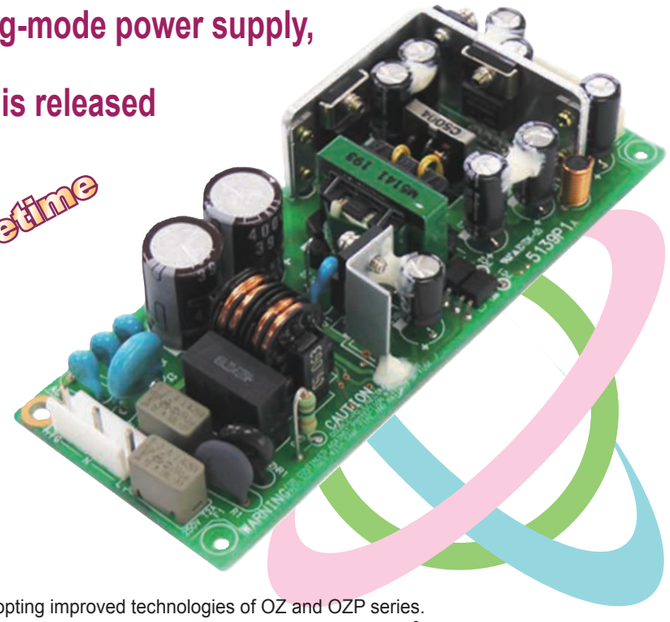
PCB type AC-DC switching-mode power supply, multi output type is released

High efficiency
Low noise
Low standby power
Long lifetime



OZM-015 series
Continuous 15W
Triple output type

PCB type multi output power supply "OZM series" released.
High efficiency, highly reliable multi output power supply, adopting improved technologies of OZ and OZP series.
With synchronous rectification circuit, high efficiecny achieved. Not only reducing electrical power rate, and CO^2, but also low heat-generation of PSU itself keeps the whole equipment temperature rise low, resulting the long lifetime.

PCB type multi output power supply

▶ 15W triple output power supply is released. Best suited for logic circuit. 12V/15V for "±voltage", and +5V/+3.3V for "main voltage" are available in order to meet many customers requirements flexibly.

Type	Output Voltage
OZM-015-0512N12	3.3V 5V 12V -12V 15V -15V
OZM-015-0515N15	3.3V 5V 12V -12V 15V -15V
OZM-015-0312N12	3.3V 5V 12V -12V 15V -15V
OZM-015-0315N15	3.3V 5V 12V -12V 15V -15V

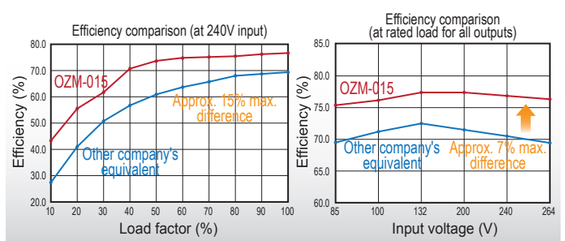
High efficiency

With synchronous rectification circuit and our own high efficiency circuit, it achieved higher efficiency than other company's equivalents.

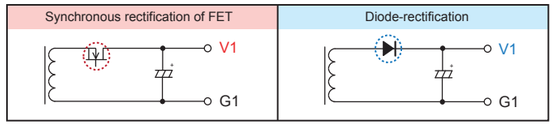
▶ **Efficiency comparison**

Rated load

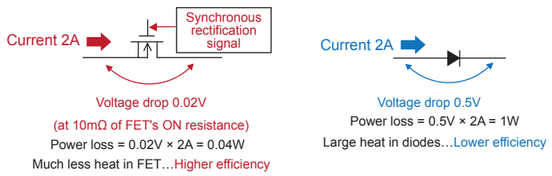
Input voltage	Nipron OZM-015 series	Other company's equivalent	Difference
100 VAC	76.1%	71.1%	+5.0%
132 VAC	77.4%	72.6%	+4.8%
200 VAC	77.4%	71.7%	+5.7%
240 VAC	76.8%	70.5%	+6.3%



▶ **High efficiency is achieved with synchronous rectification circuit**

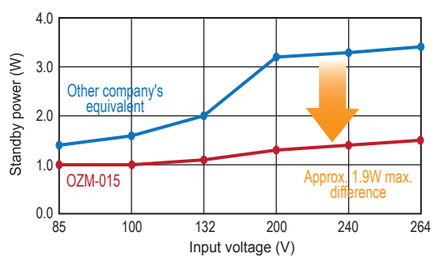


If loaded current is 2A, diode drop voltage will be 0.5V and FET drop voltage will be 0.02V. FET is much smaller than diode and can save power loss. Total amount of power loss will be 1W (0.5V x 2A) with diode and 0.04W (0.02A x 2A) with FET.



Low standby power consumption specification

The reduction of electrical power rate and CO^2 is achieved by suppressing the power consumption at standby mode.



Double-sided through-hole PCB used

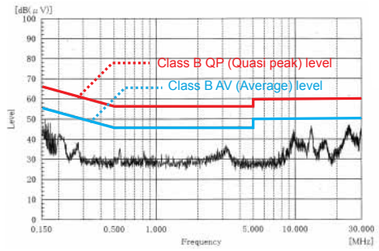
Some products in competitor's line-up are single-sided PCB for cost reducing.
However, Nipron is aware of "power supply is dangerous goods", and adopts the double-sided through-hole PCB even it is small capacity.

Solder cracks (Single-sided PCB)

Low noise

In order to have low leakage current, some power supplies compromise bad conducted emission, -high noise. However, OZM series meets conducted emission class B, even low leakage current.

▶ **Conducted emission**



▶ **Leakage current value (an example of actual measurements)**

Model	OZM-015-0515N15	
Input voltage	at min. load	at rated load
100 VAC	0.075mA	0.076mA
200 VAC	0.155mA	0.160mA
240 VAC	0.190mA	0.190mA

Peak power

Since V2 peak output is higher than competitor's products, OZM series can have higher power in the same size.

	OZM-015	Other company's equivalent
0512N12/ V2 output	+12V 0.4A (peak 1A)	+12V 0.3A (peak 0.6A)
0515N15/ V2 output	+15V 0.3A (peak 0.8A)	+15V 0.3A (peak 0.6A)
0512N12/ Rated power	17.2W	16W
0515N15/ Rated power	17.5W	17.5W

Medical standard IEC60601-1 3rd compliant design

OZM series is compliant with the medical standard IEC60601-1 3rd. It can be used as medical power supply.
Contact us if you need medical safety approved model.

Series lineup

▶ **Output specifications**

Model name	0512N12			0515N15			0312N12			0315N15		
3 outputs	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Rated voltage	5V	12V	-12V	5V	15V	-15V	3.3V	12V	-12V	3.3V	15V	-15V
Rated current	2A	0.4A	0.2A	2A	0.3A	0.2A	2A	0.4A	0.2A	2A	0.3A	0.2A
Peak current(10s)	3A	1A	0.3A	3A	0.8A	0.3A	3A	1A	0.3A	3A	0.8A	0.3A
Max. power	17.2W			17.5W			13.8W			14.1W		
Min. current	0A*	0A	0A	0A*	0A	0A	0A*	0A	0A	0A*	0A	0A
Input voltage	85~264 VAC(Worldwide range)											
Size	50(W) × 28(H) × 127(D)											

*At V1 output 0A, V2 and V3 peak current shall be less than 70%.

OZM series 30W type

OZM-030 series includes not only triple output type, but also dual output type.
You can select them for your specification.

▶ **Triple output type output specification**

Model name	0512N12			0515N15			0312N12			0315N15		
3 outputs	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Rated voltage	5V	12V	-12V	5V	15V	-15V	3.3V	12V	-12V	3.3V	15V	-15V
Rated current	3A	1.3A	0.3A	3A	1A	0.3A	3A	1.3A	0.3A	3A	1A	0.3A
Peak current(10s)	4.5A	2A	0.45A	4.5A	2A	0.45A	4.5A	2A	0.45A	4.5A	2A	0.45A
Max. power	34.2W			34.5W			29.1W			29.4W		
Min. current	0A*	0A	0A	0A*	0A	0A	0A*	0A	0A	0A*	0A	0A
Input voltage	85~264 VAC(Worldwide range)											
Size	65(W) × 28(H) × 140(D)											

*At V1 output 0A, V2 and V3 peak current shall be less than 70%.

▶ **Dual output type output specification**

Model name	OZM-030-12N12		OZM-030-15N15	
2 outputs	V1	V2	V1	V2
Rated voltage	12V	-12V	15V	-15V
Rated current	2.4A	0.6A	1.8A	0.6A
Peak current(10s)	3A	1A	2.4A	1A
Max. power	36W		36W	
Min. current	0A*	0A	0A*	0A
Input voltage	85~264 VAC(Worldwide range)			
Size	55(W) × 28(H) × 133(D)			

*At V1 output 0A, V2 and V3 peak current shall be less than 70%.