Nipron Wave

Vol.46 2017 Winter

This is the highlight!

Nipron

1 Special issue of GP power supply

100 kW package [PV expander100] for additional installation & storage of surplus power is introduced.
Additional investment to the existing solar power station with high yield is possible.

2 Special issue of backup for instantaneous power failure/blackout

Introduction of capacitor unit “CB03” and charging/discharging board for battery “BS27”.

PV Maximizer increases the investment value of your power plant.

PVM enables panel expansion.

Photovoltaic power generation has attracted attention as a high-yield product. With the fall in the feed-in tariff in recent years, however, the appeal of this method as an investment product has been waning.

The currently installed base of photovoltaic power stations has the disadvantage of shadows and fractional use. With the adoption of the PV Maximizer, it is possible to add solar panels to existing land where no panels are installed, thus increasing revenue from sales of electric power. In addition, since the addition of cubicles or power conditioners is unnecessary, it is possible to add panels without lowering the price of the electric power sold.

Sufficient power generation can be expected in narrow space and place across which shadow of trees and a mountain lay where installation of panels used to be abandoned.

PV Maximizer

The PV Maximizer (PVM) ensures ideal power generation by optimizing control for each string.

If the string voltage drops due to shadows and various factors, the panels will also decrease the voltage of other strings and lower the amount of power generated.

The PVM boosts the voltage of the reduced string and provides optimal control. This increases the amount of electricity generated, which can boost revenue from sales of electric power.

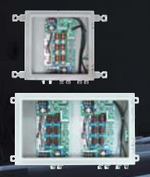
DC/DC boost converter which takes out the maximum power generation energy

PV maximizer (PVM)

B-PVM

Junction box type PVM

With function of junction box of 8 strings at maximum

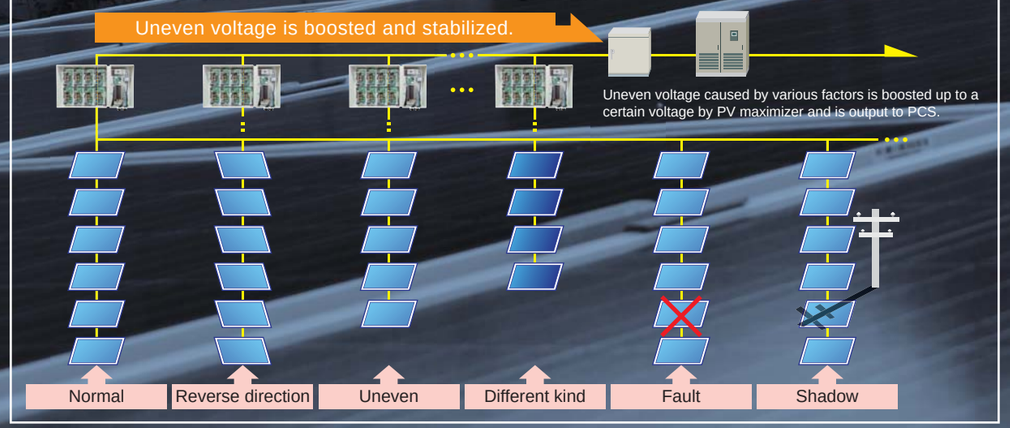


S-PVM

Distributed PVM

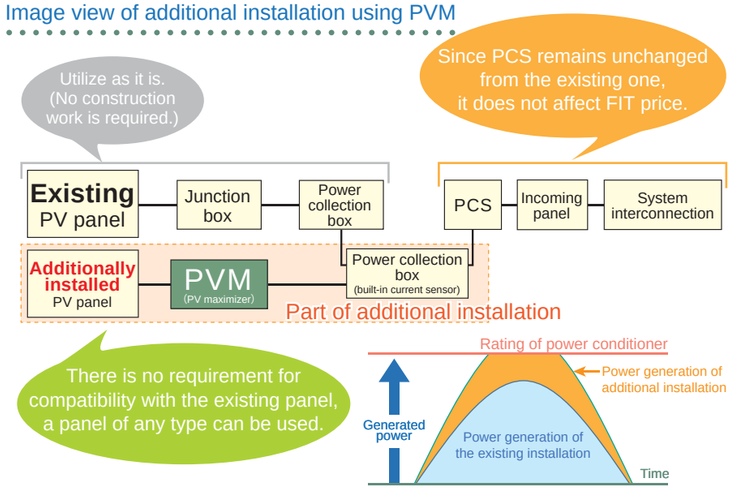
Distributed installation of each 1–2 strings
If it is installed afterwards on the existing facility, change of cabling can be minimized.

Image of optimization of PVM system



Only PVM enables additional installation of panels. http://www.nipron.com

Image view of additional installation using PVM



Panel overloading with PV Maximizer

Increasing the usage rate of PCS while maintaining a good sales price for electric power

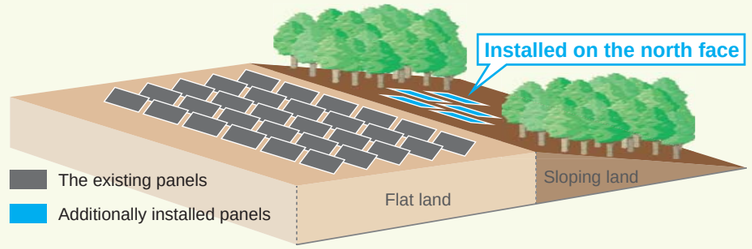
By connecting a PV Maximizer, it is possible to add panels without worrying about shadows and fractions. It is also possible to install panels in locations where you might have given up on such an installation. Connecting expansion panels to an existing PCS increases the utilization of existing PCS and increases revenue from sales of electric power without affecting the feed-in tariff. Moreover, with a PV Maximizer, you can also add panels of a type that differs from the existing panels, as compatibility with existing panels is no longer an issue of concern. Since no additional PCS are installed, the cost of additional investment is minimized and the investment and payback period can be shortened.

How much can generation power be increased? Simulation is possible!

Simulation of additional installation of panels at solar power station.

Nipron can simulate effect of additional installation of panels at customer's solar power station.
If you provide us with such information as location of power station, layout drawing of panels, etc., simulation as described below is possible.
If you are interested in additional installation of panels, please do not hesitate to contact us. Our contact: support@nipron.co.jp

Part of the existing installation	PCS
Capacity of the existing PV : 600kW	One unit of 500 kW
Part of additional installation	Overloading factor
Capacity of additionally installed PV : 100kW	Before additional installation : 120% ↓ After additional installation : 140%



These are excellent points of Nipron's additional installation system! The first point.

It is possible to mix freely manufacturers, kinds and types of panels.

Manufacturer of the existing panels	**Crystal system manufacturer A**
Manufacturer of additionally installed panels	**CIS system manufacturer B**
The existing module	**255W**
Additionally installed module	**170W**
Power conditioner	500kW
Conversion efficiency of power conditioner	95.00%
Regions for calculation (MET-PV11 AMeDAS 837 locations)	Somewhere in Okayama Prefecture

These are excellent points of Nipron's additional installation system! The second point.

Even in the case of installation on difficult land such as the north side, slope, etc., maximum utilization of land is possible.

Panel configuration	Existing	Additional
Number of installation	2,354	588
Capacity (kW)	600	100
Angle of inclination	15	15
Orientation	South	**North**

These are excellent points of Nipron's additional installation system! The third point.

Electricity sales can be increased while keeping current high FIT price as it is! Since additional installation of panels does not require PCS, it is possible to hold down initial investment.

Month	1	2	3	4	5	6	7	8	9	10	11	12	For the year
The existing module (kWh)	34,759	41,605	60,475	65,102	70,480	59,287	62,585	61,031	54,317	52,755	37,388	38,685	638,469
Additionally installed module (kWh)	3,613	4,723	7,833	9,391	10,992	9,660	10,125	9,278	7,431	5,995	3,844	3,483	**86,368**
Whole system (kWh)	38,372	46,328	68,308	74,493	81,472	68,947	72,710	70,309	61,748	58,750	41,232	42,168	724,837
Rate of increase	110.4%	111.4%	113.0%	114.4%	115.6%	116.3%	116.2%	115.2%	113.7%	111.4%	110.3%	109.0%	**113.5%**

*** In the case of this simulation example**
86,368 kWh (Annual increase of power generation) × 40 yen = Annual increase by approximately 3,500,000 yen

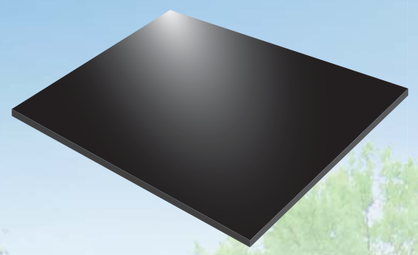
Is any land for additional installation of panels available? http://www.nipron.com

Gross rate of return 13%

100 kW package for additional installation & storage of surplus power

Also, no less than dozens of MW

PV eXpander 100



Solar cell

PV maximizer (PVM)

100 kW power storage system (Example of 5 units, 500 kW in total)

Introduction of product with high yield which takes maximum advantage of high-rate FIT right

It's a waste of chance if you miss such a high-rate FIT right!

The higher sales price of power generated by additional installation and stored surplus power by PV expander 100 (PVX100) becomes, the greater yield you can expect.

In the case that unit price of electricity sales is 40 yen/ kWh, gross rate of return is 13%

In the case that unit price of electricity sales is 36 yen/ kWh, gross rate of return is 12%

* It is only a representative example and varies depending on various conditions of the site.

Why don't you take advantage of vested right of high-rate FIT? *http://www.nipron.com*

Advantage of introduction of PV eXpander 100 (PVX100)

- By maximum utilization of capacity of the existing power conditioner (100–1000 kW), twofold increase of revenue from electricity sales can be expected.
- It is of a type that does not provide excessive input to the existing power conditioner and operates in cooperation with MPPT control of a power conditioner.
- Additional installation of a battery is possible. When price drops after 1-3 years, additional investment to a battery will enable further increase of revenue from electricity sales and effective utilization of energy.

Gross rate of return of 13% will be realized! *http://www.nipron.com*

High yield will be realized.

Utilization of 100 kW package for additional installation & storage of surplus power enables additional installation of panels by using a battery. Since additional installation of panels using PVX100 enables utilization of a surplus land while keeping power purchase price of the existing power station as it is, investment with yield as high as 13% can be expected.

- In the case that unit price of electricity sales is 40 yen/ kWh, gross rate of return is **13%**
- In the case that unit price of electricity sales is 36 yen/ kWh, gross rate of return is **12%**

* Simulation in the case that a power conditioner of 1MW, the existing panel of 1MW, additional installation of panels of 1MW (overloading factor 200%) and a battery of 400 kWh are installed.

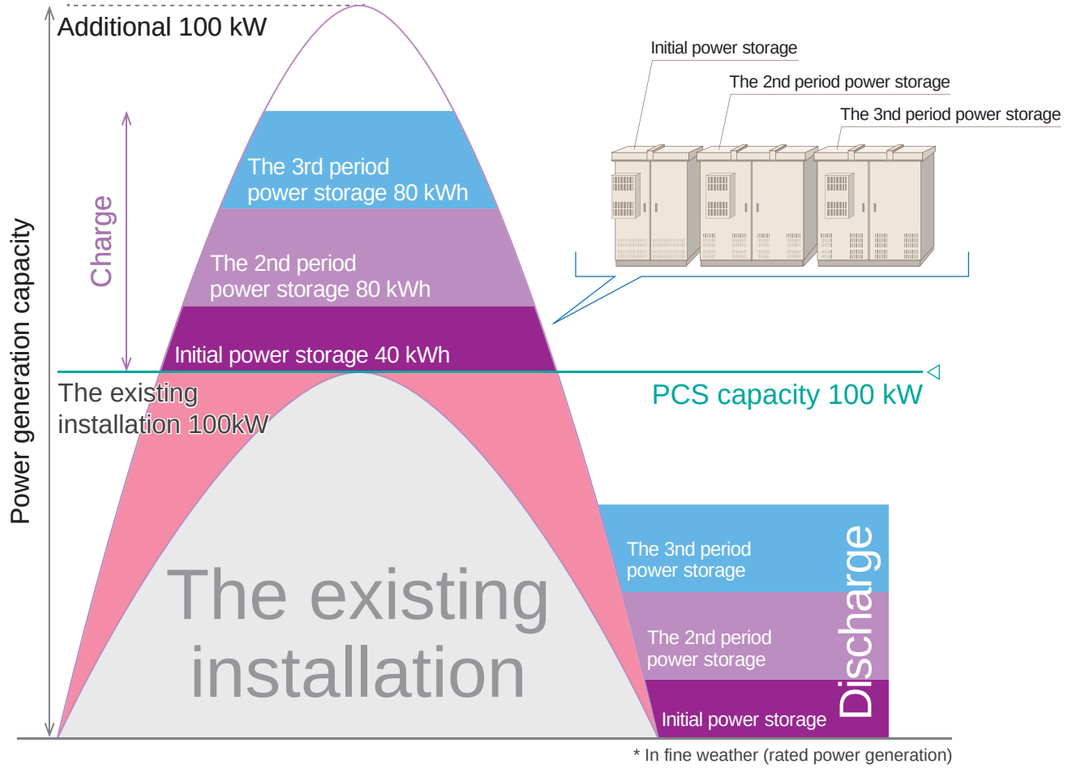
Feature of PV expander100 (PVX100)

Feature of surplus power storage

If panels with similar capacity to the existing installation are additionally installed, while generated power is doubled, a portion of power that exceeds capacity of a power conditioner (rating of a power conditioner) (surplus power) cannot be sold. This system enables to sell electricity generated by both the existing panels and additionally installed panels by storing such surplus power in a battery and selling the power stored during the time when no surplus power is available or during night time.

PV eXpander 100

With PVX100 which packages solar power panels, batteries and chargers required for storage of surplus power, it enables easy construction of a system of additional installation and surplus power storage.
A building block method allows for free selection of charging/discharging power and power storage capacity.
It is also featured by the advantage that additional investment can be easily made after price of a battery declines since it is compatible with additional installation after introduction and it allows for an investment plan across multiple years depending on availability of budget.



* In fine weather (rated power generation)

Revenue from electricity sales increases by additional installation of panels and storage of surplus power!

Image of connection

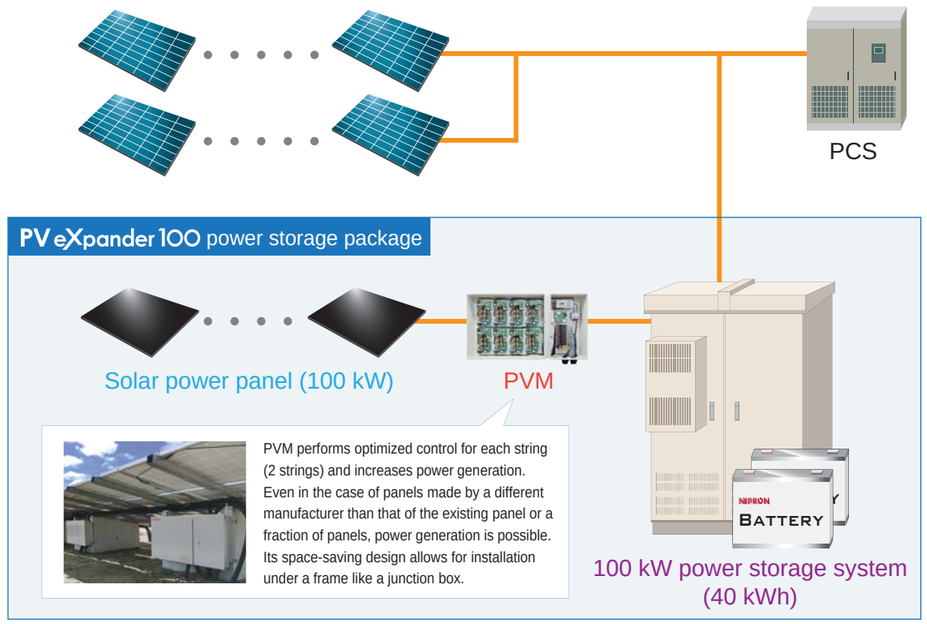
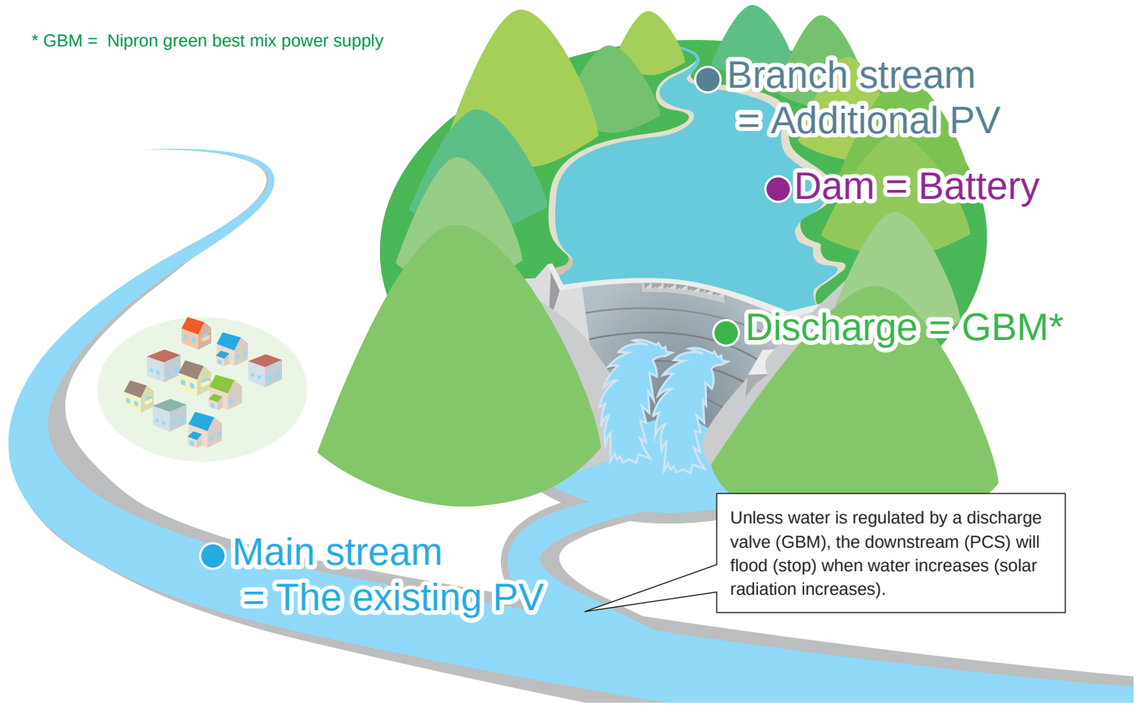


Image of operation of PVX100 system

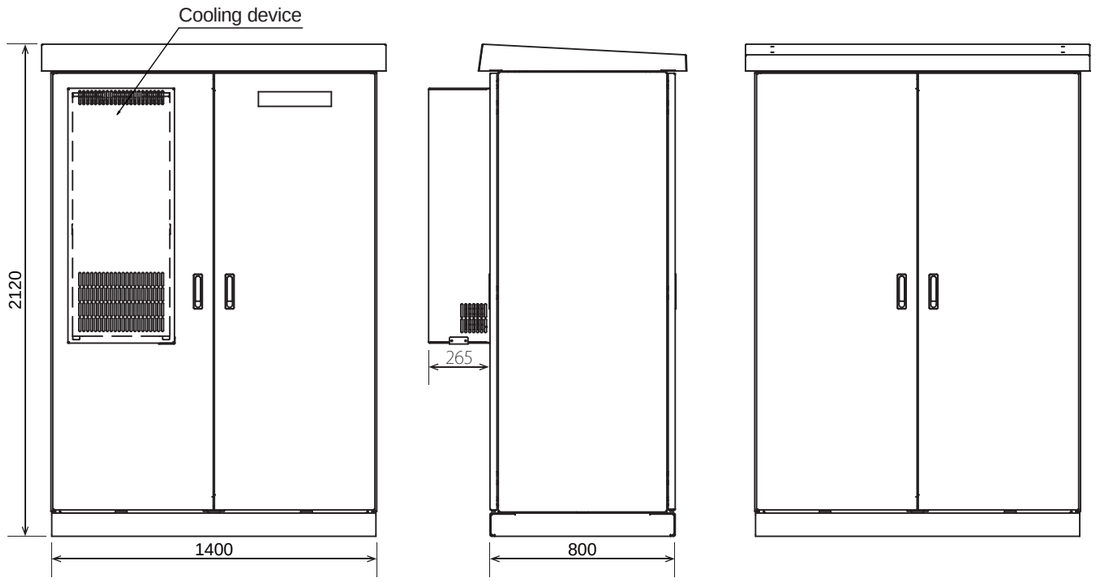
PVX100 performs optimized control of power generation by embedded power supply so that load shall not be applied to PCS.

* GBM = Nipron green best mix power supply



Brilliant power storage solution! PVX100!

External view of PV eXpander 100



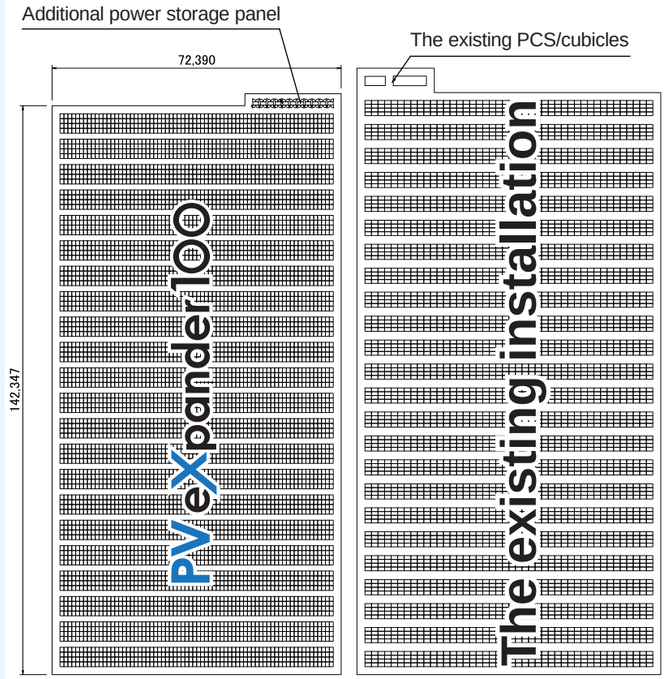
Contents of PVX100 package

PV eXpander 100

Package model (provisional)	PVX100-0600-ST01	PVX-100-0600-CT01	PVX-600-B80 (Power storage system for additional installation)	PVX100-1000-ST01	PVX100-1000-CT01	PVX-1000-B80 (Power storage system for additional installation)
PV system voltage	600V/750V system			1000V system		
Solar power panel	Thin-film (CIS) panel 102kW	Crystal panel 97.2kW	–	Thin-film (CIS) panel 95.2kW	Crystal panel 95kW	–
PV maximizer (optimized string control converter)	12 circuits × 2 panels	12 circuits × 2 panels	–	8 circuits × 2 panels	8 circuits × 2 panels	–
Battery	40kWh	40kWh	80kWh	40kWh	40kWh	80kWh

Installation of 100 kW each is possible! *http://www.nipron.com*

Layout of PVX100 installation



Part of the existing installation:
Approximately 1 MW
Part of additional installation:
Approximately 1 MW
Battery capacity: Approximately 400 kWh

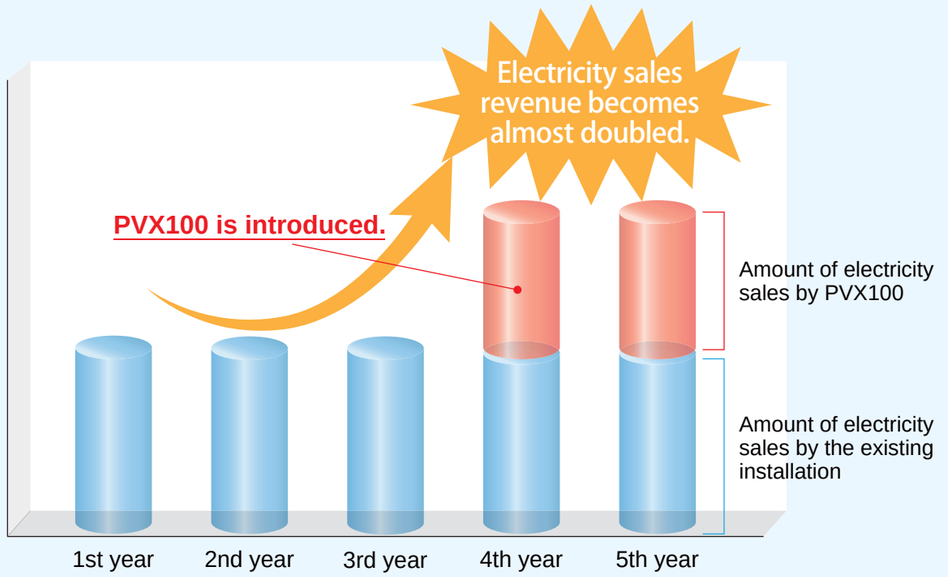
Land area required for additional installation of 1 MW

➔ Approximately 10,000㎡

Overloading of more than 200% is also possible.

Simulation of electricity sales revenue

Introduction of PVX100 enables significant increase of electricity sales revenue right after the introduction.



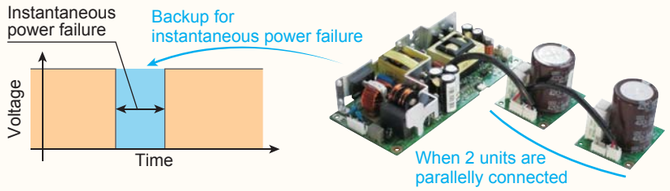
Overloading doubles electricity sales revenue! *http://www.nipron.com*

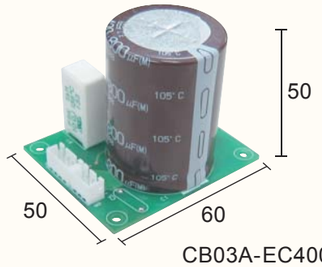
Capacitor unit for
a countermeasure against
instantaneous power failure

A trouble concerning a countermeasure against instantaneous power failure is solved! Capacitor backup unit.

NEW CB03A-EC400/801F

- Connection of this product with AC/DC switching power supply of our company enables prolonged output holding time and a countermeasure against instantaneous power failure.
- It allows for parallel connection and further prolonged output holding time.
- It is equipped with a blackout detection signal as standard.





CB03A-EC400/801F

Available model

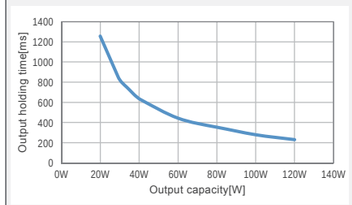
* For products with medical standard, please contact us.

The output holding time represents one example of actual measurement.

UZP-120 series*1

Photograph of external view

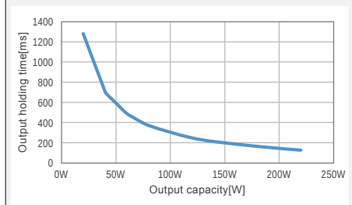
Output holding time



UZP-220 series

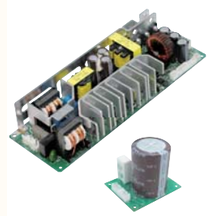
Photograph of external view

Output holding time

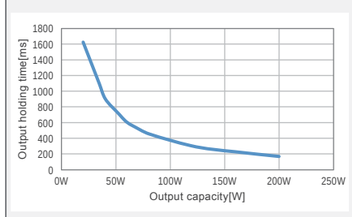


OZP-200 series

Photograph of external view



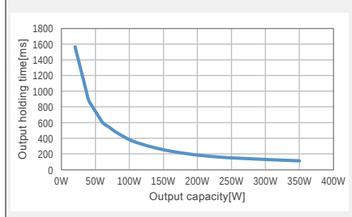
Output holding time



OZP-350 series*2

Photograph of external view

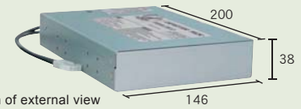
Output holding time



*1 It is not compatible with UZP-120-**-J0L type. *2 If you need safety standard, please contact us.

Capacitor pack BS13A-EC400/422F

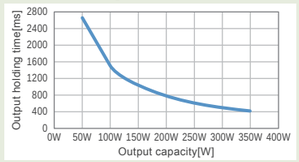
If you want backup for instantaneous blackout with longer time,
you may also use a capacitor pack (conversion harness is separately required).



Photograph of external view

Photograph of internal view

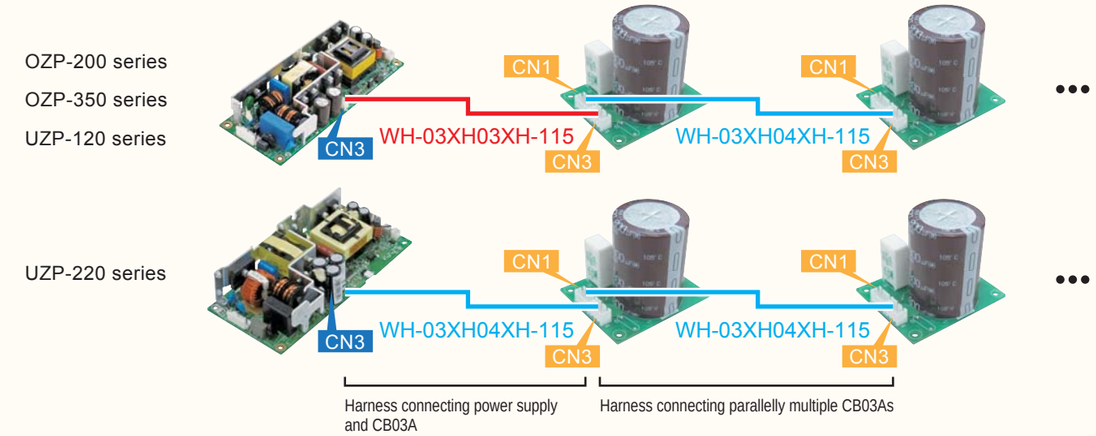
Output holding time (reference value)



Rely on Nipron for a countermeasure against instantaneous power failure! http://www.nipron.com

Image of connection

Parallel connection of multiple CB03As enables prolonged output holding time.



Connection harness

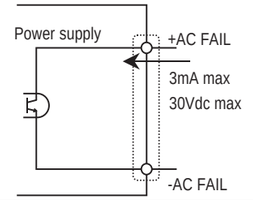
Length of harness 115 mm ■ WH-03XH03XH-115 ■ WH-03XH04XH-115 * Harness with length of 350 mm is also being developed.

Specifications of product

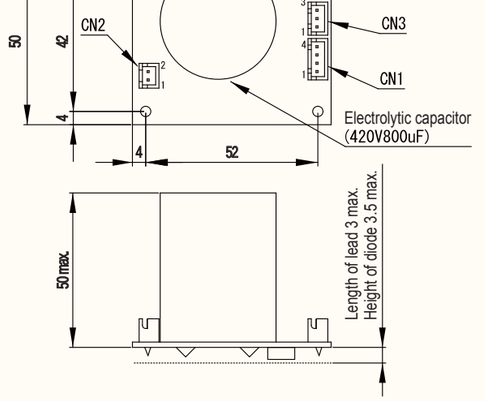
General specifications

Capacitor used	Nominal value: 420 V 800 μF
Capacitor charging time	No more than 5 seconds
Self-discharge time	Approximately 5 minutes
Service temperature /humidity	-10~70°C/20~90%RH
Storage temperature /humidity	-20~75°C/10~95%RH
Mass	90g typ
Safety standard	In compliance with UL60950-1, CSA60950-1 (c-UL) and Electrical Appliances and Materials Safety Act (Item 2 of Ministerial Ordinance) (The safety standard permits parallel connection of up to 3 units of CB03A.)
Expected life	Approximately 15 years (Average ambient temperature 40°C)
Blackout detection signal (AC FAIL)	When input voltage is lowered or blackout is detected, it turns to "OPEN." When an RC signal is OFF, however, OPEN output remains irrespective of existence of input voltage. (It detects voltage drop of input smoothing capacitor inside the power supply unit. Length of detection time depends on magnitude of output power.)

Circuit



Outline drawing



Connector pin assignment

CN1 (Capacitor package Input/Output)

PIN No.	FUNCTION	CONNECTOR TYPE
1	380V(Pri)	B4B-XH-A (JST)
2		
3		
4	0V(Pri)	

Applicable housing: XHP-4(JST)
Applicable terminal: Reel: SXH-001T-P0.6(JST) Bulk: BXH-001T-P0.6(JST)

CN2 (Output signal)

PIN No.	FUNCTION	CONNECTOR TYPE
1	+AC FAIL	B2B-XH-A (JST)
2	-AC FAIL	

Applicable housing: XHP-2(JST)
Applicable terminal: Reel: SXH-001T-P0.6(JST) Bulk: BXH-001T-P0.6(JST)

CN3 (Capacitor package Input/Output)

PIN No.	FUNCTION	CONNECTOR TYPE
1	380V(Pri)	B3B-XH-A (JST)
2		
3	0V(Pri)	

Applicable housing: XHP-3(JST)
Applicable terminal: Reel: SXH-001T-P0.6(JST) Bulk: BXH-001T-P0.6(JST)

The optimized power supply is offered for customers. http://www.nipron.com

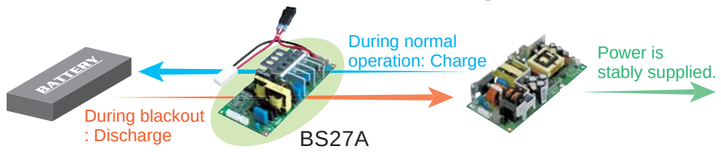
Battery charging/discharging board

“Amazing Product” UZP series becomes “Non-stoppable” power supply during blackout.

NEW BS27A-P350/12V charging/discharging board

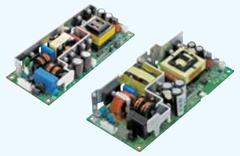
This product is charging/discharging board for lead-acid battery which enables blackout backup operation of AC/DC switching power supply unit “UZP series” of our company (Amazing Product).

Connection with BS27A enables a countermeasure against blackout!



Blackout backup configuration

UZP series
(AC/DC switching power supply unit)

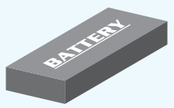


+

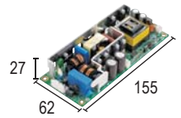
BS27A-P350/12V
(Charging/discharging board)

+

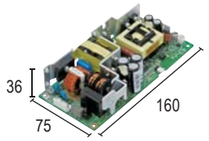
Lead-acid battery



UZP-120 series*

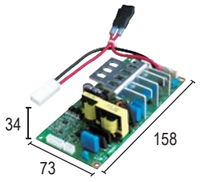
Photograph of external view & size	Outline of product
	Input voltage AC85-264V Output voltage 12, 24V Output capacity Continuous: 100-120W(natural air cooling) 162W(forced air cooling) Peak: 200W

UZP-220 series

Photograph of external view & size	Outline of product
	Input voltage AC85-264V Output voltage 12, 18, 24, 48V Output capacity Continuous: 180-220W(natural air cooling) 250-331W(forced air cooling) Peak: 400W

* It is not compatible with UZP-120-**-J0L type.

BS27A-P350/12V

Photograph of external view & size	Outline of product
	Discharge capacity Continuous: 100W(natural air cooling) / 150W(forced air cooling) Peak: 200W Charge capacity 13.6V / 0.5A typ (constant voltage constant current trickle type) ■ Equipped with various signals as standard. AC_FAIL Blackout notification signal BATT_LOW Battery voltage drop signal SHUT_DOWN Backup forced stop signal ■ Safety standard UL60950-1 CSA60950-1(c-UL) CE Marking ■ A product with a chassis and a chassis cover is also available.

Recommended battery

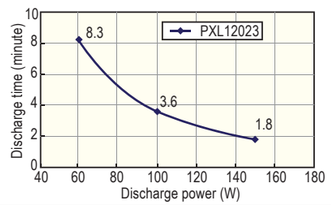
Manufacturer: GS Yuasa

Model	Capacity	Type	Size(W×H×D) *1
PXL12023	12V 2.3Ah	Lead-acid battery	34×60×178
PXL12050	12V 5Ah	Lead-acid battery	70×102×90

If any other lead-acid battery than above is connected, a customer is requested to perform operation verification in advance.

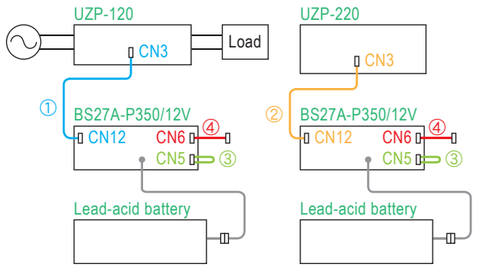
■ A lead-acid battery of up to 12V 5Ah can be connected. *2

Blackout backup time (reference value)



*1 No protruding object shall be included. *2 Since it is also possible for our company to provide it, please contact us.

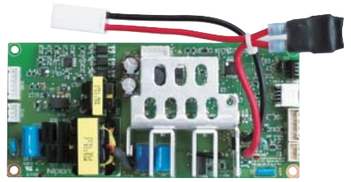
Harness and connector for connection of BS27A-P350/12V

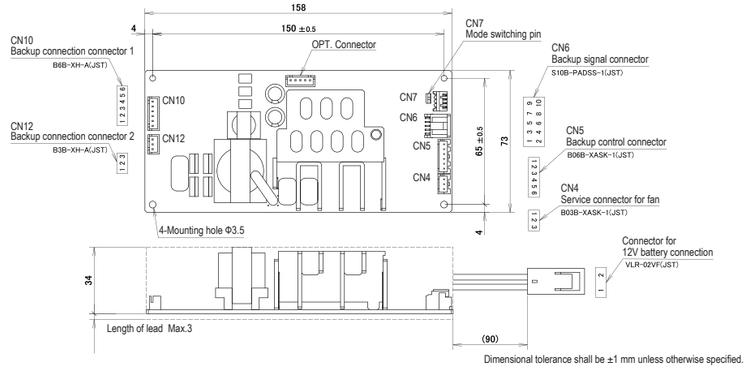


No	Model	Contents
①	WH-03XH03XH-350	Connection harness required for connection with UZP-120 series
②	WH-03XH04XH-350	Connection harness required for connection with UZP-220 series
③	ACC6198	Connection with this connector enables blackout backup (operation in discharge circuit). In case of remote control of ON/OFF, please contact us separately.
④	WH-S0610-500	This is harness for signals AC_FAIL, SHUT_DOWN and BATT_LOW.

Rely on Nipron for blackout backup, both PC power supply and general-purpose power supply. http://www.nipron.com

Outline drawing & connector pin assignment





Dimensional tolerance shall be ±1 mm unless otherwise specified.

Name of connector	Pin number	Name of output (signal)	Remarks
CN12 Backup connection connector 2	1	Backup +Output	Connector 1-2 common (connected internally)
	2	-	
	3	Backup -Output	
CN10 Backup connection connector 1	4	AC input detection signal	For ATX power
	5	ON/OFF detection signal	For ATX power
	6	Start-up signal	For DC startup

Name of connector	Pin number	Name of output (signal)	Remarks
Connector for 12V battery connection	1	Battery +Input	
	2	Battery -Input	

Name of connector	Pin number	Name of output (signal)	Remarks
CN5 Backup control connector	1	VCC5V	
	2	R_ON	
	3	CHG_ON	
	4	GND	
	5	WAKE_UP	
	6	V_BATT	

Name of connector	Pin number	Name of output (signal)	Remarks
CN6 Backup signal connector (SIG_T)	1	AC_FAIL_T	Blackout notification signal
	2	SHUT_DOWN_T	Backup forced stop signal
	3	BATT_LOW_T	Battery voltage drop signal
	4	-	
	5	FAN_M	Connected internally with rotating pulse
	6	-	
	7	GND	
	8	-	
	9	-	
	10	VCC5V	

Name of connector	Pin number	Name of output (signal)	Remarks
CN4 Service connector for fan	1	FAN+	Max. 0.2A
	2	FAN-	
	3	Rotating pulse	Connected internally with FAN_M

Name of connector	Pin number	Name of output (signal)	Remarks
CN7 Jumper	-	Mode switching signal	

If connection harness is changed, use for various purposes becomes possible.
If you want use in the following ways, please contact us separately.

- You want to perform remote control of ON/OFF of power supply and a battery.
- You want to stop charging during remote OFF to minimize standby power.
- You want to connect it with DC input motherboard to enable OS automatic shutdown and stop of discharge during blackout.
- You want to connect it with ATX power supply for blackout backup.
- You want to use it for startup of DC (Battery).

Compatible ATX power supply

Model	HPCSF-400P-X2B	HPC1U-400P-X2B	HPCFL-400P-X2S
Photograph of external view	SFX size 	1U size 	Fanless 
	Continuous: 310W Peak: 400W	Continuous: 305W Peak: 400W	Continuous: 170W Peak: 400W

For details of ATX power supply described on the left, please contact us separately.

Such battery pack that BS27A-P350/12V and a lead-acid battery are arranged in a set of 5-inch bay size is also being developed.

Discharge capacity Continuous: 150W Peak: 200W
External dimension 146(W)×41(H)×200(D)

■ Communication with RS232C is possible (OS automatic shutdown is possible)

BS27A-P350/2.3L
(Image)

* Since it is a product under development, external appearance and specifications are subject to change.

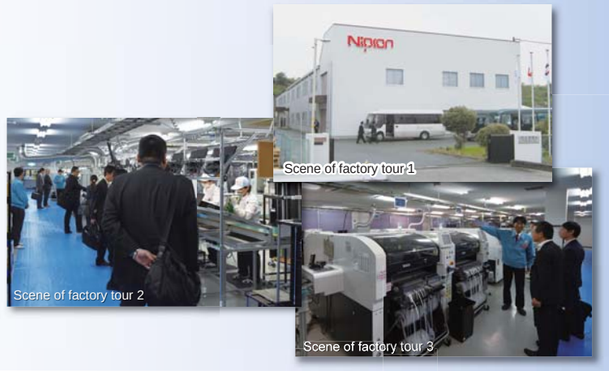
We will also respond to technical questions in a speedy manner. http://www.nipron.com

Report in Presentation of Management Policy

On October 28, 2016, a tour of Matsusaka Dream Factory and Presentation of Management Policy took place, inviting suppliers, manufacturers and those related to financial institutes.
We would like to express our sincere appreciation for adjusting your busy schedule to visit our company.

Factory tour

This time, a factory tour took place at Matsusaka Dream Factory. We could show visitors the factory which commenced operation in last year and is currently producing mainly general-purpose power supply units. We are sure that we could show well them “Attractive Factory” which is the principle of Nipron and could convey our message to them.
In manufacturing division, we could show a manufacturing site which adopted the latest facilities, a one-through production line and Nipron-specific automatic inspection devices. In production engineering division, we explained our approach to development and in-house manufacturing of the automatic inspection devices as mentioned above and future prospect using a panel. In quality control division, we explained examples of improvement in quality and productivity under the slogan “Establishment of MDF brand (* Matsusaka Dream Factory)” together with supporting documents.
The factory tour of Matsusaka Dream Factory which was the first attempt met with favorable reception of participants. We would like to continue to appeal Matsusaka Dream Factory which keeps evolving.



Scene of factory tour 1

Scene of factory tour 2

Scene of factory tour 3

Presentation of Management Policy

Moving to another place, at FREX HOTEL, we held Presentation of Management Policy. Mr. Sakai, Representative Director & President and General Managers of Research & Development Division, Engineering Division, Manufacturing Division and Green Power Business Division made presentation of future management policy, development policy, business operation policy, etc. These were enthusiastic presentation and we are sure that we could convey well thought of Nipron.

After the presentation, a post-meeting party took place.
We had a lively conversation with excellent dishes and spent friendly and pleasant talk time. We feel that we could establish further concrete relationship with the guests through the party.

It was really a dense event and all the employees of our company have been tasting real feeling of success. Nipron will pursue the advantage by expanding business with competitive suppliers and make the best efforts to offer better products to customers.


Presentation made by Mr. Setsuo Sakai, Representative Director & President


Scene of the party

Invitation to exhibition

Invitation to Exhibition of the 7th International Smart Grid EXPO

We will participate as an exhibitor in the exhibition “the 7th International Smart Grid Expo” which will take place during 3 days from March 1 to March 3 at Tokyo Big Sight. We are planning to introduce new products which will be system construction with high yield utilizing additional installation and power storage offered with new solution by Nipron-specific methods for solar power generation which is suffering from decrease in investment efficiency year by year due to FIT regulation. For details of the new solution, please also refer to this booklet. When you visit the exhibition, please make sure to call on our booth. We will be pleased to offer the best solution against customers’ issues.

7th
INT’L SMART GRID EXPO

Event date: March 1 (Wed)–3 (Fri), 2017
Venue: West Hall, Tokyo Big Sight

* We are pleased to send invitation to the exhibition to customers who are interested in it.
Please do not hesitate to contact us.
Our contact: WEB Support Office, Nipron Co., Ltd.
（TEL）+81-6-6487-4141（FAX）+81-6-6487-2212
（E-MAIL）support1@nipron.com

A diversity of power supply unit is available. First of all please telephone us. ***http://www.nipron.com***

President talks! TOP sales corner.

23rd True Management that Gains Customer Confidence

Nipron believes that the following principles are the most important values to guide our sales and business operations.

1. Nipron strives to operate its business with an attitude of constant improvement. We are committed to actively marketing products and services that please our customers in areas and technologies where we excel.

2. Even in an age of severe deflation amid an increasingly competitive business environment, we will not engage in drastic price competition that has the potential to damage our business foundation. We will always maintain a friendly and careful approach to sales that ensures adequate profits. Acknowledging that price negotiations will always be difficult, we will continue to pursue such dealings with integrity and sincerity. We will never stop providing our customers with explanations of the added value that we offer for our price. Even if we fail to win over a customer and eventually lose out to the competition, we will continue to focus on our sales activities.

3. At Nipron, we continue to make efforts to achieve our operating profits of not less 10%, reduce material costs, improve productivity, reduce sales costs, and sell improved products at a lower price. The profits we earn as a result will be reinvested in the development of new technologies as well as innovative products, and will contribute to improved product capabilities for our customers’ benefit as we operate our sales and business with a commitment to rewarding the customer.

4. Power supplies are the heart and infrastructure, essential to our customer’s important products. Therefore, we remain committed to providing absolutely safe and secure products for the long term.

5. At Nipron, sales are not solely the purview of our sales department; our motto is that everyone in each division, including technology, manufacturing and management, must work together on sales throughout the company.

I trust we can count on your patronage again this year and we look forward to serving you.

Setsuo Sakai
Representative Director & President, Sales General Manager

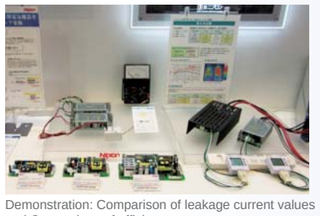
Report of exhibition

Report of exhibition in HOSPEX Japan 2016

We participated as an exhibitor in HOSPEX Japan 2016 which took place from October 26 to October 28.

We think that we should pay particular attention to power supply unit in order to offer to patients and those engaged in medical service equipment, taking safety and peace of mind into consideration and in this sense the power supply designed based upon the basic principle of Nipron “Guard” should be the optimized one. We think that we could appeal sufficiently our thought to visitors of this exhibition.
We exhibited a lot of various switching power supply units including nonstop power supply unit which had obtained medical standard that is optimal for medical equipment. We also demonstrated comparison of efficiency of power supply units and that of leakage current values, receiving favorable reaction from many visitors.

In this exhibition in which we participated as an exhibitor as Nipron for the first time, a lot of manufacturers and organizations for facilities and equipment related to medical service. We could take this opportunity to get acquainted with customers who had never known Nipron and it became really a fruitful exhibition.


Demonstration: Comparison of leakage current values and Comparison of efficiency.


Scene of booth

Flower arrangement at Nipron

In the Sales Head Office & Central Dream Laboratory Building, the front entrance is decorated with flower arrangement. Since these flowers are arranged by an employee of Nipron in a heartfelt manner, please take a look at them.

“When you are in trouble with power supply,” please consult with Nipron. ***http://www.nipron.com***