



AUTOMATION AND ROBOTICS



CEA has developed several products and interfaces for automation and robotics for MIG/MAG, pulsed MIG, TIG and PLASMA processes, by using its power sources. A team of experts is always able to suggest and propose the solutions better suiting different applications in line with the customer's needs.





ROBOCASE synergic inverter power sources have been designed with a digital control appositely built to fully satisfy all robotized MIG MAG and MIG PULSE welding applications.

Developed on the basis of the very latest Digitech VP2 technology, ROBOCASE power sources are standard supplied with a built-in EtherNet/IP digital interface and, upon request, can be provided with other fieldbus interfaces, such as DeviceNet and ProfiNet.



ROBOCASE power sources are standard equipped with the following integrated items:

- ▶ Control PCB for the external RBS 15 wire feeder
- ▶ Touch sensing PCB for a very precise control on the arc striking point
- ▶ Ethernet socket to directly interface the Robot control
- ▶ Ethernet additional socket to enable the clients to connect ROBOCASE to their local area network for monitoring welding data and for any necessary updating.

In function of the required robotized solution, additional different configurations are also possible such as:

- ▶ Double wire feeder for applications imposing different material or gas types
- ▶ Two wire feeders in Master-Slave configuration, whenever large heavy wire coils are utilized

ROBOCASE can be either supplied in air cooled version or fitted with integrated water cooling unit for the torch.

ROBOCASE, upon request, may be supplied equipped with special welding processes optimized for robotics.



RBS 15

Wire feeder to be fitted on both hollow wrist robots and traditional ones with external device.

Compact and light (only 6.2 kg) RBS 15 represents the ideal solution for any robotized application, being equipped with a 4 roll feeding mechanism, easily accessible also for roll replacements without any tooling, and having a double solenoid valve for gas and air



DIGITECH equipment allow a flexible and economic integration with all major welding robots available on the market; thanks to the availability of feeders and versatile interfaces - digital and analogic/digital – these power sources can be either connected to new robotized equipment or utilized as a retrofit to existing robots.

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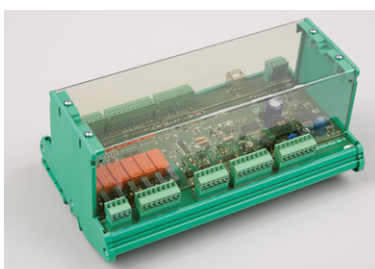
MCB 3

Control box for the wire feeder and auxiliary functions purpose-designed to be fitted either inside the power source, or inside the external robot control or even on the robot structure depending on the integrator's needs.



RI-A 1

Analogic/Digital interface.
Usable on robots with analogic/digital control.



RI-D

DeviceNet interface.
Usable on robots with field bus controller.



SPECIAL PROCESSES FOR ROBOCASE AND DIGITECH VP2

The specific utilization of special welding processes is an ideal choice for automation and allows to optimize specific welding applications, by granting far better performances in terms of quality and welding speed.

SPECIAL PROCESSES (OPTIONAL)

vision.ARC 2, available on ROBOCASE and DIGITECH VP2 equipment, is the support basis in order to weld by means of the herebelow listed special processes, i.e.

MIG/MAG



vision.PIPE for a more accurate welding in pipe first root pass



vision.ULTRASPEED for high speed welding



vision.COLD to weld thin thickness laminations with low heat transfer



vision.POWER for a more concentrated arc and deeper penetration on medium and thick thickness

PULSED MIG



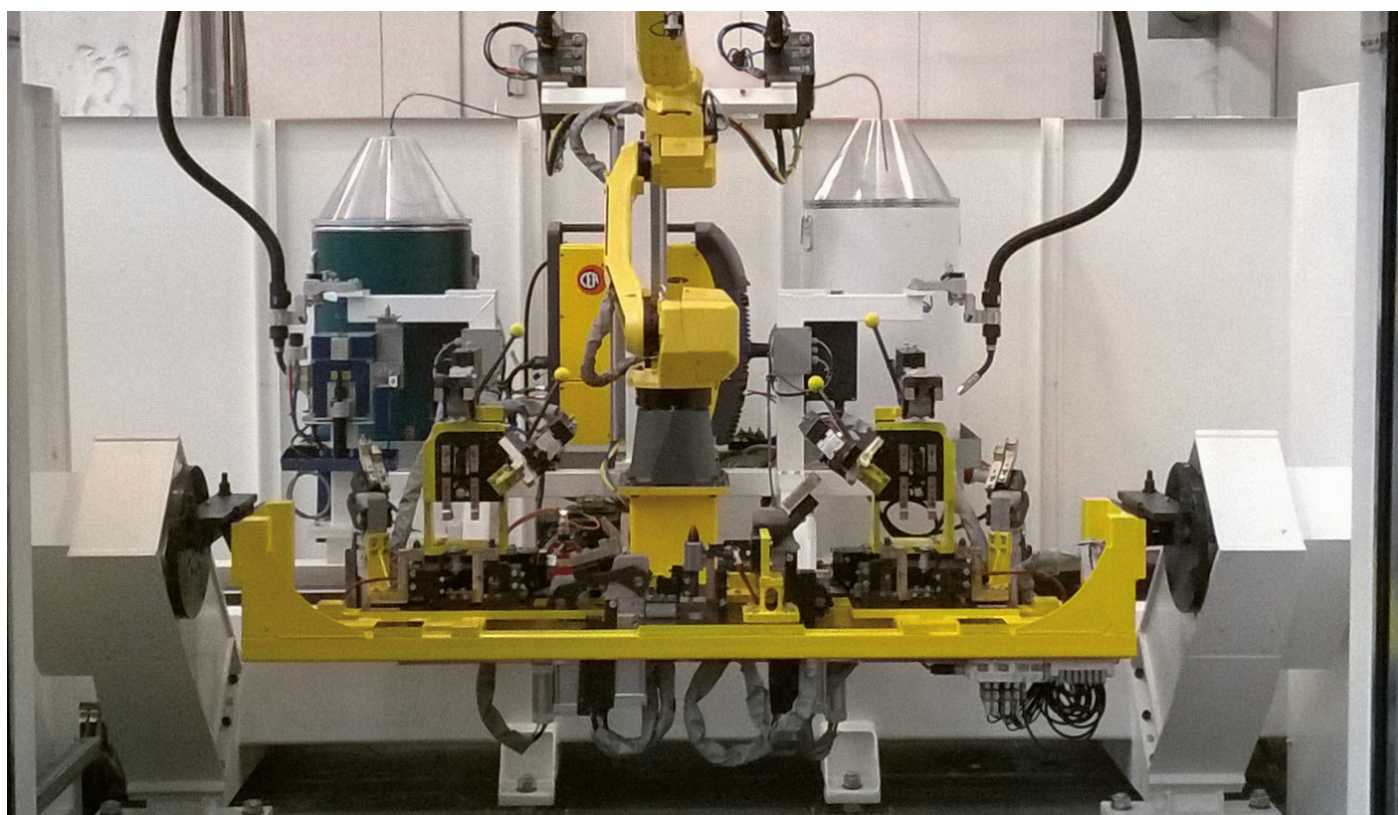
vision.PULSE-UP for a quicker and more precise vertical up welding



vision.PULSE-RUN for a colder and faster pulsed welding



vision.PULSE-POWER for a more penetrated and smoothly shaped welding on medium large thickness





TECHNICAL DATA	ROBOCASE			
		3300	4000	5000
Three phase input 50/60 Hz	V $\begin{smallmatrix} +20\% \\ -20\% \end{smallmatrix}$	400	400	400
Input Power @ I ₂ Max	kVA	19,5	25,5	31,2
Delayed Fuse (I _{eff})	A	25	32	40
Power Factor / cos φ		0,65/0,99	0,65/0,99	0,69/0,99
Efficiency Degree		0,85	0,85	0,85
Open circuit voltage	V	70	70	70
Current range	A	10 - 330	10 - 400	10 - 500
Duty cycle at (40°C)	A 100%	300	350	380
	A 60%	320	400	460
	A X%	330 (50%)	-	500 (50%)
Wires	Ø mm	0,6 - 1,2	0,6 - 1,6	0,6 - 1,6
Standards		EN 60974-1 • EN 60974-10		
		S		
Protection Class	IP	23 S	23 S	23 S
Insulation Class		H	H	H
Dimensions	↗ mm	600	600	600
	→ mm	670	670	670
	↑ mm	810	810	810
Weight (with water cooling unit)	kg	98	98	104

TECHNICAL DATA	DIGITECH VP2		
		4000	5000
Three phase input 50/60 Hz	V $\begin{smallmatrix} +20\% \\ -20\% \end{smallmatrix}$	400	400
Input Power @ I ₂ Max	kVA	25,5	32
Delayed Fuse (I _{eff})	A	32	40
Power Factor / cos φ		0,65/0,99	0,69/0,99
Efficiency Degree		0,85	0,85
Open circuit voltage	V	70	70
Current range	A	10 - 400	10 - 500
Duty cycle at (40°C)	A 100%	350	380
	A 60%	400	460
	A X%	-	500 (50%)
Wires	Ø mm	0,6 - 1,6	0,6 - 1,6
Standards		EN 60974-1 • EN 60974-10	
		S	
Protection Class	IP	23 S	23 S
Insulation Class		H	H
Dimensions	↗ mm	660	660
	→ mm	290	290
	↑ mm	515	515
Weight	kg	40	44

Other voltages available on request

These power sources are built for industrial environment use. EMC (CISPR 11): class A



ISO 9001: 2008