NISSIN ELECTRIC

THE POWER CONDITIONER FOR PHOTOVOLTAIC SYSTEM

SOLARPACK

NISSIN ELECTRIC CO., LTD.

Eco-friendly power conditioner "SOL

The feature of SOLARPACK

1 Class of top level Inverter efficiency (including isolation transformer) more than 95%

"SOLARPACK", which electric power loss is small, can significantly reduce the amount of CO_2 gas. About 100MWh electric energy per year will be generated by a 100kW photovoltaic system. By rising of 1% conversion efficiency, we can obtain more electrical energy (About 1,000kWh per year)

1,000kWh/year×0.555[※1]=555kg-CO_2gas reduction

※1 : 1kWh=0.555kg- CO_2 conversion of electric energy into CO_2 gas

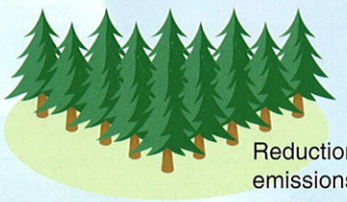
CO_2 gas of 555kg per year can be reduced.

Expected life period of photovoltaic system is about 17 years.

555kg/year×17year≒9,435kg-CO_2gas reduction

CO_2 gas reduction of 9,435kg with expected life period

CO_2 gas of 9,435 kg is approximately equivalent to 680 broadleaf trees (Japanese cedar) ※2

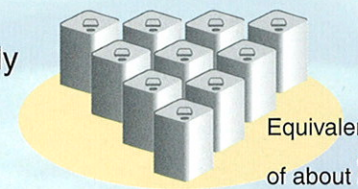


Reduction of CO_2 gas emissions : Equivalent to **680** broadleaf trees

1,000kWh/year×17year=17,000kWh

CO_2 gas of 17,000kWh is approximately equivalent to 3,859 kL of crude oil.※3

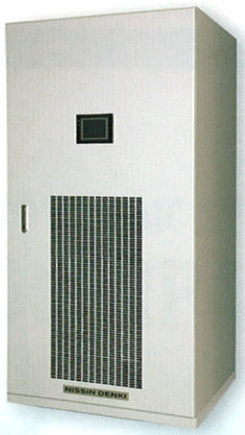
※3 : 1kWh = 0.227L conversion of electric-energy into crude



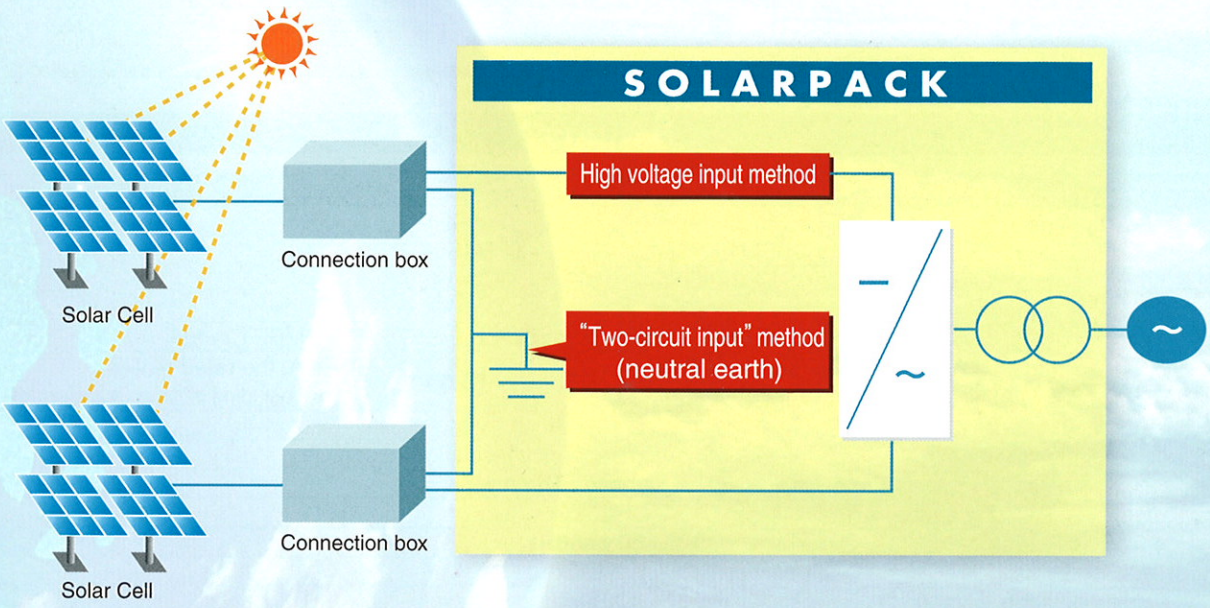
Equivalent to the reduction of about **220** drums of crude oil. (1pack =18L)

※1 : The conversion factor is used the default value described in the Ministry of Economy, Trade and Industry and the Ministry of the Environment No.3 of 2006.
※2 : The conversion factor is used the default value published by the Forestry Agency that about 50-year-old Japan cedar can absorb CO_2 gas of 14kg per year.
※3 : The conversion factor is used the typical value that the thermal power plant need crude oil of 0.227L to generate electricity of 1kWh.

...RPACK" provides clean energy.



2 "SOLARPACK" can get the most out of the performance of solar cell.
("SOLARPACK" can be used for all types of solar cell.)

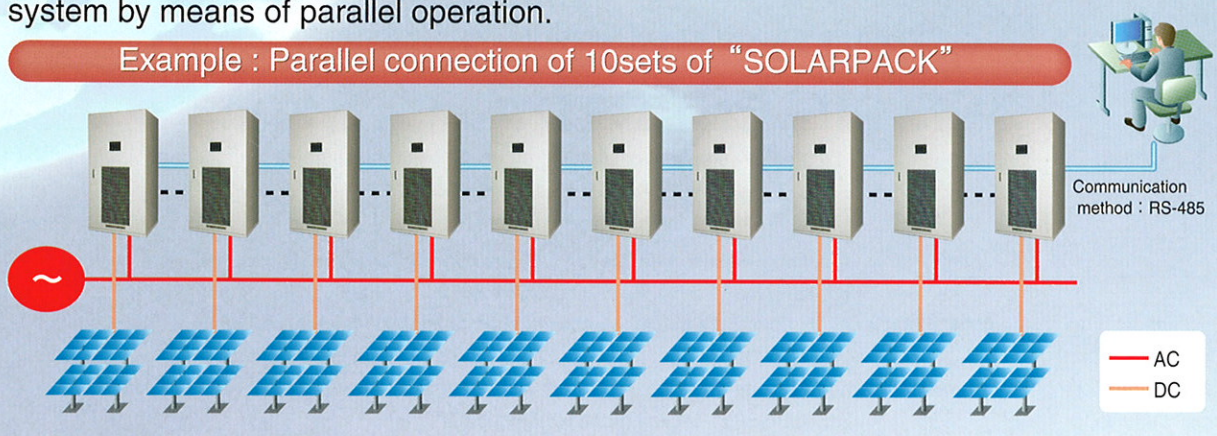


Two-circuit input method is suitable for thin-film solar cell, because, owing to the wide range of input voltage, it can make the best use of generated output, even if solar cell has wide range of voltage fluctuation such as thin-film solar cell.

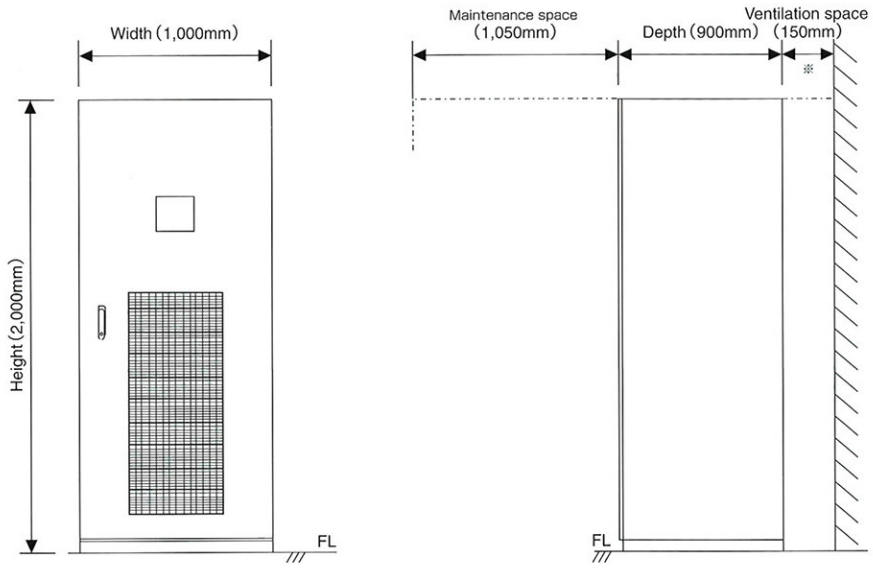
3 Parallel up to 15units for 1.5MW capability

"SOLARPACK" can meet specifications for use of Mega Watt class photovoltaic system by means of parallel operation.

Example : Parallel connection of 10sets of "SOLARPACK"



Dimensions



※It is lining up side-by-side two or more sets, and to constitute, It is required 400mm.

Ratings

Item		Ratings		Remarks
Input method		Single-circuit	Two-circuit	
Type		SPM100-CS1	SPM100-CS2	
DC Input voltage	Input voltage range	DC0~600V	DC0~±440V	
	Rated voltage	DC400V	DC±300V	
	Input voltage range of operation	DC320~600V	DC±210~±375V	MPPT range
Efficiency		94.5%	95.0%	At the rated output (including isolation transformer)
Output capacity		100kW		
Insulation method		Commercial frequency insulation		
AC Output	No. of Phase	Three phases Three wire		
	Rated voltage	202V		
	Frequency	50 or 60Hz		
Mass		1,100kg		
Communication method		RS-485		
Other	Ambient temperature	-10 to 40˚C (For range from 40 to 45 degree C, the output will be limited-to 80% of the rated output)		
	Service	Indoor		

Multiple patents pending

SAFETY WARNING

- Read the instruction manual before use to ensure safe operation.
- Products appearing in this catalog have limitations on application, locations, etc. and require periodic maintenance, therefore contact the place of purchase or Nissin Electric for assistance.

Specifications subject to change without notice

We explore future opportunities of human intelligence and technology

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