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To whom it may concern,

Tokyo, June 30th, 2017

Notice about model name of DCW-480ESW in CIS markets.

Please be informed that we Denyo Co., Ltd (Manufacturer) produce and supply Diesel Engine Welder “DCW-480ESW” for overseas countries. Meanwhile, we specially modified the model to meet expectations of CIS oil and gas sectors. The modified spec. machines are called “DCW-480ESW **Evo III Limited Edition**” in CIS countries to distinguish them from the standard “DCW-480ESW”. It has more powerful technical specification performance especially in dual mode using duty cycle 100% and AC auxiliary output simultaneously.

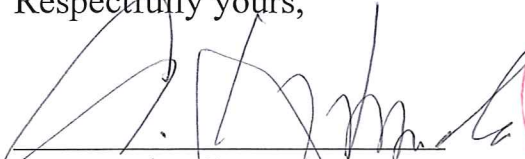
Main specification difference of the above machine:

At 2-Post Operation:

- Rated Current: 250A x 2-post
- Duty Cycle: 100%
- Current Range: 30-280A
- Simultaneous use of DC welding power and AC power:
Rated Power: CC Welding Output 250A, 30V x 2-post
+ AC Power Output (1-phase) 3.2kW
Rated Duty Cycle: 100%

For Detail Specification, please refer to attached specification.

Respectfully yours,


A. Hosoda, General Manager
International Sales Department No. II
Denyo Co., Ltd.





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ПЕРЕВОД

Для предъявления по месту требования

Токио, 30 июня 2017

Уведомление о названии модели DCW-480ESW в странах СНГ

Уведомляем Вас о том, что мы Denyo Co., Ltd (Производитель) производим и поставляем дизельный сварочный агрегат «DCW-480ESW» для зарубежных стран. Тем временем, мы специально модифицировали модель, чтобы оправдать ожидания нефтегазового сектора в странах СНГ. В измененной спецификации агрегаты называются «DCW-480ESW Evo III Limited Edition» для стран СНГ, чтобы отличить их от стандартного «DCW-480ESW». Он имеет более мощные технические характеристики спецификации особенно в двухпостовом режиме при продолжительности включения (ПВ) 100% и работе дополнительного выхода переменного тока одновременно.

Основное отличие спецификации вышеуказанного агрегата:

В 2-х постовом режиме:

- Номинальный ток: 250А x 2-поста
- Продолжительность включения(ПВ): 100%
- Диапазон регулирования тока: 30-280А
- При одновременном использовании сварочного источника и режима генератора при ПВ=100%:
режим СС(Постоянный ток) 250А, 30В x 2-поста + режим АС (Переменный ток) I фаза 3.2кВт.

Для более детального описания, пожалуйста, обратитесь к прилагаемой спецификации.

С уважением,

А. Хосода, Генеральный Директор
Отдел международных продаж № II
Denyo Co., Ltd.

SPEC.No. D68343 00804A
DATE Sep. 18. 2013

SPECIFICATIONS

Soundproof Diesel Engine-Driven
DC Welder / AC Generator

MODEL DCW-480ESW

[50Hz—380V]

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 **Denyo Co., Ltd.**



1. APPLICATION

- 1.1 This specification covers the water-cooled, diesel engine-driven DC Welder / AC Generator model DCW-480ESW (hereafter referred to as welding set).
- 1.2 This welding set shall be designed, manufactured and tested in accordance with the latest standards of JIS.

JIS Japanese Industrial Standard
Other matters which are not specifically mentioned in the above standards shall be subject to Denyo Co., Ltd.'s production regulations.

2. GENERAL

2.1 Materials and Workmanship

The materials used in the manufacture of this equipment shall be of the high quality, and shall be free from defects and imperfections.

All materials and apparatus not manufactured by Denyo Co.,Ltd. shall be the products of well-known manufacturers. The workmanship shall be of the high grade and in accordance with the most efficient, up-to-date procedures.

2.2 Change

Minor changes after the final design may be made by Denyo Co., Ltd. without prior notice to the Purchaser. In case of major changes or additional equipment which may result in an increase or decrease of equipment's cost, such modifications shall be made in writing and agreed to by both parties prior to production and shall constitute an amendment to these specifications.

2.3 Tests and Inspections

Routine tests and inspections shall be final in our factory.

If any tests and inspections beyond the scope of Denyo's standard commercial procedures are required by the Purchaser, charges for such inspections or tests shall be added to our estimate. Conditions of any such tests and inspections shall be mutually agreed upon between both parties.

2.4 Ambient Conditions

This generating set should meet the following conditions:

- | | |
|---------------------------|----------------------------------|
| (1) Ambient temperature | : -5° C or higher,35° C or lower |
| (2) Altitude | : up to 500m above sea level |
| (3) Relative humidity | : 85% or lower |
| (4) Place of installation | : outdoor |



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3. STRUCTURE

The welding set possesses a solid structure, and is comprised of a water-cooled diesel engine and a generator, which are directly coupled on a common base.

A coupling housing is employed to connect the generator to the engine. Firm coupling of the engine and generator is ensured by tight connection of the housing exterior. The rotating section of the generator is directly coupled to the flywheel of the engine.

The standard generator is of the brushless type.

A heavy gauge steel bonnet and side door completely cover the engine, generator and accessories, protecting the unit from effects of weather or possible handling damages at the construction site.

A lifting hook is attached to the balance point of the bonnet top.

4. SPECIFICATIONS AND PERFORMANCE

4.1 Generator

Generator Type : Brushless ,revolving field type

(1) CV Welding Output (for Wire)

①Single Operation

		Under e Mode Operation
Rated Output	: 16.4 kW	4.80 kW
Rated Current	: 450 A	240 A
Rated Voltage	: 36.5 V	20.0 V
Voltage Range	: 14~37 V	14~20 V
Rated Speed	: 3000 min ⁻¹	2200 min ⁻¹
Rated Duty Cycle	: 60 %	100 %

②Dual Operation

		Under e Mode Operation
Rated Output	: 6.6 kW ×2	2.4 kW ×2
Rated Current	: 250 A ×2	120 A ×2
Rated Voltage	: 26.5 V ×2	20.0 V ×2
Voltage Range	: 14~29 V	14~25 V (Total ~40V)
Rated Speed	: 3000 min ⁻¹	2200 min ⁻¹
Rated Duty Cycle	: 100 %	100 %

(2) CC Welding Output (for Stick)

①Single Operation

		Under e Mode Operation
Rated Output	: 17.1 kW	7.10 kW
Rated Current	: 450 A	240 A
Rated Voltage	: 38.0 V	29.6 V
Current Range	: 60~480 A	60~240 A
Rated Speed	: 3000 min ⁻¹	2200 min ⁻¹
Rated Duty Cycle	: 60 %	100 %



②Dual Operation

		Under e Mode Operation
Rated Output	: 7.5 kW ×2	3.0 kW ×2
Rated Current	: 250 A ×2	120 A ×2
Rated Voltage	: 30.0V×2	24.8 V ×2
Current Range	: 30~280 A	30~200 A (Total ~240A)
Rated Speed	: 3000 min ⁻¹	2200 min ⁻¹
Rated Duty Cycle	: 100 %	100 %

(3) AC Power Output

Rated Output	: 15 kVA
Rated Voltage	: 380 V
Rated Current	: 22.8 A
No.of Phase	: 3 (4 wires)
Rated Speed	: 3000 min ⁻¹
Frequency	: 50 Hz
Power Factor	: 0.8(lagging)
Rating	: Continuous

(4) Imultaneous use of DC welding power and AC power

Rated Output	: CC Welding Output 250A,30V ×2 +AC Power Output (1 Phase)3.2kW or CV Welding Output 250A,26.5V ×2 +AC Power Output (1 Phase)5kW
Rated Duty Cycle	: 100 %

4.2 Diesel Engine

Maker and Model	: KUBOTA V1505
Type	: Vertical, water-cooled, 4-cycle diesel engine (swirl chamber type)
Emission Regulation	: EU Stage III A
Rated Output	: 24.9 kW / 3000 min ⁻¹
No. of Cylinders	: 4
Bore × Stroke	: 78 mm × 78.4 mm
Total Displacement	: 1.498 L
Governor	: Mechanical all speed governor
Cooling System	: Water cooling by radiator with fan
Lubricating System	: Gear pump
Starting Motor	: 12 V – 1.2 kW
Charging Generator	: 12 V – 150 W
Battery	: 12 V – 65 Ah × 1 (80D26R)
Fuel	: Diesel fuel (ASTM No.2 or equivalent)
Lubricating Oil	: API service class, CD class or higher

-Note- Generator rated output is in accordance with JIS standard ambient conditions.

JIS standard ambient conditions

(A)	Ambient temperature	25 °C
(B)	Atmospheric pressure	100 kPa
(C)	Relative humidity	31 %



4.3 Voltage Regulation

The voltage regulation from no load to rated load under a rated power factor shall be within $\pm 1.5\%$ of rated voltage. However, this Voltage Regulation when the machine is simultaneously operating as welding, shall be within $\pm 5\%$ of rated voltage.

4.4 Limits of Temperature

Limits of temperature rise of the generator shall be in accordance with relevant Japanese standards, based on ambient temperature not exceeding 40°C , and shall not exceed the following:

Armature windings	Insulation class F
Field winding	Insulation class F

-NOTE- Method of measuring temperatures rise is thermometer method.

4.5 Dielectric Strength Test

The strength of the windings of the generator and control box shall meet the specifications of the high voltage test according to Japanese standards:

Armature windings - Grounding	AC 1760V (one minute)
Field winding - Grounding	AC 1500V (one minute)
Electrical parts - Grounding	AC 1500V (one minute)

-NOTE- The dielectric strength test of semi-conductive parts such as diode will be carried out without disconnecting the terminals.

4.6 Sound Level

The average rated load sound is limited within 70 dB (A) at a distance of 7 m.

4.7 Dimensions and Weight

Length	: 1540 mm
Width	: 720 mm
Height	: 885 mm
Dry Weight	: 511 kg
Total Weight	: 564 kg (all fluids including fuel)



5. INSTRUMENT PANEL AND SYSTEM

5.1 Control Panel for Welding

DC Welding Output Terminal (+, -)	2	sets.
Current/Voltage Regulator	2	pcs.
Digital Panel (DC Voltmeter , DC Ammeter)	1	set.
Arc Force Regulator	2	pcs.
Single - Dual Selector Switch	1	pc.
CC - CV Selector Switch	1	pc.
e Mode Switch	1	pc.
Remote Socket	2	pcs.
Output Control Selector (Remote/Local)	2	pcs.
OCV Selector (Continue/Synchro)	1	pc.
Feeder Socket (for LN-23P)	2	pcs.
Feeder Terminal (for LN-23P)	2	pcs.
Socket Selector Switch(Remote/Feeder)	2	pcs.

5.2 Control Panel for AC power

AC Circuit Breaker	1	pc.
3-Phase AC Output Terminal	1	set.
AC Voltmeter	1	pc.
AC Ammeter	1	pc.
Frequency Meter	1	pc.
Ground Terminal (for Bonnet)	1	pc.
1-Phase AC Output Receptacle	2	pcs.
1-Phase AC Output Breaker	2	pcs.

5.3 Control Panel for Engine

Starter Switch	1	pc.
Engine Monitor	1	set.
	Hour Meter	
	Fuel Meter	
	Warning Lamp Unit	
	(oil press/water temp/charging/preheat)	
Idle Control Switch	1	pc.

5.4 Option Parts

(Option)

Earth Leakage Relay		
Ground Terminal (for Earth Leakage Relay)	1	set



6. SAFETY CONTROLS

The welding set shall be equipped with automatic safety controls which will shut down the engine in the event of any abnormal condition such as :

	Engine shut down	Circuit breaker well trip	Warning lamp	DC welding control unit shut down
Low lubricating oil pressure	○	—	○	—
High jacket water temp.	○	—	○	—
Insufficient charge	○	—	○	—
Over current of Auxiliary AC power	—	○	—	—
Welding overload	—	—	○	○
Earth leakage of AC power (Option)	—	○	—	—

Mark ○ ; Operate

Mark — ; Not operate

7. CAPACITY

Cooling water capacity : 4.85 L (Reserve Tank included)
 Lubricating oil capacity : 6.0 L
 Fuel tank capacity : 45 L

8. ATTACHMENT

Instruction Manual 1 vol.
 Parts List 1 vol.
 Instruction Manual (Engine) 1 vol.
 Spare Fuse (65 A) 1 pc.
 Remote Control Box (30 m) 2 sets.

9. COATING

The welding set and the engine shall be the manufacturer's standard colors.
 (Munsell No. 7.5 BG 5/10 , No. N-1)

