

Nipron Wave

Vol.62



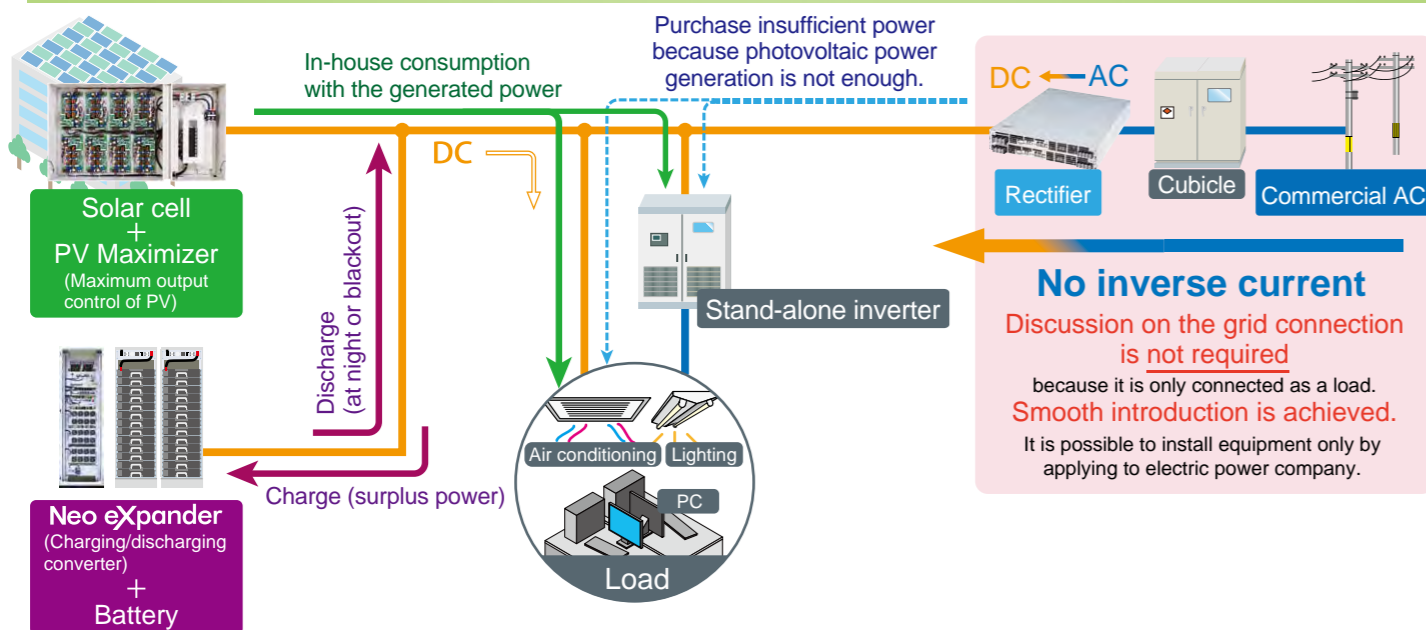
This is the highlight

- 1 Renewable energy products**
Introduce the solar carport which start technology demonstration in head office and application examples of non-grid connected type, in-house consumption of power stored in battery, "PV Oasis".
- 2 IEC62368-1 approved products**
Introduction of products that have been updated to the new standard due to the expiration of EN60950-1.

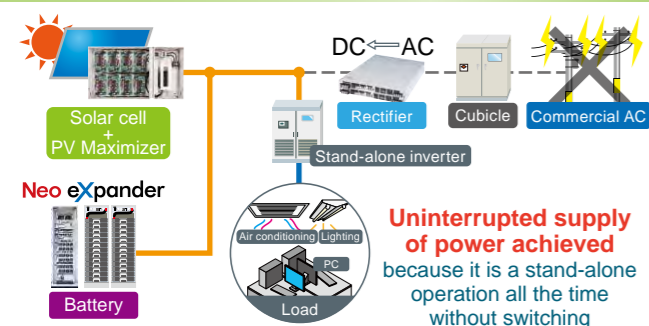
Simultaneously supports your business continuity plan as well as your sustainability initiatives.

PV Oasis system is a package product which can build an independent power system without depending on the power grid. Since it is not connected to the grid, coordination for the grid connection is not necessary and it is possible to introduce an in-house power consumption system smoothly. The PV Oasis power storage system may be used as an emergency power source in an event of a blackout (BCP measures). Also, by using a clean energy source that does not emit CO2 in power generation, it is possible to link decarbonization efforts to increased corporate value.

PV Oasis system outline

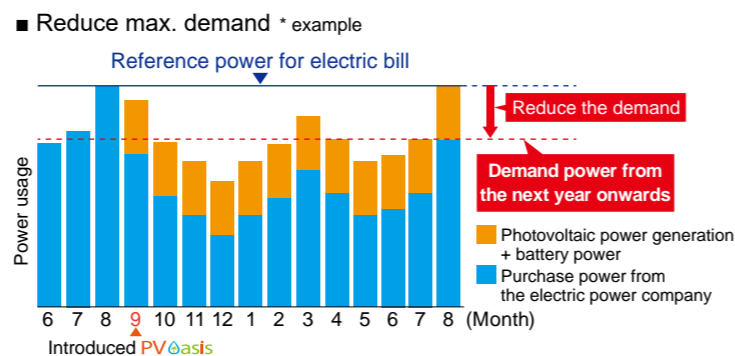


Uninterrupted supply of power



In the case of in-house power consumption with grid connection, blackout occurs when switching to stand-alone operation. The blackout does not happen with PV Oasis because it runs independently all the time.

Reduce max. demand



It contributes to the leveling of the power load by using PV Oasis for peak demand. When peak demand is suppressed, the maximum demand is lowered. Then, basic rate will be lowered and the electricity charge will be reduced.

Others

Parallel operation with a standby power generator is possible

RPR not required as inverse current will not occur

Cubicle modification not required

Additions and expansions of batteries are easy

Off-the-grid systems is achieved

Advanced ZEB is achieved

Parallel supply of AC and DC power is possible

Applicable for VPP

Charging/discharging control remotely is possible

Non-grid connected type, in-house consumption of power stored in battery "PV Oasis" have many advantages of introduction

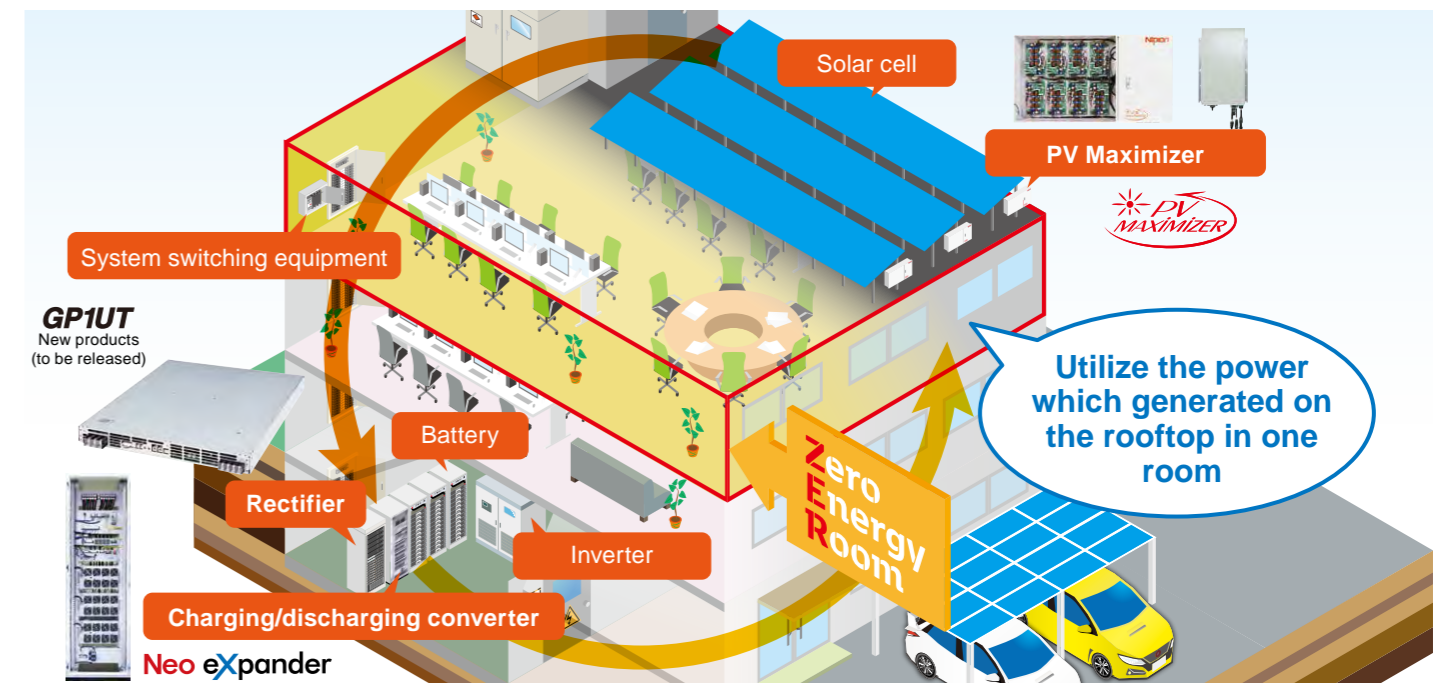
<http://www.nipron.com>

PV Oasis application example

PV Oasis for Zero Energy Room

"We are thinking about introducing an in-house consumption of solar power but hope to do it at a minimum cost." "We are considering emergency response measures for our office but gave up on the installation of a power generator because its management is difficult." Nipron's Zero Energy Room solves such problems. Because this system enables the introduction of an in-house power consumption system even for a single room, the user can start the introduction of an in-house consumption system small." Also, it does not have a grid connection and, therefore, it can be used without an interruption even at a time of blackouts.

The use of renewable energy can be tracked because supplying for the particular load. Connect circuit breaker of distribution board without modifying cubicle and the discussion on the grid connection is not necessary.

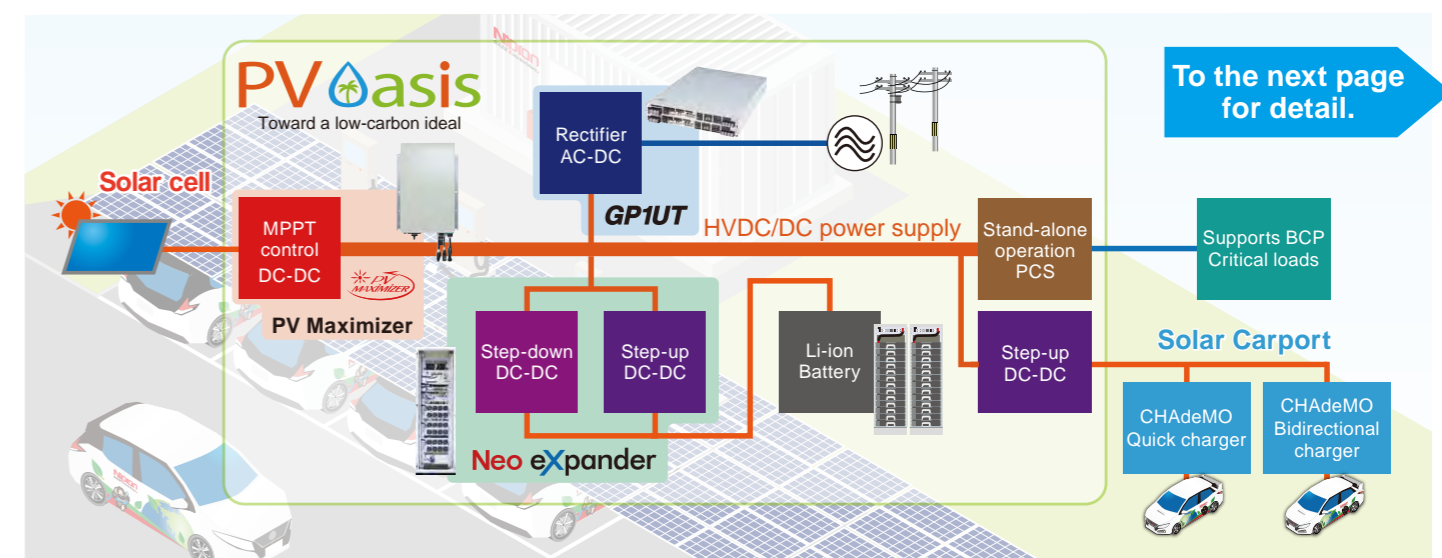


PV Oasis for Solar Carport

By combining a solar carport, a power storage system and an EV charger, a renewable energy in-house consumption system can be built with a parking space even if it was not possible to install solar panels on the roof. EVs can be charged 100% with renewable energy and may be used as emergency power sources.

Run an electric vehicle on 100% renewable energy.

Patent pending



* Certain conditions are required.

Zero Energy Room starting with one room

<http://www.nipron.com>

The in-house power consumption type solar carport — Charge an electric vehicle purely with solar power.*

It can also be used as a disaster prevention base in case of emergency.

PVasis
Toward a low-carbon ideal
for
Solar Carport

* Certain conditions are required.

By the mid-2030s, every new car sold will be an electrically-driven vehicle.

The Japanese government developed the Green Growth Strategy for Carbon Neutrality by 2050 on December 25, 2020.

The plan declares that “a comprehensive action shall be taken to shift 100% of new automobile sale to electrically-driven vehicles by the middle of 2030’s at the latest” to accelerate the move to achieve carbon neutral by 2050. However, the promulgation of EVs and PHVs only has a limited effect on the decarbonization in Japan, where the share of thermal power generation is larger than 70%. To attain the target of carbon neutral, it is necessary to make a significant shift in the energy policy, such as the low carbonization of electric power, and the Minister of the Environment Mr. Koizumi has announced a policy to target at least the 40% share for turning renewable energies to the mainstream of power supply in fiscal year 2030, which is twice as high as the current goal. Nipron’s newly developed in-house power consumption type solar carport is capable of charging EVs and PHVs with 100% renewable energy, day or night, from a power storage system attached and is useful for the early achievement of carbon neutral.

It can also be used as a base for emergency response since electric power can be taken from the rechargeable batteries and EVs in an event of a disaster.

Nipron offers unique eco-solutions.

<http://www.nipron.com>

Existing parking lots can be converted into solar carports.

<http://www.nipron.com>

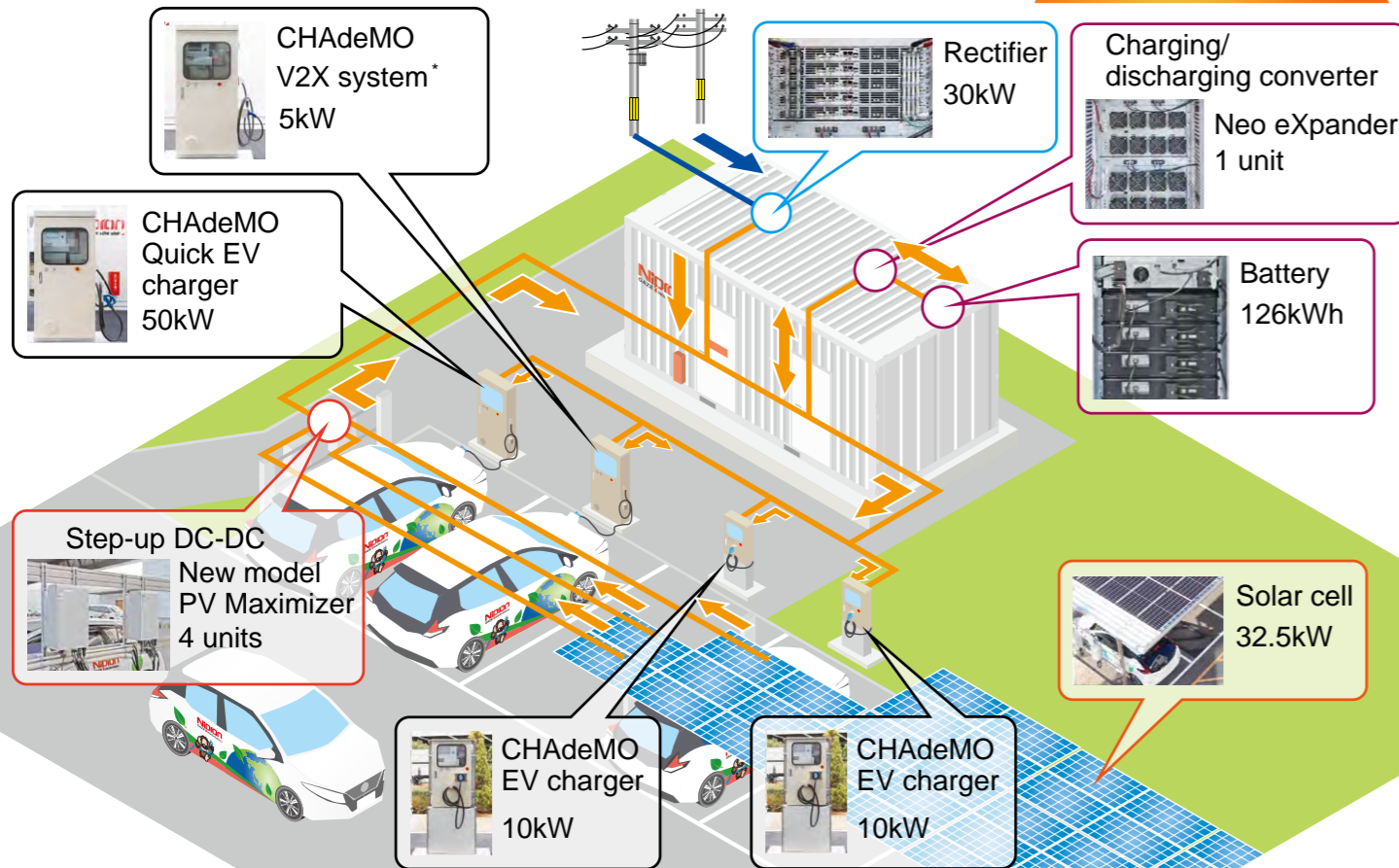
A solar carport system using solar power to charge electric vehicles and power storage systems

- A technology demonstration project launched in November 2020



On November 4, 2020, Nipron started a technical demonstration of PV Oasis for Solar Carport System at the head office and Hanshin Dream Factory. The PV Oasis is an in-house solar power consumption system without a grid connection, using a photovoltaic power generation system as a stand-alone power supply source. By using it parallelly with a solar carport, it is possible to introduce the renewable energy using the parking space even if the space for installing solar panels is not available. Through this demonstration, Nipron aims to commercialize a quick charger for EVs optimum for DC power supply systems and V2X system that supplies power from EVs.

Solar Carport system outline



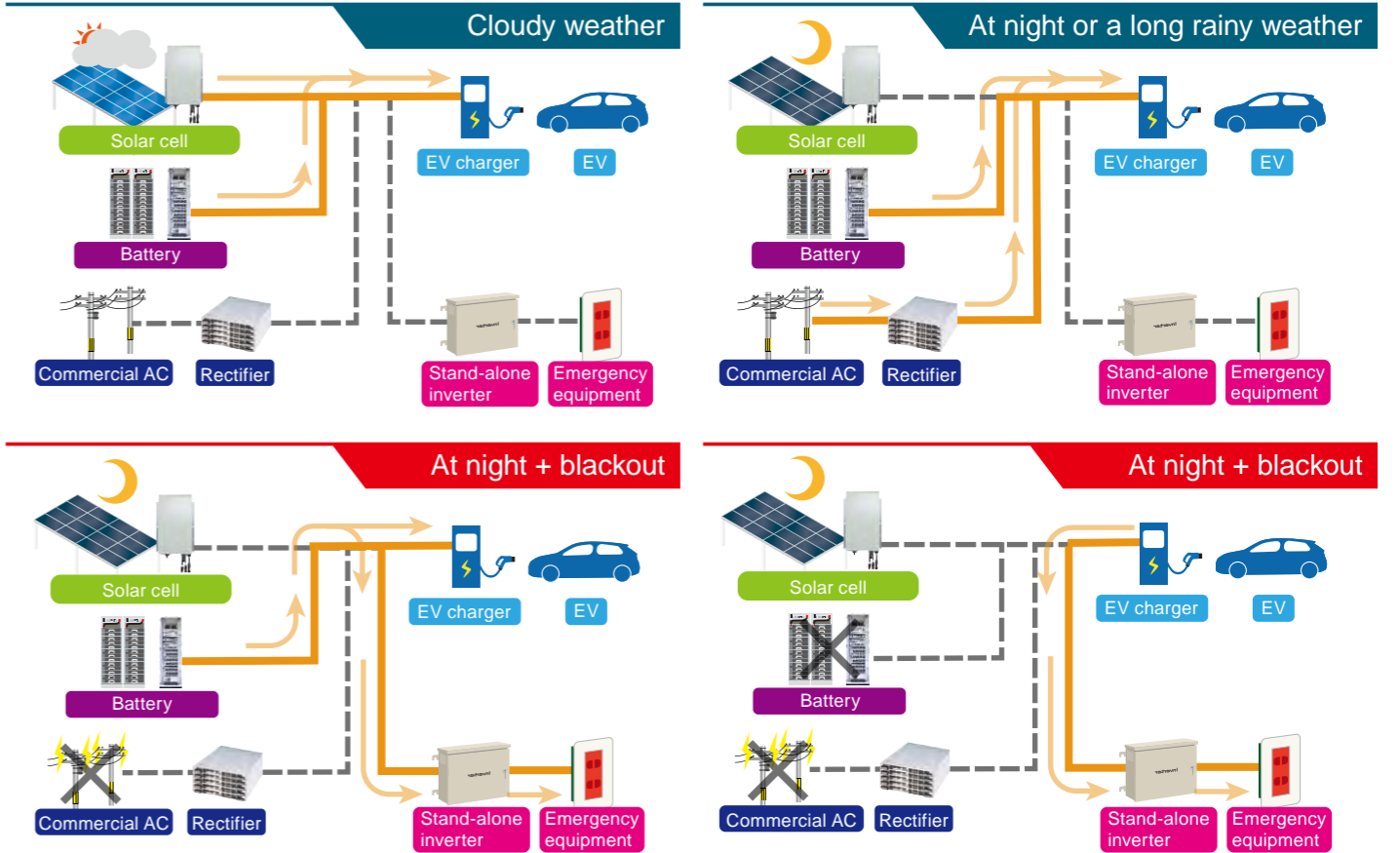
*V2X system is the system that not only charges EV and PHV, but also can extract the power and use it.

Renewable energy products for a decarbonized society

<http://www.nipron.com>

Contributing to eco-friendly business operations and disaster resilience

Supports power supply from EV



Composition of Solar Carport system

• Front of the container

Photovoltaic power generation output	32.5kW
Storage capacity	126kWh
Grid power capacity	30kW
Charging/supplying output power for EV (CHAdEMO)	50kWx1 unit, 10kWx2 units
Parking space	5kW bidirectional (V2X)x1 unit 14 cars

Please consider the solar carport for disaster prevention.

<http://www.nipron.com>

IEC62368-1 approved product

IEC62368-1 is a new safety standard developed based on the concept of Hazard-Based Safety Engineering, which aims to prevent harms to human body, and considered to replace the old safety standard IEC60950-1. The conformity to this new standard will be required for the Declaration of Conformity for CE marking and is essential if one wishes to distribute the product in EU. This section introduces Nipron's products that conform to IEC62368-1 (CB certification) or those for which the shift has been made.

* There is no change in the products' input/output characteristics in association with the shift in safety standard.
* As of January 2021. The effort to increase conforming products will be continued.

OZ-060 series

Single output power supply

A variable resistor for adjusting output voltage provided



Continuous: **39-60W**
Output voltage: **3.3/5/12/15/24V**
Size: **55x32x195** (WxHxD)

■ Double-sided through-hole PCB adopted

mUZP-120 series

Certified with medical standard

IEC60601-1 Ed.3.1 approved
•Input-output: 2MOOP
•Input-FG: 1MOOP



Continuous: **100-120W**
Peak: **200W**
Output voltage: **12/24V**
Size: **62x27x155** (WxHxD)

■ The power supply clears VCCI ClassB for the conducted emission.
Because there is no need to install an external noise filter, it facilitates reductions in the cost and man-hour.

UZP-150 series

Single output power supply

Low noise and low leakage current



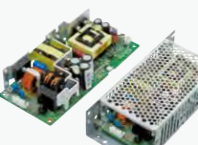
Continuous: **150W**
Peak: **400W**
Output voltage: **12/18/24/48V**
Size: **75x35x160** (WxHxD)

■ High peak output about 2.6 times as high as continuous power.
High peak output about 2.6 times as high as continuous power.

UZP-220 series

Single output power supply

High peak power 400W



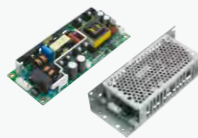
Continuous: **180-220W**
Peak: **400W**
Output voltage: **12/18/24/48V**
Size: **75x36x160** (WxHxD)

■ Backup available optionally
Available by connecting battery package

UZP-120 series

Single output power supply

Low noise and low leakage current



Continuous: **100-120W**
Peak: **200W**
Output voltage: **12/24V**
Size: **62x27x155** (WxHxD)

■ Ultra thin with 27mm height
Height from the bottom of PCB is 24mm

mUZPT-120 series

Certified with medical standard

IEC60601-1 Ed.2,Ed.3.1 approved
•Input-output: 2MOOP, 2MOPP
•Input-FG: 1MOOP, 1MOPP



Continuous: **100-120W**
Peak: **200W**
Output voltage: **12/15/24V**
Size: **62x38x155** (WxHxD)

■ High efficiency 94% typ
Its high efficiency resulting in low heat generation enables miniaturization and built-in devices.

mUZP-150 series

Certified with medical standard

IEC60601-1 Ed.3.1 approved
•Input-output: 2MOOP, 2MOPP
•Input-FG: 1MOOP, 1MOPP



Continuous: **150W**
Peak: **400W**
Output voltage: **12/18/24/48V**
Size: **75x35x160** (WxHxD)

■ The power supply clears VCCI ClassB for the conducted emission.
Because there is no need to install an external noise filter, it facilitates reductions in the cost and man-hour.

UZP-600 series

Single output power supply

Achieved large capacity and high efficiency 95% typ



Continuous: **600W**
Peak: **1200W**
Output voltage: **24/30/36/48V**
Size: **127x44x288.6** (WxHxD)

■ The high peak power twice as high as the continuous power is supported
The unit can supply the power twice as large as the continuous power for the predefined time (5s).

*The features listed above are typical features. Please confirm our website about other features.

Extensive lineup of power supply with backup function and medical standard. <http://www.nipron.com>

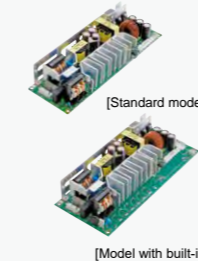
IEC62368-1 approved Single output power supply

OZP-240/600P series

Single output power supply

Peak output of max. 2.5 times larger than the rated output

NEW



Continuous: **200 / 240W**
(At 100VAC) (At 200VAC)
Peak: **400 / 600W**
(At 100VAC) (At 200VAC)
Output voltage: **24/48V**
Standard model
Size: **73x41x222** (WxHxD)
Model with built-in arrester
Size: **95x41x222** (WxHxD)

■ High peak power optimum for motor loads

The unit can supply the power 2.5 times as large as the continuous power for the predefined time (5s). This eliminates the need to select a power supply unit with a large continuous power rating matching the peak load and enables the reduction in the PSU size, leading to many benefits including the elimination of fans in the unit and replacement of unit-type power supplies.

Peak **600W**
Continuous **240W**
2.5 times larger

OZP-200 series

Single output power supply

Supports a wide range of output voltage



Continuous: **130-200W**
Peak: **198-400W**
Output voltage: **3.3/5/12/15/24/36/48V**
Size: **73x41x222** (WxHxD)

■ Capacity can be increased by parallel operation.

* The 36V output can be used as a 30V power supply by adjusting the volume.

mOZP-200 series

Certified with medical standard

IEC60601-1 Ed.3 approved
•Input-output: 2MOOP
•Input-FG: 1MOOP



Continuous: **130-200W**
Peak: **198-400W**
Output voltage: **3.3/5/12/15/24/36/48V**
Size: **73x41x222** (WxHxD)

■ The power supply clears VCCI ClassB for the conducted emission.

Because there is no need to install an external noise filter, it facilitates reductions in the cost and man-hour.

* The 36V output can be used as a 30V power supply by adjusting the volume.

OZP-350 series

Single output power supply

Peak output twice larger than the rated output at max.



Continuous: **300-350W**
Peak: **500-600W**
Output voltage: **12/15/24/30/36/48V**
Size: **95x47x222** (WxHxD)

■ Backup for instantaneous power failure
Available by connecting capacitor pack

mOZP-350 series

Certified with medical standard

IEC60601-1 Ed.2,Ed.3.1 approved
•Input-output: 2MOPP
•Input-FG: 1MOPP



Continuous: **300-350W**
Peak: **500-600W**
Output voltage: **12/15/24/30/36/48V**
Size: **95x47x222** (WxHxD)

■ High efficiency 95% typ

Its high efficiency resulting in low heat generation enables miniaturization and built-in devices.

GPSA-600 series

Unit-type

Peak output of max. 2.4 times larger than the rated output



Continuous: **600W**
Peak: **960-1200W**
(At 100VAC)
1200-1440W
(At 200VAC)
Output voltage: **12/24/36/48V**
Size: **61x128x240** (WxHxD)

■ GPSA-1500 series will be approved

GPSA-1000 series

Unit-type

Small size and large capacity power supply



Continuous: **900 / 1000W**
(At 100VAC) (At 115VAC)
Peak: **1180/1320/2010W**
(At 100VAC) (At 115VAC) (At 240VAC)
Output voltage: **24/48V**
Size: **61x128x240** (WxHxD)

■ High efficiency 91% typ

Its high efficiency resulting in low heat generation enables miniaturization and built-in devices.

*The features listed above are typical features. Please confirm our website about other features.

High efficiency and long life single output power supply

<http://www.nipron.com>

IEC62368-1 approved PC power supply

HPCSA-1000P

ATX power supply



Continuous: **820W**
Peak: **1000W**
Size: **150x85x190** (WxHxD)

■ 80PLUS SILVER acquired

Continuous running 24 hours a day, 365 days a year is possible.

■ Temperature controlled variable speed fan is adopted.

■ Supports peak 1000W output

■ Minimum load current 0A for all outputs

HPCSA-700P

ATX power supply



Minimum load current 0A for all outputs

Continuous: **600W**
Peak: **700W**
Size: **150x85x150** (WxHxD)

■ High efficiency 89.1% is achieved

HPCSA-570P

ATX power supply



Low standby power specification

Continuous: **400W**
Peak: **570W**
Size: **150x86x140** (WxHxD)

■ Temperature controlled variable speed fan is adopted.

HNSP9-520P

Nonstop power supply



Supports blackout backup

Continuous: **400W**
Peak: **520W**
Size: **150x86x140** (WxHxD)

■ 24V/48V can be added optionally.

ePCSA-500P

ATX power supply



Minimum load current 0A for all outputs

Continuous: **350W**
Peak: **500W**
Size: **150x86x140** (WxHxD)

■ Supports peak 500W output

mPCSA-500P

Certified with medical standard



IEC60601-1 Ed.2, Ed.3 approved
•Input-output: 2MOOPP
•Input-FG: 1MOOPP

Continuous: **300W**
Peak: **500W**
Size: **150x86x140** (WxHxD)

■ The power supply clears VCCI ClassB for the conducted emission.

eNSP4-500P

Nonstop power supply



Backup for instantaneous power failure

Continuous: **350W**
Peak: **500W**
Size: **150x86x140** (WxHxD)

■ Supports peak 500W output

eNSP3-450P

Nonstop power supply



Supports blackout backup

Continuous: **350W**
Peak: **450W**
Size: **150x86x140** (WxHxD)

■ Available by connecting capacitor pack

mNSP3-450P

Nonstop power supply



Certified with medical standard

IEC60601-1 Ed.2, Ed.3 approved
•Input-output: 2MOOPP •Input-FG: 1MOOPP

Continuous: **300W**
Peak: **450W**
Size: **150x86x140** (WxHxD)

*The features listed above are typical features. Please confirm our website about other features.

Nipron's highly reliable ATX power supply optimum for industrial application!

<http://www.nipron.com>

HPC1U-400P

1U size power supply



Standby power 0.5 mA or less is achieved

Continuous: **305W**
Peak: **400W**
Size: **100x41x190** (WxHxD)

■ 80PLUS BRONZE acquired

HPCSF-400P

SFX power supply



Standby power 0.5 mA or less is achieved

Continuous: **310W**
Peak: **400W**
Size: **125x63.5x125** (WxHxD)

■ 80PLUS BRONZE acquired

HPCFX-350P

Flex ATX power supply



Output harness can be changed

Continuous: **245W**
Peak: **346W**
Size: **81.5x41x150** (WxHxD)

■ The power supply clears VCCI ClassB for the conducted emission.

FR1UA-350P

1U redundant power supply



Supports hot swap

Continuous: **298W**
Peak: **348W**
Size: **120x41x350 (374)** (WxHxD)

■ LED display of the status of each power supply unit

eNSP-300P series

Nonstop power supply



Supports blackout backup

Continuous: **200W**
Peak: **300W**
Normal Size: **150x86x120** (WxHxD)
With a unit Size: **150x86x155** (WxHxD)

■ Blackout backup is possible by attaching a unit

PCSF-200P

SFX power supply



S-ATA connector standard equipment

Continuous: **150W**
Peak: **200W**
Size: **100x63.5x125** (WxHxD)

■ Possible to use at an ambient temperature of 60°C

HPCFL-400P

Fanless ATX



Supports blackout backup

Continuous: **170W/305W**
(Natural air cooling) (Forced air cooling)
Peak: **400W**
Size: **106x37x225** (WxHxD)

■ Minimum load current 0A for all outputs

PCSA-370P

ATX power supply



High reliability design

Continuous: **280W**
Peak: **370W**
Size: **150x86x140** (WxHxD)

■ Supports peak 370W output

PCSF-350P

SFX power supply



High reliability design

Continuous: **250W**
Peak: **350W**
Size: **125x63.5x125** (WxHxD)

■ Minimum load current 0A for all outputs

PC1U-300P

1U size power supply



High reliability design

Continuous: **250W**
Peak: **300W**
Size: **106x41x260** (WxHxD)

■ Minimum load current 0A for all outputs

PCFX-220P

Flex ATX power supply



High reliability design

Continuous: **170W**
Peak: **220W**
Size: **81.5x41x150** (WxHxD)

■ A temperature controlled variable speed fan is equipped

PCFL-180P

Fanless ATX



Supports blackout backup

Continuous: **90W**
Peak: **180W**
Size: **93x55x160** (WxHxD)

■ Minimum load current 0A for all outputs

*The features listed above are typical features. Please confirm our website about other features.

Excellent track record! A product line with a variety of models available

<http://www.nipron.com>

UDP-240 series

DIN-rail compatible

Continuous: 240W

Peak: 400W

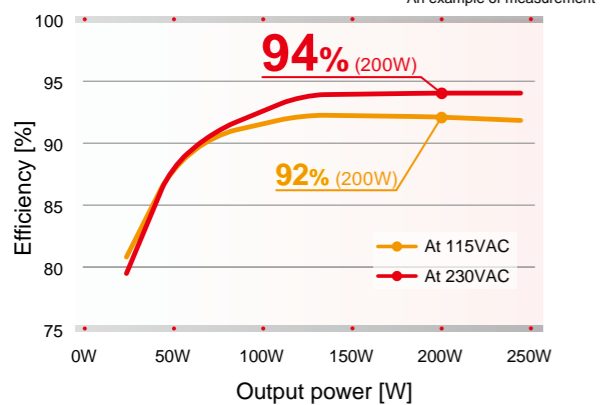
Size: 41x124x117.5 (WxHxD)



NEW

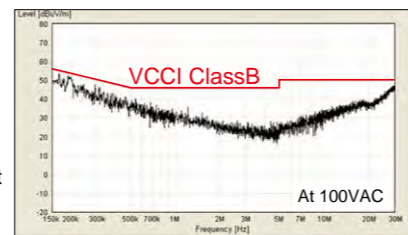
High efficiency, long life design

Software switching is adopted in the UDP series. Compared to conventional hardware switching, it suppresses heat generation due to the switching loss significantly, enabling miniaturization of built-in components. This makes it possible to produce smaller and more efficient power supply units.



Clears VCCI ClassB for the conducted emission

The power supply unit clears VCCI ClassB for the conducted emission. Because there is no need to install an external noise filter, it facilitates reductions in the cost and man-hour.



Selectable input/output connector type

The PSU comes with European terminal type or Block terminal type as I/O terminals.

UDP-120 series

DIN-rail compatible Thin and high efficiency design



Continuous: 120W
Peak: 200W/300W (At 100VAC) (At 200VAC)
Output voltage: 24V
Size: 35x124x117.5 (WxHxD)

*IEC62368-1 will be approved

UDP-180 series

DIN-rail compatible Thin and high efficiency design

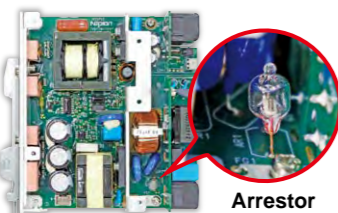


Continuous: 180W
Peak: 200W/300W (At 100VAC) (At 200VAC)
Output voltage: 24V
Size: 35x124x117.5 (WxHxD)

*IEC62368-1 will be approved

Enhances the resistance against lightning surges

By incorporating an arrester as a surge protector, the resistance to external surges due to lightning or other causes has been enhanced.



Common mode: actual performance ± 8kV

Supports backup for instantaneous power failure and blackout

Capacitor unit optimum for backup of instantaneous power failure and Battery unit optimum for backup of blackout are lined up.



* Concept * Concept
* Compatible power supply is a dedicated model. Please contact us for details.

HPCSA-1500P

ATX power supply

Continuous: 1200W

Peak: 1500W

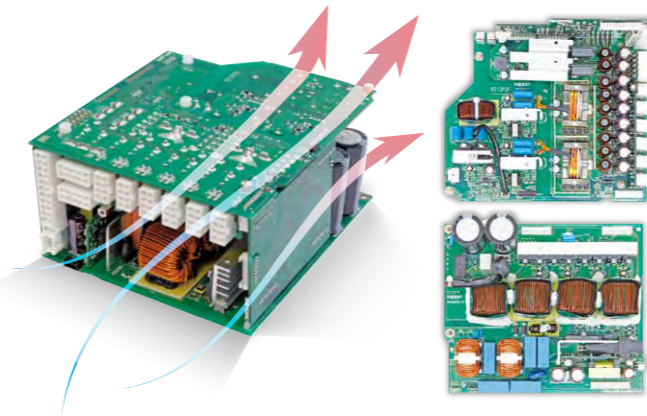
Size: 150x85x200 (WxHxD)



NEW

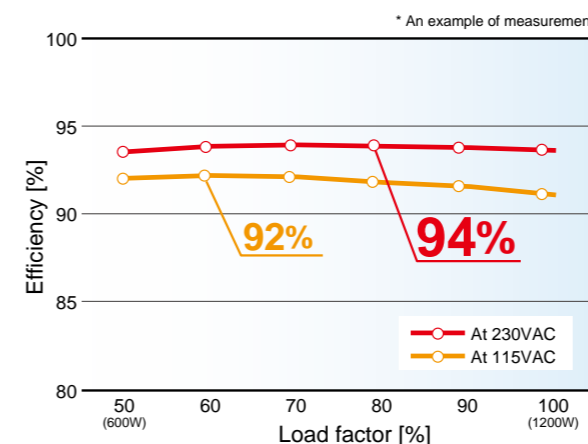
Committed layout design

The power supply is designed with an optimum component layout which is utilizing a unique thermal analysis/simulation and high reliability is achieved to enable long-term severe 24/7 operation at the rated power.

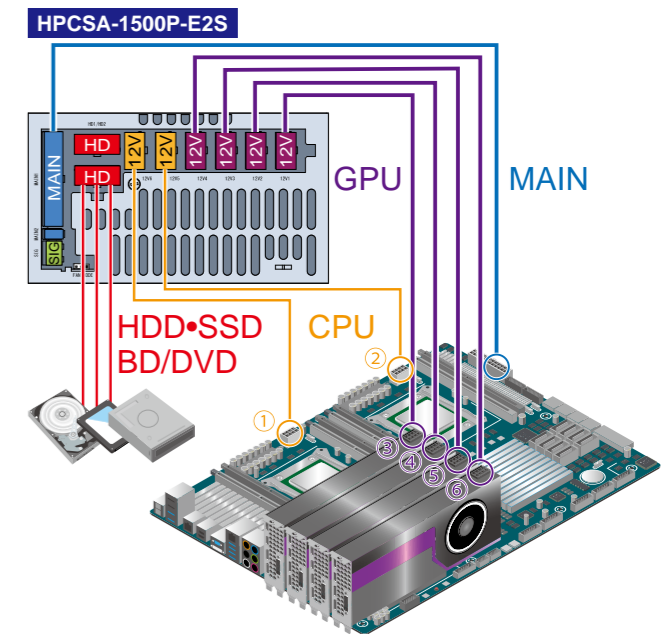


Reliability & high efficiency in one

HPCSA-1500P is designed to attain the highest efficiency with a high load factor of 50% to 100% and enables highly reliable and stable operation of GPU servers, constantly running under a high load, as in the application of deep learning.



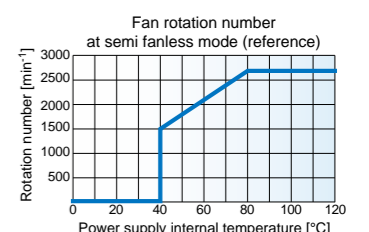
GPU server configuration example



Supports the 6ch 12 V outputs for CPU/GPU

Low sound noise by adopting a temperature controlled variable-speed fan.

When internal temperature of a power supply unit is low, fan speed is reduced to achieve low sound noise and save energy. In addition, operation settings are possible according to the usage environment and purpose, such as a semi-fanless mode in which the fan turns when the internal temperature rises, and a forced maximum turn mode in which the fan always turns at the maximum speed for cooling.



Invitation to Exhibition

11th INT'L SMART GRID EXPO

Held inside **World Smart Energy Week 2021**

11th INT'L SMART GRID EXPO

Nipron will participate in the 11th INT'L SMART GRID EXPO, which will be held at Tokyo Big Sight for three days from 3rd to 5th March. This exhibition is a special exhibition that attracts a range of products and technologies required for the construction of smart-grids and distributed energy systems.

The introduction of virtual power plants (VPPs), which plays an important role in achieving the political target of carbon neutral by 2050, is just around the corner.

At the Nipron booth, therefore, the PV Maximizer, Neo eXpander, for photovoltaic power & storage system and the PV Guardmyan, which is capable of managing and controlling power generation & power storage data on a cloud server, will be presented. In addition, a variety of solutions will be proposed matching customers' budget and building conditions based on the realization of decarbonized society and the PV Oasis, a power storage type PV in-house consumption system without a grid connection, that enhances the resilience of system, including the Zero Energy Room (a stand-alone renewable energy power source enabling room-by-room introduction) and the Solar Carport System (PV power generation + power storage + EV charger for carports). If you happen to be there, please do visit Nipron booth.



A scene of last year



A scene of last year

The Relocation of Matsusaka Dream Factory



A siting agreement for the construction of new factory has been signed with Taki Town, Taki-gun, Mie Prefecture.



Our Vice President Kawakita (left) and Kubo town mayor (right)

On November 30 last year, Nipron signed a siting agreement for the construction of a new factory with Taki Town, Taki-gun, Mie Prefecture. With the relocation to this new factory, Nipron aims to enhance its production capacity of power supply units for medical equipment and distribution systems, which are growing rapidly, and the number of employees will be doubled — from the current 50 plus workers to 100 workers. The area of land purchased is approximately 11,700 m² and the factory will have a total floor space of 6,600 m² in a steel-reinforced concrete building of two stories, which is twice as large as the current Matsuzaka Dream Factory (land area: 3,070 m², total floor space: 3,024 m²) or even larger.

The operation of current Matsuzaka Dream Factory started in 1990 but was suspended in 2009 as the head office/Hanshin Dream Factory started its operation. However, it was remodeled and reinstated to accommodate the rapid growth of demand for the power supply units for distribution systems started around 2015. The construction of new Matsuzaka Dream Factory will start as early as June 2022 with an eye on the start of operation in January 2023.



Matsuzaka Dream Factory at start of operation



Matsuzaka Dream Factory of the present

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50th Anniversary New Product Presentation and Preview

The presentation and preview of 50th anniversary new product was held on November 4, 2020.

The presentation of 50th anniversary new product

The meeting began with a speech of President Sakai, in which he talked about the backgrounds leading to the foundation of Nipron, successes and failures after the foundation and future visions for the company. A greeting of Vice President Matsubara followed before the start of commemorative product presentation by eight engineering teams.

The gold prize went to the System Software Development Team, which presented the system development for the Solar Carport, for which a technical demonstration has started in the premises of head office since last November. The silver prize was awarded to the Tokyo Engineering Center Team, which presented the development of HN5P5-350P (an ATX power supply unit with a lithium-ion battery) and the power supply unit conforming to the ATX12VO standard. The bronze prize was awarded to the Small Power Supply Unit Development Team, which presented the development of New UZP Series.

Other presentations included the developments of new products, such as mFZP-075 (medical standard compatible single output power supply unit) and GP1UT (rectifier).



Greetings from President Sakai



Greetings from Vice President Matsubara



A scene of the presentation

Gold prize
System and Software Development

Silver prize
Tokyo Technical Center

Bronze prize
Small Power Supply Development Section



Gold prize System and Software Development



Silver prize Tokyo Technical Center



Bronze prize Small Power Supply Development Section

Private viewing

In the preview, products recently developed and under the development by each engineering department were presented and the event turned out to be a productive one to share information with other engineering departments, as well as production, administration and sales departments.



A scene of the private viewing



A scene of the private viewing



Solar carport EV charging station demonstration

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<http://www.nipron.com>

**The Nipron Story,
by Our President**

Kokorozashi

Happy New Year everyone.

I wish you all the best and look forward to working with you again this year.

2020 was a tough year as we spent days and nights in responding to the Covid-19.

2021 is the year of "Yin Metal Ox" in the Chinese zodiac, which indicates painful decline and new breath will enhance each other. I feel as if it exactly anticipated the transition to the new normal that will arise after the pandemic.

It's going to be a turbulent year and I think that the post-Covid-19 world can be compared with a post-war economy after the world economy has been devastated. Many countries are considered to have lost GDP due to the stagnation of economic activities lasting for about a year. That is, just as the post-war reconstruction demand boosted the economy after everything had been destroyed in the World War, a similar phenomenon can occur. A robust economic recovery from the "World Covid-19 War" may proceed simultaneously with the painful transition to the new normal.

With the progress of IT and virtualization, what comes to my mind is a world where many people no longer need to physically move for their jobs. Following the trend toward decarbonization, aviation fuel that consumes a lot of energy and emits a large amount of CO2 to transport people may be targeted for decarbonization, hindering the recovery of the aircraft-related industry.

Moreover, since we can communicate sufficiently over the internet, overseas business trips may be avoided, passengers of Shinkansen may decrease sharply, and the Linear Chuo Shinkansen may become useless in Japan. Then, it may happen that the demand for transportation, including aircraft, drops significantly, requiring a review of businesses in this industry and plunging the industrial world into a long-lasting severe recession.

I remember seeing an editorial saying, "With the development of IT, transportation will become a depressed industry" more than 10 years ago. Over time, this problem may become a reality. It's also possible that sophisticated aircrafts shift to prospective industries to be developed as fighter aircrafts, as a means of transportation to space, and for other purposes.

Radical imagination is not very pleasant for you to hear early in the new year, so I'll leave it at that.

Now let's move on to deciding on this year's single Chinese character for Nipron. I have chosen "Kokorozashi (aspiration)". If you break down this character, you can see that it represents the heart of a samurai. Samurai here means a leading expert in the trade, as exemplified by a lawyer, accountant, scrivener, doctoral degree holder, and professional warrior.

I like this word of "Kokorozashi," and it has been a driving force in my life. From here on, I think I will continue to be driven by this word when deciding which direction to take in doing our business and choosing a plan for the end of my life as well. I have been fascinated by this word "Kokorozashi" since I read Ryotaro Shiba's historical novel "Clouds over the Slope."

The novel depicts a period of major changes in transition to the Meiji era, or a transition from the isolation policy enacted by the Tokugawa Shogunate which lasted long, strict feudal classes (of samurai, farmers, artisans and tradesmen), and restrictive hierarchical society. Riding the wave of civilization, in the context of catching up with and overtaking the Western great powers, low-ranking warriors and the future-oriented youth freed from the status of a peasant saw their future dreams and thoughts in white clouds floating up in the clear blue sky. During those years, young people with a great zest for making Japan, which was lagging behind the rest of the world, a first-class country, left the nest in pursuit of their own prosperity in their respective fields. I felt empathy for these young people who went into medicine, military, science, literature and haiku to become a specialist (samurai) in each field. Not only that, they opened my eyes.

Looking at the character of "samurai," the top horizontal line is longer than the one on the bottom. So, I think it permits the interpretation that if a person works his way up with the idea and attitude of seeking better tomorrow and future than today by constantly developing himself, he can think like a samurai. Here's what I came up with: Kokorozashi is the way of thinking of a person who fully pursues his expertise with strong desire for improvement.

I hope that young people at Nipron will light a fire of "Kokorozashi" in their hearts. Along with that, this year I want to strongly survive the severe "post-Covid-19 war," aiming to become an aspiring group with a keen awareness of "Kokorozashi."



Setsuo Sakai
January 2021



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