# Fronius SHIFTING THE LIMITS

# **VARIOSYNERGIC** 3400/4000/5000

/ MIG/MAG welding system



/ VarioSynergic is a microprocessor-controlled MIG/MAG welding system consisting of a power source, a wirefeeder, a welding torch and a cooling unit. Synergic Mode makes the system much easier to handle: just set the sheet thickness and the filler metal, and leave the power source to adjust everything else by itself. VarioSynergic is available in two different versions: a compact version with an integral wirefeeder, or with an external wirefeeder for portable deployment.

## **HANDLING**

/ The synergic function of VarioSynergic contains expert knowledge for every application. Make your pre-selections for sheet thickness and filler metal, and the machine will adjust everything else by itself: the amperage, the voltage and the deposition rate.

/ This lets you achieve outstanding welding results, easily and with only a very few settings.

### **WELDING PROPERTIES**

/ VarioSynergic works with wire diameters of between 0.8~mm and 1.6~mm, has an inductance tap for  $CO_2$  welding, and welds flux-cored and all solid wires.

/ The ignition process is reliable and absolutely jerk-free: at the start of welding, the wire is fed more slowly and only gets up to speed once the arc has ignited.

/ The end-of-welding sequence is easy to define, with an adjustable wire burn-back.



/ Synergic Mode: Just set your sheet thickness and filler metal – and start welding!



/ Perfect wirefeed thanks to 4-roller drive.



/ The specially tuned inductance makes it possible: optimum welding with  $CO_2$  and mixed gas.

	VS 3400	VS 4000	VS 5000
Mains voltage, reconnectable, + / - 10 %	3 x 400 V	3 x 400 V	3 x 400 V
Mains frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Mains fuse protection (slow-blow)	20 A	35 A	35 A
Primary continuous current (100 % d.c.)	9.2 A	11.2 A	15.9 A
Cos phi	0.95 (340 A)	0.94 (400 A)	0.94 (500 A)
Efficiency	76 % (200 A)	78.6 % (220 A)	78.9 % (280 A)
Welding current range	10 – 340 A	30 – 400 A	35 – 500 A
Welding current at 10 min/40°C	35 % d.c. 340 A	35 % d.c. 400 A	25 % d.c. 500 A
	60 % d.c. 260 A	60 % d.c. 290 A	60 % d.c. 360 A
	100 % d.c. 200 A	100 % d.c. 220 A	100 % d.c. 280 A
Open-circuit voltage	45 V	51 V	54 V
Working voltage	14.5 – 31.0 V	15.5 – 34.0 V	15.8 – 39 V
N° of switching steps	2 x 7	3 x 7	4 x 7
IEC 'degree of protection' code	IP 23	IP 23	IP 23
Type of cooling	AF	AF	AF
Insulation class	F	F	F
Dimensions L x W x H	890 x 460 x 945 mm	890 x 460 x 945 mm	890 x 460 x 945 mm
Weight	139 kg	147.5 kg	156 kg

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### **CHECKLIST**

/ 4-roller drive / Automatic cooling-unit cut-out

/ Feeder creep

/ Feeder inching

/ Gas-test function

/ Basket-type spool adapter

/ Microprocessor control

/ Polarity reversal (optional)

/ PullMig mode (optional)

/ Synergic Mode

/ Thermostat-controlled fan

/ Overtemperature protection

/ Intermediate wirefeeder (optional)

# **OPERATING MODES**

/ 2- and 4-step mode

/ Stitch welding

/ Spot welding

### **ADJUSTABLE PARAMETERS**

/ Feeder creep speed

/ Burn-back time

/ Gas pre- and post-flow times

/ Intermittent welding time

/ Spot-welding time

/ Welding power

/ Perfect Welding / Solar Energy / Perfect Charging

## WE HAVE THREE DIVISIONS AND ONE PASSION: SHIFTING THE LIMITS OF POSSIBILITY.

/ Whether welding technology, photovoltaics or battery charging technology – our goal is clearly defined: to be the innovation leader. With around 3,000 employees worldwide, we shift the limits of what's possible - our record of over 1,000 granted patents is testimony to this. While others progress step by step, we innovate in leaps and bounds. Just as we've always done. The responsible use of our resources forms the basis of our corporate policy.

Further information about all Fronius products and our global sales partners and representatives can be found at www.fronius.com

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