



Ministry of Science and Education of Ukraine
National Technical University "Kharkiv Polytechnic Institute"
Research & Design Institute "Molniya"
47, Shevchenko Street, Krarkiv, 61013, Ukraine

SUMMARY OF THE TEST REPORT

Requested by: Energy Control System
Address: Office Suite # 205, 5500 E. Loop 820, Fort Worth, TX,
76119, USA
N° of test report: 35 from 20.10.2010
Beginning of test date: 21.09.2010
End of test date: 13.11.2010
Tested device: Surge Protection Device
Model: ST-SPT240-15 (for ST-SPT Family Series)
Applied Standards: IEC 61643-1:2005; IEC 61000-4-5:2005

TEST RESULT:

Test port	Test currant, kA	Polarity	Residual voltage*, V	Uncertainty associated to results
L-G	3,0	positive	720	5%
		negative	740	
N-G		positive	700	
		negative	680	
L-N		positive	720	
		negative	820	
L-G	5,0	positive	1200	
N-G		negative	1540	

Note: The Residual voltage indicates without sign.

The Surge Protection Device model ST-SPT240-15 corresponds to Class III accordantly IEC 61643-1:2005

Director R&D Institute "Molniya"
Professor



V. Kravchenko

Stamp



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Beginning of test date: 21.09.2010
End of test date: 13.11.2010
Tested device: Surge Protection Device
Model: LA-ST603Y2C (for LA Family Series)
Applied Standards: IEC 61643-1:2005; IEC 61000-4-5:2005

TEST RESULT:

Test port	Test currant, kA	Polarity	Residual voltage *, V	Uncertainty associated to results
L-G	3,0	positive	760	5%
		negative	840	
N-G		positive	680	
		negative	740	
L-L		positive	1520	
		negative	1500	
L-N	10,0	positive	1000	
		negative	900	
L-G		positive	2700	
		negative	2660	
N-G		positive	2680	
		negative	2640	

Note 1: The Residual voltage indicates without sign.

Note 2: The Residual voltage for Line indicates maximum value from all.

Note 3: Test conducted with 18" (460 mm) wire length.

The Surge Protection Device model LA-ST603Y2C corresponds to Class II, III accordantly IEC 61643-1:2005

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Tested device: Surge Protection Device
Model: LA-ST1203Y2C (for LA Family Series)
Applied Standards: IEC 61643-1:2005; IEC 61000-4-5:2005

TEST RESULT:

Test port	Test currant, kA	Polarity	Residual voltage *, V	Uncertainty associated to results
L-G	3,0	positive	760	5%
		negative	860	
N-G		positive	740	
		negative	800	
L-L		positive	1440	
		negative	1640	
L-N	10,0	positive	920	
		negative	960	
L-G		positive	2820	
		negative	2580	
N-G		positive	2780	
		negative	2700	

Note 1: The Residual voltage indicates without sign.

Note 2: The Residual voltage for Line indicates maximum from all.

Note 3: Test conducted with 18" (460 mm) wire length.

The Surge Protection Device model LA-ST1203Y2C corresponds to Class II, III accordantly IEC 61643-1:2005

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End of test date: 13.11.2010
Tested device: Surge Protection Device
Model: RM-ST603Y (for RM Family Series)
Applied Standards: IEC 61643-1:2005; IEC 61000-4-5:2005

TEST RESULT:

Test port	Test currant, kA	Polarity	Residual voltage *, V	Uncertainty associated to results
L-G	3,0	positive	780	5%
		negative	820	
N-G		positive	740	
		negative	680	
L-L		positive	1660	
		negative	1520	
L-N	10,0	positive	940	
		negative	1000	
L-G		positive	2900	
		negative	2740	
N-G		positive	2860	
		negative	2780	

Note 1: The Residual voltage indicates without sign.

Note 2: The Residual voltage for Line indicates maximum from all.

Note 3: Test conducted with 18" (460 mm) wire length.

The Surge Protection Device model RM-ST603Y corresponds to Class II, III accordantly IEC 61643-1:2005

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N° of test report: 35 from 20.10.2010
Beginning of test date: 21.09.2010
End of test date: 13.11.2010
Tested device: Surge Protection Device
Model: **RM-ST1203N4** (for RM Family Series)
Applied Standards: IEC 61643-1:2005; IEC 61000-4-5:2005

TEST RESULT:

Test port	Test currant, kA	Polarity	Residual voltage *, V	Uncertainty associated to results
L-G	3,0	positive	1300	5%
		negative	1300	
L-L		positive	1580	
		negative	1560	
L-G	10,0	positive	3520	
		negative	3140	

Note 1: The Residual voltage indicates without sign.

Note 2: The Residual voltage for Line indicates maximum value from all.

Note 3: Test conducted with 18" (460 mm) wire length.

**The Surge Protection Device model RM-ST1203N4 corresponds to Class II, III
accordantly IEC 61643-1:2005**

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