

TC.VSE.50.528.2WR.S

Voltage Slope Enhancer for REGATRON TC.ACS

Testing your devices according to IEC 61000-4-11/27/34



Features

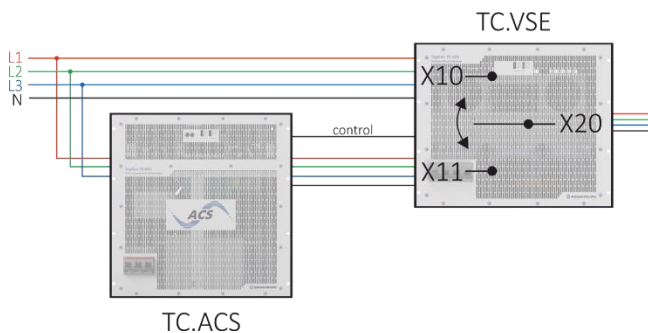
TC.VSE

In conjunction with a Grid Simulator TC.ACS.50.528, TC.VSE forms a system which allows for fast switching between two synchronized sources of different levels in order to generate voltage dips with faster voltage slew rates.

Achieves voltage rise and fall times between 1...5 μ s

TC.VSE control surface integrated into the well established ACSControl software.

System Configuration (simplified)



Power port ratings X10, X11, X20

Voltage	3 x 0..305 V _{AC} (L-N)
Continuous current I _{cont}	75 A _{rms sine}
Overload current I _{OL} @10 s every 600 s	≤150% I _{cont rms sine}
Overload current I _{OL} @1 s every 60 s	≤200% I _{cont rms sine}
Peak current I _{peak} sine halfwave 2.5 ms	≤1000 A
Short circuit I _{sc}	≤5 μ s ≤2000 A
Power port connections max.	6...35 mm ² wires, d ≤8.5 mm

Accuracy

Current Measurement	±5% I _{cont}
Current level I _{sc}	±5% I _{sc}
Temperature	±5 °C

Dynamics

Switching time	1...5 μ s
Propagation Delay TriggerIn to Switch ON/OFF	≤5 μ s / ≤0.1° @50 Hz
Propagation Delay jitter phase to phase	±0.5 μ s

Isolation

Power to PE (L1 / L2 / L3 / N) working voltage	305 V _{ACrms}
Power to PE (L1 / L2 / L3 / N) working voltage	432 V _{DC}
Power to case/logic test voltage	2120 V _{DC} / 1 s

Protection

Type of protection (IEC 60529)

Basic construction	IP 20
Mounted in cabinet	up to IP 54

Circuit breaker rating X10, X11

Rated voltage	400 V _{AC}
Rated current	125 A
Number of poles	4
Rated conditional short-circuit current	50 kA
Tripping characteristic	K

Safety Interface

ISR (integrated safety relay)

2-channel (2x category 1, PL c according DIN EN ISO 13849-1:2015)
read-back circuit with forcibly guided contacts

Interface

Control port to TC.ACS

Control/diagnostic	Digital/Analog I/O
DIG8IOST	8 digital input, 8 digital output

Technical Data

Key Values

Fast switching unit	
Voltage	3 x 0..305 V _{AC} (L-N)
Continuous current I _{cont}	75 A _{rms sine}
Peak current I _{peak}	1000 A
Switching Time	1...5 μ s
Case	19" / 9 U

Auxiliary Supply

Voltage	90...264 V _{AC}
Frequency	48...62 Hz
Input power	240 W

Sales Partner:



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General Data

Weight & Dimension

Weight	80 kg
Width front panel	483 mm / 19"
Width housing	444 mm / 17 1/2"
Height	400 mm / 9 U / 15 3/4"
Depth without terminals	590 mm / 23 1/4"
Depth with terminals	645 mm / 25 2/5"

Terminals

Screw terminals for 6...35mm ² wires	d ≤ 8.5mm
AC lineside terminals X10, X11	3LN + PE
AC loadside terminals X20	3LN + PE

Ambient

Operating temperature	5...40 °C
Storage temperature	-25...70 °C
Relative air humidity (non-condensing)	0...95%
Installation altitude	0...2000 m above sea level ¹⁾
Installation	in 19" switch cabinet IEC 60721-3-3 indoor, air-conditioned
Vibration	IEC 60068-2-6 Test Fc
Acoustic noise level	30% full power <60 dB
Acoustic noise level	full power <75 dB

Cooling

Type	direct forced air, front to back
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Standards

Protection class	I
Overvoltage category	III
Degree of pollution	2
Area of application	industrial

Approval CE

Low Voltage Directive 2014/35/EU	EN 62477-1:2012 + A11 :2014 + A1 :2017 + A12 :2021
EMC Directive 2014/30/EU	
EMC immunity (industrial)	EN 61000-6-2:2005
EMC emission (industrial)	EN 61000-6-4:2007 + A1:2011
RoHS Directive 2011/65/EU	EN IEC 63000:2018

Approval UKCA

Electrical Equipment (Safety) Regulations 2016	BS EN 62477-1:2012 + A11 :2014 + A1 :2017 + A12 :2021
Electromagnetic Compatibility Regulations 2016	
EMC immunity (industrial)	BS EN 61000-6-2:2005
EMC emission (industrial)	BS EN 61000-6-4:2007 + A1:2011
The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012	BS EN IEC 63000:2018

Dimensions

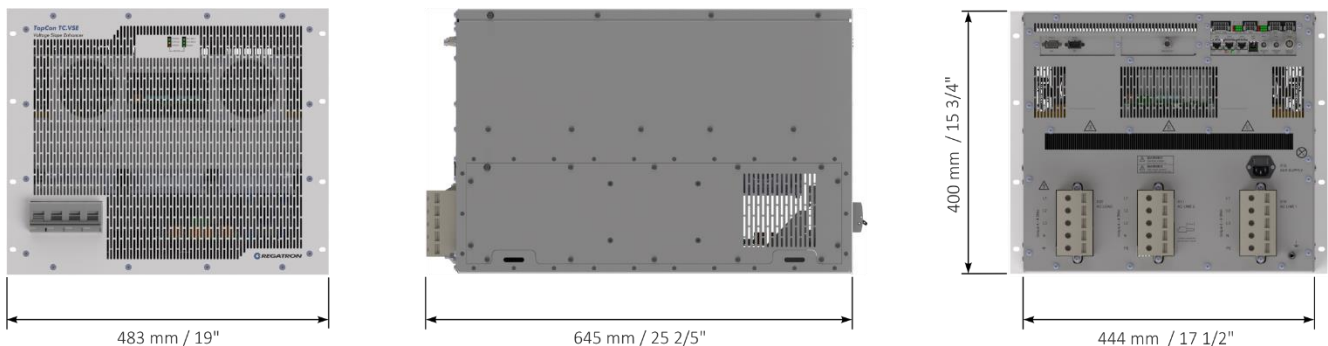


Figure 1: Front, right hand side and rear view. 19-inch module with 9 units in height.

This product is developed, produced and tested according to ISO 9001 by REGATRON.

For detailed technical information, contact REGATRON or your local sales partner.

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All product specifications and information contained herein are subject to change without notice.

Filename: DS_TC.VSE.50.528.2WR.S_EN_221206

Class: Project-specific-use-only

1) above 1000 m, slight temperature derating possible