

Summary of the LUMEL ND40 power network analyzer parameters measured in class A according to IEC 61000-4-30 IEC 61000-4-30 Ed. 2

230V, 50/60 Hz, L-N U_{din} for all parameters

Measured value	Aggregation	Measurement range	Measurement error (PN-EN-61000-4-3) ¹	Remarks
RMS voltage				
Urms L1	3s	$U_n = U_{din} = 230 \text{ V}$: 23,0...345,0 V ($K_u = 1$) ...1,38 MV ($K_u \neq 1$) ² $U_n = U_{din} = 57,7 \text{ V}$: 5,7...70 V ($K_u = 1$) ...280 kV ($K_u \neq 1$) ²	$\pm 0,1\% U_{din}$	Class A
Urms L2				
Urms L3				
Uavg L123				
Half-wave voltage value				
Uhalf1 L1 ... Uhalf24 L1	200ms	$U_n = U_{din} = 230 \text{ V}$: 23,0...345,0 V ($K_u = 1$) ...1,38 MV ($K_u \neq 1$) ² $U_n = U_{din} = 57,7 \text{ V}$: 5,7...70 V ($K_u = 1$) ...280 kV ($K_u \neq 1$) ²	$\pm 0,2\% U_{din}$	Class A
Uhalf1 L2 ... Uhalf24 L2				
Uhalf1 L3 ... Uhalf24 L3				
Voltage harmonics				
Har1 UL1 ... Har51 UL1	1s	0,00...100,00%	$U_m \geq 1\% U_{nom} \pm 5\% U_m$ $U_m < 1\% U_{nom} \pm 0,05\% U_n$	Class I
Har1 UL2 ... Har51 UL2				
Har1 UL2 ... Har51 UL2				
Har1 UL3 ... Har51 UL3				
RMS current				
Irms L1	3s	$I_n = 5 \text{ A}$: 0,050...7,5 A ($K_i = 1$) ² ...150,0 kA ($K_i \neq 1$) ² $I_n = 1 \text{ A}$: 0,010...1,5 A ($K_i = 1$) ...30,0 kA ($K_i \neq 1$) ²	$\pm 0,1\% I_n$	Class A
Irms L2				
Irms L3				
Iavg L123				
Current harmonics				
Har1 IL1 ... Har51 IL1	1s	0,00...100,00%	$I_m \geq 3\% I_{nom} \pm 5\% I_m$ $I_m < 3\% I_{nom} \pm 0,15\% I_n$	Class I
Har1 IL2 ... Har51 IL2				
Har1 IL3 ... Har51 IL3				

1. Basic error with respect to the U_{din} value acc.to EN-61000-4-30.
2. Range $K_u = 1 \dots 4000,0$ and $K_i = 1 \dots 20000,0$.
3. U_{din} - value obtained from the declared supply voltage $U_c = U_n$ by the transformer ratio, according to EN-61000-4-30.
4. I_m, U_m - measured values of currents and voltages according to EN-61000-4-7.
5. I_{nom}, U_{nom} - nominal values of currents and voltages according to EN-61000-4-7.
6. I_n, U_n - nominal values of currents and voltages according to EN-61000-4-30.

This summary is an extract from the results of the ND40 test type, document no. 08/2016 29/07/2016.

LUMEL has tested the following product samples ND40-22111100P0 no. 15070003, ND40-21222100P0 no. 15070013, ND40-21211100P0 no. 15070006. The manufacturer states that these three product samples are the actual representatives of the product series ND40.

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