









■ Main Features

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

NDD241 Series – Rev.VP2.0 Page 1/3



TECHNICAL DATA

	NDD241-11024P	NDD241-11036P	NDD241-11048P	NDD241-11072P		
Model type DUTPUT DATA	NDD241-11024F	NDD241-11030F	NDD241-11040F	NDD241-11072F		
Rated voltage	24Vdc	36Vdc	48Vdc	72Vdc		
Adj. output voltage range	22.529Vdc	3240Vdc	4555Vdc	7085Vdc		
Continuous current	10A	7A	5A	3.3A		
Overload limit in constant current mode	11A	8.5A	5.5A	3.5A		
Overload limit in hiccup mode (max. 5s)	16A	11A	8.5A	5A		
oad regulation	≤ 1.		1.	.5%		
Ripple & Noise ¹		≤ 50।	mVpp			
lold up time	≥ 50ms					
Protections	 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	 DC OK - green LED OVERLOAD - red LED DC OK - dry contact (NO, 24Vdc / 1A) 					
Parallel connection ²		Possible for power or redund	dancy (includes ORing circuit)			
NPUT DATA						
nput DC rated voltage		903	345Vdc			
nput DC rated current						
/in = 110Vdc	3.2A	3.5A		3A		
'in = 345Vdc	0.9A	1.2A	1.0	0A		
nternal protection fuse	Fuse 8AT (not user replaceable)					
Recommended external protection	Fuse 10AT or MCB 10A C curve					
use DC rated devices)	It is strongly recommended to provide external surge arresters (SPD) according to local regulations.					
GENERAL DATA						
fficiency		89%	91.5%			
depending on Vin)		0376	91.376			
Dissipated power		30W	.22.5W			
depending on Vin)	4000 - 7000					
Operating temperature ³	- 40°C+ 70°C					
Perating	No derating up to 70°C					
torage temperature	- 40°C+ 80°C					
	595% r.H. non condensing					
Humidity		167'953h (19.1 years) at 25°C ambient full load				
<u>'</u>		167'953h (19.1 years) a	■ MIL-HDBK-217F > 600'000h at 25°C ambient full load			
ife time expectation	■ MIL-HDBK-217F					
ife time expectation MTBF	 MIL-HDBK-217F EN50178 					
ife time expectation MTBF Dvervoltage category	WILE FIDER 2171	> 600'000h at 25				
ife time expectation MTBF Overvoltage category ollution degree	EN50178 IEC60664-1	> 600'000h at 25				
ife time expectation MTBF Overvoltage category Follution degree Protection Class	EN50178 IEC60664-1	> 600'000h at 25	5°C ambient full load			
ife time expectation MTBF Overvoltage category follution degree Protection Class nput / output isolation	EN50178 IEC60664-1	> 600'000h at 25	5°C ambient full load kVdc			
Life time expectation MTBF Overvoltage category Pollution degree Protection Class Input / output isolation Input / ground isolation	EN50178 IEC60664-1	> 600'000h at 25 II 2 I 4.2l 2.21	5°C ambient full load kVdc kVdc			
Humidity Life time expectation MTBF Overvoltage category Pollution degree Protection Class Input / output isolation Output / ground isolation Output / ground isolation	EN50178 IEC60664-1 CLASS	> 600'000h at 25 II 2 I 4.2l 2.2l 0.75	5°C ambient full load kVdc			
ife time expectation MTBF Overvoltage category Follution degree Protection Class Input / output isolation Input / ground isolation Output / ground isolation	EN50178 IEC60664-1 CLASS UL508	> 600'000h at 25 II 2 I 4.2l 2.2i 0.75 (reference)	5°C ambient full load kVdc kVdc			
offe time expectation MTBF Overvoltage category Pollution degree Protection Class nput / output isolation nput / ground isolation Output / ground isolation	EN50178 IEC60664-1 CLASS UL508 EN60950	> 600'000h at 25 II 2 I 4.2l 2.2l 0.75 (reference) (reference)	5°C ambient full load kVdc kVdc			
offe time expectation MTBF Overvoltage category Pollution degree Protection Class nput / output isolation nput / ground isolation Output / ground isolation	EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178	> 600'000h at 25 II 2 I 4.21 2.21 0.75 (reference) (reference) (reference)	5°C ambient full load kVdc kVdc			
offe time expectation MTBF Divervoltage category Pollution degree Protection Class Input / output isolation Input / ground isolation Dutput / ground isolation Safety Standards	EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN55011 (CISPR11)	> 600'000h at 25 II 2 I 4.2i 2.2i 0.75 (reference) (reference) (reference) Class B	5°C ambient full load kVdc kVdc			
ife time expectation MTBF Devervoltage category Pollution degree Protection Class Input / output isolation Input / ground isolation Dutput / ground isolation Safety Standards	EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN55011 (CISPR11) EN55022 (CISPR22)	> 600'000h at 25 II 2 I 4.2l 2.2l 0.75 (reference) (reference) (reference) Class B Class B	5°C ambient full load kVdc kVdc			
ife time expectation MTBF Devervoltage category Pollution degree Protection Class Input / output isolation Input / ground isolation Dutput / ground isolation Safety Standards	EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2	> 600'000h at 25 II 2 I 4.2i 2.2i 0.75 (reference) (reference) (reference) Class B Class B Level 3	5°C ambient full load kVdc kVdc			
ife time expectation MTBF Devervoltage category Follution degree Protection Class Input / output isolation Input / ground isolation Output / ground isolation afety Standards EMC Emission	EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN500178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3	> 600'000h at 25 II 2 I 4.21 2.21 0.75 (reference) (reference) (reference) Class B Class B Class B Level 3 Level 3	5°C ambient full load kVdc kVdc			
ife time expectation MTBF Devervoltage category Follution degree Protection Class Input / output isolation Input / ground isolation Output / ground isolation afety Standards EMC Emission	EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2	> 600'000h at 25 II 2 I 4.2i 2.2i 0.75 (reference) (reference) (reference) Class B Class B Level 3	5°C ambient full load kVdc kVdc			
ife time expectation MTBF Divervoltage category collution degree rotection Class roput / output isolation roput / ground isolation output / ground isolation afety Standards MC Emission	EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-4	> 600'000h at 25 II 2 I 4.2I 2.2I 0.75 (reference) (reference) (reference) Class B Class B Class B Level 3 Level 3 Level 4	5°C ambient full load kVdc kVdc			
ife time expectation MTBF Devervoltage category Follution degree Protection Class Input / output isolation Input / ground isolation Output / ground isolation afety Standards EMC Emission	EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5	> 600'000h at 25	5°C ambient full load kVdc kVdc			
ife time expectation MTBF Devervoltage category Follution degree Protection Class Input / output isolation Input / ground isolation Output / ground isolation Inferior Standards IMC Emission IMC Immunity Protection degree	EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN50011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-1 EN61000-4-1	> 600'000h at 25 II 2 I 4.2I 2.2I 0.75 (reference) (reference) (reference) (reference) Class B Class B Level 3 Level 3 Level 4 Level 4 Level 2 IP20	5°C ambient full load kVdc kVdc SkVdc			
ife time expectation MTBF Devervoltage category Pollution degree Protection Class Input / output isolation Input / ground isolation Dutput / ground isolation Safety Standards EMC Emission EMC Immunity Protection degree //ibration sinuosoidal	EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-11 EN60529 IEC 60068-2-6	> 600'000h at 25 II 2 I 4.2I 2.2I 0.75 (reference) (reference) (reference) Class B Class B Level 3 Level 3 Level 4 Level 4 Level 4 Level 2 IP20 (5-17.8Hz: ±1.6mm; 17.8-500	5°C ambient full load kVdc kVdc SkVdc OHz: 2g 2hours / axis (X,Y,Z)			
ife time expectation MTBF Divervoltage category Pollution degree Protection Class Input / output isolation Input / ground isolation Dutput / ground isolation Safety Standards EMC Emission Protection degree //ibration sinuosoidal Shock	EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN50178 EN50011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-1 EN61000-4-1	> 600'000h at 25 II 2 I 4.2I 2.2I 0.75 (reference) (reference) (reference) Class B Class B Level 3 Level 3 Level 4 Level 4 Level 2 IP20 (5-17.8Hz: ±1.6mm; 17.8-500 (30g 6ms, 20g 11ms; 3 bump	s°C ambient full load kVdc kVdc skVdc obkVdc skVdc skVdc obkVdc			
ife time expectation MTBF Devervoltage category Pollution degree Protection Class Input / output isolation Input / ground isolation Dutput / ground isolation Safety Standards EMC Emission EMC Immunity Protection degree //ibration sinuosoidal Shock Connection terminals	EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-11 EN60529 IEC 60068-2-6	> 600'000h at 25 II 2 I 4.2I 2.22I 0.75 (reference) (reference) (reference) Class B Class B Level 3 Level 3 Level 4 Level 4 Level 4 Level 2 IP20 (5-17.8Hz: ±1.6mm; 17.8-500 (30g 6ms, 20g 11ms; 3 bump 2.5mm², screw type p	S°C ambient full load kVdc kVdc SkVdc DHz: 2g 2hours / axis (X,Y,Z) ss / direction, 18 bumps total) bluggable (2412AWG)			
Life time expectation MTBF Divervoltage category Pollution degree Protection Class Input / output isolation Input / ground isolation	EN50178 IEC60664-1 CLASS UL508 EN60950 EN50178 EN55011 (CISPR11) EN55022 (CISPR22) EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-11 EN60529 IEC 60068-2-6	> 600'000h at 25 II 2 I 4.21 2.21 0.75 (reference) (reference) (reference) Class B Class B Level 3 Level 3 Level 4 Level 4 Level 2 IP20 (5-17.8Hz: ±1.6mm; 17.8-500 (30g 6ms, 20g 11ms; 3 bump 2.5mm², screw type p	s°C ambient full load kVdc kVdc skVdc obkVdc skVdc skVdc obkVdc			

- Ripple and Noise are measured with 20MHz bandwidth, probe terminated with a 150mm twisted pair with 120uF EL and 0.1μF MKP parallel capacitors.
 Pay attention, set the current limitation mode jumper on C.C. mode when connecting more units in parallel.
 Start-up type tested: 40°C, possible at nominal voltage with load deration.

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

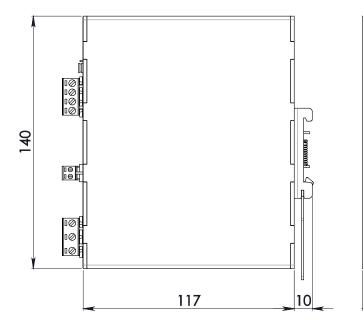
 Power rating, losses, efficiency, ripple, thermal behaviour and start-up may change outside of the nominal rated input range. Contact factory for details.

- Data may change without prior notice in order to improve the product.

NDD241 Series – Rev.VP2.0 Page 2/3



DIMENSIONS



CONNECTION



Input Connection:

- + = Positive DC ■ - = Negative DC ■ I = Earth ground



Output Connection:

- += Positive DC
- - = Negative DC





Signalling:

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56

DC OK: dry contact

- NO
- COM

NDD241 Series – Rev.VP2.0 Page 3/3