

Developing Technology for Tomorrow's Power Needs.

Denyo

DIESEL GENERATING SETS SOUNDPROOF TYPE

TLGseries

SINGLE PHASE TYPE
THREE PHASE TYPE



TLG-12ESX



TLG-13ESY

Denyo Co., Ltd.



GENERATOR

TLG SERIES: Soundproof Diesel Engine

TLG SERIES: DENYO'S newly developed technology (patents pending), has been utilized, coupled with environmental considerations, to create a range of, high-speed, three phase and single phase generators.

Incorporating a revolutionary, compact design and using advanced "Know-How",

improvements have been made in operation, performance characteristics and maintainability.

The TLG Series illustrates that DENYO is keeping it's commitment to developing new technology for tomorrow's power needs.



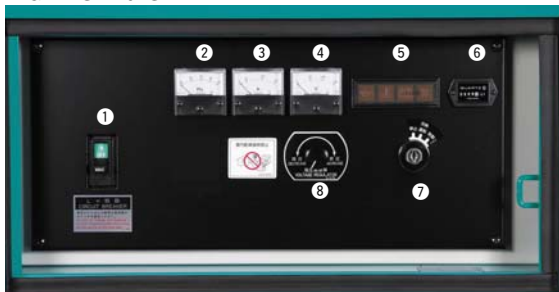
TLG-12ESX

SINGLE PHASE TYPE

TLG-15ESX



TLG-12ESX · 15ESX



① Circuit Breaker(Output Terminals) ② Frequency Meter ③ AC Ammeter ④ AC Voltmeter ⑤ Warning Light(Oil Pressure, Water Temperature, Charge) ⑥ Hour Meter ⑦ Starter Switch ⑧ Voltage Regulator ⑨ Single-phase Output Terminals

Improvements in Operation and Maintainability

Newly Developed, High-Performance, Generator

The TLG Series utilizes damper windings, Automatic Voltage Regulator (AVR) and coupled with the latest alternator, performance characteristics have been further enhanced, as reflected by the extremely low voltage regulation and minimal waveform distortion. The voltage regulation is within $\pm 1.0\%$ for single models and three phase models within $\pm 1.5\%$.

Automatic Fuel Air Extractor

Air trapped in the fuel system can be troublesome. However, with the TLG Series, fuel air extraction is automatically performed by simply operating the starter switch, without other tools or devices. There is no soiling the machine's interior or the operator's hands and the outflow of fuel to the machine's exterior is prevented. The machine will start after the engine is turned over several times.

Prolonged Operating Periods

Using fuel efficient engines, in conjunction with the high-efficiency alternator, means fuel costs are reduced and enables the TLG Series to be operated continuously for periods between 9 and 13 hours.

One-Sided Maintenance

The TLG Series has been designed so that daily maintenance and inspection can be carried out on one side of the machine. In addition, (the radiator can be easily cleaned by removing the back cover.)



REVOLUTION

Generators



TLG-7.5ESK



TLG-13ESY

THREE PHASE TYPE

TLG-13ESY • 18ESY



- 1 Circuit Breaker(Three Phase Output)
- 2 Circuit Breaker(Output Socket)
- 3 Frequency Meter
- 4 AC Ammeter
- 5 AC Voltmeter
- 6 Engine Monitor
- 7 Starter Switch
- 8 Voltage Regulator
- 9 Earth Leakage Relay
- 10 Adjustable Speed Lever
- 11 Adjustable Frequency Screw
- 12 Single-phase Output Socket (2×15A)
- 13 Ground Terminal (For Bonnet)
- 14 Three Phase Output Terminals



TLG-18ESY

Environmental Considerations Incorporated

Extremely Quiet Operation:68dB(A) or less.

This high-speed system operates at low noise levels, that will not disturb the human environment. This has been achieved by using highly effective sound-insulating materials and a unique duct construction, which is a part of the advanced cooling system developed by Denyo.

Use of Clean Engines

The engines used in these generators meet the Californian Atmospheric Pollution Regulation, which is one of the world's most stringent anti-pollution standards.

This is achieved by these engines using a PCV(Purge Control Valve) system. Therefore, these engines do not discharge blow-by gas to the outside, which keeps the interior of the machine cleaner and exhaust emissions are minimised.

Additional Features

50Hz/60Hz Operation

The TLG Series can be operated at both 50Hz and 60Hz, by simply adjusting the engine speed using the throttle control knob on the control panel.

Compact Design

The compact, stackable, design of the TLG Series facilitates the most effective use of storage space. All machines are equipped with a balanced, centre-point, lifting lug(hook), to further enhance generator portability.

Emergency Shut-Down Devices

To protect the generator from malfunctions, a warning lamp and an in-built emergency system to detect low oil pressure, high water temperature and charging failure, are standard. If these abnormalities are detected, the warning lamp will light up and the engine will come to an emergency stop. There is also an emergency shut-down in the event of AC overload, with the use of circuit breakers.

Optional Earth Leakage Relay

To prevent electric shock, it is recommended that these generators be equipped with leakage detectors and a relay circuit breaker.

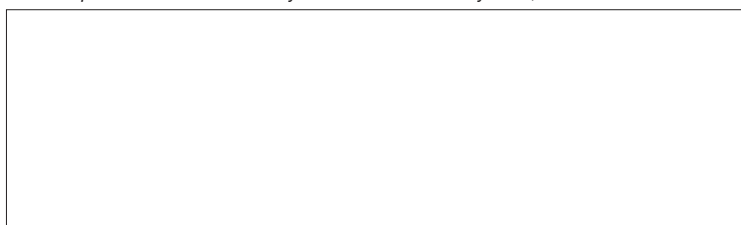
SPECIFICATIONS

Models		SINGLE PHASE TYPE				THREE PHASE TYPE					
		TLG-12ESX		TLG-15ESX		TLG-7.5ESK		TLG-13ESY		TLG-18ESY	
Alternator	Frequency(Hz)	50	60	50	60	50	60	50	60	50	60
	Output(kVA)	10.5	12.0	13.0	15.0	6.5	7.5	10.5	13.0	15.0	18.0
	Voltage(V)	2-Wire ^{50Hz:100-120 or 200-240} or 3-Wire ^{50Hz:100/200-120/240} 60Hz:100-120 or 200-240				50Hz:190 ~ 240 (380 ~ 480) 60Hz:190 ~ 240 (380 ~ 480)					
	Rotating Speed(min ⁻¹)	3000	3600	3000	3600	3000	3600	3000	3600	3000	3600
	Power Factor	1.0				0.8(Lagging)					
	No. of Phase	Single Phase,2-Wire or Single Phase,3-Wire				Three Phase,4-Wire					
	No. of Poles	2									
	Excitation	Brushless(with AVR)									
	Insulation	Class F									
Diesel Engine	Model	Yanmar 3TNV70-F		Yanmar 3TNV76-F		Kubota Z482-K2A		Yanmar 3TNV70-F		Yanmar 3TNV76-F	
	Type	4-cycle,Water-cooled									
	No. of Cylinders-Bore × Stroke(mm)	3-70×74		3-76×82		2-67×68		3-70×74		3-76×82	
	Piston Displacement(L)	0.854		1.115		0.479		0.854		1.115	
	Rated Output(kW/min ⁻¹)	12.6/3000	15.4/3600	15.8/3000	18.9/3600	6.8/3000	8.0/3600	12.6/3000	15.4/3600	15.8/3000	18.9/3600
	Battery(V-Ah×piece)	12-55×1		12-55×1		12-36×1		12-55×1			
	Fuel	ASTM No.2 Diesel Fuel, or Equivalent									
	Fuel Tank Capacity(L)	51				26		51		51	
	Fuel Consumption(L/h)	3.3	4.0	3.9	4.9	1.7	2.1	2.8	3.5	3.8	4.7
	Sound Levels 7m dB(A)	63	65	67	68	62	63	63	66	66	68
Dimensions, Weight	Length(mm)	1400		1400		1220		1400		1400	
	Width(mm)	690		690		610		690		690	
	Height(mm)	930		930		720		930		930	
	Dry Weight(kg)	407		440		260		406		440	

- 3-wire type is available as option.
- Rated Output applies to operating under standard conditions as per JIS B8014.
- Fuel consumption is based on operation at 75% load.
- Sound level reflects high-speed no-load operation and is calculated by averaging the measurements at four points, each 7 meters from the source.
- Colors of products would be different from printed ones of catalogues.
- Specifications given herein are subject to change without notice.



Direct inquiries to the nearest Denyo distributor or to Denyo Co., Ltd.



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