

## SPARTUS® MasterMIG 250W Dual Pulse







































# SPARTUS® MasterMIG 250W Dual Pulse

Product code:

MasterMIG250W DualPulseSynergy



Standard equiped: •Device SPARTUS® MasterMIG 250W Dual Pulse Synergy • Cooler • Driving set • 3m work clamp • Gas hose • User's manual

#### **Product description**

## MULTOPROCESS, SYNERGIC MIG WITH DOUBLE PULSE

**SPARTUS®** MasterMIG 250W Dual Pulse is a modern multi-functional inverter device for welding with MIG/MAG, TIG and MMA methods. During its production, modern technologies were used, such as: IGBT transistors, PWM, MCU control system. The device is powered from a 400V three-phase network and enables welding with a current of up to 250A for all three methods.

**SPARTUS®** MasterMIG 250W Dual Pulse have a number of modern functions necessary for high-performance and high-quality MIG/MAG welding of materials such as steels, stainless steels, acid-resistant steels and aluminum alloys. It will be used especially when welding aluminum and its alloys, thanks to the use of advanced functions, dedicated to welding demanding alloys.

The most important functions:

Examples of applications: workshop work, renovation works in the field, automotive – welding of galvanized car bodies (brazing), silencer welding, production sector, light industry.

- •1P (Pulse) MIG/MAG welding with pulsation, which significantly facilitates obtaining a spray arc
- •2P (Dual Pulse) MIG/MAG welding with double pulsation
- •Welding in two operating modes 2T/4T
- •Spot welding

The use of double pulsation in the MIG/MAG method allows obtaining a weld of quality and aesthetics comparable to the TIG method. The benefits of using double pulsation in the MIG/MAG method:

- •High aesthetics (husk effect)
- Higher welding efficiency compared to the TIG method
- •Smaller thermal deformations compared to the TIG method
- •When welding aluminum requires less skill from the operator in relation to the TIG method

Simple to use and intuitive function panel allows precise control of parameters for MIG/MAG, TIG and MMA methods. For the MIG/MAG methods it is possible to smoothly adjust the welding parameters such as: welding voltage, wire feed speed, inductance. In addition, the device is equipped with synergic programs in which the parameters are programmed – according to the welding mode and the material being welded.

**SPARTUS®** MasterMIG 250W Dual Pulse is equipped with a professional four-roll wire feeder, which allows you to work with a long welding handle regardless of the type of wire used. Despite the small compact size and weight, the device is compatible with standard spools with welding wire D200 and D300 weighing up to 15kg.

Examples of applications: workshop work, renovation works in the field, automotive – welding of galvanized car bodies (brazing), muffler welding, production sector, light industry, high-performance aluminum welding.



## Technical parameters

Welding current MiG [A]         15 - 250           Duty cycle MiG [%]         60% - 250A / 100% - 195A           Output working voltage [v]         14.8 - 26,5           Wire feeding speed [m/min]         1.5 - 24           Wire feeder         built-in, 4-roll gear           Welding wire spool [kg]/[mm]         ≤ 15 / 200,200           Wire diameter Ø [mm]         0.8 1.0, 12           Additional features         Spulse, 21/41 control, Arc Force, Hot Start, VRD, Burn Back, inductance control, synergy, SPOT, synergistic program, Siow feed, MMA welding, Pre-gas, Post-gas           Expactly         5           Post-gas [s]         0 - 10           Po- with dual pulse         20 programs           SYNERGY - without pulse         10 roggams           4dr (cloulse current delta)         10 - 200(A)           FdP (2P frequency)         0.5 - 3,0[Hz]           dut (double pulsation wild the current)         10 - 90(%)           SAL (raic length of the current)         10 - 90(%)           SAL (initial current arc length)         10 - 10           ECP (final current)         10 - 200 (%)           EAL (final current arc length)         10 - 200           Velding current Tid [A]         10 - 250           Current consumption [A]         Mol 15,1 / MMA 18,2 / Tig 13,3	Input	~3× 400V ± 10% 50 / 60 Hz
Duty cycle MIG (%)         60% - 250A / 100% - 195A           Output working voltage (V)         14.8 - 26.5           Wire feeder         buil-in, 4-roll gear           Welding wire spool [kg]/[m]         15.7 200/300           Welding wire spool [kg]/[m]         51.5 / 200/300           Ward ditional features         0.81.0.1.2           Additional features         yes           Sow feed, MMA weding, Pre-gas, Post-gas           Post-gas [s]         0.10           1P - with pulse         20 programs           2P - with dual pulse         7 programs           SVNERGY - without pulse         10 - 200/A           6P (pulse current delta)         10 - 200/A           FUP - with closule pulsation with         10 - 200/A           6P (P (P Fequency)         0.5 - 3.0/Hz]           dut (double pulsation with)         10 - 200/S           5P (P (Initial current)         10 - 200/S           6P (Initial current arc length)         10 - 200           6P (Initial current TTG [A)         10 - 200           6U (Initial current TTG [A)         10 - 200           6U (Initial current TTG [A)         10 - 20           6U (Initial current TTG [A)         10 - 20           6U (Initial current TTG [A)         10 - 20 <th< th=""><th></th><th></th></th<>		
Output working voltage (r/)         1.8.2.6.5           Wire feeding speed (m/min)         1.5.2.4           Wire feeder         bultin, 4roll gear           Welding wire spool (kg)/min         2.5.2.000300           Wire diameter Ø (mm)         0.8.1.0.1.2           Additional features         blus, 2.7.MT control, Arc Force, Hot Start, VRD, Burn Back, inductance control, synergy, SPOT, synergistic program, Solow feed, MMA welding, Pre-gas, Post-gas           Water cooler         Yes           Capacity         0.10           Post-gas [s]         0.10           1P - with pulse         20 programs           SYNERGY - without pulse         10 regorams           dPC (pulse current delta)         10 - 200(A           FdP (2P frequency)         0.5 - 3.0(Hz)           dut (double pulsation with)         10 - 90(%)           SAL (arc length of the current)         10 - 10           SPC (initial current)         10 - 200(%)           SAL (initial current)         10 - 200(%)           EAL (finital current)         10 - 200           EQ (finital current)         10 - 200           EQ (finital current)         10 - 20           EQ (finital current)         10 - 20           EQ (finital current)         10 - 20           Charce (spill)		
Wire feeder         bulkin, 4-roll gear           Welding wire spool [kg]/mm         5 7 200300           Wire dinamet o [mm]         08.1, 0.2           Additional features         gube, 2 7 Wart control, Arc Force, Hot Start, VRD, Burn Back, inductance control, synergy, SPOT, synergistic programs, one feet, MMA welding, Pre-gas, Post-gas           Water cooler         Yes           Capacity         0 -0           19- with pulse         20 programs           29- with dual pulse         20 programs           5YNERGY - without pulse         10 - 2006/A           dPC (pulse current delta)         10 - 2006/A           4H. (arc length of the current)         10 - 90(%)           5VAL (arc length of the current)         10 - 2005/A           4L (arc length of the current)         10 - 2005/A           5CP (Initial current)         10 - 2005/A           6L (Initial current)         10 - 2005/A      <		
Wire feeder         bulli-in, 4-roll gear           Welding wire spool [kg]/[mm]         ≤ 15 / 200/300           Wire diameter Ø [mm]         0.8, 1.0, 1.2           Additional features         pulse, 2 / 1/4 Control , Arc Force, Hot Start, VRD, Burn Back, inductance control, synergy, SPOT, synergistic program, slow feed, MMA welding, Pre-gas, Post-gas           Water cooler         Yes           Capacity         51           Post-gas [s]         0 - 10           1P - with pulse         20 programs           2P - with dual pulse         20 programs           dPC (pulse current delta)         10 - 200[A]           FdP (2P frequency)         0,5 - 3,0[Hz]           dut (double pulsation width)         10 - 90[%]           bAL (arc length of the current)         10 - 200[%]           SAL (initial current arc length)         10 - 200[%]           SAL (initial current arc length)         10 - 200[%]           EAL (final current arc length)         10 - 200           EQP (initial current TG [A)         10 - 250           Contactless pilot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption         Min [5.1 / MMA 18.2 / TiG 13.3           Power factor (cosp)         0,70		
Welding wire spool [kg]/[mm]         ≤ 15 / 200/300           Wire diameter Ø [mm]         0.8. 1.0. 1.2           Additional features         pulse, 27/4T control. Arc Force, Hot Start, VRD, Burn Back, inductance control, synergy, SPOT, synergistic program, Slow feed, MMA welding, Pre-gas, Post-gas           Water cooler         Yes           Capacity         5           Post-gas [s]         0 - 10           1P - with pulse         20 programs           2P - with dual pulse         20 programs           5YNERGY - without pulse         17 programs           dPC (pulse current delta)         10 - 200/[A]           FdP (2P frequency)         0,5 - 3,0 [kz]           dut (double pulsation width)         10 - 90(%)           SAL (initial current)         10 - 200(%)           SAL (initial current arc length)         10 - 200(%)           ECP (final current arc length)         10 - 200(%)           EAL (final current TG [A]         10 - 250           Contactless pilot arc ignition         Lift           Welding current MMA [A]         10 - 250           Current consumption [A]         MiG 15,1 / MMA 18,2 / TiG 13,3           Power factor (cose)         0,70           Efficiency η [%]         85           Insulation class         H		
Wire diameter Ø (mm)         0.8, 1.0, 1.2           Additional features         pulse, 2T/AT control, Arc Force, Hot Start, VRD, Burn Back, inductance control, synergy, SPOT, synergistic program, of wire feed, MMA welding, Pre-gas, Post-gas           Capacity         5           Post-gas [s]         0 - 10           1P - with pulse         20 programs           2P - with dual pulse         10 rograms           SYNERGY - without pulse         17 programs           dPC (pulse current delta)         10 - 200(A)           FdP (2P frequency)         0.5 - 3.0(Hz)           dut (double pulsation width)         10 - 90(%)           SCP (mixital current)         10 - 200(%)           SCP (mixital current)         10 - 200(%)           ECP (final current arc length)         10 - 200(%)           EQ (final current arc length)         10 - 200(%)           EQ (mixital current arc length)         10 - 200(%)           EQ (mixital current)         10 - 200(%) </th <th></th> <th>-</th>		-
Additional features  pulse, 2T/4T control , Arc Force, Hot Start, VRD, Burn Back, inductance control, synergy, SPOT, synergistic program, Slow feed, MMA welding, Pre-gas, Post-gas  Water cooler  Pest-gas [s]  0 - 10  1P - with pulse  20 programs  20 programs  20 programs  20 programs  SYNERGY without pulse  17 programs  dPC (pulse current delta)  10 - 200[A]  FdP (2P frequency)  0,5 - 3,0[Hz]  dut (double pulsation width)  10 - 90[%]  SAL (arc length of the current)  5CP (initial current arc length)  10 - 200[%]  SAL (initial current arc length)  10 - 200[%]  SAL (initial current arc length)  10 - 200[%]  EAL (final current arc length)  10 - 250  Contactless pilot arc ignition  Uit  Down slope [s]  0 - 10  Welding current MMA [A]  10 - 250  Current consumption [A]  MiG 15,1 / MMA 18,2 / TiG 13,3  Power factor (cose)  0,70  Efficiency n [%]  85  Insulation class  H  Protection class  Weight [kg]  62,6		
Capacity         5!           Post-gas [s]         0 - 10           1P - with pulse         20 programs           2P - with dual pulse         20 programs           SYNERGY - without pulse         17 programs           dPC (pulse current delta)         10 - 200[A]           FdP (2P frequency)         0,5 - 3,0[Hz]           dut (double pulsation width)         10 - 90[%]           SAL (arc length of the current)         10 - 410           SCP (initial current arc length)         10 - 200[%]           SAL (initial current arc length)         10 - 000[%]           EAL (final current arc length)         10 - 200           Welding current TIG [A]         10 - 250           Contactless pilot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         Mig 15,1/MMA 18,2/TIG 13,3           Power factor (cosφ)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	Additional features	pulse, 2T/4T control , Arc Force, Hot Start, VRD, Burn Back, inductance control, synergy, SPOT, synergistic program,
Post-gas [s]         0 - 10           1P - with pulse         20 programs           2P - with dual pulse         20 programs           SYNERGY - without pulse         17 programs           dPC (pulse current delta)         10 - 200[A]           FdP (2P frequency)         0,5 - 3,0[Hz]           dut (double pulsation width)         10 - 90[%]           SAL (arc length of the current)         -10 - +10           SCP (initial current arc length)         -10 - +10           ECP (final current)         10 - 200[%]           EAL (final current arc length)         -10 - +10           Welding current TIG [A]         10 - 250           Contactless pilot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         MiG 15,1 / MMA 18,2 / TIG 13,3           Power factor (cosφ)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	Water cooler	Yes
1P - with pulse         20 programs           2P - with dual pulse         20 programs           SYNERGY - without pulse         17 programs           dPC (pulse current delta)         10 - 200[A]           FdP (2P frequency)         0,5 - 3,0[Hz]           dut (double pulsation width)         10 - 90[%]           SAL (arc length of the current)         -10 - +10           SCP (initial current arc length)         -10 - +10           ECP (final current arc length)         -10 - +10           Welding current TIG [A]         10 - 250           Contactless pilot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         MiG 15,1 / MMA 18,2 / TIG 13,3           Power factor (cosφ)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	Capacity	51
2P - with dual pulse         20 programs           SYNERGY - without pulse         17 programs           dPC (pulse current delta)         10 - 200(A)           FdP (2P frequency)         0.5 - 3.0(Hz)           dut (double pulsation width)         10 - 90[%]           bAL (arc length of the current)         -10 - +10           SCP (initial current arc length)         10 - 200(%)           EAL (final current arc length)         -10 - +10           Welding current TIG [A]         10 - 250           Contactless pilot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         MiG 15.1 / MMA 18.2 / TIG 13.3           Power factor (cose)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         H           Veight [kg]         6.2.6	Post-gas [s]	0 - 10
SYNERGY - without pulse         17 programs           dPC (pulse current delta)         10 - 200[A]           FdP (2P frequency)         0,5 - 3,0[Hz]           dut (double pulsation width)         10 - 90[%]           bAL (arc length of the current)         -10 - +10           SCP (initial current arc length)         -10 - +10           ECP (final current arc length)         -10 - +10           Welding current TIG [A]         10 - 250           Contactless pillot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         MIG 15,1 / MMA 18,2 / TIG 13,3           Power factor (cosφ)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	1P - with pulse	20 programs
dPC (pulse current delta)         10 - 200[A]           FdP (2P frequency)         0,5 - 3,0[Hz]           dut (double pulsation width)         10 - 90[%]           bAL (arc length of the current)         -10 - +10           SCP (initial current)         10 - 200[%]           SAL (initial current arc length)         -10 - +10           ECP (final current arc length)         -10 - +10           Welding current TIG [A]         10 - 250           Contactless pilot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         MIG 15,1 / MMA 18,2 / TIG 13,3           Power factor (cosφ)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	2P - with dual pulse	20 programs
FdP (2P frequency)         0,5 - 3,0[Hz]           dut (double pulsation width)         10 - 90[%]           bAL (arc length of the current)         -10 - +10           SCP (initial current arc length)         -10 - +10           ECP (final current)         10 - 200[%]           EAL (final current arc length)         -10 - +10           Welding current TIG [A]         10 - 250           Contactless pilot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         MiG 15,1 / MMA 18,2 / TIG 13,3           Power factor (cos\(\phi\))         0,70           Efficiency \(\graph{1}\)         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	SYNERGY - without pulse	17 programs
dut (double pulsation width)         10 - 90[%]           bAL (arc length of the current)         -10 - +10           SCP (initial current arc length)         -10 - +10           ECP (final current)         10 - 200[%]           EAL (final current arc length)         -10 - +10           Welding current TIG [A]         10 - 250           Contactless pilot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         MIG 15,1 / MMA 18,2 / TIG 13,3           Power factor (cose)         0,70           Efficiency n [%]         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	dPC (pulse current delta)	10 - 200[A]
bAL (arc length of the current)         -10 - +10           SCP (initial current)         10 - 200[%]           SAL (initial current arc length)         -10 - +10           ECP (final current arc length)         -10 - +10           Welding current TIG [A]         10 - 250           Contactless pilot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         MIG 15,1 / MMA 18,2 / TIG 13,3           Power factor (cosφ)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         H           Weight [kg]         62,6	FdP (2P frequency)	0,5 - 3,0[Hz]
SCP (initial current)         10 - 200[%]           SAL (initial current arc length)         -10 - +10           ECP (final current arc length)         -10 - +10           Welding current TIG [A]         10 - 250           Contactless pilot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         MIG 15,1 / MMA 18,2 / TIG 13,3           Power factor (cosφ)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	dut (double pulsation width)	10 - 90[%]
SAL (initial current arc length)         -10 - +10           ECP (final current)         10 - 200[%]           EAL (final current arc length)         -10 - +10           Welding current TIG [A]         10 - 250           Contactless pilot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         MIG 15,1 / MMA 18,2 / TIG 13,3           Power factor (cosφ)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	bAL (arc length of the current)	-10 - +10
ECP (final current)         10 - 200[%]           EAL (final current arc length)         -10 - +10           Welding current TIG [A]         10 - 250           Contactless pilot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         MIG 15,1 / MMA 18,2 / TIG 13,3           Power factor (cosφ)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	SCP (initial current)	10 - 200[%]
EAL (final current arc length)         -10 - +10           Welding current TIG [A]         10 - 250           Contactless pilot arc ignition         Lift           Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         MIG 15,1 / MMA 18,2 / TIG 13,3           Power factor (cosφ)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	SAL (initial current arc length)	-10 - +10
Welding current TIG [A]10 - 250Contactless pilot arc ignitionLiftDown slope [s]0 - 10Welding current MMA [A]10 - 250Current consumption [A]MIG 15,1 / MMA 18,2 / TIG 13,3Power factor (cosφ)0,70Efficiency η [%]85Insulation classHProtection classIP23Weight [kg]62,6	ECP (final current)	10 - 200[%]
Contactless pilot arc ignitionLiftDown slope [s]0 - 10Welding current MMA [A]10 - 250Current consumption [A]MIG 15,1 / MMA 18,2 / TIG 13,3Power factor (cosφ)0,70Efficiency η [%]85Insulation classHProtection classIP23Weight [kg]62,6	EAL (final current arc length)	-10 - +10
Down slope [s]         0 - 10           Welding current MMA [A]         10 - 250           Current consumption [A]         MIG 15,1 / MMA 18,2 / TIG 13,3           Power factor (cosφ)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	Welding current TIG [A]	10 - 250
Welding current MMA [A]         10 - 250           Current consumption [A]         MIG 15,1 / MMA 18,2 / TIG 13,3           Power factor (cosφ)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	Contactless pilot arc ignition	Lift
Current consumption [A]       MIG 15,1 / MMA 18,2 / TIG 13,3         Power factor (cosφ)       0,70         Efficiency η [%]       85         Insulation class       H         Protection class       IP23         Weight [kg]       62,6	Down slope [s]	0 - 10
Power factor (cosφ)         0,70           Efficiency η [%]         85           Insulation class         H           Protection class         IP23           Weight [kg]         62,6	Welding current MMA [A]	10 - 250
Efficiency η [%]         85           Insulation class         Η           Protection class         IP23           Weight [kg]         62,6	Current consumption [A]	MIG 15,1 / MMA 18,2 / TIG 13,3
Insulation class H  Protection class IP23  Weight [kg] 62,6	Power factor (cosφ)	0,70
Protection classIP23Weight [kg]62,6	Efficiency η [%]	85
Weight [kg] 62,6	Insulation class	н
	Protection class	IP23
<b>Dimensions [mm]</b> 1100 x 580 x 700	Weight [kg]	62,6
	Dimensions [mm]	1100 x 580 x 700

PRODUCT CATEGORIES: WELDING MACHINES

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The products do not constitute an offer within the meaning of the Civil Code.