








ENGINE DRIVEN WELDER TS 600 EVO MULTI4

The images are for reference

PROCESS

-  SMAW Shielded Metal Arc welding (STICK)
-  Gas Tungsten Arc Welding (TIG)
-  Arc Gouging
-  Gas Metal Arc Welding GMAW (MIG)
-  Flux Cored Arc Welding FCAW (FLUX CORED)



FEATURES

- Reliable, heavy duty construction with up to 600A output
- Digital setting of welding parameters
- Stick easy start
- Arc force and multi-process parameters setting
- Digital Ammeter and Voltmeter: presetting of welding parameters
- VRD - Voltage reduction device
- A.C. generator, single-phase and three-phase also available while welding
- Engine digital control
- Bunded base
- Main battery switch
- Base with forklift pockets
- Canopy suitable for stacking up max 2 machines
- Single point lifting eye
- Large access for engine maintenance
- Meets EC directives



air cooled



diesel



electric starter

ENGINE 1500 (50Hz) 1800 (60Hz) RPM

4 STROKE, DIRECT INJECTION		
	50 Hz	60 Hz
Model	DEUTZ F4L2011	
* Stand-by net power	29 kW (39.4 hp)	34.5 kW (47 hp)
* PRP net power	27.7 kW (37.7 hp)	32.8kW (44.6 hp)
* COP net power	/	
Cylinder / Displacement	4/ 3100 cm ³	
Bore / Stroke	94 / 112 (mm)	
Compression ratio	17.5 : 1	
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/	
Speed governor type	Mechanical	
FUEL CONSUMPTION		
110 % (Stand-by power)	7.7 lit./h	9.5 lit./h
100 % of PRP	7.3 lit./h	9 lit./h
75 % of PRP	5.4 lit./h	6.5 lit./h
50 % of PRP	3.7 lit./h	4.2 lit./h
25% of PRP	2.2 lit./h	2.7 lit./h
COOLING SYSTEM		
Total system cap. - only engine	/	
Fan air flow	24.83 m ³ /min	29.83 m ³ /min
LUBRICATION SYSTEM		
Total oil system capacity	/	
Oil capacity in sump	10.5l	
Oil consumption at full load	/	

EXHAUST SYSTEM		
Maximum exhaust gas flow	337 m ³ /h	400 m ³ /h
Max. exhaust gas temp.	510 °C	540°C
Maximum back pressure	7.5 kPa (0,075 bar)	
External diameter exhaust pipe	/	
ELECTRICAL SYSTEM		
	12 Vdc	
Starter motor power	2.6 kW	
Battery charging alternator cap.	60 A	
Cold start	- 15 °C	
AIR FILTER		
	Dry	
Combustion air flow	2 m ³ /min.	2.3 m ³ /min.
HEAT REJECTED AT FULL LOAD		
To exhaust system	/	
To water and oil	/	
Radiated to room	5,0 kWh	
To charge cooler	/	

* Maximum output (not overloadable) according to ISO 3046-1

WELDING AND GENERATION

D.C. WELDING

CONSTANT CURRENT (C.C.)		
	50 Hz	60 Hz
Welding Process	SMAW (STIK - Shielded Metal Arc welding)	
	GTAW (with LIFT start)	
Current range	20A ÷ 550A Continue	20A ÷ 600A Continue
Duty cycle	500A @ 33V - 60% 400A @ 36V - 100%	550A @ 38V - 60% 450A @ 38V - 100%
Open circuit voltage	72 Vcc (77.5 Vdc peak)	75 Vcc (80 Vdc peak)

D.C. WELDING

CONSTANT CURRENT (C.V.)		
	50 Hz	60 Hz
Welding Process	Gas Metal Arc Welding GMAW (MIG)	
	Flux Cored Arc Welding FCAW (FLUX CORED)	
Current range	15V ÷ 45V Continue	
Duty cycle	500A @ 33V - 60% 400A @ 34V - 100%	550A @ 38V - 60% 450A @ 36.5V - 100%

SIMULTANEOUS LOAD CHARACTERISTIC 50Hz

WELDING CURRENT	≥ 230A	175A	125A	75A	0A
POW. IN THREE PHASE 400V	0 kVA	4.5 kVA	7.5 kVA	13 kVA	18 kVA
POW. IN SINGLE PHASE 230V	0 kVA	4.5 kVA	7.5 kVA	8 kVA	10 kVA
POW. IN SINGLE PHASE 115V	0 kVA	3 kVA	4 kVA	5 kVA	5 kVA

SIMULTANEOUS LOAD CHARACTERISTIC 60Hz

WELDING CURRENT	≥ 275A	200A	150A	100A	0A
POW. IN THREE PHASE 400V	0 kVA	7,5 kVA	12 kVA	18 kVA	20 kVA
POW. IN SINGLE PHASE 230V	0 kVA	5 kVA	8 kVA	10 kVA	10 kVA
POW. IN SINGLE PHASE 115V	0 kVA	3 kVA	4,5 kVA	5 kVA	5 kVA

GENERAL SPECIFICATIONS

ALTERNATOR ASYNCHRONOUS THREE-PHASE, SELF-EXCITED, SELF-REGULATED, BRUSHLESS		
	50 Hz	60 Hz
Fuel tank capacity	60 l	
Insulation class	H	
Starter battery	12V - 80Ah - CCA 670A	
Fuel consumption (welding 60%)	4.5 l/h	5.7 l/h

Running time (welding 60%)	13 h	10.5 h
IP protection degree	IP 23	
Acoustic power LwA (pressure LpA)	/	98 dB(A) (73 dB(A) @ 7 m)
Guaranteed acoustic power LwA (pressure LpA)	96 dB(A) (71 dB(A) @ 7 m)	/
Measured acoustic power LwA (pressure LpA)	95 dB(A) (70 dB(A) @ 7 m)	/
Rated ambient temperature	40 °C	

AUXILIARY GENERATION

OUTPUT 1		
Type of source	3-phase	
Frequency	50Hz	60Hz
Apparent Power + Active Power	18kVA (14.4 kW)	20kVA (16kW)
Cos φ	0.8	
Voltage	400V	
Current	26A	28.9A

OUTPUT 2		
Type of source	1-phase	
Frequency	50Hz	60Hz
Apparent Power + Active Power	10kVA (8KW)	
Cos φ	0.8	
Voltage	230V	
Current	43.5	

OUTPUT 3		
Type of source	1-phase	
Frequency	50Hz	60Hz
Apparent Power + Active Power	5kVA (5kW)	
Cos φ	0.8	
Voltage	115V	
Current	43.5	

OUTPUT 4		
Type of source	/	
Frequency	/	
Apparent Power + Active Power	/	
Cos φ	/	
Voltage	/	
Current	/	

CONTROL PANEL

CONTROL PANEL

- Controller RGK420SA
- Emergency stop button
- Ground fault interruptor
- Output sockets CEE: 1x 400V 32A 3P+N+T AUS
2x230V 32A 2P+T AUS
- Siren
- Socket circuit breaker
- Remote control connector
- GOUGING socket
- Connection of wire feeder

CONTROLLER CHARACTERISTICS RGK420SA	
Operating mode	<ul style="list-style-type: none"> • OFF - ON - REMOTO
Display	<ul style="list-style-type: none"> • Graphic back-light LCD display 52x35 mm
Buttons / controls	<ul style="list-style-type: none"> • Key 3 positions • START button • N° 2 buttons for controller programming
Generator Measures	<ul style="list-style-type: none"> • Voltage : L1-L2-L3-N • Current : I1 • Powers : kVA • Frequency

Engine Measures	<ul style="list-style-type: none"> • Engine temperature (optional) • Oil pressure (optional) • Fuel level • Rpm meter • Battery voltage • Maintenance • Hours meter
Protections Generator	<ul style="list-style-type: none"> • Short circuit • Over-Undervoltage • Over-Underfrequency • Phase sequence • Asymmetry • Overpowering
Engine Protections	<ul style="list-style-type: none"> • High engine temperature warning • Low oil pressure warning • Low fuel level warning • High / Under battery voltage • Battery charge alternator failure • Start failure • Stop failure • Emergency stop
Features 5 languages display: GB - I - F - E - D	<ul style="list-style-type: none"> • Remote Start and Stop • Pre-heating • Fully programmable from the panel, PC, WI-FI or NFC • Manual operation with remote start (REM) • IP 40 protection • Operation temperature: -30°C / +70°C
Communication	<ul style="list-style-type: none"> • Setup USB port • CAN BUS interface (J1939 only)

CONTROL PANEL MULTI4

CONTROLLER CHARACTERISTICS MULTI4	
Rotary switch for welding process	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Arc force control • Hot start voltage setting • Turn-off time arc control • Switching frequency setting
2x Display (4 Digit)	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Show if VRD is enabled
LED A/V	<ul style="list-style-type: none"> • Kind of value shown on display 1
LED % - s - Hz - V - A	<ul style="list-style-type: none"> • Kind of value shown on display 2
SET Button	<ul style="list-style-type: none"> • Shows and saves the program
BOTTON WS1 -WS2 -WS3	<ul style="list-style-type: none"> • Recall a welding program saved previously, up to 3 programs can be stored for each welding process
BOTTON WS3	<ul style="list-style-type: none"> • Access to the secondary parameters for welding
LED BOTTONS	<ul style="list-style-type: none"> • Signal for storing and program recall

WEIGHT - DIMENSIONS ACCESSORIES

TS 600 EVO

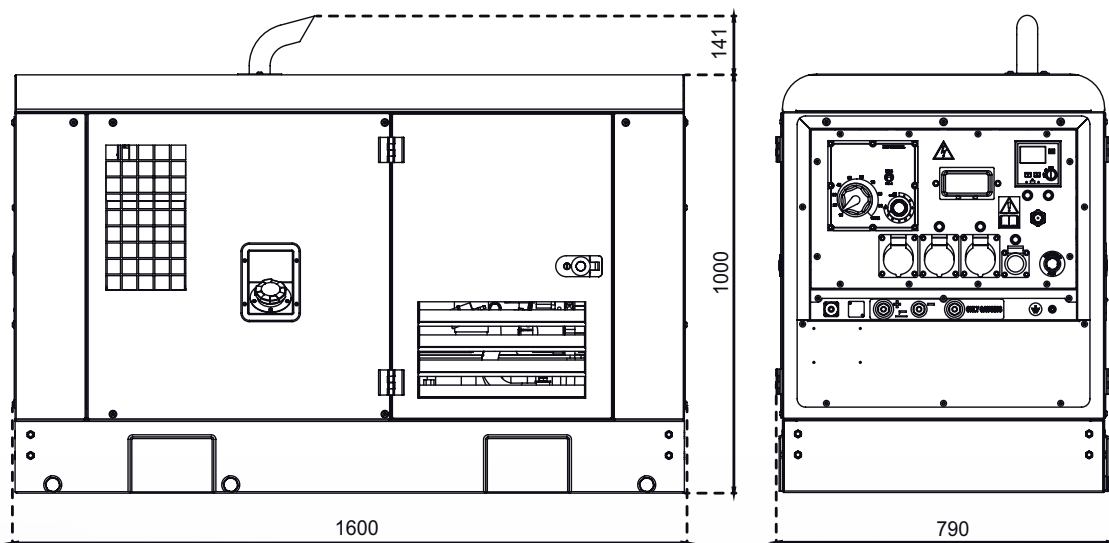


DRY WEIGHT:
• 870 Kg

The welding machine pictured may include optional accessories.



DIMENSION



⊕ OPTIONS ON REQUEST

- Remote control
- Welding kit (mask, gloves, etc.)
- Earthing kit
- 4 wheel trolley
- Road trolley CTV4

⊙ VERSION ON REQUEST

• /

✍ FACTORY INSTALLATION OPTIONS

- Spark arrestor
- PL version: Polarity change over

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.

© MOSA - Viale Europa, 59 - 20090 Cusago (Milano) - Italy - phone +39-0290352.1 - fax + 39-0290390466 E-mail: info@mosa.it Web site: www.mosa.it

