

/ Perfect Welding / Solar Energy / Perfect Charging



TPS 600i

The System for High-Performance Applications

SHORTEN CYCLE TIMES. WELD FOR LONGER. 100% DUTY CYCLE AT 500 A.

The cycle time is one of the most important factors in manufacturing: The goal is to minimize it in order to increase productivity. Welding systems with a high deposition rate and a long duty cycle can guarantee this.

The TPS 600i welds in continuous operation with a 100% duty cycle in the 400 to 500 ampere power range – the key to increased productivity.

What's your
welding challenge?

Let's get connected.



THE BENEFITS:

HIGH WELDING CURRENT

/ The TPS 600i can achieve welding currents of up to 600 A at a duty cycle of 60%.

HIGH SYSTEM AVAILABILITY

/ The 100% duty cycle at 500 A allows the TPS 600i to weld completely uninterrupted for long periods of time.

HIGH WELDING SPEEDS

/ A deposition rate of 13 kg/h (28lbs / hr) ensures faster welding.

RESILIENCE

/ Thanks to the more powerful power module on the machine, it is not only possible to weld in continuous operation at high power, the machine can also be exposed to high ambient temperatures.

Up to
82 %
higher deposition
rate

Up to
2,5x
longer duty cycle

Lower temperature
dependence

**ADVANTAGES
OF THE
TPS 600i***
*| compared to the TPS 500i

COMPARISON AT 100% DUTY CYCLE

/ a-dimension: 8 mm / Wire diameter: 1.6 mm
/ Material: S235JR / Material thickness: 15 mm
/ Welding position: PA / Weld seam length: 100 cm

	TPS 500i	1. LAYER	2. LAYER
	Voltage		27 V
Current		360 A	360 A
Wire speed		8.1 m/min	7.7 m/min
Welding speed		70 cm/min	30 cm/min
Deposition rate		7.6 kg/h (17lbs/hr)	7.3 kg/h (16lbs/hr)

TPS 600i	
Voltage	30 V
Current	500 A
Wire speed	12.0 m/min
Welding speed	35 cm/min
Deposition rate	11.4 kg/h (25lbs/hr)

TPS 500i

TPS 600i

2
Layers

1
Layer

4 min 46 s

2 min 51 s

-40%

119 l
GASCONSUMPTION

71.4 l
GASCONSUMPTION

-40%



TECHNICAL DATA



TPS 600i

Mains voltage	3x 600 V
Mains fuse	63 A
Grid frequency	50-60 Hz
Mains voltage tolerance	+/- 15 %
Cos phi	0.99

MIG/MAG welding current range	3-600 A
10min/40°C (104°F) 60% duty cycle	600 A
10min/40°C (104°F) 100% duty cycle	500 A

Open circuit voltage	71 A
MIG/MAG working voltage	14.2-44 V

Degree of protection	IP23
Dimensions L x W x H	706 x 300 x 510 mm
Weight	50 kg

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THREE BUSINESS UNITS, ONE GOAL: TO SET THE STANDARD THROUGH TECHNOLOGICAL ADVANCEMENT.

What began in 1945 as a one-man operation now sets technological standards in the fields of welding technology, photovoltaics and battery charging. Today, the company has around 4,550 employees worldwide and 1,241 patents for product development show the innovative spirit within the company. Sustainable development means for us to implement environmentally relevant and social aspects equally with economic factors. Our goal has remained constant throughout: to be the innovation leader.

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

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