



# NES SERIES

## Diesel Engine Generator



## SPECIFICATIONS



**Tier 3 version engine model**



Item			NES100TI2		NES125TI2		NEW NES150TI2		
Alternator	Frequency	Hz	<b>50</b>	<b>60</b>	<b>50</b>	<b>60</b>	<b>50</b>	<b>60</b>	
	Output	kVA	80	100	100	125	125	150	
		kW	64	80	80	100	100	120	
	200V	Voltage	V	200	220	200	220	200	220
		Current	A	231	262	289	328	361	394
	400V	Voltage <sup>※1</sup>	V	400	440	400	440	400	440
		Current <sup>※1</sup>	A	115	131	144	164	180	197
	Type & Power Factor			Brushless Alternator, 3-Phase, 4-Wire, 4-Poles, Power Factor 80% Lagging					
	Diesel Engine	Engine model		ISUZU BI-4HK1X		ISUZU BI-4HK1X		ISUZU BH-6HK1X	
		Type		Direct injection type with turbocharger and intercooler					
Cylinders			4		4		6		
Bore × Stroke		mm	115 × 125		115 × 125		115 × 125		
Displacement		L	5.193		5.193		7.790		
Rated output		kW	95.8	113.6	95.8	113.6	135.2	166.5	
Revolution		min <sup>-1</sup>	1500	1800	1500	1800	1500	1800	
Fuel consumption		50% load	L/H	9.5	12.3	11.3	14.6	15.6	18.4
		75% load	L/H	13.6	17.4	16.5	20.8	22.4	25.0
Engine oil volume		L	23.5		23.5		41		
Battery			170F51 × 1		170F51 × 1		120E41R × 2		
Fuel tank capacity		L	250		250		250		
Fuel			Diesel fuel						
Oil guard capacity	L	265		265		480			
Dimensions and weight	Length <sup>※2</sup>	mm	2720		2720		3250		
	Width <sup>※1</sup>	mm	1130		1130		1130		
	Height	mm	1550		1550		1650		
	Dry weight	kg	1900		1940		2420		
	Operating weight	kg	2150		2190		2700		
Sound power level <sup>※3</sup>	dB	91		93		96			
Sound power level at 7 meters <sup>※4</sup>	dB	60	64	61	64	64	67		

※1 **Bold borders** indicate options.

※2 Values in parentheses are dimensions excluding the rain cover.

※3 Value at 60Hz with zero load.

※4 Average sound pressure in 4 directions at no load.

## LIST OF OPTIONS



Anti-theft cover



Skid



Panel door with key



Fuel filler with key

● : Standard    ○ : Options are applicable at time of factory shipment

Option	Tier 3 version engine model									
	NES 25TK	NES 25TKL	NES 25TKLS	NES 45TY3	NES 45TYL3	NES 60TK2	NES 60TKL2	NES 100T12	NES 125T12	NES 150T12
Parallel running	Full-auto parallel running device	—	—	—	—	—	—	—	—	—
	Manual synchronizing device	—	—	—	—	—	—	—	—	○
	Percent power meter	—	—	—	—	—	—	—	—	—
Operation control	e-Pon (Simple auto starter)	—	○	○	○	○	○	○	○	○
	Energy-saving remote controller	—	—	—	—	—	—	○	○	○
	Slowdown device	—	—	—	—	—	—	—	—	—
Oil / Fuel	Oil gurad	●	●	●	●	●	●	●	●	●
	Fuel tank three-way cock	●	—	—	●	—	●	—	●	●
	Automatic oil supply unit	—	—	—	—	—	—	—	—	—
	Oil drain pump	—	—	—	—	—	—	—	—	—
	Fuel supply device	—	—	—	—	—	—	—	—	—
Others	Leak detection set at 200mA	○	○	○	○	○	○	○	○	○
	Salt resistance *	○	○	○	○	○	○	○	○	○
	Rain cover *	—	—	—	—	—	—	—	—	—
	Anti-theft cover	○	○	○	○	○	○	○	○	○
	Skid	○	○	○	○	○	○	○	○	○
	Panel door with key	○	○	○	○	○	○	○	○	○
	Fuel filler with key	●	○	○	○	○	○	○	○	○
Output terminal rubber backing sheet	●	●	●	○	○	○	○	○	○	

\* When Rain-cover or Salt resistance is installed, the width is changed as following.  
 NES220EM:1820mm, NES400EM:2375mm

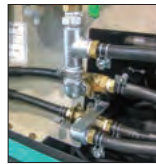
Note : Please consult with Nippon Sharyo if you have a specific requirement for options or other than the above.  
 Some combinatinos of options are not available. Please consult with Nippon Sharyo for more information.



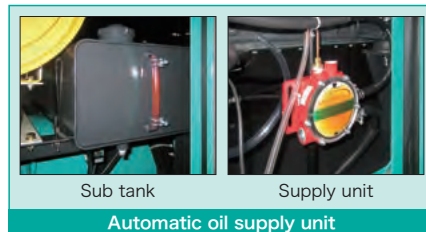
Energy-saving remote controller



Slowdown device



Fuel tank three-way cock



Sub tank Supply unit  
Automatic oil supply unit



Output terminal rubber backing sheet

● : Standard ○ : Options are applicable at time of factory shipment

Option	Tier 3 version engine model											
	NES 220TI	NES 300TK	NES 400TI	NES 100EI	NES 125EH	NES 150EH	NES 220EM	NES 400EM	NES 500EM	NES 610SM	NES 800SM	
Parallel running	Full-auto parallel running device	○	○	○	—	—	—	○	○	○	○	○
	Manual synchronizing device	○	●	●	—	○	○	○	●	●	●	●
	Percent power meter	○	○	○	—	—	—	○	○	○	○	○
Operation control	e-Pon (Simple auto starter)	○	○	○	—	—	—	—	—	—	—	—
	Energy-saving remote controller	○	○	○	—	○	○	○	○	○	○	○
	Slowdown device	○	○	○	—	—	—	○	○	○	○	○
Oil / Fuel	Oil gurad	●	●	●	—	—	—	—	—	—	—	—
	Fuel tank three-way cock	●	●	○	●	●	●	○	○	○	○	○
	Automatic oil supply unit	○	○	○	—	—	—	○	○	○	○	●
	Oil drain pump	○	○	○	—	—	—	○	○	○	○	○
	Fuel supply device	○	○	○	—	—	—	○	○	○	○	○
Others	Leak detection set at 200mA	○	○	○	○	○	○	○	○	○	○	○
	Salt resistance *	○	○	○	○	○	○	○	○	○	○	○
	Rain cover *	—	—	●	—	—	—	○	○	●	●	●
	Anti-theft cover	○	—	—	●	○	○	○	—	—	—	—
	Skid	○	○	○	○	○	○	○	○	○	○	○
	Panel door with key	○	○	○	○	○	○	○	○	○	○	○
	Fuel filler with key	○	○	○	○	○	○	○	○	○	○	○
	Output terminal rubber backing sheet	○	○	○	○	○	○	○	○	●	●	●

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The history and progress of diesel generator sets cannot be told without Nippon Sharyo, Ltd. We have defined the times by launching various power production facilities with new innovative concepts.

We continue to contribute to the environment and ergonomics through improving our products.

## 1960



### First generator developed

Development of DG model generator (Japan's first portable diesel generator for construction, September 1960)

Thanks to customers, support, we have been successful for more than half a century in many locations of the world. Both voltages, 200V and 400V, are available.



### High insulation + alternator

The alternator winding is coated with varnish using dripping impregnation and vacuum impregnation to provide high insulation performance.



### Weather resistant coating

Electrodeposition and weather-resistant baking finish are used on all models, providing high resistance to corrosion.



### High-quality power supply

The FET-type AVR (Automatic Voltage Regulator) and high-performance damper winding provide high-quality power with a voltage regulation of  $\pm 0.5\%$ . In addition to working well with general linear loads, the generator also works well with nonlinear loads such as inverters.

### Tough and durable

Toughness and durability. We continue to create products that satisfy our customers.



### Generators developed by NISSHA

All NISSHA generators, except for engine components, are developed and manufactured according to our designs. In particular, we have absolute confidence in our alternators due to our many years of experience. We will continue to respond to our customer's requests so that they can supply power to a wide variety of loads.

# OPTION

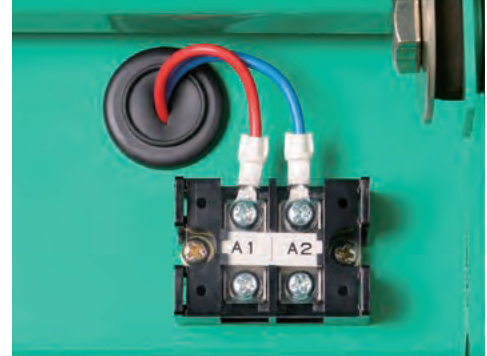
We have several options and we will show typical options in this page.

## e-Pon (Simple auto starter)

Start/stop and run/idle control of a generator can be controlled using external signals, enabling many useful applications.

### Advantage

- Allows energy-saving operation of a submersible pump.
- Reduced fuel consumption means reduced CO<sub>2</sub> emissions.
- Reduced fuel consumption adds value to the system.
- Prevents dry operation of the submersible pump, extending pump life.
- Reduces low-load operation of the generator, leading to shorter operation hours.



## Full-auto parallel running device

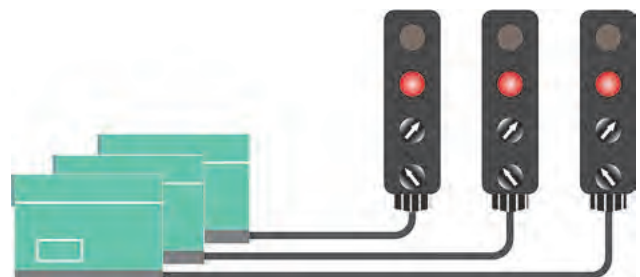
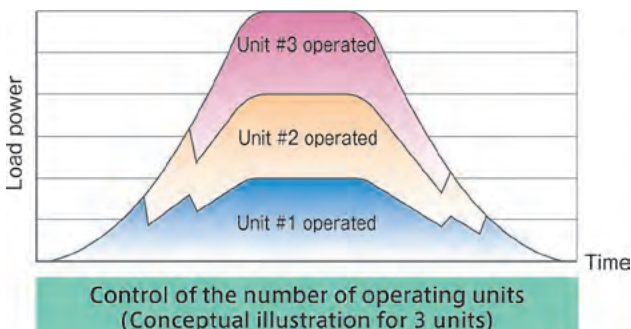
This controller includes auto start/stop, synchronizing, load sharing, controlling the number of operating units, and measurement and protection, allowing fully automatic parallel running of generators. The number of operating generators are automatically controlled so that the optimum number are in operation according to changes in the power load, therefore only the minimum necessary number of generators are in operation and the remaining generators are stopped and placed in a standby state, thus improving the operating efficiency of the generators and saving fuel.

### Features

- Compact unit that enables all-in-one control
- Full automatic control with a single switch
- Efficient operation for lower fuel consumption
- Up to 8 generators can be connected
- Remote auto start-stop of one or more generators via contact input



Front panel





Pile Driving Rig



Soil Stabilizing Rig



Earth Drilling Rig



Casing Rotator (RT)

Manufacturer

 **NIPPON SHARYO**

[http://www.n-sharyo.co.jp/index\\_e.html](http://www.n-sharyo.co.jp/index_e.html)

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Due to company policy of continuous development and improvement, NIPPON SHARYO reserves the right to change designs and specifications without notice.

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