ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *VX Instruments AXC7583* at our website: ***Click HERE***

AXC7583
1000A High Current SMU

VXI Instruments
the test solutions provider



TECHNICAL DATA SHEET –preliminary–

PXI
VXI
LAN
cPCI
PXIe
GPIB
USB
RS232 485
external PCIe

Features

- Extremely low noise with linear output stage
- Output current up to 1000A pulse mode
- Programmable output voltage up to 30V
- Programmable current pulse
- Integrated current measurement unit
- Integrated voltage measurement unit
- Integrated LAN, GPIB and USB interface
- Front touch display available
- Optional: integrated isolated voltage measurement unit

Product Information

The AXC7583 1000 A High Current Source and Measurement Unit family was designed for semiconductor and high throughput testing.

Very fast linear output stage

The very fast rise time allows current pulses up to 1000 A with a programmable pulse length.

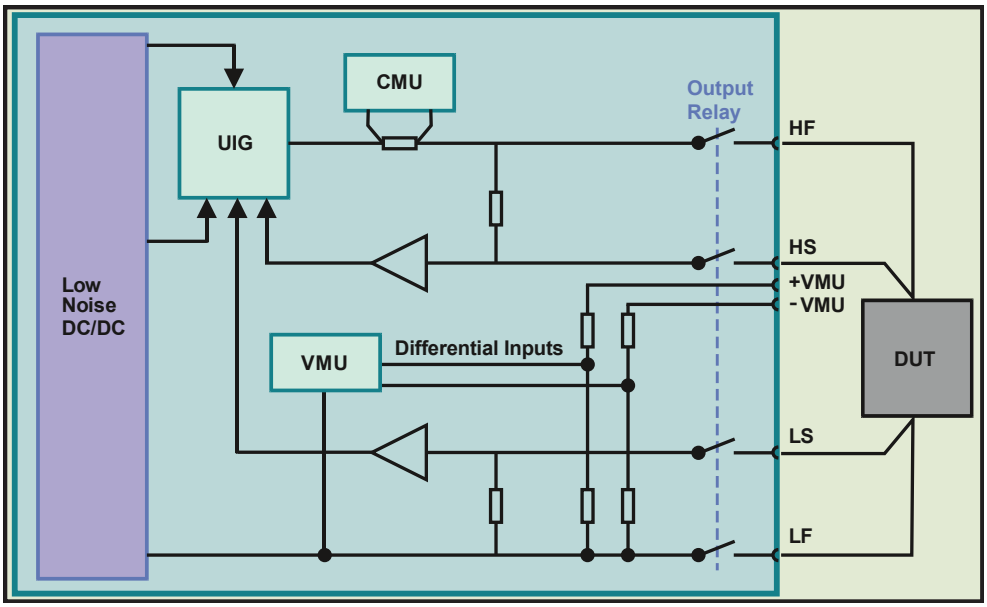
The pulse duration can be configured from 300 µs to 4 ms at maximum current.
An integrated "Ixt limiter" monitors the maximum current-time product of 1000 A x4 ms. This allows a multitude of current-pulse-length combinations.

Integrated measurement units...

Together with the integrated differential voltage measurement unit (VMU) and the integrated current measurement unit (CMU) all high current tests of power semiconductor can be done.
An optional isolated VMU is available on request. This VMU will have an additional measurement range and a much higher CMRR.

Multiple interfaces included

Interfaces for LAN, GPIB and USB are included to offer an easy communication with most usual control devices.



Ordering Option	Comment
AXC7583	1000 A / 30 V maximum
Option VMU-ISOL	Isolated VMU on request
Option NON-ISOL	Non-isolated device
Option HIGH-ISOL	Isolated device by gas discharge tube
Option FE	Front touch display
Option RMK	19" rack mounting kit

General	Specification	Comment
AC line voltage	230 V_{AC} ±10%	
AC line frequency	47 Hz ... 63 Hz	
Power consumption	<2 000 W	
Operating temperature	0 ... 35°C	Up to 50°C but degrading pulse-pause-ratio
Operating altitude	<2 000 m	
Relative humidity	Up to 85% at 35°C	
Storage temperature range	-25 ... 70°C	
Size	19" x 6U x ≈595 mm	≈655 mm with handles
Weight	≈46 kg	
Electrical safety	According EN61010-1	
Isolation output LF to PE	100 V CAT I, Pollution Degree 2	Standard 15kOhm LF to PE Option NON-ISOL: direct connection of LF to PE Option HIGH-ISOL: isolation LF to PE by gas discharge tube

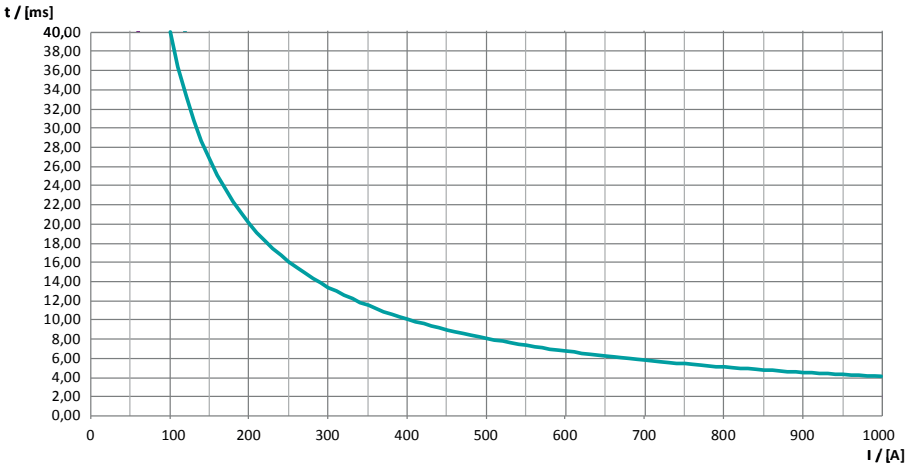
Voltage Control Unit	Specification	Comment
Resolution	16 Bit	In all ranges
DC accuracy		
Gain error	±0.1% of value	
Offset error	±0.1% of full scale	
Output voltage		Programmable output voltage
Range	0 V ... 30 V	

Current Control Unit	Specification	Comment
Resolution	16 Bit	
DC accuracy		
Gain error	0.5% of value	
Offset error	0.5% of full scale	
Output current		
Maximum pulse current	1 000 A	Programmable output current 30 ... 1000 A[1] Max. pulse length see "IxT-Limiter" diagram
Average output current	10 A	See manual for calculation
Minimum pulse length	300 µs	Lower pulse length on request

[1] Lower currents on request.

Notes: All product data are specified for 1 year at an ambient temperature of 23°C ±5°C (after 1 hour warm-up time).
Product specification and description in this document are subject to change without notice.

Ixt Limiter Diagram



The integrated "Ixt limiter" provides a multitude of current -pulse length combinations while monitoring the maximum current-time product.

Current Measurement	Specification
Resolution	16 Bit
Filter frequencies	100 Hz, 1 kHz, 10 kHz, 100 kHz
DC accuracy[1]	
Range 100 A	±1.0% of range ±0.5% of value
Range 1 000 A	±0.5% of range ±0.5% of value

Voltage Measurement	Specification
Resolution	16 Bit
Filter frequencies	100 Hz, 1 kHz, 10 kHz, 100 kHz
Common mode voltage range	60 V
CMRR	>80 dB
DC accuracy[1]	
Range 1 V	±0.1% of range ±0.1% of value
Range 10 V	±0.1% of range ±0.1% of value
Range 50 V	±0.1% of range ±0.1% of value

[1] With 100 Hz filter and 20 samples with an interval of 1 ms.

On Request

Isolated Voltage Measurement	Specification
Resolution	16 Bit
Filter frequencies	100 Hz, 1 kHz, 10 kHz, 100 kHz
Common mode voltage range	60 V
CMRR	>110 dB
DC accuracy[1]	
Range 100 mV	±0.3% of range ±0.1% of value
Range 1 V	±0.1% of range ±0.1% of value
Range 10 V	±0.1% of range ±0.1% of value
Range 50 V	±0.1% of range ±0.1% of value

[1] With 100 Hz filter and 20 samples with an interval of 1 ms.

Voltage Monitor	Specification
Output voltage	tbd
Internal resistance	tbd
Accuracy	tbd

Current Monitor	Specification
Output voltage	tbd
Internal resistance	tbd
Accuracy	tbd

VX Instruments GmbH
Phone: +49 871 93 15 55-0
E-Mail: sales@vxinstruments.com

Revision Date: 2019-11-13

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP