LUMEL
EVERYTHING COUNTS

Summary of the LUMEL ND45 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 Urms L2 Urms L3 Uavg L123	3s	Un = Udin = 230 V: 23,0...345,0 V (Ku = 1) ...1,38 MV (Ku ≠ 1)^2 Un = Udin = 57,7 V: 5,7...86,5 V (Ku = 1) ...280 kV (Ku ≠ 1)^2	±0,1% **Udin**	**Class A**
Half-wave voltage value				
Uhalf1 L1 ... Uhalf24 L1 Uhalf1 L2 ... Uhalf24 L2 Uhalf1 L3 ... Uhalf24 L3	200ms	Un = Udin = 230 V : 23,0...345,0 V (Ku = 1) ...1,38 MV (Ku ≠ 1)^2 Un = Udin = 57,7 V : 5,7...86,5 V (Ku = 1) ...280 kV (Ku ≠ 1)^2	±0,2% **Udin**	**Class A**
Voltage harmonics				
Har1 UL1 ... Har51 UL1 Har1 UL2 ... Har51 UL2 Har1 UL2 ... Har51 UL2 Har1 UL3 ... Har51 UL3	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**
RMS current				
Irms L1 Irms L2 Irms L3 Iavg L123	3s	In = 5 A : 0,050...7,5 A (Ki = 1)^2 ...150,0 kA (Ki ≠ 1)^2 In = 1 A : 0,010...1,5 A (Ki = 1) ...30,0 kA (Ki ≠ 1)^2	±0,1% **In**	**Class A**
Current harmonics				
Har1 IL1 ... Har51 IL1 Har1 IL2 ... Har51 IL2 Har1 IL3 ... Har51 IL3	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**

1. Basic error with respect to the Udin value acc.to **EN-61000-4-30**.
2. Range Ku = 1 ... 4000,0 and Ki = 1 ... 20000,0 .
3. Udin - value obtained from the declared supply voltage Uc = Un by the transformer ratio, according to **EN-61000-4-30**.
4. Im, , Um – measured values of currents and voltages according to **EN-61000-4-7**.
5. Inom , Unom – nominal values of currents and voltages according to **EN-61000-4-7**.
6. In , Un – nominal values of currents and voltages according to **EN-61000-4-30**.

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

LUMEL has tested the following product sample ND45-2411P01 no. 19100001. The manufacturer states that the product sample is the actual representative of the product series ND45.

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