

ENGINE DRIVEN WELDER

TS 2X280 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)



FEATURES

- D.C. Arc welding source multi-process
- Two independent welding output, each 250A
- Single output 500A
- VRD function
- Digital setting of welding parameters
- Arc force and multi-process parameters setting
- Digital Ammeter and Voltmeter: presetting of welding parameters
- A.C. generator, single-phase and three-phase also available while welding
- Digital engine control and management module
- Auto-Idle
- Bunded base
- Base with forklift pockets
- Canopy suitable for stacking up max 2 machines
- Single point lifting eye
- Large access for engine maintenance
- Meets EC directives for noise and safety



water cooled



diesel



electric starter

ENGINE 3000 RPM

4 STROKE, DIRECT INJECTION

Model	KUBOTA V1505
Stand-by net power	25.5 kW (34.5 HP)
PRP net power	/
COP net power	/
Cylinder / Displacement	4/ 1498 cm ³ (1.5 l)
Bore / Stroke	77 / 78.4 (mm)
Compression ratio	24 : 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/
Speed governor type	Mechanical
FUEL CONSUMPTION	
110 % (Stand-by power)	7.6 l/h
100 % of PRP	6.5 l/h
75 % of PRP	4.7 l/h
50 % of PRP	3.3 l/h
COOLING SYSTEM	
Total system cap. - only engine	5.4 l
Fan air flow	90m ³ /min
LUBRIFICATION SYSTEM	
Total oil system capacity	/
Oil capacity in sump	6 l
Oil consumption at full load	/
EXHAUST SYSTEM	
Maximum exhaust gas flow	320 m ³ /h

Max. exhaust gas temp.	480 °C
Maximum back pressure	10.7 kPa (0.107 bar)
External diameter exhaust pipe	/
ELECTRICAL SYSTEM	
Starter motor power	1.4 kW
Battery charging alternator cap.	40 A
Cold start	-15°C
AIR FILTER	
Combustion air flow	1.95 m ³ /min.
HEAT REJECTED AT FULL LOAD	
To exhaust system	24 kW
To water and oil	27.2 kW
Radiated to room	3 kW
To charge cooler	/



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WELDING

C.C. WELDING (CONSTANT CURRENT)

SMAW (STICK)	DUAL	SINGLE
Current range	20A ÷ 250A	40A ÷ 500A
Type of regulation	continue	
Duty cycle	250A / 30V - 60% 230A / 29.2V - 100%	480A / 31V - 60% 440A / 34V - 100%
Open circuit voltage	70 Vcc (75 Vcc peak)	
Arc force control	Yes	

C.V. WELDING (CONSTANT VOLTAGE)

SMAW (STICK)	DUAL	SINGLE
Current range	20A ÷ 250A	20A ÷ 500A
Welding voltage	15 V - 45 V	
Type of regulation	continue	
Duty cycle	250 A / 26.5V - 60% 230 A / 25.5V - 100%	480 A / 31V - 60% 440 A / 36V - 100%

C.C. WELDING (CONSTANT CURRENT)

GTAW (TIG)	DUAL	SINGLE
Current range	20A ÷ 250A / 20V	40A ÷ 500A / 30V
Type of regulation	continue	
Duty cycle	250A / 20V - 60% 230A / 19.2V - 100%	480A / 29.2V - 60% 440A / 27.6V - 100%
Open circuit voltage	70 Vcc (75 Vcc peak)	
Arc force control	Yes	

SIMULTANEOUS LOAD CHARACTERISTIC

WELDING CURRENT	≥ 250A	200A	150A	100A	0A
POW. IN THREE PHASE 400V	0 kVA	6 kVA	11 kVA	15 kVA	15 kVA
POW. IN SINGLE PHASE 230V	0 kVA	4 kVA	7 kVA	7 kVA	7 kVA
POW. IN SINGLE PHASE 115V	0 kVA	4 kVA	5 kVA	5 kVA	5 kVA

GENERATION

A.C. GENERATION

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

Insulation class	H
Frequency	50 Hz

AUXILIARY GENERATION

OUTPUT 1

Type of source	Three-phase
Frequency	50Hz
Power kVA (Power kW) Max	15 kVA (15 kW)
Cos φ	0.8 ÷ 1
Voltage	400 V
Current	21.6 A

OUTPUT 2

Type of source	Single-Phase
Frequency	50 Hz
Power kVA (Power kW) Max	7 kVA (7 kW)
Cos φ	0.8 ÷ 1
Voltage	230 V
Current	30.4 A

OUTPUT 3

Type of source	Single-Phase
Frequency	50Hz
Power kVA (Power kW) Max	5 kVA (5 kW)
Cos φ	0.8 ÷ 1
Voltage	115 V
Current	43.5 A

OUTPUT 4

Type of source	/
Frequency	/
Power kVA (Power kW) Max	/
Cos φ	/
Voltage	/
Current	/

GENERAL SPECIFICATIONS

Fuel tank capacity	60 l
Starter battery	12V - 80Ah
Fuel consumption (welding 60%)	4.6 l/h
Running time (welding 60%)	13 h

IP protection degree	IP 23
Acoustic power LwA (pressure LpA)	98 dB(A) (73 dB(A) @ 7 m)
Max. ambient temperature	/

AVAILABLE SOCKET COMBINATIONS

	VERSION		
	400/230/115V	400/230V	AUSTRALIA
1x400V 32A 3P+N+T CEE	•		
1x230V 16A 2P+T CEE	•		
1x115V 16A 2P+T CEE	•		
1x400V 32A 3P+N+T AUS			•
2x230V 15A 2P+T AUS			•
1x400V 32A 3P+N+T CEE		•	
2x230V 16A 2P+T CEE		•	

CONTROL PANEL

ENGINE

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

RGK420SA CONTROLLER FEATURES	
Operating modes	• MAN - REMOTE
Display	• Backlit display, LCD • Buttons: START ▼ - ▲ • Key
Generator measurements	• Voltage L1-L2 / L2-L3 / L3-L1 - N-L1/N-L2/N-L3 • Frequency Hz
Engine measurements	• Fuel level • Engine revs • Hour meter • Battery voltage
Generator protections	• Overvoltage • Under tension • Overfrequency • Underfrequency

Motor protections	• Overspeed • Low speed • High temperature • Low oil pressure • Low fuel pre-alarm • Low fuel level • Battery voltage • Inefficient battery • Battery charge alternator fault • Emergency stop • Failure to start • Failure to stop • Maintenance
Features	• Operator interface with symbols, codes and texts • Panel or PC programming • External start and stop • Programmable inputs and outputs • Operating temperature: -30 ° C - + 70 ° C • NFC interface for wireless programming

GENERATION (VERS. 400V / 230V / 115V)

- Earth leakage circuit breaker 30 mA
- Thermal circuit breakers for sockets 230V e 115V
- Output sockets: 1x 400V 32A 3P+N+T CEE
1x 230V 16A 2P+T CEE
1x 115V 16A 2P+T CEE
- Earth terminal (PE)

CONTROL PANEL MULTI4

MULTI4 CONTROLLER FEATURES	
Rotary switch for welding process	• Stick (SMAW) • Stick contact • Mig/Flux Cored (GMAW) • Mig/Flux Cored contact • Tig lift arc (GTAW) • Tig pulse
Encoder for current - voltage welding control	
Multifunctional encoder	• Arc force control (Stick) • Hot start voltage setting (Mig) • Turn-off time arc control (Tig scratch) • Switching frequency setting (Tig pulsed)
2x Display (4 Digit)	• Current and voltage during the welding process • DISPLAY 1: Set the welding current and the voltage • DISPLAY 2: Settings controlled by the multifunction encoder
LED VRD	• Show if VRD is enabled
LED A/V	• 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



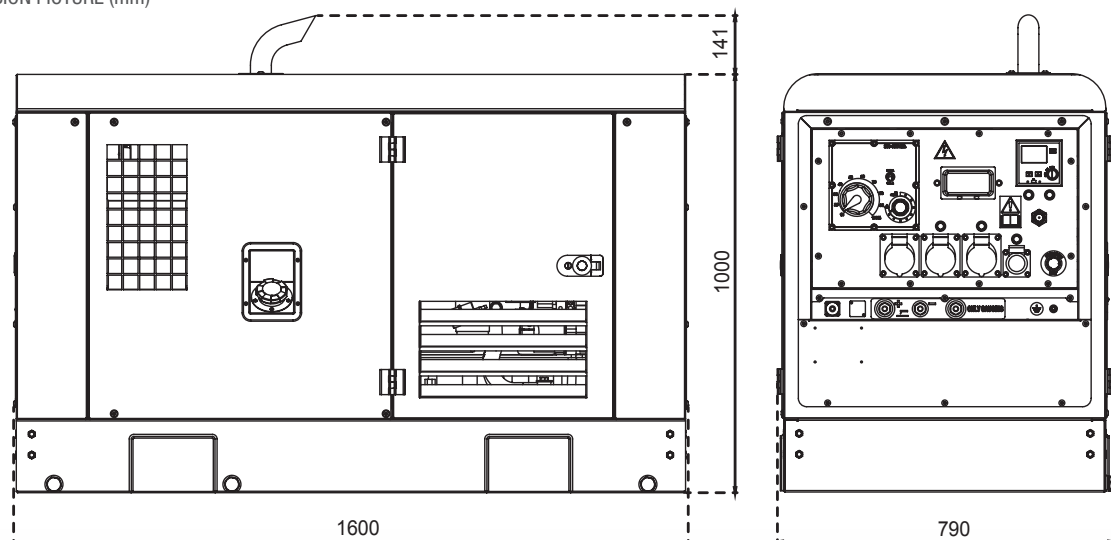
DRY WEIGHT:

- 700 Kg

The welding machine pictured may include optional accessories.



DIMENSION PICTURE (mm)



OPTIONS ON REQUEST

- Remote control: RCE
- Welding cables (20+15 m, 50 mm²)
- Wirefeeder WF4
- Earthing kit
- Remote control extension cable
- Welding kit (mask, gloves, etc.)
- Road trailer with joint ball
- Road trailer with joint eyelet
- Site tow 2 wheels
- Site tow 4 wheels, 2 steering
- Panel cover
- Spark arrestor



VERSION ON REQUEST

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FACTORY INSTALLATION OPTIONS

- Gauges - water temperature and oil pressure

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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