power supplies.

For external programming and data documentation, consisting of:

- 1 CompactFlash card 32 MB for transferring data between the machine and PC.
- 1 USB card reader for exporting the CompactFlash card on the PC (no further device required).
- ORBIPROG_CA software allows programs and protocols to be stored on the PC. All data can further be converted into PDF format, enabling this data to be read with practically any standard PC. Additionally, programs from C-series machines (e.g. OM 160 C) and CB-series can be converted to CA format with the help of software. The parameters of the CA programs can be edited using the software and can be transferred back to CA models and used there after processing.

Article	Code	kg
Soft-/Hardware package	875 050 003	0,200

Remote control with cable

Suitable for all ORBIMAT orbital welding power supplies (the and ORBIMAT 300 CA AVC/OSC already include the remote control).
Is required when connecting closed orbital weld heads.



Remote control with cable

Article	Cable length [m]	Cable length [ft]	Code	kg
Remote control with cable	7,5	24.6	875 050 001	1,350

Paper roll for integrated printer

Paper roll for integrated printer.
Suitable for all ORBIMAT orbital welding power supplies.



Paper roll for integrated printer

Article	Code	kg
Paper roll for integrated printer (contains 3 paper rolls)	875.050.017	0,150

Ribbon cartridge for integrated printer

Ribbon cartridge for integrated printer.



Ribbon cartridge for integrated printer

Article	Code	kg
Ribbon cartridge for integrated printer CA*	875 030 004	0,010
Ribbon cartridge for integrated printer CB*	875 030 002	0,020

* Article is part of scope of delivery of all ORBIMAT power supplies.

Anti freeze

Anti freeze for avoiding freezing of the cooling water.
Protects undiluted up to -60° degree.
Suitable for ORBICOOL Active, ORBIMAT 165 CB and ORBIMAT 165 CA.



Anti freeze 1 liter

Article	Code	kg
Anti freeze 1 Liter*	875 030 011	1,350

* Article is part of scope of delivery of all ORBIMAT power supplies.

Hose connection set ORBIMAT

Consists of:

- Teflon gas hose
- Ear clamps with insert
- Hose clips 3/8"
- Water hose for tank
- Gas input connector
- Swivel nuts 3/8"
- Hose clips 1/4"
- Swivel nuts 1/4"



Hose connection set ORBIMAT

Article	Code	kg
Hose connection set ORBIMAT*	875 030 018	0,404

* Article is part of scope of delivery of all ORBIMAT power supplies.