



ENGINE DRIVEN WELDER TS 400 YS

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 (only with EVO INSTRUMENT)
- Central lifting eye
- Wide access for easy maintenance
- Meets EC directives for noise and safety

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



water cooled



diesel



electric starter

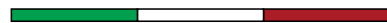
ENGINE 1500 RPM

4 STROKE, DIRECT INJECTION, NATURAL ASPIRATED

Model	YANMAR 4TNV88
* Stand-by net power	18 kW (24.5 hp)
* PRP net power	16.4 kW (22.3 hp)
* COP net power	/
Cylinder / Displacement	4/ 2.19 lit.
Bore / Stroke	88 / 90 (mm)
Compression ratio	20 : 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/
Speed governor type	Mechanical
FUEL CONSUMPTION	
110 % (Stand-by power)	5 lit./h
100 % of PRP	4.5 lit./h
75 % of PRP	3.4 lit./h
50 % of PRP	2.6 lit./h
25% of PRP	
COOLING SYSTEM	
Total system cap. - only engine	50 m ³ /min
Fan air flow	
LUBRIFICATION SYSTEM	
Total oil system capacity	3.4 lit. (min) - 7.4 lit. (max)
Oil capacity in sump	/

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

Oil consumption at full load	
EXHAUST SYSTEM	
Maximum exhaust gas flow	/
Max. exhaust gas temp.	520 °C
Max. exhaust gas temp.	9.8 kPa (0.1 bar)
Maximum back pressure	/
External diameter exhaust pipe	12 Vdc
ELECTRICAL SYSTEM	
Starter motor power	1.4 kW
Battery charging alternator cap.	40 A
Cold start	- 15 °C
Cold start	/
AIR FILTER	
Combustion air flow	Dry
Combustion air flow	1.48 m ³ /min
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

Current range	20A ÷ 400A
Type of regulation	Continue on 2 Step: 20A ÷ 200A / 20A ÷ 400A
Duty cycle	400A - 60% / 350A - 100%
Open circuit voltage	72 Vcc (77.5 Vcc di picco)
Arc force control	Si

SIMULTANEOUS LOAD CHARACTERISTIC

WELDING CURRENT	≥ 250A	175A	125A	75A	0A
POW. IN THREE PHASE 400V	0 kVA	8.5 kVA	11 kVA	13 kVA	16 kVA
POW. IN SINGLE PHASE 230V	0 kVA	6 kVA	8.5 kVA	10 kVA	10 kVA
POW. IN SINGLE PHASE 115V	0 kVA	3.5 kVA	5 kVA	5 kVA	5 kVA

GENERAL SPECIFICATIONS

Fuel tank capacity	60 l	Guaranteed acoustic power LwA (pressure LpA)	94 dB(A) (69 dB(A) @ 7 m)
Fuel consumption (welding 60%)	3.15 l/h	Measured acoustic power LwA (pressure LpA)	95 dB(A) (70 dB(A) @ 7 m)
Running time (welding 60%)	19 h	Max. ambient temperature	40 °C
IP protection degree	IP 23		

A.C. GENERATION

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

Insulation class	H
------------------	---

AUXILIARY GENERATION

OUTPUT 1

Type of source	3-phase
Frequency	50 Hz
Apparent Power + Active Power	16 kVA (12.8 kW)
Cos φ	0.8
Voltage	400 V
Current	23.1 A

OUTPUT 2

Type of source	1-phase
Frequency	50 Hz
Apparent Power + Active Power	10kVA / kW
Cos φ	0.8 / 1
Voltage	230 V
Current	43.5 A

OUTPUT 3

Type of source	1-phase
Frequency	50 Hz
Apparent Power + Active Power	5kVA / kW
Cos φ	1
Voltage	110 V
Current	45.5 A

OUTPUT 4

Type of source	1-phase
Frequency	50 Hz
Apparent Power + Active Power	5kVA / kW
Cos φ	1
Voltage	48 V
Current	104 A



CONTROL PANEL

ENGINE

- Controller RGK420SA
- Engine protector thermal circuit breaker: 1x30A
- Engine protector thermal circuit breaker: 1x5A
- Siren
- Emergency stop button

FEATURES CONTROLLER RGK420SA	
Operating Mode	<ul style="list-style-type: none"> • MAN - REMOTE
Display	<ul style="list-style-type: none"> • Graphic back-light LCD display • Buttons: START ▼ - ▲ • Key
Measures generator	<ul style="list-style-type: none"> • Voltage L1-L2 / L2-L3 / L3-L1 - N-L1/N-L2/N-L3 • Frequency Hz
Measures engine	<ul style="list-style-type: none"> • Fuel level • rpm meter • Hours meter • Battery voltage
Protections generator	<ul style="list-style-type: none"> • Overvoltage • Undervoltage • Overfrequency • Underfrequency
Protections engine	<ul style="list-style-type: none"> • Overspeed • Underspeed • High temperature shutdown • Low oil pressure shutdown • Low fuel level warning • Low fuel level shutdown • Battery voltage • Battery flat • Battery charge alternator failure • Arresto d'emergenza / Emergency stop • Mancato avviamento / Start failure • Mancato arresto / Stop failure • Manutenzione / Maintenance
Features	<ul style="list-style-type: none"> • Operator interface via symbols, codes and texts • Setpoints adjustable via controller buttons or PC • Remote Start and Stop • Configurable inputs and outputs • Operation temperature : -30°C -+70°C • NFC interface for wireless programming

WELDING

- Continuous control of the welding current from 20A to 400A or 20A to 200A
- Welding range switch
- Continuous control of the arc force
- Connection of remote control with automatic "local / remote" switch at the insertion of the plug
- Welding output sockets:
 - 1x Welding (+) 600A
 - 1x Welding (-) 600A
 - 1x Only gouging (+) 600A
- EVO INSTRUMENT:
 - 2x Display - 4 Digit
 - Set the welding current
 - Current and voltage Measurement during the welding process
 - VRD ON/OFF switch (inside electrical box)

GENERATION (VERS. 400V / 230V / 48V)

- Earth leakage circuit breaker
- Circuit breaker for 230V - 32A sockets
- Circuit breaker for 230V - 16A sockets
- Output sockets : 1x 400V 32A 3P+N+T IP67 CEE
 - 1x 230V 32A 2P+T IP67 CEE
 - 1x 230V 16A 2P+T IP67 CEE
 - N°2 output terminals 200A (for 48V)
- Earth terminal (PE)

WEIGHT - DIMENSIONS ACCESSORIES

TS 400 YS

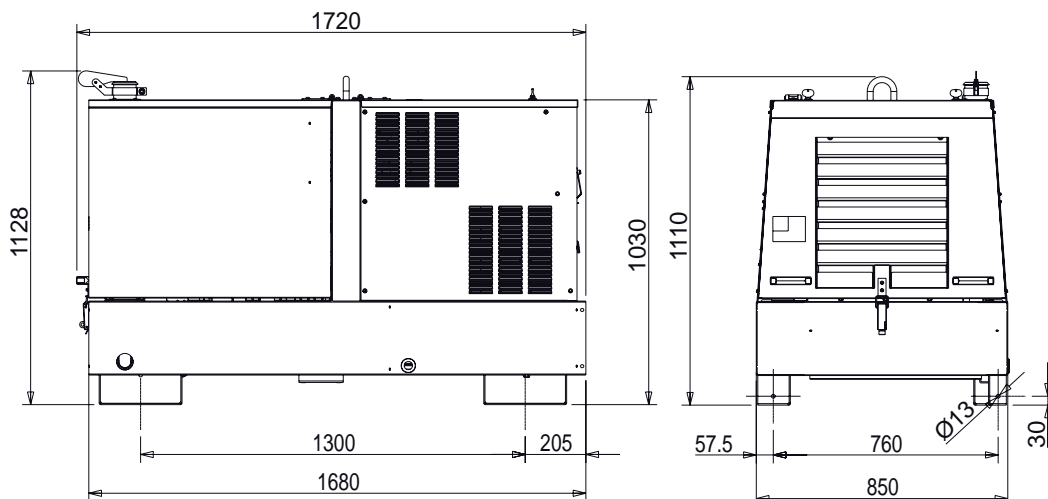


DRY WEIGHT:
• 750 Kg

The welding machine pictured may include optional accessories.



DIMENSION PICTURE



OPTIONS ON REQUEST

- Remote control RC2
- Remote control RCE (with EVO instrument panel)
- Remote control extension cord (30m)
- Welding cables K500 (20+15 m, 50 mm²)
- Welding kit (mask gloves, etc.)
- Earthing kit
- Site tow CTL22
- Site tow trailer, 4 wheels, 2 steering wheels, ball joint
- Road tow running gear CTV1
- Locking Fuel Cap



VERSION ON REQUEST

- Version : 400V/230V
 - 1x400V 32A 3P+N+T IP67 CEE
 - 1x230V 32A 2P+T IP67 CEE
 - 1x230V 16A 2P+T IP67 CEE
 - 1x230V 16A 2P+T SCHUKO
- Version : 400V/230V/110V CTE
 - 1x400V 16A 3P+N+T IP67 CEE
 - 1x230V 32A 2P+T IP67 CEE
 - 1x110V 32A 2P+T CEE
 - 1x110V 16A 2P+T CEE



OPTIONS FACTORY INSTALLED

- EVO Instrument panel
- Polarity change (only with EVO instrument panel)
- Gauges - water temperature and oil pressure
- Spark arrestor

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.

© 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

