



# ENGINE DRIVEN WELDER TS 200 BS/EL | BS/EL P

The images are for reference

## WELDING PROCESS



Shielded Metal Arc welding SMAW (STICK)



## FEATURES

- Arc welding source in D.C. welding
- Welds any type of electrode, including cellulosic
- The steel stretcher provides protection for the entire machine
- A.C. generator, single-phase and three-phase
- Aux power also available while welding
- Ground fault interruptor
- Engine shut-down (oil alert)
- Meets EC directives

## DEFINITIONS

**SMAW:** Coated electrode welding is an arc welding with protected metal.

**GMAW:** welding is an arc process with metal under gas protection.

**FCAW (FLUX CORED):** The process with cored wires is very similar to MIG / MAG welding. Continuous wire is not full but consists in a metal strip that wraps a powders core (flow).

**GTAW:** is a welding process that uses a tungsten electrode that cannot melt.



air cooled



petrol



manual recoil

## ENGINE 3000 RPM

### 4 STROKE, OHV, NATURAL ASPIRATED

Model	HONDA - GX 390
* Stand-By net power	8.2 kWm (11.1 hp)
* PRP net power	6.4 kWm (8.7 hp)
* COP net power	/
Cylinders / Displacement	1 / 389 cm <sup>3</sup> (0.39 lt.)
Bore / Stroke	88 / 64 (mm)
Compression ratio	8.2 : 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/
Speed governor type	Mechanical
<b>FUEL CONSUMPTION</b>	
110 % (Stand-by power)	3.5 lt./h
100 % to PRP	3.2 lt./h
75 % to PRP	2.4 lt./h
50 % to PRP	1.6 lt./h
<b>COOLING SYSTEM</b>	
Total system cap. - only engine	/
Fan air flow	/
<b>LUBRICATION SYSTEM</b>	
Total oil system capacity	/
Oil capacity in sump	1.1 lt.
Oil consumption at full load	/

\* Output powers according to ISO 3046-1

### EXHAUST SYSTEM

Maximum exhaust gas flow	/
Max. exhaust gas temp.	/
Maximum back pressure	/
External diameter exhaust pipe	/

### ELECTRICAL SYSTEM

Starter motor power	/
Battery charging alternator cap.	/
Cold start	/
With cold start aid	/

### AIR FILTER

Combustion air flow	/
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### HEAT REJECTED AT FULL LOAD

To exhaust system	/
To water and oil	/
Radiated to room	/
To charge cooler	/

# WELDING AND GENERATION

## C.C. WELDING

### COSTANT CURRENT

	TS 200 BS/EL	TS 200 BS/EL P
Current range	20 ÷ 155A	20 ÷ 170A
Type of regulation	continue	
Duty cycle	155 A - 60%   120 A - 100%	170 A - 60%   140 A - 100%
Open circuit voltage	65 V	
Arc Force Regulation	No	

## GENERAL SPECIFICATIONS

Fuel tank capacity	6.1 l	Running time (welding 60%)	/
Starter Battery	2 l/h	IP protection degree	IP 23
Fuel consumption (welding 60%)	3 h	Acoustic power LwA (pressure LpA)	98 dB(A) (73 dB(A) @ 7 m)

## A.C. GENERATION

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

Insulation class	H
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## GENERAZIONE AUSILIARIA

### OUTPUT 1

	TS 200 BS/EL	TS 200 BS/EL P
Type of source	Three-phase	
Frequency	50 Hz	
Apparent Power (Active Power)	6 kVA (4.8 kW)	
Cos φ	/	
Voltage	400V	
Current	8.7 A	

### OUTPUT 2

	TS 200 BS/EL	TS 200 BS/EL P
Type of source	Single-phase	
Frequency	50 Hz	
Apparent Power (Active Power)	4 kVA (3.2 kW)	
Cos φ	/	
Voltage	230V	
Current	17.4 A	

### OUTPUT 3

	TS 200 BS/EL	TS 200 BS/EL P
Type of source	Single-phase	/
Frequency	50 Hz	/
Apparent Power (Active Power)	2 kVA (1.6 kW)	/
Cos φ	/	/
Voltage	48V	/
Current	41.6 A	/

### OUTPUT 4

	TS 200 BS/EL	TS 200 BS/EL P
Type of source	Single-phase	
Frequency	50 Hz	
Apparent Power (Active Power)	2 kVA (1.6 kW)	
Cos φ	0.8	
Voltage	110V (CTE)	
Current	18.2 A	

The use of the Auxiliary Generation is recommended for tools related to welding (wheels, electric hammers, lights, etc ...)



# CONTROL PANEL

## ENGINE

- 12Vdc - 24Vdc engine starter output
- AUX generation voltmeter
- Differential switch
- Overcurrent protections for AUX sockets
- AUX socket voltage indicator lights
- Earth terminal (PE)

## STARTER FOR ENGINE

	TS 200 BS/EL	TS 200 BS/EL P
Battery 12 Vdc	•	•
Battery 24 Vdc	•	

## WELDING

- Welding (-) socket
- (+) Soldering socket
- Welding current regulator
- Welding remote control connector
- Welding remote control enabling switch



## SIMULTANEOUS UTILIZATION FACTORS

WELDING CURRENT	>155 A	120 A	70 A	0
THREE-PHASE POWER 400V	0	1.8 kVA	4 kVA	6 kVA

## COMBINATIONS AVAILABLE SOCKETS

	VERSION		
	TS 200 BS/EL	TS 200 BS/EL P	
	400V/230V	SCHUKO	230V/110V
1x400V 16A 3P+N+T CEE	•	•	
1x230V 16A 2P+T CEE	•	•	•
1x230V 16A 2P+T SCHUKO		•	
1x48V 32A 2P	•		
1x110V 32A 2P+T			•
1x110V 16A 2P+T			•



# WEIGHT - DIMENSIONS ACCESSORIES

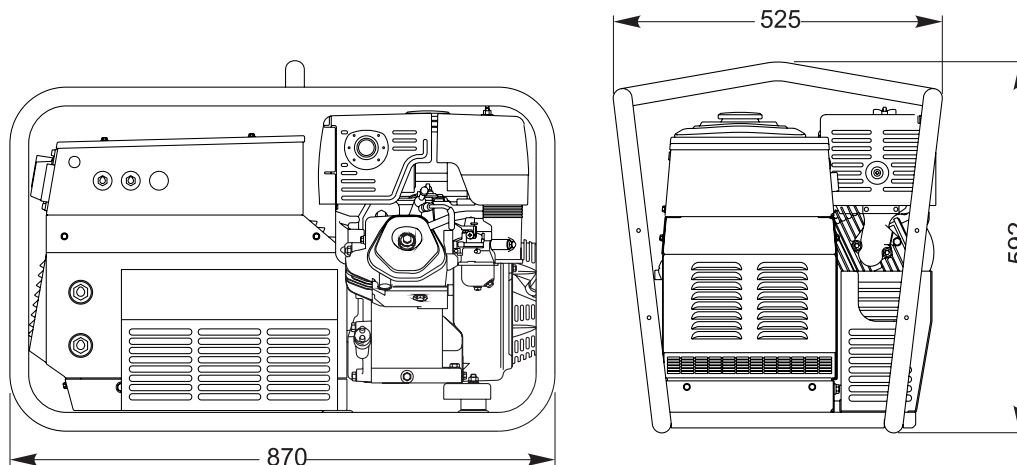


**DRY WEIGHT:**  
• 106 Kg

The welding machine pictured may include optional accessories.



**DIMENSION PICTURE**



### OPTIONS ON REQUEST

- Exhaust extension
- Remote control: TC2 (cable 20m)  
TC2/50 (cable 50m)
- Welding cables: K190 (10+8m, 35mm<sup>2</sup>)  
K 200 (20+15m, 35mm<sup>2</sup>)
- Welding kit (mask, gloves, etc.)
- Manual trolley CTM 200
- Earthing kit



### VERSION ON REQUEST

- 230V / 110V version (BS / EL P Vers. Only)
- SCHUKO version (BS / EL P Vers. Only)



### FACTORY INSTALLATION OPTIONS

- /

## GENERAL INFORMATION

### COMPLIANCE GENERATING SETS WITH EC DIRECTIVES AND STANDARDS

2006/42 / EC (Machines 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.

The company reserves the right to change this specification without notice. For further information please contact the sales department.

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