



# ENGINE DRIVEN WELDER TS 600 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
- Double welding range
- Welding control panel "EVO CONTROL"
- Arc Gouging socket
- A.C. generator, single-phase and three-phase also available while welding
- Engine control digital module
- VRD - Voltage reduction device (standard only with EVO INSTRUMENT panel)
- Bundled base
- Base plate with forklift pockets
- Central lifting eye
- Stackable machine frame (max 2 units)
- Wide access for easy maintenance
- Meets EC directives

## DEFINITIONS

### EVO CONTROL



Welding current regulation  
Welding arc regulation  
Welding scale selection

### EVO INSTRUMENT



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



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 <sup>3</sup>	
Bore / Stroke	94 / 112 (mm)	
Compression ratio	17.5 : 1	
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/	
Speed governor type	Mechanical	
<b>FUEL CONSUMPTION</b>		
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
<b>COOLING SYSTEM</b>		
Total system cap. - only engine	/	
Fan air flow	24.83 m <sup>3</sup> /min	29.83 m <sup>3</sup> /min
<b>LUBRICATION SYSTEM</b>		
Total oil system capacity	/	
Oil capacity in sump	10.5l	
Oil consumption at full load	/	

EXHAUST SYSTEM		
Maximum exhaust gas flow	337 m <sup>3</sup> /h	400 m <sup>3</sup> /h
Max. exhaust gas temp.	510 °C	540°C
Maximum back pressure	7.5 kPa (0,075 bar)	
External diameter exhaust pipe	/	
<b>ELECTRICAL SYSTEM</b>		
	12 Vdc	
Starter motor power	2.6 kW	
Battery charging alternator cap.	60 A	
Cold start	- 15 °C	
<b>AIR FILTER</b>		
	Dry	
Combustion air flow	2 m <sup>3</sup> /min.	2.3 m <sup>3</sup> /min.
<b>HEAT REJECTED AT FULL LOAD</b>		
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

## C.C. WELDING

CONSTANT CURRENT		
	50 Hz	60 Hz
Welding Process	SMAW (STIK - Shielded Metal Arc welding) GTAW (with SCRATCH start)	
Current range	20A ÷ 550A	20A ÷ 600A
Type of regulation	Continue on 2 Step : 20A ÷ 275A / 20A ÷ 550A	Continue on 2 Step : 20A ÷ 300A / 20A ÷ 600A
Duty cycle	500A - 60% / 400A - 100%	550A - 60% / 450A - 100%
Open circuit voltage	72 Vcc (77.5 Vdc peak)	75 Vcc (80 Vdc peak)
Arc force control	Yes	

## 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	13 kVA	18 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

	50 Hz	60 Hz
Fuel tank capacity	60 l	
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)	/
Max. ambient temperature	40 °C	

# GENERATION

## A.C. GENERATION

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

Insulation class	H	
Frequency	50 Hz	60 Hz

## AUXILIARY GENERATION

OUTPUT 1		
Type of source	3-phase	
Frequency	50Hz	60Hz
Power kVA (Power kW) Max	18kVA (14.4 kW)	20kVA (16kW)
Cos $\varphi$	0.8	
Voltage	400V	
Current	26A	28.9A

OUTPUT 3		
Type of source	1-phase	
Frequency	50Hz	60Hz
Power kVA (Power kW) Max	5kVA (5kW)	
Cos $\varphi$	0.8	
Voltage	115V	
Current	43.5	

OUTPUT 2		
Type of source	1-phase	
Frequency	50Hz	60Hz
Power kVA (Power kW) Max	10kVA (8kW)	
Cos $\varphi$	0.8	
Voltage	230V	
Current	43.5	

OUTPUT 4		
Type of source	/	
Frequency	/	
Power kVA (Power kW) Max	/	
Cos $\varphi$	/	
Voltage	/	
Current	/	

## CONTROL PANEL

- Controller RGK420SA
- Emergency stop button
- Ground fault interruptor
- Output sockets CEE: 1x 400V 32A 3P+N+T CEE  
1x230V 32A 2P+T CEE  
1x115V 32A 2P+T CEE  
1x115V 16A 2P+T CEE
- Siren
- Socket thermal switch
- Welding current regulator
- Welding arc regulator
- Double welding range commutator
- Remote control connector
- GOUGING socket
- VRD

### CONTROLLER CHARACTERISTICS RGK420SA

Operating mode	• OFF - ON - REMOTO
Display	• Graphic back-light LCD display 52x35 mm
Buttons / controls	• Key 3 positions • START button • N° 2 buttons for controller programming
Generator Measures	• Voltage : L1-L2-L3-N • Current : I1 • Powers : kVA • Frequency

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

# WEIGHT - DIMENSIONS ACCESSORIES

TS 600 EVO

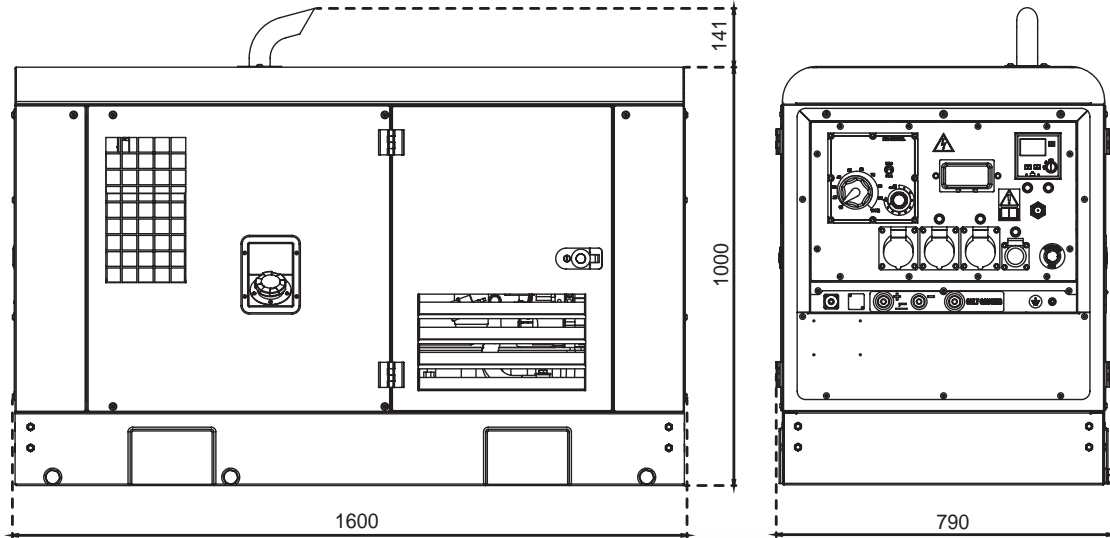


**DRY WEIGHT:**  
• 870 Kg

The welding machine pictured may include optional accessories.



**DIMENSION PICTURE**



### OPTIONS ON REQUEST

- Remote control: RC2
- Welding kit (mask, gloves, etc.)
- Earthing kit
- Site tow 2 wheels
- Site tow 4 wheels, 2 steering
- Road trolley CTV4



### VERSION ON REQUEST

• /



### FACTORY INSTALLATION OPTIONS

- Spark arrestor
- Digital Ammeter/voltmeter welding (EVO INSTRUMENT)

## 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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