

ENGINE DRIVEN WELDER

DSP 500 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

- 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
- Engine protection
- 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, NATURAL ASPIRATED

Model	PERKINS - 404A-22G1
* Stand-By net power	20.3 kWm (27.6 hp)
* PRP net power	18.4 kWm (25 hp)
* COP net power	/
Cylinders / Displacement	4/ 2216 cm ³
Bore / Stroke	84 / 100 (mm)
Compression ratio	23.3 : 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	743.7 kPa – 669.3 kPa
Speed governor type	Mechanical
FUEL CONSUMPTION	
110 % (Stand-by power)	6.1 lt./h
100 % to PRP	5.3 lt./h
75 % to PRP	4 lt./h
50 % to PRP	2.9 lt./h
COOLING SYSTEM	
Total system cap. - only engine	7 lt – 3.6 lt.
Fan air flow	40.2 m ³ /min
LUBRICATION SYSTEM	
Total oil system capacity	10.3 lt
Oil capacity in sump	/
Oil consumption at full load	/

* Output powers according to ISO 3046-1

EXHAUST SYSTEM	
Maximum exhaust gas flow	3.94 m ³ /min.
Max. exhaust gas temp.	505 °C
Maximum back pressure	10.2 kPa (0.102 bar)
External diameter exhaust pipe	/
ELECTRICAL SYSTEM	
Starter motor power	2 kW
Battery charging alternator cap.	55 A
Cold start	- 15°C
With cold start aid	/
AIR FILTER	
Combustion air flow	1.45 m ³ /min.
HEAT REJECTED AT FULL LOAD	
To exhaust system	16.6 kW - 944 Btu/min.
To water and oil	19.6 kW - 1114 Btu/min.
Radiated to room	4.4 kW - 250 Btu/min.
To charge cooler	/



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WELDING AND GENERATION

C.C. WELDING (CONSTANT CURRENT)

SMAW (STICK)/ GTAW (TIG) CC MODE	
Current range	10A ÷ 500A
Type of regulation	continues on 2 scales
Duty cycle	500A - 35%, 450 A - 60%, 400A - 100%
Open circuit voltage	62 Vcc

C.V. WELDING (CONSTANT VOLTAGE)

GMAW (MIG)/ FCAW (FLUX CORED) CV MODE	
Welding voltage	16V ÷ 40V
Type of regulation	continues
Duty cycle	450A 60% - 400A 100%

GENERAL SPECIFICATIONS

Fuel tank capacity	60 l
Fuel consumption (welding 60%)	3.8 l/h
Running time (welding 60%)	16 h
IP protection degree	IP 23

Guaranteed acoustic power LwA (pressure LpA)	93.5 LWA (68.5 dB(A) @ 7m)
Measured acoustic power LwA (pressure LpA)	95 LWA (70 dB(A) @ 7m)
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	Trifase
Frequency	50 Hz
Apparent Power (Active Power)	16 kVA (12.8kW)
Cos φ	0.8
Voltage	400 V
Current	23.1 A

OUTPUT 2	
Type of source	Monofase
Frequency	50 Hz
Apparent Power (Active Power)	12kVA (9.6kW)
Cos φ	0.8 / 1
Voltage	230 V
Current	52.2 A

OUTPUT 3	
Type of source	Monofase
Frequency	50 Hz
Apparent Power (Active Power)	6 kVA (6kW)
Cos φ	1
Voltage	110 V
Current	54.5 A

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

SIMULTANEOUS LOAD CHARACTERISTIC

WELDING CURRENT (A)	0	100	150	300	400	500
POW. IN THREE PHASE 400V (kW)	16	14	12	6	3	0

CONTROL PANEL

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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 (+) 600A
 - 1 x Saldatura (-) 600A



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 CEE
 - 1x 230V 32A 2P+T CEE
 - 1x 230V 16A 2P+T CEE
 - N°2 output terminals 200A (for 48V)
- Earth terminal (PE)

WEIGHT - DIMENSIONS ACCESSORIES

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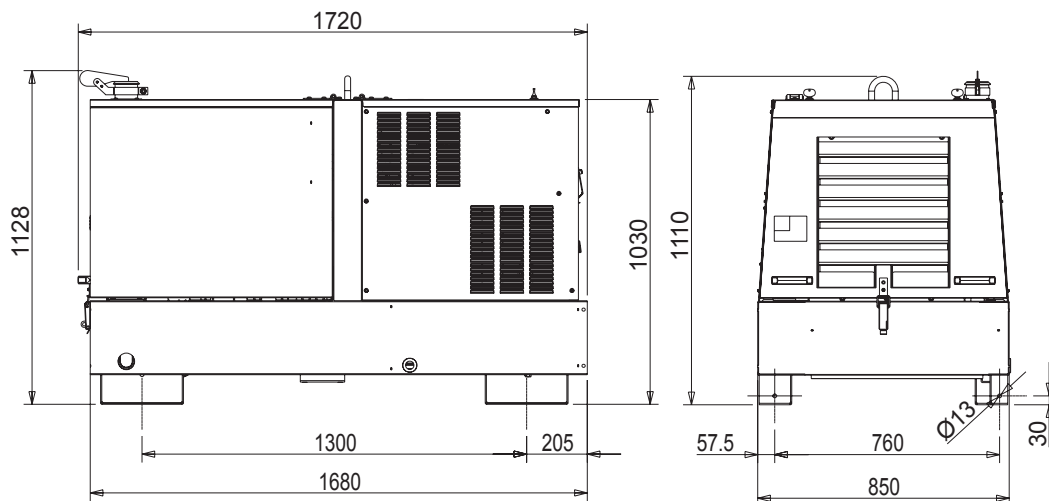


DRY WEIGHT:
• 750 Kg

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 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/O
- Road tow running gear CTV1/S
- Locking Fuel Cap



VERSION ON REQUEST

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

- Polarity change
- V.R.D. function
- Chafwyn valve
- 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.

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