



# ENGINE DRIVEN WELDER TS 275 EVO MULTI4

The images are for reference

## WELDING PROCESS



SMAW Shielded Metal Arc welding (STICK)



Gas Tungsten Arc Welding (TIG)



GMAW Gas Metal Arc Welding (MIG)



FCAW Flux Cored Arc Welding (FLUX CORED)



Arc gouging SMAW (STICK)



## CARATTERISTICHE

- Multi-process DC arc welder
- "EVO MULTI4" welding control panel
- Digital adjustment of the welding parameters
- Welding arc adjustment and multi-process parameters
- Ammeter and digital welding voltmeter with pre-setting of the welding parameters
- VRD function
- AC power generator three-phase and single-phase available during the welding phase
- Digital engine management and control module
- Bunded base
- Canopy with wide opening to allow easy maintenance (replacement of air, oil, fuel filters)
- Large capacity tank
- Fuel level sensor
- External plugs for oil and water drainage
- Emergency stop button
- Central lifting eye
- Compliant with EC / EU Directives



water cooled



diesel



electric starter

## ENGINE 3000 RPM

4 STROKE, NATURAL ASPIRATED	
Model	KOHLER KDW702
Stand-by net power	10.3 kW (14 hp)
PRP net power	9.3 kW (12.6 hp)
COP net power	/
Cylinder / Displacement	2 / 686 cm <sup>3</sup> (0.686 lt.)
Bore / Stroke	75 / 77,6 (mm)
Compression ratio	22.8 :1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/
Speed governor type	Mechanical
<b>FUEL CONSUMPTION</b>	
110 % (Stand-by power)	3.8 lt./h
100 % of PRP	3.4 lt./h
75 % of PRP	2.6 lt./h
50 % of PRP	1.9 lt./h
<b>COOLING SYSTEM</b>	
Total system cap. - only engine	lt - 1.1 lt
Fan air flow	72 m <sup>3</sup> /min.
<b>LUBRIFICATION SYSTEM</b>	
Total oil system capacity	/
Oil capacity in sump	1.6 lt
Oil consumption at full load	/

EXHAUST SYSTEM	
Maximum exhaust gas flow	2.2 m <sup>3</sup> /min.
Max. exhaust gas temp.	540 °C
Maximum back pressure	60 kPa (0.6 bar)
External diameter exhaust pipe	/
<b>ELECTRICAL SYSTEM</b>	
Starter motor power	1.6 kW
Battery charging alternator cap.	40 A
Cold start	- 10 °C
With cold start device	/
<b>AIR FILTER</b>	
Combustion air flow	1.02 m <sup>3</sup> /min.
<b>HEAT REJECTED AT FULL LOAD</b>	
To exhaust system	/
To water and oil	/
Radiated to room	/
To charge cooler	/



# WELDING

## C.C. WELDING

CONSTANT CURRENT - COATED ELECTRODE SMAW (STICK)	
Current range	20A / 20.8V ÷ 270A / 21V
Type of regulation	Continue 20A ÷ 270A
Duty cycle	200A / 28V @ 100% 230A / 29.2V @ 60%
Open circuit voltage	66 Vcc (68 Vcc peak)
Reduced no-load voltage with VRD	< 13 Vcc / Vdc
Arc force control	Yes

## C.V. WELDING (CONSTANT VOLTAGE)

SMAW (MIG)	
Current range	40A / 16V ÷ 270A / 21V
Welding voltage	continue 15 V ÷ 45 V
Duty cycle	230A @ 25.5V / 60% 200A @ 24V / 100%

## C.C. WELDING

CONSTANT CURRENT - TUNGSTEN ELECTRODE GTAW (TIG)	
Current range	20A / 10.8V ÷ 270A / 20.8V
Type of regulation	Continue 20A ÷ 270A
Duty cycle	200A / 18V @ 100% 230A / 19.2V @ 60% 270A / 20.8V @ 35%
Open circuit voltage	66 Vcc (68 Vcc peak)
Reduced no-load voltage with VRD	< 13 Vcc / Vdc

## SIMULTANEOUS LOAD CHARACTERISTIC

WELDING CURRENT	≥ 130A	100A	75A	50A	0A
POW. IN THREE PHASE 400V	0 kW	1.2 kW	3.5 kW	5 kW	8 kW
POW. IN SINGLE PHASE 230V	0 kW	1 kW	2.5 kW	3 kW	5 kW
POW. IN SINGLE PHASE 115V	0 kW	1 kW	2 kW	2.5 kW	2.5 kW

## GENERAL SPECIFICATIONS

Fuel tank capacity	38 l
Starter battery	12 Vdc -37Ah / 330A CCA(EN)
Fuel consumption (welding 60%)	/
Running time (welding 60%)	15 h
IP protection degree	IP 23

Guaranteed acoustic power LwA (pressure LpA)	95 dB(A) (70 dB(A) @ 7 m)
Measured acoustic power LwA (pressure LpA)	94 dB(A) (70 dB(A) @ 7 m)
Max. ambient temperature	40 °C

## A.C. GENERATION

ALTERNATOR ASYNCHRONOUS THREE-PHASE, SELF-EXCITED, SELF-REGULATED, BRUSHLESS

Insulation class	H
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# GENERATION AND CONTROL PANEL

TS 275 EVO MULTI4

## AUXILIARY GENERATION

OUTPUT 1	
Type of source	Three-phase
Frequency	50Hz
Power kVA (Power kW) Max	8 kVA (6.4kW)
Cos φ	0.8
Voltage	400V
Current	11.5 A

OUTPUT 3	
Type of source	Single-Phase
Frequency	50Hz
Power kVA (Power kW) Max	2.5 kVA/kW
Cos φ	0.8/1
Voltage	110V CTE
Current	22.7A

OUTPUT 2	
Type of source	Single-Phase
Frequency	50Hz
Power kVA (Power kW) Max	5 kVA/kW
Cos φ	0.8/1
Voltage	230V
Current	21.7A

OUTPUT 4	
Type of source	Single-Phase
Frequency	50Hz
Power kVA (Power kW) Max	5 kVA/kW
Cos φ	1
Voltage	48V
Current	104A

## ENGINE CONTROL PANEL

- Controller RGK420SA
- Thermal circuit breaker for motor protection: 1x30A
- Thermal circuit breaker for motor protection: 1x5A
- Acoustic signal
- Emergency stop button



RGK420SA CONTROLLER FEATURES	
Operating modes	<ul style="list-style-type: none"> <li>• MAN - REMOTE</li> </ul>
Display	<ul style="list-style-type: none"> <li>• Backlit display, LCD</li> <li>• Buttons: START ▼ - ▲</li> <li>• Key</li> </ul>
Generator measurements	<ul style="list-style-type: none"> <li>• Voltage L1-L2 / L2-L3 / L3-L1 - N-L1/N-L2/N-L3</li> <li>• Frequency Hz</li> </ul>
Engine measurements	<ul style="list-style-type: none"> <li>• Fuel level</li> <li>• Engine revs</li> <li>• Hour meter</li> <li>• Battery voltage</li> </ul>
Generator protections	<ul style="list-style-type: none"> <li>• Overvoltage</li> <li>• Under tension</li> <li>• Overfrequency</li> <li>• Underfrequency</li> </ul>
Motor protections	<ul style="list-style-type: none"> <li>• Overspeed</li> <li>• Low speed</li> <li>• High temperature</li> <li>• Low oil pressure</li> <li>• Low fuel pre-alarm</li> <li>• Low fuel level</li> <li>• Battery voltage</li> <li>• Inefficient battery</li> <li>• Battery charge alternator fault</li> <li>• Emergency stop</li> <li>• Failure to start</li> <li>• Failure to stop</li> <li>• Maintenance</li> </ul>
Features	<ul style="list-style-type: none"> <li>• Operator interface with symbols, codes and texts</li> <li>• Panel or PC programming</li> <li>• External start and stop</li> <li>• Programmable inputs and outputs</li> <li>• Operating temperature: -30 °C - + 70 °C</li> <li>• NFC interface for wireless programming</li> </ul>

## GENERATION (VERS. 400V / 230V / 48V)

- Differential switch (400V / 230V)
- Magnetothermic switch for 230V sockets
- Thermal cut-offs for socket protection: 1x 16A for 230V 16A 2P + T CEE socket
- Output sockets: 1x 400V 32A 3P+N+T CEE  
1x 230V 32A 2P+T CEE  
1x 230V 16A 2P+T CEE  
N ° 2 200A output terminals (for 48V)
- Earth terminal (PE)

## GENERATION (VERS. 400V / 230V / 110V)

- Differential switch (400V / 230V)
- Magnetothermic switch for 230V sockets
- Magnetothermic switch for 110V sockets
- Thermal cut-offs for protection 1x 16A sockets for 110V 16A 2P + T CEE socket
- Output sockets: 1x 400V 32A 3P+N+T CEE  
1x 230V 32A 2P+T CEE  
1x 110V 32A 2P+T CEE  
1x 110V 16A 2P+T CEE
- Earth terminal (PE)

## GENERATION (VERS. AUS)

- Differential switch (400V / 230V)
- Magnetothermic switch for 230V sockets
- Output sockets: 1x 400V 32A 3P+N+T IP67 AUS  
1x 230V 32A 2P+T IP67 AUS  
1x 230V 15A 2P+T IP67 AUS
- Earth terminal (PE)



# CONTROL PANEL

## WELDING

- Welding output sockets: 1x Welding (+) 400A  
1x Welding (-) 400A
- Remote control connector. Automatic switching upon insertion of the connector.
- 14-pole connector for connecting the wire feeder or the PL 400 Box. External polarity inversion
- VRD ON / OFF switch

## CONTROL PANEL MULTI4

MULTI4 CONTROLLER FEATURES	
Rotary switch for welding process	<ul style="list-style-type: none"> <li>• Stick (SMAW)</li> <li>• Stick contact</li> <li>• Mig/Flux Cored (GMAW)</li> <li>• Mig/Flux Cored contact</li> <li>• Tig lift arc (GTAW)</li> <li>• Tig pulse</li> </ul>
Encoder for current - voltage welding control	
Multifunctional encoder	<ul style="list-style-type: none"> <li>• Arc force control (Stick)</li> <li>• Hot start voltage setting (Mig)</li> <li>• Turn-off time arc control (Tig scratch)</li> <li>• Switching frequency setting (Tig pulsed)</li> </ul>
2x Display (4 Digit)	<ul style="list-style-type: none"> <li>• Current and voltage during the welding process</li> <li>• DISPLAY 1: Set the welding current and the voltage</li> <li>• DISPLAY 2: Settings controlled by the multifunction encoder</li> </ul>
LED VRD	• Show if VRD is enabled
LED AV	• Kind of value shown on display 1
LED % - s - Hz - V - A	• Kind of value shown on display 2
Button SET	• Shows and saves the program
BUTTON WS1 - WS2 - WS3	• Recall a welding program saved previously, up to 3 programs can be stored for each welding process
BUTTON WS3	• Access to the secondary parameters for welding
LED Button	• Signal for storing and program recall



# WEIGHT - DIMENSIONS ACCESSORIES



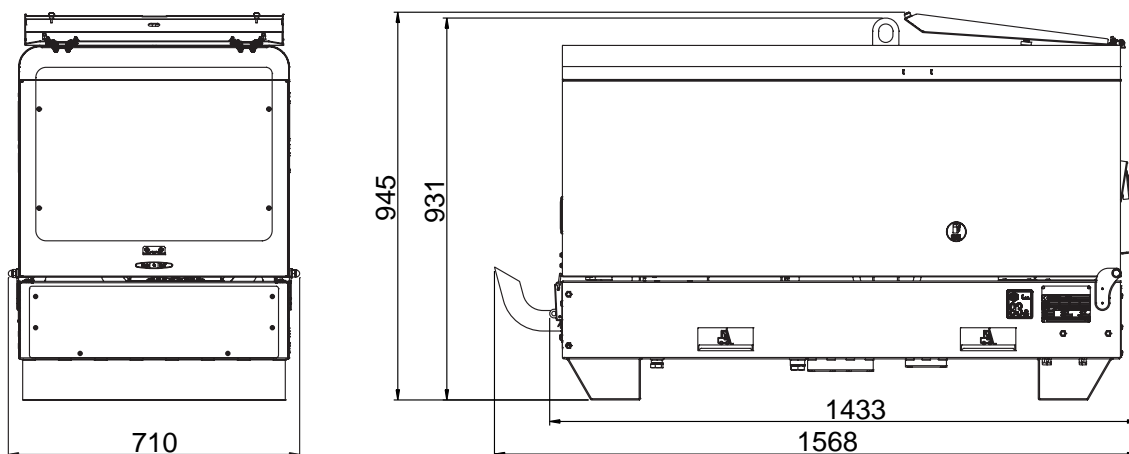
### DRY WEIGHT:

- 390 Kg

The welding machine pictured may include optional accessories.



### DIMENSION PICTURE (mm)



### ⊕ OPTIONS ON REQUEST

- Remote control: RCE
- Remote control RCE PL - (Remote control for polarity inversion)
- Remote control extension (30m)
- Wirefeeder WF4
- Box PL 400 - External Polarity Reversal - max. 400A
- Welding kit (mask, gloves, etc.)
- K500 welding cables (20 + 15 m, 50 mm<sup>2</sup>)
- Trolley CTM255
- Site tow wheels CTL255
- Road trailer CTV4
- Earthing kit

### ☀ AVAILABLE VERSION

- |            |   |
|------------|---|
| C1SS0021BP | 400/230/110 - EVO MULTI4  |
|            | <ul style="list-style-type: none"> <li>• Indicatore temperatura acqua</li> <li>• Indicatore pressione olio</li> <li>• Staccabatteria</li> </ul> |
| C1SS0061BP | 400/230/48 - EVO MULTI4   |
|            | <ul style="list-style-type: none"> <li>• Indicatore temperatura acqua</li> <li>• Indicatore pressione olio</li> <li>• Staccabatteria</li> </ul> |
| C1SS0041BP | 400/230 - EVO MULTI4 (AUSTRALIA)  |
|            | <ul style="list-style-type: none"> <li>• Indicatore temperatura acqua</li> <li>• Indicatore pressione olio</li> <li>• Staccabatteria</li> </ul> |

### GENERAL INFORMATIONS

EC Directives and Standards Compliance  
 2006/42 / EC (Machinery Directive)  
 2014/35 / EU (Low Voltage Directive)  
 2014/30 / EU (EMC Directive)  
 2000/14 / EC (Directive Acoustic Emission for machines for use outdoors)  
 ISO 8528 (Reciprocating internal combustion engine driven alternating current generating sets)



ISO 9001:2015 - Cert. 0192

### WARRANTY

All devices are covered by the manufacturer's warranty.

Specifications subject to change without notice. For further information please contact the sales department.

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