

ENGINE DRIVEN WELDER

CS 230 YSX CC/CV

The images are for reference

WELDING PROCESS



Shielded Metal Arc welding SMAW (STICK)



Gas Tungsten Arc Welding GTAW (TIG)



Gas Metal Arc Welding GMAW (MIG)



Flux Cored Arc Welding FCAW (FLUX CORED)



FEATURES

- Arc welding source in D.C. welding
- High frequency control of welding current and voltage
- Engine cowling side, can be completely opened, which facilitates all maintenance operations
- The recessed control panel is lockable and houses the sockets and machine
- A.C. generator, single-phase and three-phase
- Aux power also available while welding
- Power optimiser (engine power optimization system)
- VRD - Voltage reduction device
- Large fuel tank (23 l)
- Meets EC directives for noise and safety

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.



ENGINE 3000 RPM

4 STROKE, DIRECT INJECTION, NATURAL ASPIRATED	
Model	YANMAR L 100 V
* Stand-By net power	6.3 kWm (8.5 hp)
* PRP net power	5.7 kWm (7.7 hp)
* COP net power	/
Cylinders / Displacement	1 / 435 cm³ (0.27 lt.)
Bore / Stroke	86 / 75 (mm)
Compression ratio	20 : 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/
Speed governor type	Mechanical
FUEL CONSUMPTION	
110 % (Stand-by power)	1.9 lt./h
100 % to PRP	1.7 lt./h
75 % to PRP	1.2 lt./h
50 % to PRP	0.8 lt./h
COOLING SYSTEM	
Total system cap. - only engine	/
Fan air flow	/
LUBRICATION SYSTEM	
Total oil system capacity	/
Oil capacity in sump	1.6 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	4.3 kPa (0.043 bar 440 mmH ₂ O)
External diameter exhaust pipe	/
ELECTRICAL SYSTEM	
Starter motor power	0.8 kW
Battery charging alternator cap.	15 A
Cold start	- 10°C
With cold start aid	/
AIR FILTER	
Combustion air flow	/
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 (STICK)/ GTAW (TIG) CC MODE	
Current range	20 ÷ 210 A
Type of regulation	continue
Duty cycle	210A 60% 180A 100%
Open circuit voltage	68 V
Arc Force Regulation	Si

C.V. WELDING (CONSTANT VOLTAGE)

GMAW (MIG)/ FCAW (FLUX CORED) CV MODE	
Welding voltage	14 ÷ 44V
Type of regulation	continuous
Duty cycle	210A - 60% 180 A - 100%

GENERAL SPECIFICATIONS

Fuel tank capacity	23 l
Starter Battery	12 Vdc -37Ah / 330A CCA(EN)
Fuel consumption (welding 60%)	1 l/h
Running time (welding 60%)	20 h
IP protection degree	IP 23

Guaranteed acoustic power LwA (pressure LpA)	91.2 dB(A) (66.2 dB(A) @ 7 m)
Measured acoustic power LwA (pressure LpA)	93 dB(A) (68 dB(A) @ 7 m)
Max. ambient temperature	/

A.C. GENERATION

ASYNCRONOUS THREE-PHASE, SELF-REGULATED, SELF-EXCITED, BRUSHLESS

Insulation class	H
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AUXILIARY GENERATION

OUTPUT 1	
Type of source	Three-phase
Frequency	50 Hz
Apparent Power (Active Power)	6kVA (4.8kW)
Cos φ	0.8
Voltage	400V
Current	8.7A

OUTPUT 2	
Type of source	Single-phase
Frequency	50 Hz
Apparent Power (Active Power)	5kVA (4kW)
Cos φ	0.8
Voltage	230V SCHUKO
Current	21.7A

OUTPUT 3	
Type of source	Single-phase
Frequency	50 Hz
Apparent Power (Active Power)	2.5kVA (4kW)
Cos φ	1
Voltage	110V
Current	22.7A

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

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

SIMULTANEOUS LOAD CHARACTERISTIC

WELDING CURRENT	≥ 150 A	125 A	100 A	75 A	50 A	0 A
POW. IN THREE PHASE 400V	0 kW	1.2 kW	2.2 kW	3 kW	3.5 kW	4.8 kW
POW. IN SINGLE PHASE 230V	0 kW	1.2 kW	2.2 kW	2.7 kW	3 kW	4 kW
POW. IN SINGLE PHASE 115V	0 kW	1 kW	1.3 kW	1.7 kW	2 kW	2.5 kW

CONTROL PANEL

ENGINE

- Engine start and stop key
- Thermal circuit breaker for motor protection: 1x5A
- Low oil pressure warning light with engine stop
- Low fuel warning light with stop
- Battery charge warning light
- Multifunction digital instrument: AC voltmeter - Frequency meter - Total hour meter Partial hour meter (resettable) - Battery voltmeter
- Emergency stop button

WELDING

- WAC control panel:
 - CC-CV welding mode switch
 - Welding current / voltage adjustment knob
 - Welding arc adjustment knob
 - Remote control connection connector. Automatic "local / remote" switching on insertion of the connector. 10 POLES
 - VRD / VRD LED
- Welding outlet sockets: 1 x Welding (+) 400A
1 x Welding (-) 400A



GENERATION (VERS. 400V/230V)

- Differential switch (400V / 230V)
- Thermal breakers for socket protection:
 - 1x 16A for 230V 16A 2P + E CEE socket
 - 1x 16A for 230V 16A 2P + T SCHUKO socket
- Output sockets: 1x 400V 16A 3P + N + T CEE IP44
1x 230V 16A 2P + T CEE IP44
1x 230V 16A 2P + T SCHUKO IP54
- Earth terminal (PE)

GENERATION (VERS. 230V/110V)

- Differential switch (230V)
- Magnetothermic switch for 230V-16A socket
- Magnetothermic switch for 110V-32A CEE sockets and 110V-16A CEE socket (one for the 2 sockets)
- Output sockets: 1x 110V 32A 2P + T CEE IP44
1x 110V 16A 2P + T CEE IP44
1x 230V 16A 2P + T CEE IP44
- Earth terminal (PE)

WEIGHT - DIMENSIONS ACCESSORIES

CS 230 YSX CC/CV

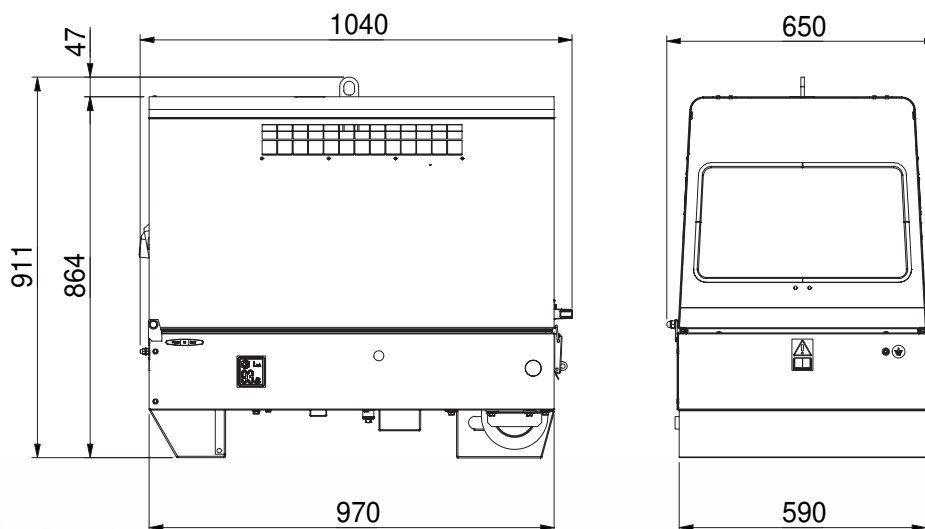


DRY WEIGHT:
• 230 Kg

The welding machine pictured may include optional accessories.



DIMENSION PICTURE



OPTIONS ON REQUEST

- Remote control RC2
- Remote control extension cord (30m)
- WF4 wire-feeder
- Welding cables: K190 (10+8 m, 35 mm²)
K200 (20+15 m, 35 mm²)
- Welding kit (mask gloves, etc.)
- Earthing kit
- Trolley CTM2
- Road tow running gear CTV4
- Exhaust extension



VERSION ON REQUEST

- Version 400V/110V



OPTIONS FACTORY INSTALLED

- Auto-Idle
- Disabling VRD function

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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