

HCWG / HTSG

Combination Wave Surge Generator / Telecom Surge Generator



Continue



Stop

Line On

File



Main

HCWG / HTSG Surge immunity test system



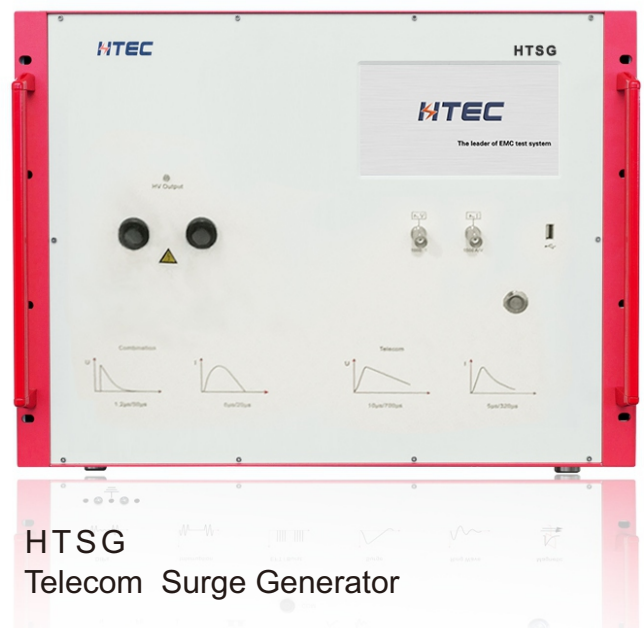
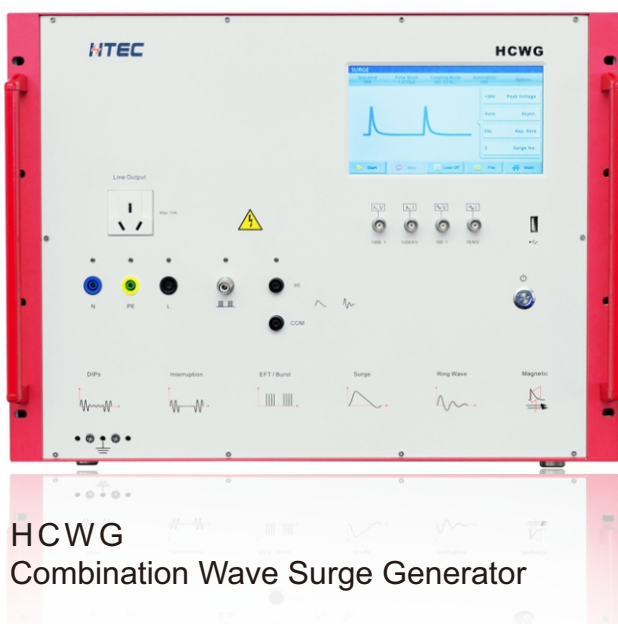
HCWG/HTSG Series test system integrates all the design advantages of HTEC products, and provides users with a more integrated, easy to operate, economical and reliable lightning surge immunity test system. The function covers combination wave surge, telecom wave surge, external expandable single-phase/three-phase power port CDN, which the maximum current up to 200A, and we also provide various CDN on control lines / communication lines, the whole series fully are in conformity with IEC, EN, ANSI, ITU, GB and other standards.

Features

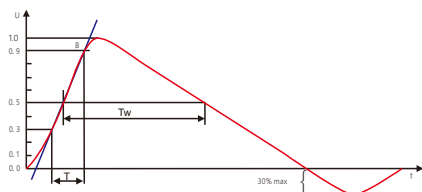
- 7 Inch touch color screen, simple and elegant UI, benefit for operating
- Automatic check the peak voltage and peak current
- 5.0kV/7.0kV/10.0kV/15.0kV/20.0kV Max. output voltage
- Single-phase CDN 16A & three-phase CDN 32/64/100 /200A as option, Fully automatic control
- High-quality imported components with small size and light weight
- Individual test program and combination of multiple programs can be edited
- Combination wave: 1.2 μ s/50 μ s(2 Ω)
- Communication wave: 10 μ s/700 μ s(15 Ω)
- Control / communication CDNs
- Fully compatible, certified immunity test system

Applications

- IEC/EN 61000-4-5
- GB/T 17626.5
- IEC/EN 60255-22-5
- ITU K.41
- ANSI C62.41
- GB/T 17215.211
- ITU K.20
- ITU K.45



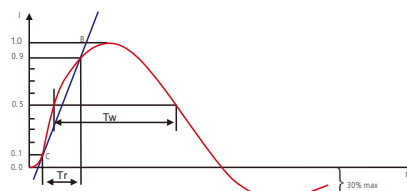
Combination wave open circuit voltage



Front Time: $T_f = 1.67 \times T = 1.2\mu s \pm 30\%$

Duration: $T_d = T_w = 50\mu s \pm 20\%$

Combination wave short circuit current



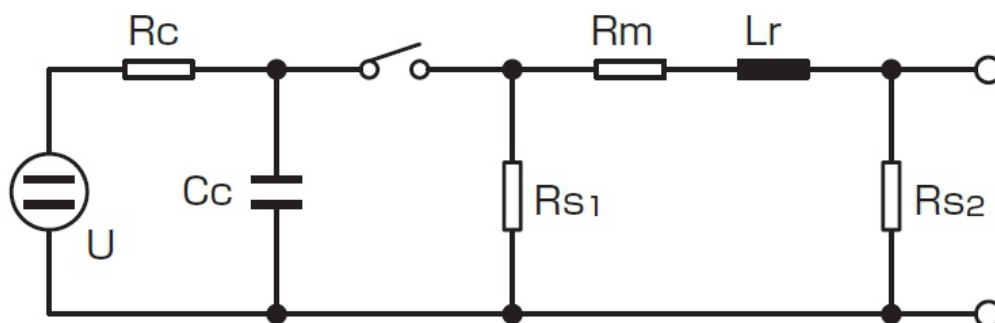
Front Time: $T_f = 1.25 \times T_r = 8\mu s \pm 20\%$

Duration: $T_d = 1.18 \times T_w = 20\mu s \pm 20\%$

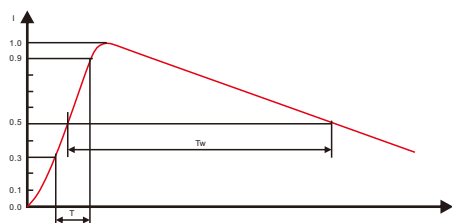
Surge Combination Wave

Output Voltage	HCWG 51 (0.2kV - 5.0kV) $\pm 10\%$ HCWG 71 (0.2kV - 7.0kV) $\pm 10\%$ HCWG 100 (0.5kV - 10.0kV) $\pm 10\%$ HCWG 150 (1kV - 15.0kV) $\pm 10\%$ HCWG 200 (1kV - 20.0kV) $\pm 10\%$	Output Current	HCWG 51 (100A - 2.5kA) $\pm 10\%$ HCWG 71 (100A - 3.5kA) $\pm 10\%$ HCWG 100 (0.25kA - 5kA) $\pm 10\%$ HCWG 150 (0.5kA - 7.5kA) $\pm 10\%$ HCWG 200 (0.5kA - 10kA) $\pm 10\%$
Voltage rise time	$1.2\mu s \pm 30\%$	Current rise time	$8\mu s \pm 20\%$
Voltage duration	$50\mu s \pm 20\%$	Current duration	$20\mu s \pm 20\%$
Polarity	Positive/negative/alternate	Counter	1 - 9999
Source impedance	2Ω	Peak voltage monitor	Automatic display and BNC output(1000:1)
Phase Sync	0-359°/1° each step Sync:external/internal:Async Mode	Peak current monitor	Automatic display and BNC output(1kA/V)
Standard option	CDN coupling:IEC or ANSI	Automatic programming	Synchro-phase/voltage/coupling path
Single-phase CDN	Build-in:250Vac / 16A (only HCWG 51/71)	Program run	Single program or multiple programs combination

Combination wave schematic



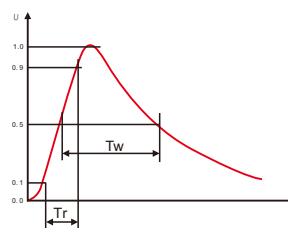
Telecom Wave open circuit voltage



Front Time: $T_f = 1.67 \times T = 10 \mu s \pm 30\%$

Duration: $T_d = T_w = 700 \mu s \pm 20\%$

Telecom Wave short circuit current



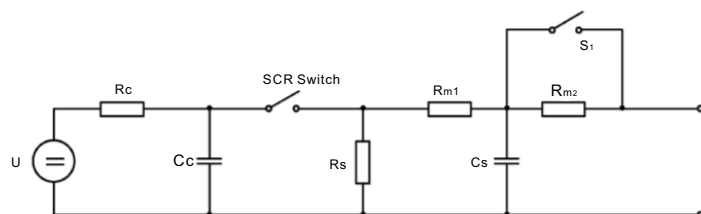
Front Time: $T_f = 1.25 \times T_r = 5 \mu s \pm 20\%$

Duration: $T_d = T_w = 320 \mu s \pm 20\%$

Surge Telecom Wave

Output Voltage	HTSG 70 (0.2kV - 7kV) $\pm 10\%$ HTSG 100 (0.5kV - 10kV) $\pm 10\%$	Output Current	HTSG 70 (5A - 175A) $\pm 10\%$ HTSG 100 (12.5A - 250A) $\pm 10\%$
Voltage rise time	$10 \mu s \pm 30\%$	Current rise time	$5 \mu s \pm 20\%$
Voltage duration	$700 \mu s \pm 20\%$	Current duration	$320 \mu s \pm 20\%$
Polarity	Positive/negative/alternate	Count	1 - 9999
Source impedance	$15 \Omega + 25 \Omega$ (external)	Peak voltage monitor	Automatic display and BNC output (1000:1)
Coupler	Direct/ Gas	Peak current monitor	Automatic display and BNC output (1kA/V)

Telecom Wave Schematic



HCWG / HTSG Surge immunity test system

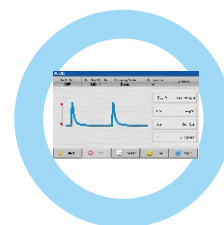
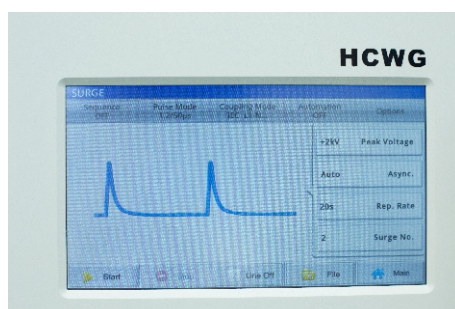


General Specifications

Control power	85V / 264V	Size	19"/8U (45×32×49cm)
User test storage	unlimited	Weight	ca.30kg
Remote interface	Ethernet RJ45 connector	USB	for USB memory stick
Display	7" / 800×480 touch screen 24bit	safety circuit	Test stopped, when unlocking

Humanized operation interface and connector

Coupling path can be free choose and contains ANSI contains ANSI

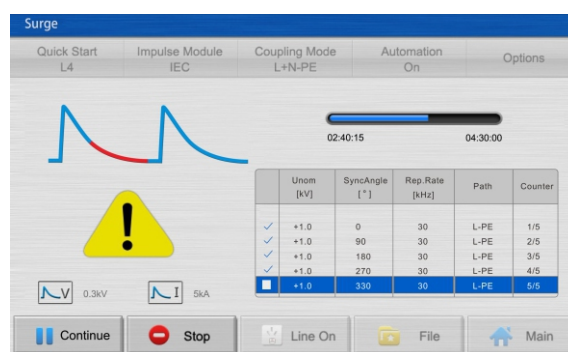
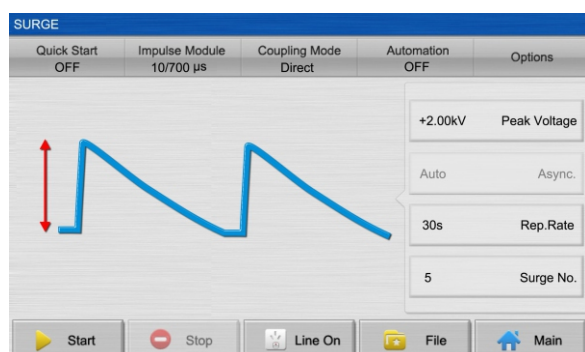
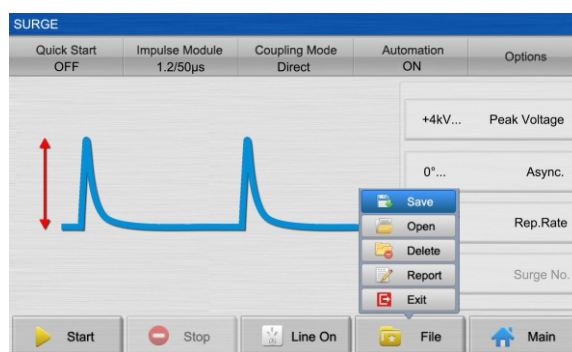
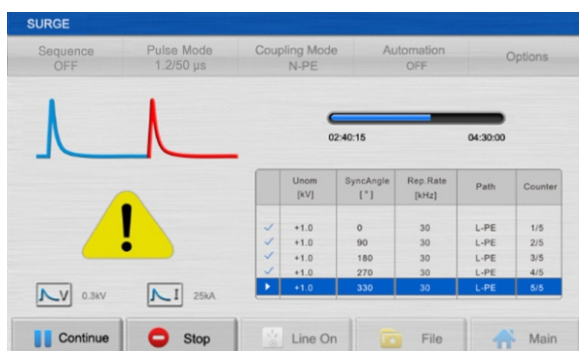


Touch screen operation interface
All features and parameters can be set directly via touch screen



Network communication interface

Software GUI



HCWG/HTSG Options and Accessories

SURGE



Ordering No.	Product Name	Model	Description
41030100	Combination Wave Surge Generator	HCWG 51	Surge:±5kV, 1.2/50µs,build-in CDN 250V/16A
41030200		HCWG 71	Surge:±7kV, 1.2/50µs, build-in CDN 250V/16A
41030300		HCWG 100	Surge:±10kV, 1.2/50µs, 8U cabinet
41030301		HCWG 150	Surge:±15kV, 1.2/50µs, 19" Rack
41030400		HCWG 200	Surge:±20kV, 1.2/50µs, 19" Rack
41080400	CDN	SCDN 161P	Surge:±10kV, 1-Phase 250Vac/16A, IEC /ANSI
41080410		HCOUPLER 16S	Surge:±7kV/10kV, 3×480Vac/16A,IEC/ANSI
41080420		HCOUPLER 30S	Surge:±7kV/10kV, 3×480Vac/32A,IEC/ANSI
41080430		HCOUPLER 60S	Surge:±7kV/10kV, 3×480Vac/64A,IEC/ANSI
41080440		HCOUPLER 100S	Surge:±7kV/10kV, 3×480Vac/100A,IEC/ANSI
41080450		HCOUPLER 200S	Surge:±7kV/10kV, 3×480Vac/200A,IEC/ANSI
41081500	CDN Options	Options-Railway	40Ω+0.5µF,apply to all HCOUPLER, EN 50121-3-2
41081600		Options-DC	3×690Vac/1500Vdc,IEC 61000-4-5/ANSI C62.41.2
41081700		Options-HVM	Surge:≥±10.0kV,apply to all HCOUPLER
41030500	Telecom Wave Surge Generator	HTSG 70	Surge:±7kV, 10/700µs,IEC / ITU
41030600		HTSG 100	Surge:±10kV,10/700µs,IEC / ITU
41080460	Unshielded symmetry coupling network	HCN 8	1.2/50µs and 10/700µs,IEC 61000-4-5 Ed3.0 F.10
41080480	Unshielded symmetry decoupling network	HDEC 8	4×20mH(common mode choke),IEC 61000-4-5 Ed3.0 F.10
41080490	Unshielded asymmetry coupling network	HCN 4	1.2/50µs, IEC 61000-4-5 Ed3.0 F.9
41080500	Unshielded asymmetry decoupling network	HDEC 4	4×20mH(not compensated),IEC 61000-4-5 Ed3.0 F.9
41080510	High speed communication CDN	HCNH 8	1.2/50µs,IEC 61000-4-5 Ed3.0 F.11 (4kV,1000Mbit)

The leader of EMC Test and Measurement



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