



ENGINE DRIVEN WELDER DSP 2X400 PS

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
- Two independent welding positions to 400A
- High frequency digital control of welding current and voltage
- Specific welding programs for cellulose electrodes
- Double welding range (HALF/FULL - 50% / 100%)
- Aux power also available while welding
- Digital welding ammeter and voltmeter with PRE-SETTING
- Digital engine management and control module
- Central lifting eye
- Emergency stop button
- Meets EC directives for noise and safety

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.



water cooled



diesel



electric starter



silenced

ENGINE 1500 RPM

4 STROKE, DIRECT INJECTION, TURBOCHARGED

Model	PERKINS - 1103A-33TG1
* Stand-By net power	45.6 kWm (62 hp)
* PRP net power	41.3 kWm (56.2 hp)
* COP net power	/
Cylinders / Displacement	3/ 3300 cm ³ (3.3 lt.)
Bore / Stroke	105 / 127 (mm)
Compression ratio	17.25 : 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	1128 kPa - 1023 kPa
Speed governor type	Mechanical
FUEL CONSUMPTION	
110 % (Stand-by power)	12 lt./h
100 % to PRP	10.7 lt./h
75 % to PRP	8.2 lt./h
50 % to PRP	5.7 lt./h
COOLING SYSTEM	
Total system cap. - only engine	10.2 lt - 4.,4 lt
Fan air flow	53 m ³ /min.
LUBRICATION SYSTEM	
Total oil system capacity	8.3 lt
Oil capacity in sump	6.2 lt ÷ 7.8 lt
Oil consumption at full load	< 0.016 lt./h

EXHAUST SYSTEM

Maximum exhaust gas flow	7.7 m ³ /mim.
Max. exhaust gas temp.	537 °C
Maximum back pressure	10 kPa (0.10 bar)
External diameter exhaust pipe	/

ELECTRICAL SYSTEM

Starter motor power	3 kW
Battery charging alternator cap.	65 A
Cold start	- 10°C
With cold start aid	- 25 °C

AIR FILTER

Combustion air flow	3.1 m ³ /min
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HEAT REJECTED AT FULL LOAD

To exhaust system	35 kW - 1992 Btu/min.
To water and oil	30 kW - 1707 Btu/min.
Radiated to room	8 kW - 455 Btu/min.
To charge cooler	/

* Output powers according to ISO 3046-1



WELDING AND GENERATION

C.C. WELDING (CONSTANT CURRENT)

SMAW (STICK)/ GTAW (TIG) CC MODE	
Current range	2x10 ÷ 400 A (STICK-TIG)
Type of regulation	continues on 2 scales 2x10A ÷ 200A 2x10A ÷ 400A
Duty cycle	2x400 A 35% 2x360 A 60% 2x330 A 100%
Open circuit voltage	68 V
Arc Force Regulation	Yes

C.V. WELDING (CONSTANT VOLTAGE)

GMAW (MIG)/ FCAW (FLUX CORED) CV MODE	
Welding voltage	16V ÷ 36V
Type of regulation	continue
Duty cycle	2x360A 60% 2x330A 100%

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)	89 dB(A) (64 dB(A) @ 7 m)
Measured acoustic power LwA (pressure LpA)	90 dB(A) (65 dB(A) @ 7 m)
Max. ambient temperature	40 °C

A.C. GENERATION

ASYNCHRONOUS ALTERNATOR, 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)	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

SIMULTANEOUS LOAD CHARACTERISTIC

WELDING CURRENT SINGLE POSITION	400A	300A	200A	100A	0
THREE PHASE POWER 400V	25kVA	30kVA	35kVA	40kVA	40kVA

WELDING CURRENT DOUBLE POSITION	2x400A	2x300A	2x200A	2x100A	0
THREE PHASE POWER 400V	10kVA	20kVA	30kVA	40kVA	40kVA

CONTROL PANEL

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 reverse 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 current and voltage digital instruments PCB / LED V.R.D.
- Welding output sockets:
 - 1 x Saldatura (+) 400A
 - 1 x Saldatura (-) 400A



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

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

GENERATION (VERS. 400V / 230V)

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

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

- ELCB-GFI (Ground Fault Interruptor)
- Output sockets : 2x 400V 32A 3P+N+T CEE
 - 1x 230V 32A 2P+T CEE
 - 2x 230V 16A 2P+T CEE
 - 1x 1100V 32A 2P+T CEE
 - 2x 1100V 16A 2P+T CEE
- 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	<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



WEIGHT - DIMENSIONS ACCESSORIES

DSP 2X400 PS

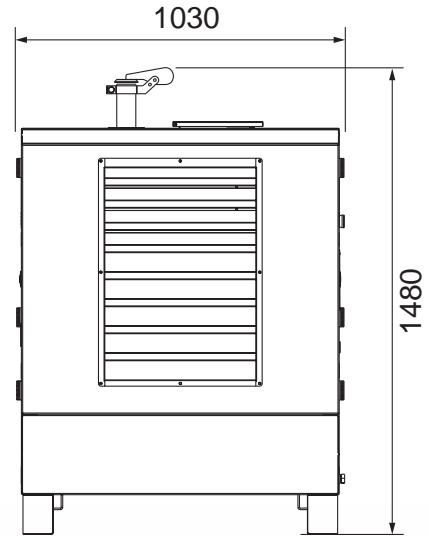
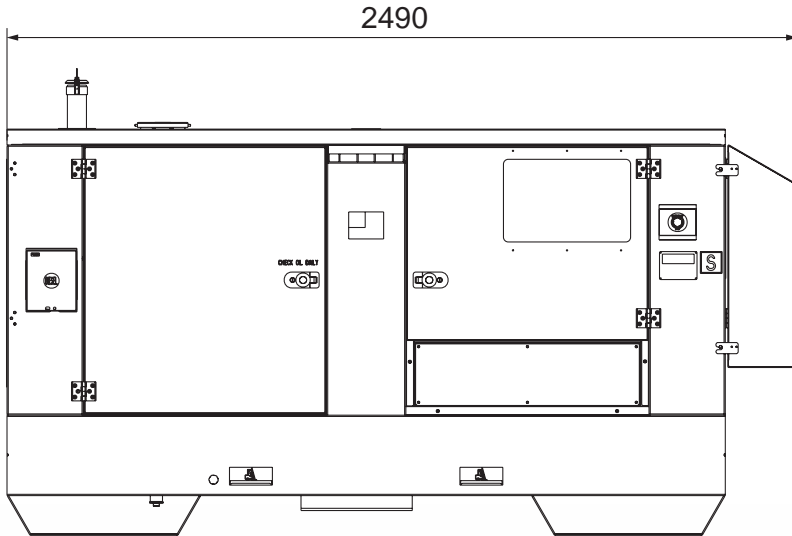


DRY WEIGHT:
• 1350 Kg

The welding machine pictured may include optional accessories.



DIMENSION PICTURE



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

VERSION ON REQUEST

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

OPTIONS FACTORY INSTALLED

- Cold start aid
- Main battery switch
- Gauges - water temperature and oil pressure
- Oil drain pump
- Isometer
- Spark arrestor
- V.R.D. function
- Polarity change

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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