

Wait a minute! Don't jump to outward price gap... Take into account TCO (Total Cost of Ownership)!!

AC to DC general-purpose power supply series



Great Help~1 Low Noise VCCI Class B (Conducted emission/Radiation) easily passes without external noise filters

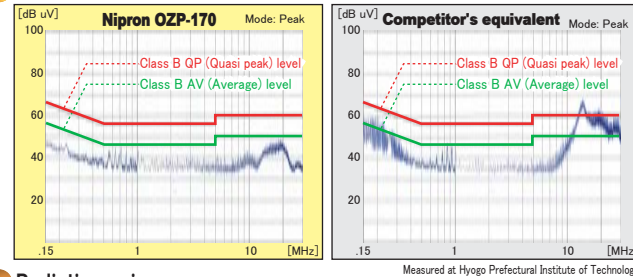
Here's "Great Help~" response from Customer.



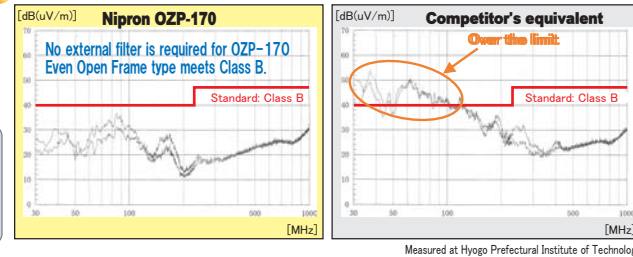
A big customer who implemented OZP-170 says, "We usually get into trouble with noises in developing systems. It would take us 6 months in a worst case spending valuable times of engineers in vain." "However, thanks to OZP-170-24 and -12 power supply, an immediate effect and time saving was brought to us without external noise filters, resulting in cost saving as well."

This encourages us, thank you.

Conducted emission



Radiation noise



Condition
Input voltage: 200V
Output power: 150W
Output voltage: 12V
W/O Chassis-Cover
Installation direction: Standard
(See the right drawing)

Direction (A)
(Standard)
Input connector
(See the right drawing)

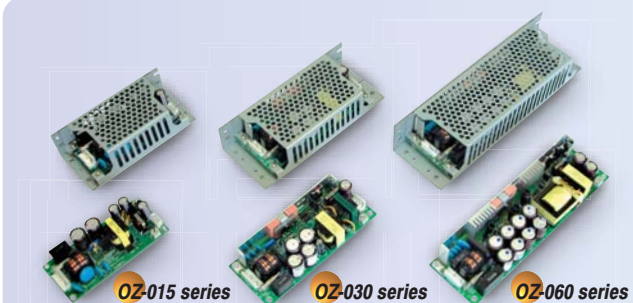
Product lineup

Series name	Output voltage	+12V	+15V	+24V
OZP-120 series	Load current	10A	8A	5A
	Convection	12.5A	10A	6.3A
		Peak	15A	12A
OZP-170 series	Load current	14A	11.2A	7A
	Convection	17.5A	14A	8.8A
		Peak	22.5A	18A
Input voltage	AC85 to 264V			

※ Selectable for +12V or +15V output ※ For +24V output model, backup at blackout is available.
※ +3.3V and +5V output models are subject to change as they are under development.

Great Help~2 Drastic CO2 Reduction ! Electricity Cost Saving

Designers at customers work hard every year to achieve CO2 reduction target of ISO14000 (Environment) for certificate renewal. End users are happy with Nipron power supplies because they can reduce considerable amount of CO2 and electricity cost in a year even by 5% efficiency improvement.



Product lineup

Series name	Output voltage	+3.3V	+5V	+12V	+15V	+24V
OZ-015 series	Load current	3A	3A	1.3A	1A	0.7A
OZ-030 series	Load current	6A	6A	2.5A	2A	1.3A
OZ-060 series	Load current	12A	12A	5A	4A	2.5A
Input voltage	AC85 to 264V					

High efficiency

Efficiency comparison between OZ-030 and Competitor's equivalent (actual data)

	Output voltage	Power	Input voltage	Input VA	Efficiency
Nipron (OZ-030-5)	5.1V	30.6W	AC100V	37.5W	81.6%
			AC200V	37.6W	81.4%
Competitor's equiv.①	5.1V	30.6W	AC100V	39.3W	77.9%
			AC200V	40.7W	75.2%
Competitor's equiv.②	5.1V	30.6W	AC100V	41.3W	74.1%
			AC200V	40.0W	76.5%

Comparison of Electric Bills & CO2 emission (24-hour continuous running)

OZ-030-5 vs Competitor's equivalent ①

Reduction! in a year: Electric bill approx. 306 yen at AC 100V/approx. 532 yen at AC 200V
CO2 emission approx. 5.8kg at AC100V/approx. 10.1kg at AC200V

OZ-030-5 vs Competitor's equivalent ②

Reduction! in a year: Electric bill approx. 652 yen at AC 100V/approx. 414 yen at AC 200V
CO2 emission approx. 12.3kg at AC100V/approx. 7.8kg at AC200V

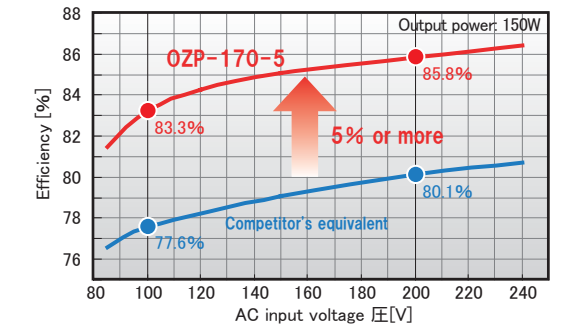
*1 20 yen/kWh conversion *2 0.378kgCO2/kWh conversion

New As power supply for LED Lighting

+5V & +3.3V output type are coming soon in OZP series.

New models in OZP series! +5V & +3.3V output type are lined up. This type has achieved higher efficiency with synchronous rectification equipped resulting in reduction of electric bills, reduction of CO2 and long life. Also it brings lower temp. rise in whole system as it generates less heat.

Efficiency comparison between OZ-170-5 and Competitor's equivalent (actual data)



Comparison of Electric Bills & CO2 emission (24-hour continuous running)

Reduction! in a year: Electric bill approx. 2,317 yen at AC 100V/approx. 2,179 yen at AC 200V
CO2 emission approx. 43.8kg at AC100V/approx. 41.2kg at AC200V

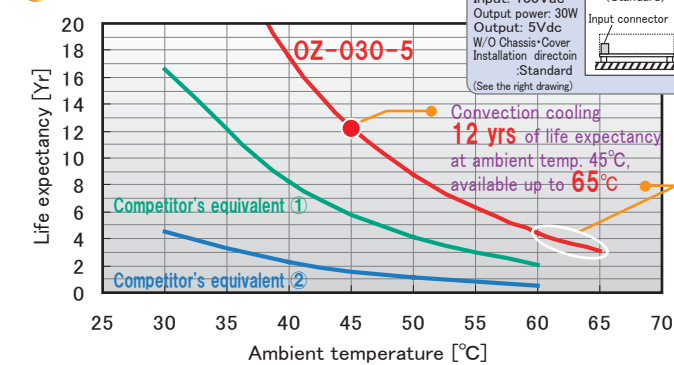
*1 20 yen/kWh conversion *2 0.378kgCO2/kWh conversion

Great Help~3 Long life (3 times as long as Competitor's)

"Friendly to global environment" & "Quality product with lower price" as motto of Nipron's design policy brings energy saving (high efficiency) and resource saving (long life more than 10 years.) In OZ/OZP series, synchronous rectification and innovative circuits contribute to higher efficiency bringing in lower temp. rise. and longer life with long-life electrolytic capacitors (105°C10000H.)

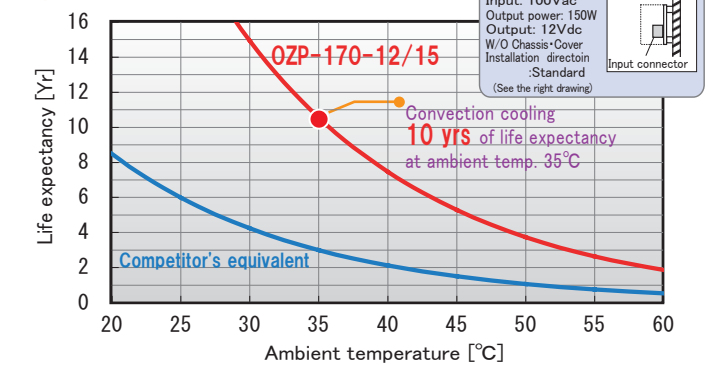
Long life

OZ-030 vs Competitor's equivalent (actual data)



Note 1: Life expectancy of Competitor's equivalent ① and ② is calculated based on the data on their Web site.
Note 2: The life expectancy is based on continuous load of 30W. (In practice, load derating is required at high temperature.)
Note 3: The life expectancy is a lifetime in calculation. It shall be 15 years at longest when degradation of materials used for opening of electrolytic capacitors is taken into account.

OZP-170 vs Competitor's equivalent (actual data)



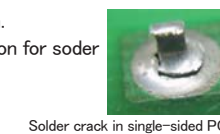
Note 1: The life expectancy is calculated based on our standard.
Note 2: The life expectancy is based on continuous load of 150W. (In practice, load derating is required at high temperature.)
Note 3: The life expectancy is a lifetime in calculation. It shall be 15 years at longest when degradation of materials used for opening of electrolytic capacitors is taken into consideration.

Great Help~4 High reliability and various options

Competitor's equivalents to OZ & OZP series are, in many cases, single-sided PCBs to make them cheaper. We, Nipron, use consistently double-sided PCBs with through holes for even small power as we regard power supplies as "Dangerous."

Double-sided PCBs with through holes (Safety-oriented products)

Solder crack at high voltage section is likely to burn. Double-sided PCBs with through holes is the solution for solder crack in industrial use. (Competitor's equivalents are, in many case, single-sided PCBs.)



Blackout detection signal equipped/Backup at blackout available

All OZP series equips blackout detection signal so that customers can save cost to build detection circuits. Also, 24V output type carries out backup operation with battery package connected, and automatically shut downs by NSP Pro 2. (Harness is optional.)

