



# PMI 50 TL / Basic SP Factsheet

## Plasma Multi Inverter Touch Line and Basic Single Phase CCC

Multifunctional device - The ideal solution for welding thin sheets with a thickness of up to ~ 1mm.

## TECHNICAL DETAILS

Due to the exact control of the welding current and the electronic plasma gas control, foils, sieves and thin-walled components, from 0.5A, can be welded manually and automatically with the microplasma process.

**PMI 50TL PMI 50TL Basic SP** 3x400V ±15% 50/60Hz 230V ±15% 50/60Hz 3 Phase 1 Phase 4x16A CCE plug, 2.5mm<sup>2</sup> Schuko/Guardy plug 2.5mm<sup>2</sup>

## OPTIONS

**PGR-05:** electr. Plasma gas regulation, range 0.1 ÷ 5 l / min

**SGR-20:** electr. Shielding gas control, range 0.5 ÷ 20 l / min

**Applicable Welding Methods**

- PLASMA Seam Welding
- PLASMA Brazing
- PLASMA Coating

**Range of suitable material thickness  
(Plasma seam welding)**

~ 0.1 – 1 mm

**Operating modes**

DC

**Supply Voltage**

3 × 400 V ±15 % 50/60Hz

**Phase**

3 Phase

**Power connection**4 × 16 A CCE plug, 2.5 mm<sup>2</sup>**Max. welding current at 35 % PMI50; duty cycle  
(40 °C)**

50A

**Max. welding current at 100 % duty cycle (40 °C)**

30A

**Adjustment range welding current**

0.5 – 50 A

**Max. pilot current at 35 % duty cycle (40 °C)**

15A

**Max. pilot current at 100 % duty cycle (40 °C)**

15A

**Adjustment range pilot current**

0.5 – 15 A

**Adjustment range TIG mode**

0.5 – 50 A

**Cooling**

Liquid

**Degree of protection**

IP 21 S

**Length**

620mm

**Width**

300mm

**Height**

555mm

**Weight**

47kg

**Features**

- Power source with HF-ignition
- Pilotinverter with HF-ignition
- USB interface
- Ethernet interface
- Integrated welding program memory
- Integrated cooling
- Integrated monitoring / gaging of cooling medium
- Integrated electronic gas regulation (PGR)
- Integrated automation interface
- Software for external controlling via computer (diagnostics, parameter setup, documentation)
- Flowmeter plasma gas
- Flowmeter shielding gas
- Remote Control RC-S
- Foot control of the current
- Touch Screen 5,4"

**Automation Interface "Tiny"**

- Included

**Digital Inputs**

2 × 24 V

**Digital Outputs**

3 × 24 V

**Analog Inputs**

2 × 0 – 10 V

**Analog Outputs**

1 × 0 – 5 V / 1 × 0 – 10 V

## Torches Recommended for Use



TP50-M



TP50-R

## About SBI GmbH

SBI was founded in 1999 with the aim of developing rapid prototyping technologies. SBI has therefore developed its plasma technologies and built welding solutions. From automated solutions for coating technologies to the repair of forging dies or plasma arc deposition machines for the maintenance of aircraft turbines, SBI has established world-renowned references in the field of arc deposition plasma. Since 2009, SBI has established itself as the main supplier of its plasma-based technology for the 3D manufacturing of aeronautical parts.

Besides its renown portfolio of superior plasma inverter systems and plasma welding equipment, SBI has been developing its own additive manufacturing machines. The manufacturer put the metal additive manufacturing system M3DP on the market in 2019.

