

## Compact Immunity Test System

## CCS 600



### As per standards

- > EN/IEC 61000-4-4
- > EN/IEC 61000-4-5
- > EN/IEC 61000-4-8
- > EN/IEC 61000-4-9
- > EN/IEC 61000-4-11
- > EN/IEC 61000-4-29
- > EN/IEC 61008-1
- > EN/IEC 61009-1
- > EN 61543
- > GB/T 17626.5
- > GB/T 17626.4
- > GB/T 17626.8
- > GB/T 17626.9
- > GB/T 17626.11
- > GB/T 17626.29
- > ANSI/IEEE C62.41

### Summary

CCS600 is an intelligent multifunctional compact immunity (EMS) test system, as per all the requirements of international standards and product standards for transient pulse, surge and voltage dip. CCS 600 is the best option for full compliance immunity test as per the requirements of EU CE certification and CCC certification for single-phase devices. It can be built-in automatic single-phase coupling/decoupling network. Three-phase five-wire test can also be conducted by an external coupling network (up to 100A). You are provided with a variety of required accessories to meet the test requirements, such as power frequency magnetic field test.

### Feature

- > 5.7 inch color touch screen
- > Surge failure detection
- > Data acquisition of surge voltage and current
- > Test scheduling function
- > With multifunctional modules
- > Internal fully automatic single phase CDN 250V 16A; DC-1 110V 12A
- > Available to control external three phase CDN
- > Ethernet, RJ45, PC for remote control, test report documentation and print

### Application

- > Communication
- > Telecom
- > Medical
- > Broadcast and TV
- > Railway
- > Information technology
- > Military
- > Aviation
- > New energy and power
- > Electric Vehicle



### Address

Instruments 4 Engineers Ltd  
 Business & Innovation Centre  
 Broadstone Mill, Broadstone Road  
 Stockport SK5 7DL, United Kingdom

### Contact

Tel: +44 (0) 161 871 7450  
 sales@instruments4engineers.com

[www.instruments4engineers.com](http://www.instruments4engineers.com)

General data			
Display	5.7inch TFT color touch screen	Power supply	AC 110V/220V, $\pm 10\%$ , 50/60Hz, $\pm 5\%$ (default AC 220V 50Hz)
Fuse	6A	Max power consumption	200W
Memory space	Infinite (PC)	Communication mode	Ethernet, RJ45
Dimension (W*H*D)	19inch/6U	Weight	Approx.41Kg
Temperature range	15-35°C	Humidity range	45%-75%
Air pressure	86kPa-106kPa		
EFT/burst test as per IEC 61000-4-4			
Test voltage	0.25kV-4.8KV( $\pm 10\%$ )	Source impedance	50 ohm
Polarity	Positive, negative, alternative	Rise time	5ns $\pm 30\%$ , 50 ohm load, 1000 ohm load
Pulse waveform	5/50ns, 50 ohm and 1000 ohm load	Pulse frequency	0.1kHz-1000kHz
Pulse duration	50ns $\pm 30\%$ , 50 ohm load	Burst duration	0.075ms-750ms
	50ns-15/+100ns, 1000 ohm load	Test duration	1s-9999s
Burst cycle	11ms-9999ms	Synchronization	0° - 360°; 1° step or random
Trigger mode	Automatic, manual or external	CDN	Internal single phase automatic CDN: AC 220V 16A Max 250V
SURGE as per IEC61000-4-5			
Test voltage	0.3kV-6kV ( $\pm 10\%$ )	Test current	0.15kA-3kA ( $\pm 10\%$ )
Voltage waveform	Front time: 1.2us $\pm 30\%$ , Time to half value: 50us $\pm 20\%$	Source output impedance	2 ohm
Current waveform	Front time: 8us $\pm 20\%$ , Time to half value: 20us $\pm 20\%$	Coupling capacitance	9 $\mu$ F、18 $\mu$ F
Polarity	Positive, negative, alternative	Pulse cycle	5s-99s (shortest depends on test voltage)
Coupling resistance	10 ohm、0 ohm coupling resistor or customized	Number of test	1-999
Surge voltage and current peak detection	Front panel BNC output, surge voltage: 1000V:1V Surge current :500A:1V 3 digits on display	Synchronization	0° - 360°; 1° step or random
Trigger mode	Automatic, manual or external	CDN	Internal single phase automatic CDN: AC 220V 16A Max 250V
PFMF test as per IEC61000-4-8 with optional module MFT 400/1200			

Magnetic field strength	TCXS 111 Single-turn coil : 1-100A/m (continuous) 100-400A/m (1-10s in short time) TCXS 113 Single-turn coil : 1-300A/m (continuous) 300-1200A/m (1-10s in short time)	THID	<5%
Current waveform	50Hz/60Hz sine wave	Operating current range for short time	120A-500A
Continuous operating current range	1A-120A	Test duration	1-28800s
Magnetic field output accuracy	Deviation less than setting output value 1dB (minimal magnetic field intensity like 1A/m needs to be adjusted manually before tests.)	Waveform interval	1-9999s
Coil size	1000*1000mm or others	Trigger mode	Auto ,manual, external
Coil turn	Single/three turn	Coil shape	Rectangle or others
Output magnetic field strength	Programmable setup		
Pulse magnetic field test as per IEC 61000-4-9 with optional module PMC 1200			
Output magnetic field range	100 A/m-1200A/m	Waveform	Rise time:6.4us±30%; duration: 16us±30%
Output current	100A-2000A	Polarity	Positive, negative, alternative
Synchronization	0°-360°, 1°step or random	Pulse cycle	5-99s (the shortest depends on test current)
Trigger mode	Auto ,manual, external	Coil shape	Rectangle
Number of test	1-999	Model of Coil	TCXS 111
Coil size	1000*1000mm	Output magnetic field strength	Programmable setup
Coil turn	Single		
Power fail test as per IEC 61000 - 4 - 11 & IEC 61000-4-29 with optional module VVT 2216SV			
EUT max. Voltage	250V AC, 220V DC	EUT max. current	AC/DC 16A continuous current ; AC 20A continuous 5s; 40A continuous 3s; 500A impulse current
EUT current and voltage measurement	BNC terminal: voltage 100:1, current 10A:1V	Dip level	0%-100% (for VVT/VMT series) 0%, 40%, 70%, 80%(for VVTxxxxSFseries)
Interruption level	0%	Dip and interruption interval	5ms-9999ms

**Address**

Instruments 4 Engineers Ltd  
Business & Innovation Centre  
Broadstone Mill, Broadstone Road  
Stockport SK5 7DL, United Kingdom

**Contact**

Tel: +44 (0) 161 871 7450  
sales@instruments4engineers.com

[www.instruments4engineers.com](http://www.instruments4engineers.com)

Dip and interruption duration	0.1-9999 cycle or 1ms-9999ms	Dip and interruption rise/fall time	1-5 $\mu$ s (100 $\Omega$ load)
Dip and interruption test duration	1s-9999s	Time of Voltage variation decreasing	500ms-9999ms ( 50%-100% ) or 1-5us ( 100 $\Omega$ load) 1000ms-9999ms ( 0%-100% ) or 1-5us ( 100 $\Omega$ load)
Voltage Variation level	0-100%	Duration after voltage variation decreasing	10ms-99999ms
Time of Voltage variation increasing	500ms-9999ms ( 50%-100% ) 1000ms-9999ms ( 0%-100% )	Trigger mode	Auto ,manual, external
Synchronization	0°-360°, 1°step or random		

Models Selection								
Name	Model	IEC 61000-4-4	IEC 61000-4-5	IEC 61000-4-8	IEC 61000-4-9	IEC 61000-4-11	IEC 61000-4-29	CDN single phase three wire
Compact Immunity Test System	CCS 600	√	√	√	√	√	√	√
EFT/Burst CDN	EFTN 3816T	√						
Surge CDN	SPN 3816T		√					
EFT/Burst and Surge CDN	SEPN 3816T	√	√					
	SEPN 3832T	√	√					
Power frequency magnetic module	MFT 400			√				
	MFT 1200			√				
AC voltage dips, short interruption and variation module	VVT 2216S					√		
	VVT 2216SD					√	√	
	VVT 2216SV					√		
Power fail and Power frequency	VMT 2216S			√		√		
	VMT 2216SV			√		√		

**Address**

Instruments 4 Engineers Ltd  
Business & Innovation Centre  
Broadstone Mill, Broadstone Road  
Stockport SK5 7DL, United Kingdom

**Contact**

Tel: +44 (0) 161 871 7450  
sales@instruments4engineers.com

[www.instruments4engineers.com](http://www.instruments4engineers.com)

magnetic module	VMT 2216SVD			√		√	√	
Pulsed magnetic converter	PMC 1200				√			

#### Standard equipped

Mainframe, user manual, test report and fuse

#### Distributor:



**INSTRUMENTS 4 ENGINEERS LTD**  
 Stockport Business & Innovation Centre  
 3rd Floor Broadstone Mill, Broadstone Road  
 Stockport, SK5 7DL United Kingdom  
 Tel: +44 (0) 161 871 7450  
[www.instruments4engineers.com](http://www.instruments4engineers.com)