

240W DIN Rail Power Supply



*The picture is for reference only

Key features

- Input range : 90~264Vac/127~370Vdc
- Enhanced conformal coating
- Operating Temp. range : -30~70°C(-40°C can start)
- Complete protection functions: OVP,OCP,SCP,OTP

Product overview

NLD 240W series is an AC/DC DIN rail power supply with outstanding performance, reliable EMC performance, complete protection functions and design to meets international standards such as IEC/EN/UL 61010-1 & -2-201. So it can be used in industrial control, semiconductor, renewable energy industries. The power supply is designed in metal housing with small size, which allows space saving in the cabinets.

Model Information

Model	Output Power	Input voltage range	Output voltage	Output adjustable range	Efficiency
NLD-240-24 II	240W	90~264Vac	24V	24~28V	Typ. 94.0%

NLD-240-48 II	240W	90~264Vac	48V	48~56V	Typ. 94.0%
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Input characteristic

Input voltage range*	90~264Vac/127~370Vdc
Input Frequency Range	47-63 Hz
Input Current	MAX. 2.9A @100Vac, MAX. 1.4A @240Vac
Inrush Current(Typ.)	35A @ 230Vac, Cold Start
Note: The positive pole of DC needs to be connected to "L", and the negative pole of DC needs to be connected to "N" when DC input.	

Output Characteristic

Model Number	NLD-240-24 II	NLD-240-48 II
Rated Voltage	24V	48V
Voltage ADJ. range	24~28V	48~56V
Rated Current	10A	5A
Voltage Tolerance	±1.0%	±1.0%
Line Regulation	±0.5%	±0.5%
Load Regulation	±1.0%	±1%
Ripple& Noise (20MHz)	≤120mVp-p	≤120mVp-p
Power factor	≥0.9@230Vac, full load	
Start-up Time	≤1.5s@230Vac	
Rise Time	20ms Typ.	
Hold-up Time(TyP.)	20ms@230Vac	

Protection function

Over current	105%-130%, constant current mode
Short circuit	constant current mode, Auto-Recovery when the fault is removed

Over voltage	Latch mode, restart to recovery when the fault is removed	
	$\leq 17\text{Vdc}$ (12V model)	$\leq 35\text{Vdc}$ (24V model)
Over temperature	Latch mode, restart to recovery when the fault is removed	

Environment

Operating Temperature	-30°C to +70°C(Refer to "Derating Curve"), can be started at -40°C
Working Humidity	5% to 95% RH (Non-Condensing)
Storage Temp. & humidity	-40°C to +85°C , 5% to 95% RH (Non-Condensing)
Operating Altitude	5,000m
Safety Class	Class I
Temp. Coefficient	± 0.03 Typ.

Safety regulation

Safety Standards	IEC62368-1(CB scheme), UL61010-1/-2-20(UL/cUL), EN/BS EN62368-1 ,K62368-1(KC), AS/NZS62368-1(RCM), CNS15598-1(BSMI)	
MTBF	> 1,000,000 hrs as per Telcordia SR-332	
Insulation Resistance	Input to Output	$\geq 100\text{M}\Omega$ (500VDC /70% RH/Non-Condensing)
	Input to Ground	$\geq 100\text{M}\Omega$ (500VDC /70% RH/Non-Condensing)
	Output to Ground	$\geq 100\text{M}\Omega$ (500VDC /70% RH/Non-Condensing)
Withstand test voltage	Input to Output	3.0KVac
	Input to Ground	2.0KVac
	Output to Ground	0.5KVac

EMC

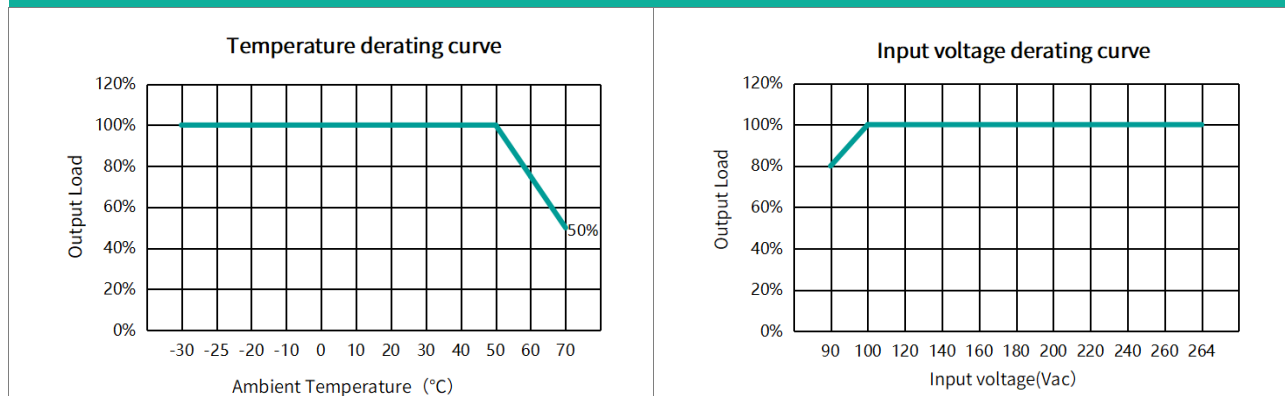
CE	EN55032	150K-30MHZ	Class B
RE	EN55032	30M-1GHZ	Class B

Harmonic	IEC/EN61000-3-2	Class A	
Flicker	IEC/EN61000-3-3		
ESD	IEC/EN61000-4-2	Contact 8KV/Air 15KV	Criterion A
RS	IEC/EN61000-4-3	10V/m	Criterion A
EFT	IEC/EN61000-4-4	±4KV	Criterion A
Surge	IEC/EN61000-4-5	Com±4KV/Dif±2KV	Criterion A
CS	IEC/EN61000-4-6	10 V	Criterion A
PFMF	IEC/EN61000-4-8	10 A/m	Criterion A

Mechanical

Dimensions (W*H*D)	48*125*111mm
Cooling Method	Convection

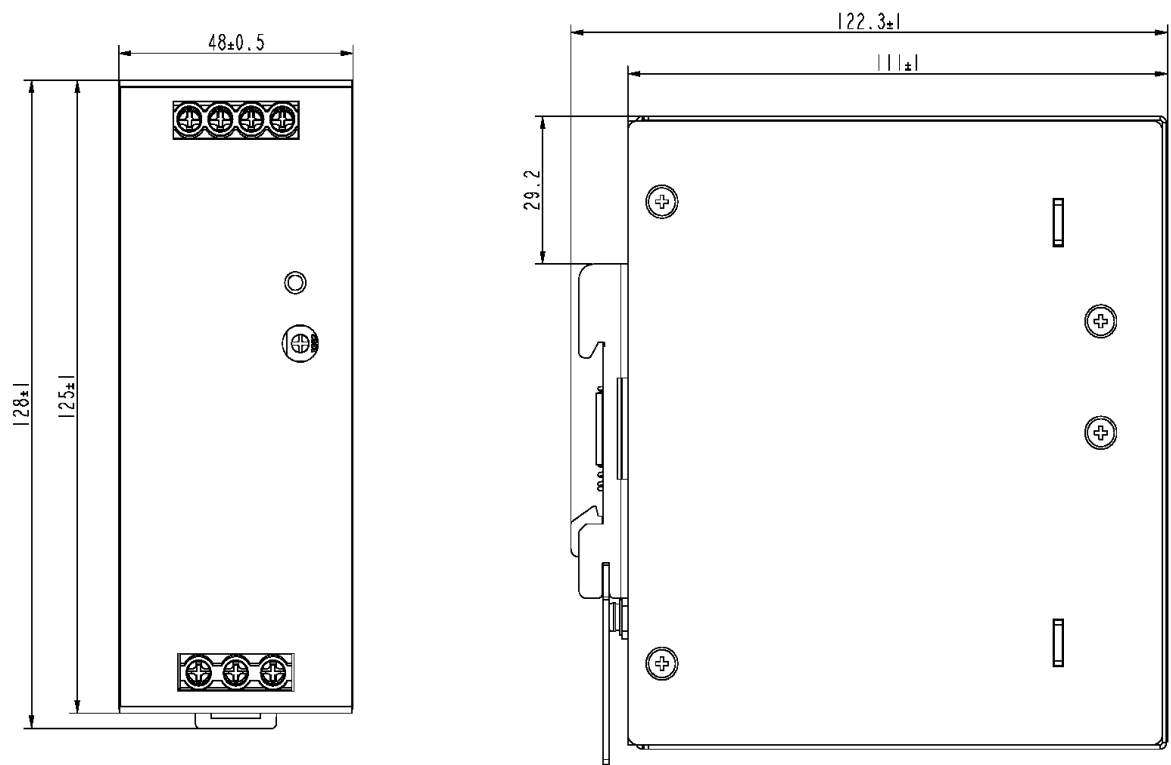
Derating Curve



Note:

1. When the product operates at an input voltage of 90-100VAC, temperature derating should be performed on input voltage derating and temperature derating curve show above;
2. This product is suitable for use in natural air cooling environment, when the product is used in a closed environment, please consult our FAE.

Dimensions



Note:

Unit : mm

General tolerances: ± 1.00

Statement

1. Unless otherwise specified, the above parameters are tested under the conditions of ambient temperature of 25°C , humidity of 50%, 100% load, and input voltage of 230Vac;
2. When working at an altitude of over 2000 meters, please derate 5% per KM;
3. Ripple & Noise measurement method: Use a twisted pair cable with 0.1uF and 47uF capacitors connected in parallel at the terminal, and measure at a bandwidth of 20MHz;
4. The power supply should be considered as a part of the system components, and electromagnetic compatibility needs to be checked in conjunction with the terminal equipment;
5. The power supply must be mounted by metal screws onto a grounded metal surface;
6. All indicators in this guidebook are tested according to our company's standards.