

Summary of the LUMEL ND45 power network analyzer parameters measured in class A according to IEC 61000-4-30 Ed. 2

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

Measured value	Aggregation	Measurement range	Measurement error (EN-61000-4-30) 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...86,5 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...86,5 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%	Class I $U_m \geq 1\% U_{nom} \pm 5\% U_m$ $U_m < 1\% U_{nom} \pm 0,05\% U_n$	Class A
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%	Class I $I_m \geq 3\% I_{nom} \pm 5\% I_m$ $I_m < 3\% I_{nom} \pm 0,15\% I_n$	Class A
Har1 IL2 ... Har51 IL2				
Har1 IL3 ... Har51 IL3				

1. Basic error respect to the value acc. to. EN-61000-4-30, EN 62586-2+A1.
2. Range $K_u = 1...4000,0$ i $K_i = 1...20000,0$.
3. U_{din} - value obtained from the declared supply voltage $U_c = U_n$ by the transformer ratio according to EN-61000-4-30, EN 62586-2+A1.
4. I_m, U_m - measured values of currents and voltages according to EN-61000-4-7, EN 62586-2+A1.
5. I_{nom}, U_{nom} - nominal values of currents and voltages according to EN-61000-4-7, EN 62586-2+A1.
6. I_n, U_n - nominal values of currents and voltages according to EN-61000-4-30, EN 62586-2+A1.

This summary is extract from results of the ND45 test type, document No. 01/2020 12/03/2020

LUMEL has tested the following product sample ND45-2411P01 No. 1900001. The manufacturer states that the product sample is actual representative of the product series ND45.

DIRECTOR
R&D and LABORATORY

Dariusz Trent
21.11.2023