



■ **Main Features**

- High efficiency and compact size
- Isolated topology
- Wide input voltage range
- Overload 125%
- Excellent field reliability record

TECHNICAL DATA

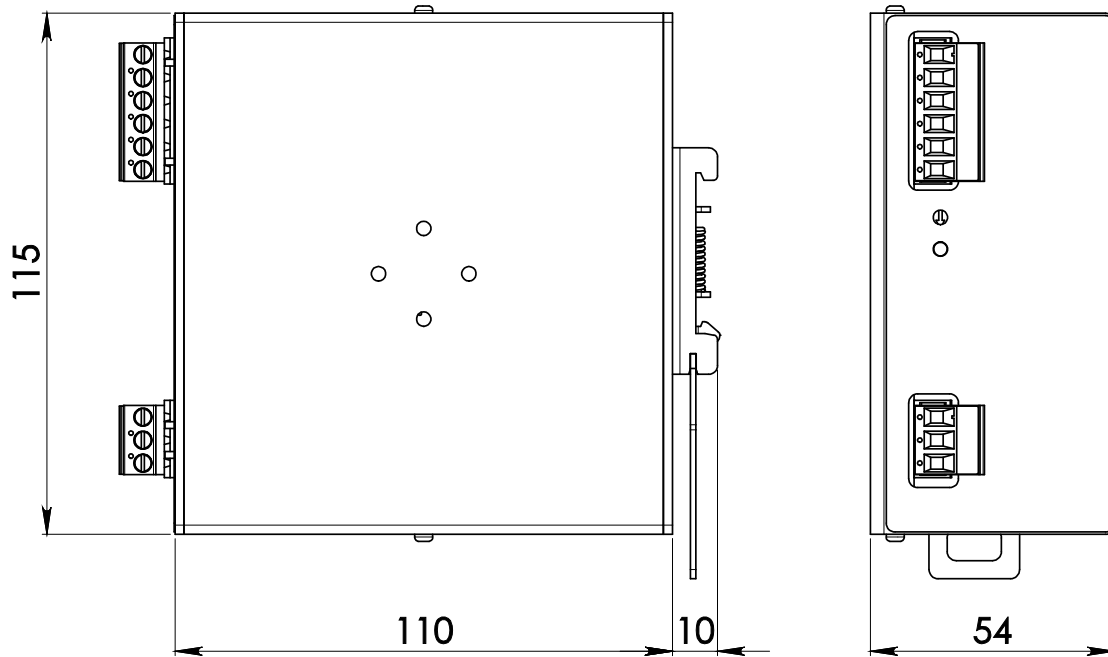
Model type	NDD120-1212	NDD120-1224	NDD120-1248	NDD120-2412	NDD120-2424	NDD120-4812	NDD120-4824		
OUTPUT DATA									
Rated voltage	12Vdc	24Vdc	48Vdc	12Vdc	24Vdc	12Vdc	24Vdc		
Adj. output voltage range	12...15Vdc	23...27.5Vdc	45...55Vdc	12...15Vdc	23...27.5Vdc	12...15Vdc	23...27.5Vdc		
Continuous current	7.0A	5.0A	2.5A	7.0A	5.0A	8.0A	5.0A		
Overload limit	9.0A	7.0A	3.3A	9.0A	6.5A	12A	6.5A		
Short circuit peak current	11.5A		5.8A	14A	10A	20A	12A		
Load regulation	≤ 0.5%						≤ 1.5%		
Ripple & Noise ¹	≤ 20mVpp			≤ 50mVpp	≤ 20mVpp		≤ 30mVpp		
Hold up time	≥ 4ms	≥ 3ms				≥ 5ms	≥ 6ms		
Protections	<ul style="list-style-type: none"> ▪ Overload/short circuit: Hiccup mode ▪ Thermal protection ▪ Output overvoltage 								
Output overvoltage protection	≥ 18Vdc	≥ 33Vdc	≥ 68Vdc	≥ 18Vdc	≥ 33Vdc	≥ 18Vdc	≥ 33Vdc		
Status Signals	DC OK - green LED						OVERLOAD red LED	DC OK dry contact (NO, 24Vdc / 1A)	
Parallel connection	Possible for redundancy (with external ORing module)								
INPUT DATA									
Input DC rated voltage	Nominal: 12Vdc Range: 10.5...18Vdc		Nominal: 24Vdc Range: 18...36Vdc		Nominal: 48Vdc Range: 36...72Vdc				
Input DC rated current	14A		15.5A		7.5A		8.5A		
Vin min.	8.0A		9.0A		3.8A		4.3A		
Vin max.									
Input overvoltage protection (active)	19Vdc			38Vdc		76Vdc			
Internal protection fuse (not user replaceable)	Fuse 20AT			Fuse 10AT		Fuse 8AT		Fuse 5AT	
Recommended external protection (use DC rated devices)	MCB 25A C curve			MCB 13A C curve		MCB 6A C curve			
GENERAL DATA									
Efficiency	> 81%	> 82%	> 83%	> 86%		> 89%			
Dissipated power	< 20W	< 25W	< 24W	< 14W	< 20W	< 15W	< 16W		
Operating temperature ²	- 40°C...+ 70°C								
Derating	- 3W/°C over 50°C								
Storage temperature	- 40°C...+ 80°C								
Humidity	5...95% r.H. non condensing								
Life time expectation	64'000h (7.3 years) at 25°C ambient full load								
Overvoltage category	▪ EN50178		I						
Pollution degree	▪ IEC60664-1		2						
Protection Class	▪ Class		I						
Input / output isolation	2.1kVdc								
Input / ground isolation	1.41kVdc								
Output / ground isolation	0.75kVdc								
Safety Standards	<ul style="list-style-type: none"> ▪ UL508 (reference) ▪ EN60950 (reference) ▪ EN50178 (reference) 								
EMC Emission	<ul style="list-style-type: none"> ▪ EN55011 (CISPR11) Class A ▪ EN55022 (CISPR22) Class A 								
EMC Immunity	<ul style="list-style-type: none"> ▪ EN61000-4-2 Level 3 ▪ EN61000-4-3 Level 3 ▪ EN61000-4-4 Level 2 ▪ EN61000-4-5 Level 2 ▪ EN61000-4-11 Level 2 								
Protection degree	▪ EN60529		IP20						
Vibration sinusoidal	▪ IEC 60068-2-6		(5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2hours / axis (X,Y,Z))						
Shock	▪ IEC 60068-2-27		(30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total)						
Connection terminals	2.5mm ² , screw type pluggable (24...12AWG)								
Case material	Aluminum								
Weight	0.50kg								
Size (W x H x D)	54.0 x 115.0 x 110.0mm								

1) Ripple and Noise are measured with 20MHz bandwidth, probe terminated with a 0.1µF MKP parallel capacitor.
2) Start-up type tested: - 40°C, possible at nominal voltage with load deration.

Notes:

- Technical parameters are typical, measured in laboratory environment at 25°C and nominal values, after minimum 5 minutes of operation.
- Power rating, losses, efficiency, ripple, thermal behaviour and start-up may change outside of the nominal rated input range. Contact factory for details.
- Data may change without prior notice in order to improve the product.

DIMENSIONS



CONNECTION



Input Connection:

- + = Positive DC
- - = Negative DC
- | = Earth ground

Output Connection:

- + = Positive DC
- - = Negative DC

Signalling:

- **DC OK** (dry contact)
- NO
- COM