



■ Main Features

-] High efficiency and compact size
-] Wide input voltage range
-] Only 56mm width aluminum enclosure
-] Isolated topology (4.2kVdc)
-] Overload 150%
-] Constant current or hiccup mode limitation, user settable
-] Easy parallelable for power or redundancy (integrated ORing circuitry)
-] Up to 70°C operating temperature with no derating

TECHNICAL DATA

Model type	NDD241-24P	NDD241-36P	NDD241-48P	NDD241-72P
OUTPUT DATA				
Rated voltage	24Vdc	36Vdc	48Vdc	72Vdc
Adj. output voltage range	22.5...29Vdc	32...40Vdc	45...55Vdc	70...85Vdc
Continuous current	10A	7A	5A	3.3A
Overload limit in constant current mode	11.5A	8.5A	6A	3.7A
Overload limit in hiccup mode (max. 5s)	16A	11A	8.5A	6A
Load regulation	≤ 1.0%	≤ 1.0%	≤ 0.5%	
Ripple & Noise ¹	≤ 100mVpp	≤ 150mVpp		≤ 350mVpp
Hold up time	≥ 50ms	≥ 40ms	≥ 50ms	
Protections	<ul style="list-style-type: none"> ▪ Overload, short circuit: Constant current or Hiccup mode (user settable) ▪ Thermal protection ▪ Input undervoltage lockout ▪ Output overvoltage 			
Output overvoltage protection	≥ 33Vdc	≥ 51Vdc	≥ 68Vdc	≥ 100Vdc
Status Signals	<ul style="list-style-type: none"> ▪ DC OK - green LED ▪ OVERLOAD - red LED ▪ DC OK - dry contact (NO, 24Vdc / 1A) 			
Parallel connection ²	Possible for power or redundancy (includes ORing circuit)			
INPUT DATA				
Input DC rated voltage	90...345Vdc			
Input DC rated current				
Vin = 110Vdc	3.2A	3.5A	3.3A	
Vin = 345Vdc	0.9A	1.2A	1.0A	
Internal protection fuse	Fuse 8AT (not user replaceable)			
Recommended external protection	Fuse 10AT or MCB 10A C curve It is strongly recommended to provide external surge arresters (SPD) according to local regulations.			
GENERAL DATA				
Efficiency (depending on Vin)	88.5%...91.5%		89%...92%	
Dissipated power (depending on Vin)	31.5W...22.5W		30W...21W	
Operating temperature ³	- 40°C...+ 70°C			
Derating	No derating up to 70°C			
Storage temperature	- 40°C...+ 80°C			
Humidity	5...95% r.H. non condensing			
Life time expectation	167'953h (19.1 years) at 25°C ambient full load			
MTBF	<ul style="list-style-type: none"> ▪ MIL-HDBK-217F 		> 600'000h at 25°C ambient full load	
Overvoltage category	<ul style="list-style-type: none"> ▪ EN50178 II 			
Pollution degree	<ul style="list-style-type: none"> ▪ IEC60664-1 2 			
Protection Class	<ul style="list-style-type: none"> ▪ CLASS I 			
Input / output isolation	4.2kVdc			
Input / ground isolation	2.2kVdc			
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 B ▪ EN55022 (CISPR22) Class B 			
EMC Immunity	<ul style="list-style-type: none"> ▪ EN61000-4-2 Level 3 ▪ EN61000-4-3 Level 3 ▪ EN61000-4-4 Level 4 ▪ EN61000-4-5 Level 4 ▪ EN61000-4-11 Level 2 			
Protection degree	<ul style="list-style-type: none"> ▪ EN60529 IP20 			
Vibration sinusoidal	<ul style="list-style-type: none"> ▪ IEC 60068-2-6 (5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2hours / axis (X,Y,Z) 			
Shock	<ul style="list-style-type: none"> ▪ 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	1.1kg			
Size (W x H x D)	56.0 x 140.0 x 117.0mm			

1) Ripple and Noise are measured with 20MHz bandwidth, probe terminated with a 0.1µF MKP parallel capacitor.

2) Pay attention, set the current limitation mode jumper on C.C. mode when connecting more units in parallel.

3) Start-up type tested: - 40°C, possible at nominal voltage with load deration.

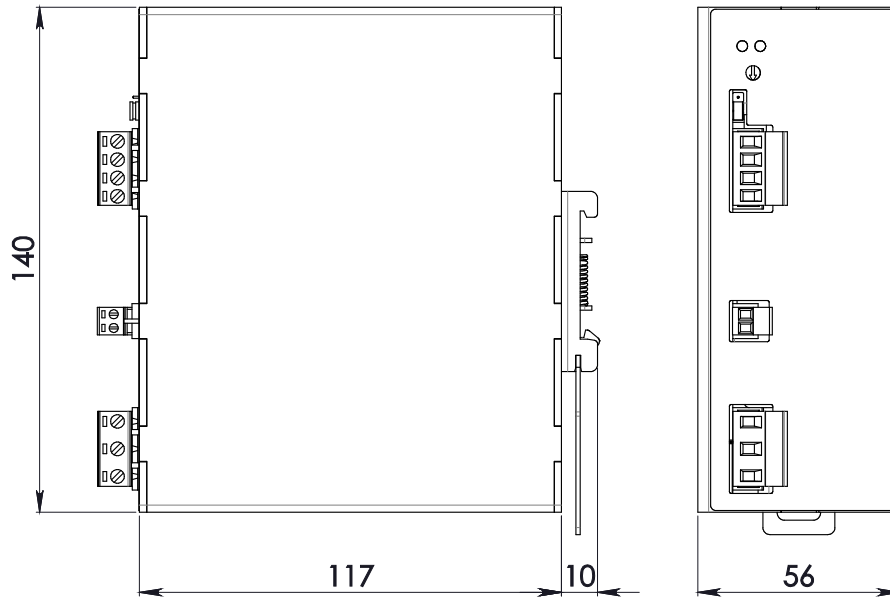
Notes:

- Technical parameters are typical, measured in laboratory environment at 25°C and 150Vdc, at nominal values, after minimum 5 minutes of operation.

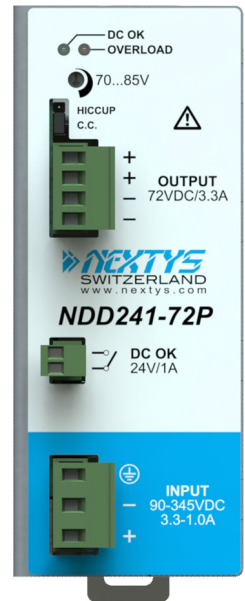
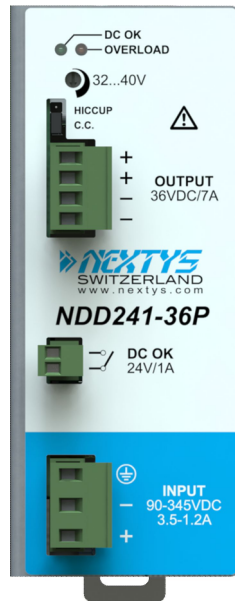
- Power rating, losses, efficiency, ripple, thermal behaviour and start-up may change outside of the nominal rated input range. Contact factory for details.

- 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