

**MORE MODULES
MORE INNOVATION**



The advantage of new package



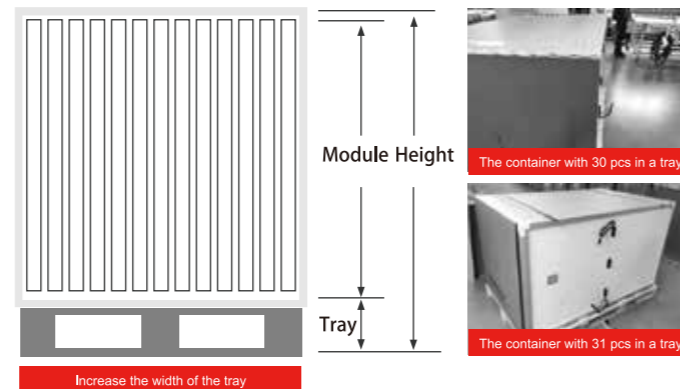
Fully upgrading of the package

Background of the upgrading of packaging:

Considering the frame size, the packaging structure and the container specification, **30pcs/tray** is normal used, further, **31pcs/tray** is the the maximum capacity of the container.

Upgrading of the package:

Keep the long side plate and U-shaped side plate of the product package unchanged, increase the width of base plate, tray and upper cover, each tray hold one more piece of modules. Such as STP330S-A60/Wfh, the capacity is increased to **31pcs/tray** from **30pcs/tray** by increase the width 21mm, the product weight increase 20kg/tray.



Perfect compatibility in transportation

Taking STP330S-A60/Wfh as an example, keeping the number of trays per container unchanged, increase the container capacity by increasing the number of modules per tray and. Suntech business covers the whole world and adapt different transportation mode. Truck transportation is mainly used in domestic, while overseas shipment mainly uses container transportation. Considering the transportation cost, transportation safety, modules safety and operation convenience, Suntech adopt the mainstream transportation mode, that is, modules are stacked vertically side by side in a container.

In this way, the influence of modules in container is mainly module width. If the stacking height of the two trays of modules exceeds the door height of the container, then it is impossible to load the product. Suntech existing mainstream products are stacked vertically side by side, the original width is 22.18m and the upgraded width is 22.6m. The upgraded width is still shorter than the standard internal width of 2.35m, so there is no problem on the container mounting.



Higher loading rate and lower transportation cost

◆ Improve the production efficiency:

Decrease the daily transportation frequency for each tray by upgrading the package on the production line, then decrease the labor cost. With the automatic elevated warehouse and ground warehouse to ensure the efficient and accurate storage and transportation of goods.

◆ Improve the space utilization of the container:

The utilization of the container improved **1.7%** by upgrading the package.

◆ Improve the single container capacity:

Upgrading of the the package improves **8580w** modules for each container.

◆ Decrease the transportation cost:

The numbers of container for each 100MW modules is reduced to **13** so the transportation cost is reduced **3.35%** around by upgrading of the package.

◆ Decrease the goods-receiving cost:

The current product is mainly transported by sea. The customer can execute the transportation through the terms of C (CIF / CHF) and D according to the previously signed trade terms after the product arrives at the port. When the customer chooses terms C to execute the self-delivery mode after the goods arrive at the port, the number and time of the transport trucks from the port to the project spot can be effectively reduced, the transport efficiency is improved, and the customer's goods-receiving cost can be reduced; if the customer chooses terms D to carry out the transport, the number of trucks can be effectively reduced due to the improvement of the overall utilization of the container and the increase of the number of single vehicle pieces, so as to reduce the customer receiving cost.

◆ Decrease the installation cost:

During the installation process of a project, as one container can carry **26 pcs** modules more, so it reduces the labor carry cost effectively.

STP330S-A60/Wfh	Original package	Upgraded package
pcs/tray	30Pcs	31Pcs
Trays/container(40 feet HQ container)	26Trays	26Trays
Space utilization of container	85.8%	87.5%
Total weight of a tray	605kg	625kg
The capacity of 1 container	0.2574MW	0.26598MW
The containers amount for each 100MW modules	388Containers	375Containers

Modules of the same specification	Upgraded package of SUNTECH	Traditional package of the industry
pcs/tray	31Pcs	26~30Pcs
Pcs/container (40 feet HQ container)	806Pcs	660~780Pcs

(Take STP330s-A60 / Wfh as an example)

Details of the product change

Details of each type of change:

Type	The Size of Module	Pcs/Container		Size/Tray		Weight/Tray		
		Before	Now	Before	Now	Before	Now	
156.75	24/Vfw	1960*992*40	26Pcs/Tray 24Tray/40HC 624Pcs/40HC	27Pcs/Tray 24Tray/40HC 648Pcs/40HC	2004*1101*1173	2004*1130*1173	616kg	640kg
	60/Wfh	1684*1002*35	30Pcs/Tray 26Tray/40HC 780Pcs/40HC	31Pcs/Tray 26Tray/40HC 806Pcs/40HC	1736*1109*1166	1736*1130*1166	605kg	625kg
	72/Vfh	2008*1002*35	30Pcs/Tray 22Tray/40HC 660Pcs/40HC	31Pcs/Tray 22Tray/40HC 682Pcs/40HC	2038*1109*1173	2038*1130*1173	723kg	745kg
158.75	A60/Wfh	1684*1002*35	30Pcs/Tray 26Tray/40HC 780Pcs/40HC	31Pcs/Tray 26Tray/40HC 806Pcs/40HC	1736*1109*1166	1736*1130*1166	605kg	625kg
	A72/Vfh	2008*1002*35	30Pcs/Tray 22Tray/40HC 660Pcs/40HC	31Pcs/Tray 22Tray/40HC 682Pcs/40HC	2038*1109*1166	2038*1130*1173	723kg	745kg
	A72/Pfh+	2028*1002*35	30Pcs/Tray 22Tray/40HC 660Pcs/40HC	31Pcs/Tray 22Tray/40HC 682Pcs/40HC	2058*1109*1173	2058*1130*1173	858kg	890kg
166	B60/Wnh	1776*1052*35	31Pcs/Tray 6Tray/20GP 26Tray/40HC	31Pcs/Tray 6Tray/20GP 22Pcs/40HC	1806*1130*1216	1806*1130*1216	670kg	670kg
	B72/Vnh	2115*1052*35	31Pcs/Tray 5Tray/20GP 22Tray/40HC	31Pcs/Tray 5Tray/20GP 22Tray/40HC	2145*1130*1223	2145*1130*1223	799kg	799kg
	B72/Pnh	2131*1052*35	31Pcs/Tray 5Tray/20GP 22Tray/40HC	31Pcs/Tray 5Tray/20GP 22Tray/40HC	2161*1130*1223	2161*1130*1223	970kg	970kg