

ENGINE DRIVEN WELDER

TS 275 EVO

The images are for reference

WELDING PROCESS



SMAW Shielded Metal Arc welding (STICK)



Gas Tungsten Arc Welding (TIG)



FEATURES

- D.C. Arc welding source
- Electronic regulation of welding current and arc force
- Welding control panel "EVO CONTROL"
- A.C. generator, single-phase and three-phase also available while welding
- Engine control digital module
- Bunded base
- Base plate with forklift pockets
- Canopy with large opening to allow easy maintenance (replacement of air, oil, fuel filters)
- Large fuel tank
- Fuel level sensor
- External plugs for oil and water drainage
- Emergency stop button
- Central lifting eye
- Wide access for easy maintenance
- Meets EC/UE directives



water cooled



diesel



electric starter

DEFINITIONS



Welding current regulation
Welding arc regulation
Welding scale selection



Welding current regulation
Welding arc regulation
Welding scale selection
Digital ammeter - welding current
Digital voltmeter - welding voltage

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	/
Cylinders / Displacement	2 / 686 cm ³ (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
FUEL CONSUMPTION	
110 % (Stand-by power)	3.8 lt./h
100 % to PRP	3.4 lt./h
75 % to PRP	2.6 lt./h
50 % to PRP	1.9 lt./h
COOLING SYSTEM	
Total system cap. - only engine	lt - 1.1 lt
Fan air flow	72 m ³ /min.
LUBRICATION SYSTEM	
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 ³ /min.
Max. exhaust gas temp.	540 °C
Maximum back pressure	60 kPa (0.6 bar)
External diameter exhaust pipe	/
ELECTRICAL SYSTEM	
Starter motor power	1.6 kW
Battery charging alternator cap.	40 A
Cold start	- 10 °C
With cold start aid	/
AIR FILTER	
Combustion air flow	1.02 m ³ /min.
HEAT REJECTED AT FULL LOAD	
To exhaust system	/
To water and oil	/
Radiated to room	/
To charge cooler	/

WELDING AND GENERATION

C.C. WELDING

CONSTANT CURRENT SMAW COATED ELECTRODE (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 to peak)
Reduced open circuit voltage with VRD	< 13 Vcc / Vdc
Arc force control	Yes

C.C. WELDING

CONSTANT CURRENT GTAW TUNGSTEN ELECTRODE (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 to peak)
Reduced open circuit 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 110V	0 kW	1 kW	2 kW	2.5 kW	2.5 kW

ALTERNATOR

Fuel tank capacity	38 l
Starter battery	12 Vdc - 37Ah / 330A CCA(EN)
Fuel consumption (welding 60%)	2.5 l/h
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) (69 dB(A) @ 7 m)
Max. ambient temperature	40 °C

A.C. GENERATION

ALTERNATOR ASYNCHRONOUS THREE-PHASE, SELF-EXCITED, SELF-REGULATED, BRUSHLESS	
Insulation class	H

AUXILIARY GENERATION

OUTPUT 1	
Type of source	3-phase
Frequency	50Hz
Power kVA (Power kW) Max	8 kVA (6.4kW)
Cos φ	0.8
Voltage	400V
Current	11.5 A

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

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

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

CONTROL PANEL

ENGINE

- Controller RGK420SA
- Engine protector thermal circuit breaker: 1x30A
- Engine protector thermal circuit breaker: 1x5A
- Siren
- Emergency stop button



FEATURES CONTROLLER RGK420SA	
Operating Mode	• MAN - REMOTE
Display	• Graphic back-light LCD display • Buttons: START ▼ - ▲ • Key
Measures generator	• Voltage L1-L2 / L2-L3 / L3-L1 - N-L1/N-L2/N-L3 • Frequency Hz
Measures engine	• Fuel level • rpm meter • Hours meter • Battery voltage
Protections generator	• Overvoltage • Undervoltage • Overfrequency • Underfrequency
Protections engine	• Overspeed • Underspeed • High temperature shutdown • Low oil pressure shutdown • Low fuel level warning • Low fuel level shutdown • Battery voltage • Battery flat • Battery charge alternator failure • Arresto d'emergenza / Emergency stop • Mancato avviamento / Start failure • Mancato arresto / Stop failure • Manutenzione / Maintenance
Features	• Operator interface via symbols, codes and texts • Setpoints adjustable via controller buttons or PC • Remote Start and Stop • Configurable inputs and outputs • Operation temperature : -30°C - +70°C • NFC interface for wireless programming

GENERATION (VERS. AUS)

- ELCB-GFI (Ground Fault Interruptor) (400V/230V)
- Circuit breaker 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)

WELDING

- **EVO CONTROL:**
 - Continuous control of the welding current
 - Welding range switch
 - Continuous control of the arc force
 - Connection of remote control with automatic "local / remote" switch at the insertion of the plug
 - Welding output sockets:
 - 1x Welding (+) 400A
 - 1x Welding (-) 400A



- **EVO INSTRUMENT:**
 - Continuous control of the welding current
 - Welding range switch
 - Continuous control of the arc force
 - Connection of remote control with automatic "local / remote" switch at the insertion of the plug
 - Welding output sockets:
 - 1x Welding (+) 400A
 - 1x Welding (-) 400A
 - 2x Display - 4 Digit
 - Set the welding current
 - Current and voltage Measurement during the welding process
 - VRD ON/OFF switch (only with EVO Instrument panel)
 - Connector for connection to Box PL400



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

- ELCB-GFI (Ground Fault Interruptor) (400V/230V)
- Circuit breaker for 230V sockets
- Thermal circuit breakers for sockets: 1x 16A for socket 230V 16A 2P+T CEE
- Output sockets : 1x 400V 32A 3P+N+T CEE
 - 1x 230V 32A 2P+T CEE
 - 1x 230V 16A 2P+T CEE
 - N°2 output terminals 200A (for 48V)
- Earth terminal (PE)

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

- ELCB-GFI (Ground Fault Interruptor) (400V/230V)
- Circuit breaker for 230V sockets
- Circuit breaker for 110V sockets
- Thermal circuit breakers for sockets: 1x 16A for socket 110V 16A 2P+T CEE
- 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)

WEIGHT - DIMENSIONS ACCESSORIES

TS 275 EVO

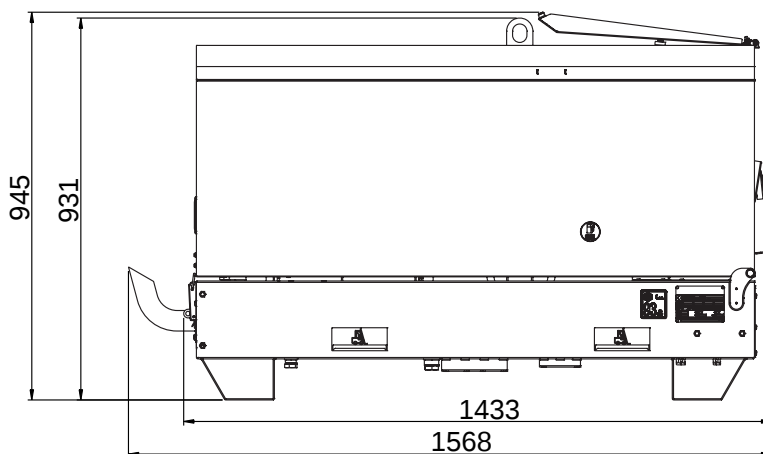
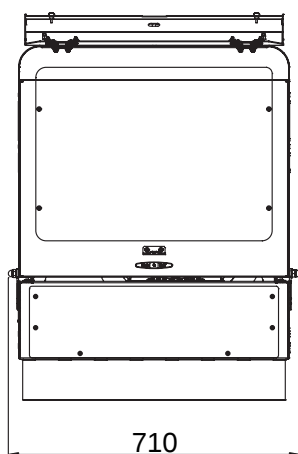


DRY WEIGHT:
• 390 Kg

The welding machine pictured may include optional accessories.



DIMENSION PICTURE



OPTIONS ON REQUEST

- Remote control RC2
- Remote control RCE PL - (Remote control for polarity change)
- Remote control extension cord (30m)
- Box PL 400 - External polarity change - max. 400A (only with EVO INSTRUMENT panel)
- Welding cables K500 (20+15 m, 50 mm²)
- Welding kit (mask gloves, etc.)
- Trolley CTM255
- Site tow CTL255
- Road tow running gear CTV4
- Earthing kit



AVAILABLE VERSION

C1SS0020	TS 275 EVO 400/230/110 - EVO CONTROL
C1SS0060	TS 275 EVO 400/230/48 - EVO CONTROL
C1SS0020BKP	TS 275 EVO 400/230/110 - EVO INSTRUMENT • Gauges - water temperature and oil pressure • Oil pressure Indicator • Main battery switch
C1SS0060BKP	TS 275 EVO 400/230/48 - EVO INSTRUMENT • Gauges - water temperature and oil pressure • Oil pressure Indicator • Main battery switch
C1SS0040BKP	TS 275 EVO 400/230 - EVO INSTRUMENT (AUSTRALIA) • Gauges - water temperature and oil pressure • Oil pressure Indicator • Main battery switch

GENERAL INFORMATION

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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