MOSA

language

MADE IN ITALY

ENGINE DRIVEN WELDER
DSP 2X400 YS

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

- DC arc welder
- High frequency digital control of welding current and voltage
- Two independent welding stations each of 400A
- Specific welding programs for cellulosic electrodes
- Double welding scale
- Digital welding ammeter and voltmeter
- Pre-setting of the welding current
- VRD function
- AC power generator three-phase and single-phase available during the welding phase
- Electrical distribution panel with three-phase and single-phase output sockets
- High sensitivity differential switch - 30mA
- Insulation monitor (Optional as an alternative to the differential switch)
- Digital engine management and control module
- Emergency button
- Fuel level indicator
- Water temperature gauge and oil pressure gauge
- Battery disconnect switch
- Fuel pre-filter with water presence indicator
- Large capacity steel tank
- External filling of the fuel tank
- Sealed base capable of containing any leaks of liquids present in the engine, avoiding environmental pollution
- Large access doors to allow easy maintenance (replacement of air, oil, fuel filters)
- External cap for oil drainage
- Central lifting hook
- Low level of noise emissions
- Compliant with EC / EU Directives

water cooled | diesel | electric sterter | silenced

DEFINITION

Valid declared powers up to the followings environmental conditions: temperature 25°C, altitude 100 meters above sea level

LTP power: stand-by power: Maximum available power for use with variable loads for a yearly number of hours limited at 500 h. No overload is admitted.

PRP power: continue power with variable loads. Maximum power for use with variable loads for a yearly illimited nubers of hours.

COP power: continuous power with constant load. Maximum power for use with constant loads for a yearly unlimited numbers of hours.

ENGINE 1500 RPM

4 STROKE, DIRECT INJECTION, TURBOCHARGED	
Model	YANMAR 4TNV98T
* Stand-By net power	41.9 kW (57 hp)
* PRP net power	37.9 kW (51.5 hp)
* COP net power	/
Cylinders / Displacement	4 / 3.319 lit. (3319 cm^3)
Bore / Stroke	98 / 110 (mm)
Compression ratio	18.5 : 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/
Speed governor type	Mechanical
FUEL CONSUMPTION	
110 % (Stand-by power)	11 lit./h
100 % to PRP	9.8 lit./h
75 % to PRP	7.4 lit./h
50 % to PRP	5.1 lit./h
COOLING SYSTEM	
Total system cap. - only engine	4.2 lit.
Fan air flow	70 m^3/min.
LUBRICATION SYSTEM	
Total oil system capacity	/
Oil capacity in sump	4.5 lit. (min) - 11.2 lit. (max)
Oil consumption at full load	/

EXHAUST SYSTEM	
Maximum exhaust gas flow	/
Max. exhaust gas temp.	620 °C
Maximum back pressure	9.8 kPa (0.1 bar)
External diameter exhaust pipe	/
ELECTRICAL SYSTEM	12 Vdc
Starter motor power	2.3 kW
Battery charging alternator cap.	40 A
Cold start	- 15 °C
With cold start aid	/
AIR FILTER	Dry
Combustion air flow	3.2 m^3/min
HEAT REJECTED AT FULL LOAD	
To exhaust system	/
To water and oil	/
Radiated to room	/
To charge cooler	/

* Output powers according to ISO 3046-1

BCS group

WELDING AND GENERATION

DSP 2X400 YS

C.C. WELDING

SMAW (STICK)/ GTAW (TIG) CC MODE	
Current range	2x10A/20.4V - 2x400A/36V
Type of regulation	continues on 2 scales 2x10A ÷ 200A I 2x10A ÷ 400A
Duty cycle	2x400A/36V @ 35% 2x360A/34.5V @ 60% 2x330A/33V @ 100%
Open circuit voltage	68 Vcc / Vdc
Reduced no-load voltage with VRD	< 13 Vcc / Vdc
Arc Force Regulation	Yes

SMAW (STICK)/ GTAW (TIG) CC MODE	
Current range	2x10A/10.4V - 2x400A/26V
Type of regulation	continues on 2 scales 2x10A ÷ 200A I 2x10A ÷ 400A
Duty cycle	2x400A/26V @ 35% 2x360A/24.5V @ 60% 2x330A/23V @ 100%
Open circuit voltage	68 Vcc / Vdc
Reduced no-load voltage with VRD	< 13 Vcc / Vdc
Arc Force Regulation	No

C.V. WELDING

GMAW (MIG)/ FCAW (FLUX CORED) CV MODE	
Welding voltage	2x40A/16V - 2x400A/34V
Type of regulation	continue 16V ÷ 36V
Duty cycle	2x400A/34V @ 35% 2x360A/32V @ 60% 2x330A/30.5V @ 100%

SIMULTANEOUS LOAD CHARACTERISTIC

WELDING CURRENT SINGLE POSITION	400A	300A	200A	100A	0
THREE PHASE POWER 400V Cosφ 0.8	25 kVA	30 kVA	35 kVA	40 kVA	40 kVA
SINGLE PHASE POWER 230V Cosφ 0.8	20 kVA	20 kVA	20 kVA	20 kVA	20 kVA
THREE PHASE POWER 400V Cosφ 1	20 kW	24 kW	28 kW	32 kW	32 kW
SINGLE PHASE POWER 230V Cosφ 1	20 kW	20 kW	20 kW	20 kW	20 kW

WELDING CURRENT DOUBLE POSITION	2x400A	2x300A	2x200A	2x100A	0
THREE PHASE POWER 400V Cosφ 0.8	10 kVA	20 kVA	30 kVA	40 kVA	40 kVA
SINGLE PHASE POWER 230V Cosφ 0.8	8 kVA	16 kVA	20 kVA	20 kVA	20 kVA
THREE PHASE POWER 400V Cosφ 1	8 kW	16 kW	24 kW	32 kW	32 kW
SINGLE PHASE POWER 230V Cosφ 1	8 kW	16 kW	20 kW	20 kW	20 kW

Auxiliary Generation

OUTPUT 1	
Type of source	Three-Phase
Frequency	50 Hz
Apparent Power (Active Power)	40 kVA (30kW)
Cos φ	0.8
Voltage	400 V
Current	57.8 A

OUTPUT 2	
Type of source	Single-Phase
Frequency	50 Hz
Apparent Power (Active Power)	20kVA/kW
Cos φ	0.8 ÷ 1
Voltage	230 V
Current	87 A

OUTPUT 3	
Type of source	Single-Phase
Frequency	50 Hz
Apparent Power (Active Power)	10 kVA (8kW)
Cos φ	0.8 ÷ 1
Voltage	110 V
Current	90.9 A

OUTPUT 4	
Type of source	Single-Phase
Frequency	50 Hz
Apparent Power (Active Power)	5 kVA/kW
Cos φ	1
Voltage	48 V
Current	104 A

A.C. Generation

ASYNCRONOUS ALTERNATOR, SELF-REGULATED, SELF-EXCITED, BRUSHLESS	
Insulation class	H

General Specifications

Fuel tank capacity	102 l
Fuel consumption (welding 60%)	12 Vdc -80Ah – 700A CCA
Running time (welding 60%)	15 h
IP protection degree	IP 44

Guaranteed acoustic power LwA (pressure LpA)	92 dB(A) (67 dB(A) @ 7 m)
Measured acoustic power LwA (pressure LpA)	93 dB(A) (68 dB(A) @ 7 m)
Max. ambient temperature	40 °C

CONTROL PANEL

DSP 2X400 YS

WELDING

- WDC control panel
  - Rotary switch for welding process
  - STAND-BY
  - TIG CONTACT STARTING ((GTAW - Lift Start)
  - CC STICK ARC FORCE (SMAW)
  - CC STICK CELLULOSE 1 (SMAW)
  - CC STICK CELLULOSE 2 (SMAW)
  - CV-WIRE (GMAW / FCAW)
  - Welding current / voltage adjusting knob
  - Connection of remote control with automatic "local / remote"switch at the insertion of the plug.
  - Welding range switch
  - Polarity reverce switch
  - LED STAND-BY
  - LED ON (Welder ready for use)
  - Thermal protection or fault LED (if on it indicates over-current or fault)
  - Polarity reverse LED (signals command activation)
- Welding currente and voltage digital instrumen-ts PCB / LED V.R.D.
- Welding output sockets:
  1 x Saldatura (+) 400A
  1 x Saldatura (-) 400A

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

- ELCB-GFI (Ground Fault Interruptor)
- Output sockets : 2x 400V 32A 3P+N+T CEE IP67
  1x 230V 32A 2P+T CEE IP67
  2x 230V 16A 2P+T CEE IP67
  2x 48V 32A 2P CEE IP44
  N°2 output terminals 200A
- Thermal circuit breakers for sockets
- Earth terminal (PE)

GENERTION (VERS. 400V / 230V)

- ELCB-GFI (Ground Fault Interruptor)
- Output sockets : 2x 400V 32A 3P+N+T CEE IP67
  2x 230V 32A 2P+T CEE IP67
  2x 230V 16A 2P+T CEE IP67
  2x 230V 16A 2P+T SCHUKO IP54
- Thermal circuit breakers for sockets
- Earth terminal (PE)

GENERTION (VERS. 400V / 230V / 110 V)

- ELCB-GFI (Ground Fault Interruptor)
- Output sockets : 2x 400V 32A 3P+N+T CEE IP67
  1x 230V 32A 2P+T CEE IP67
  2x 230V 16A 2P+T CEE IP44
  1x 1100V 32A 2P+T CEE IP44
  2x 1100V 16A 2P+T CEE IP44
- Thermal circuit breakers for sockets
- Earth terminal (PE)

ENGINE

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

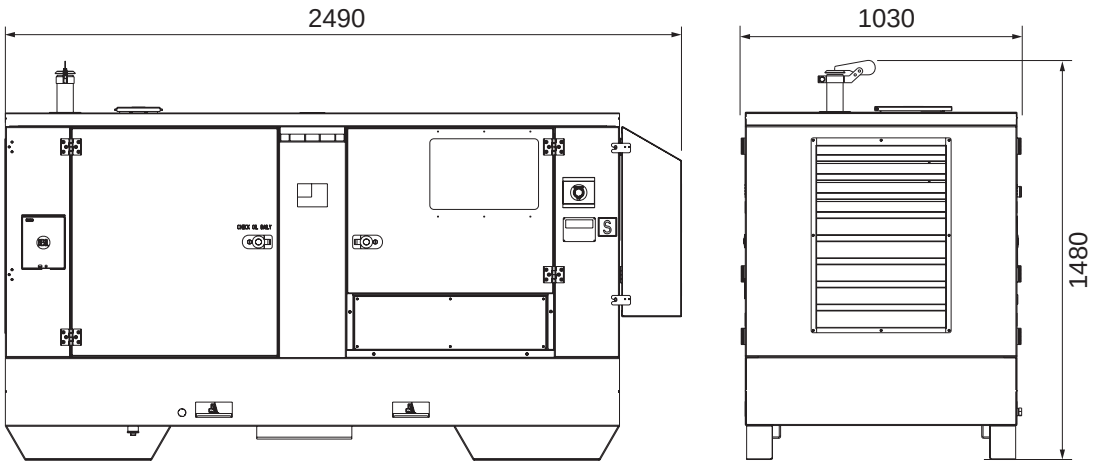
FEATURES CONTROLLER RGK420SA	
Operating Mode	• MAN - REMOTE
Display	• Graphic back-light LCD display • Buttons: START ▼ - ▲ • Key
Measures generator	• Voltage L1-L2 / L2-L3 / L3-L1 - N-L1/N-L2/N-L3 • Frequency Hz
Measures engine	• Fuel level • rpm meter • Hours meter • Battery voltage
Protections generator	• Overvoltage • Undervoltage • Overfrequency • Underfrequency
Protections engine	• Overspeed • Underspeed • High temperature shutdown • Low oil pressure shutdown • Low fuel level warning • Low fuel level shudown • Battery voltage • Battery flat • Battery charge alternator failure • Arresto d'emergenza / Emergency stop • Mancato avviamento / Start failure • Mancato arresto / Stop failure • Manutenzione / Maintance
Features	• 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

WEIGHT - DIMENSIONS ACCESSORIES

DRY WEIGHT:
- 1200 Kg

The welding machine pictured may include optional accessories.

DIMENSION PICTURE



VERSIONS IN ADDITION TO THE STANDARD FEATURES

POL	OIL & GAS	TOP
• Polarity change	• Spark arrestor	• Polarity change • Spark arrestor

OPTIONS ON REQUEST

- WF4 wire-feeder
- Welding kit (mask gloves, etc.)
- Locking Fuel Cap
- Earthing kit
- Remote control RC2/90° (cable 20m)
- Remote control RC1/90° (for PL version - cable 20m)
- Remote control extension cord (30m)
- Welding cables K500 (20+15 m, 50 mm²)
- Site tow CTL45
- Site tow with selectable height CTL45

AVAILABLE VERSIONS

C1HK6063	400/230/48
C1HK6064	400/230/48 - POL
C1HK6063C	400/230/48 - OIL & GAS
C1HK6064C	400/230/48 - TOP
C1HK6013	400/230
C1HK6014	400/230 - POL
C1HK6013C	400/230 - OIL & GAS
C1HK6014C	400/230 - TOP
C1HK6023	400/230/110

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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