

DCC BRIDGE "HIGH CURRENT" RANGE EXTENDERS

WORLD'S FIRST MODULAR AND EXPANDABLE FAMILY OF RANGE EXTENDERS



6623A SERIES FEATURES

- ◆ Now with DC currents up to 10,000 Amps!
- ◆ Extended Low End Range down to $0.1\mu\Omega$
- ◆ Programmed from 6622A Series Bridge.
- ◆ Modular Design, Expandable Capabilities, Investment Protection
- ◆ Range Extenders in 150A increments with built-in electronically positive and negative test currents of equal magnitude.
- ◆ No need for external power supplies.
- ◆ Linearity: ± 0.02 ppm of Full Scale
- ◆ Safety (Fault) Protections in Place
- ◆ Unique Programmable Extender Controller.
- ◆ Eliminates need for any external reversing switches and compressed gas.
- ◆ Complete Measurement Systems Available.

GUILDLINE INSTRUMENTS 6623A SERIES of High Current Range Extenders introduces new patented design concepts and the best in modularity of any Range Extender ever produced. The 6623A Series consists of a family of range extenders, with available current outputs from 3 Amps to 10,000 Amps.

Designed to operate with our widely fielded 6622A series of **ONE-BRIDGE** systems, these new and exciting Range Extenders provide customers with unique and individualized workload solutions. Real solutions that address not only current and future workload requirements, but also deal with ever tightening budget constraints.

The 6623A series of high current range extenders increases the measurement range and test current output capability on the 6622A Bridges. The measurement specifications are now provided as a complete and inclusive specification when used with the 6622A Series Bridge.

The 6623A Series Provides Widest Range of Expandable Output Currents without the need for external switching, compressed gas or separate Power Supplies!

As with our 6622A Bridge, the 6623A Series modular design allows you to buy what is required today with existing budgets, and when current requirements change, expand your extender in 150 Amp increments to meet your needs without any loss of your original investment!

Guildline's newly designed and innovative internal supply used in the 6623A series eliminates the costly requirements for purchasing external power supplies, use of compressed gas, external switches and even the software programming pains associated with implementing these external components. A procedure developed for a Guildline 150 Amp Model will work the same as on our 300, 1000 or even 10,000 Amp Models or any increment in between.

6623A SERIES DCC BRIDGE RANGE EXTENDERS

Range Extenders allow DCC Bridges to measure “lower” resistance values or shunts at higher currents. Using proprietary technologies, Guildline engineers have again provided our customers with the most value and flexibility in expanding their **shunt measurement** capability. Unlike many existing range extender products, the 6623A Series has been designed from the ground up. This has allowed Guildline to dramatically **improve measurement functionality**, size, power handling as well as addressing budget considerations. For example, the 6625A Measurement system shown on the left is capable of measuring from 1 μOhm at **300 Amps** all the way to 1 GOhm at 1000 Volts; all in a height *less than 36"* (1 meter) and completely operational on **120 VAC!**



Any 6623A Series Range Extender can be used with any of our 6622A Series **ONE-BRIDGE** solutions. The 6622A Bridge automatically configures the model 6623A you have connected, knows what current ranges are available, and warns you when currents beyond the limits of the attached range extender are requested. How's that for smart integration!

All 6623A Models are completely upgradeable with no loss of your initial investment. For example, if you started with the 300 Amp unit shown on the left, and now require 3000 Amps, don't worry! Simply send back your 300 Amp unit, pay the difference from what you spent on the 300 Amp unit to what the new unit

you want and Guildline will send back a new 3000 Amp Unit. Simply plug it into your Bridge and you are ready to go! No need to rewrite already developed procedures, no need to have additional training; the 3000 Amp unit operates exactly the same as the 300 Amp Unit.

NEW PATENTED DESIGN AND TECHNOLOGY

The heart of the 6623A design is our 150A precision current source pictured below. This source is an electronically programmed precision current source that provides both positive and negative test currents of equal magnitude. Guildline's newly designed and innovative internal power source used in the 6623A series eliminates the costly requirements for purchasing external power supplies, use of external switches and compressed gas, and even the software programming difficulties associated with implementing these external components. This means the 6623A can provide the required current with automatic polarity reversal at user selected intervals, without using external switches or specialized external computer controls.

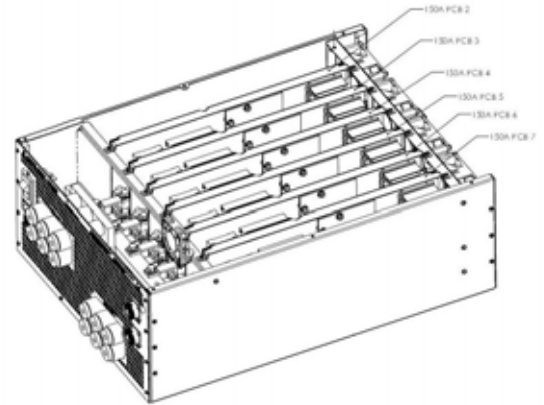


For manual mode of operation, output of current is straight forward. If you require 300 Amps of current, you simply enter 300 Amps as the required current on the front panel of the connected 6622A Bridge. No need to manually set or adjust external power supplies, external switches, extenders, and associated wiring. This completely self contained range extender allows you to fully automate calibration procedures.

6623A SERIES DCC BRIDGE RANGE EXTENDERS

The PATENTED Guildline 6623A 150 Amp board modularity and integration is best shown using a 1000 Amp Extender diagram. This 1000 Amp Precision Current Source (i.e. CS1000) contains seven (7) 150 Amp PCBs to provide an actual current output of 1050 Amps in a 5U chassis.

Each board has "smart" technology incorporated into the design that allows command control in terms of operation, switching and even board protection. For example, if a board was to fail, your system is not down. You simply operate at a reduced current. Hence if you had a 1000 Amp unit and a board fails, your system would continue to operate at 900 Amps. Send the board back for repair and when it comes back, simply insert it back in. The status of all boards is monitored and displayed visually via a LED bank.



This modularity extends to higher currents. As an example to build a 3000 Amp system, we would use 3 CS1000's, add the toroid for matching output to the 6622A DCC Bridge, provide a cable from the 3000 Amp to the Bridge and you are ready to measure shunts with current and current control to 3000 Amps. You can either run these Range Extenders manually or fully automated. The 6622A Series Bridge continually monitors the measurement and any abnormality will shut down the current and measurement.

Guildline's 6623A Models can also operate as independent, highly precise DC Current Sources and can be controlled via a separate 66529 Programmable Controller. When you use the 66259 Programmable Extender Controller, you simply disconnect the extender cable from the Bridge and connect the 66259 to the 6623A Range Extender (works with all models). You now have a USB Programmable Precision Source with full control of all measurement parameters via the 66259. Current Polarity, reversal rates and many other parameters are selectable via this controller.



6623A-3 Amp Model

The 6623A Series starts with our 6623A-3 Amp Model. At only 3U in height, this unit is perfect for those applications where very high currents are not required, but higher currents than the typical 150 mA provided by DCC Bridges are needed. This allows precision calibration down to the 1 mOhm range at currents up to 3 Amps. This is perfect when looking at calibration of milli-ohm standards; and decade boxes with 1m, 10m and 100m Ohm dials. The 3 Amp model can also be used to calibrate resistances up to 1 Ohm. If your application falls within this area, then the 6623A-3 is the proper model for your application. Available in bench or Rack configurations, the 6623A-3 is also used for division of higher currents when working with 6623A models above 1000 Amps and up.

6623A-150 Amp and 6623A-300 Amp Standard Models

Need to go higher in currents? Consider the 6623A-150 or 6623A-300 Amp models. These models are very compact requiring only 3U in height for the 150A and 4U for the 300 Amp. That's only 7 inches high for up to 300 Amps of current output! When used with any of the 6622A Series bridges, the combined height is still only 8U or 9U (about 15 inches). In this space, you can have a measurement capability from 300 Amps at 1 μ Ohm all the way up to 1kVdc at 1 GOhm. These models are available in Bench and Rack configurations.



6623A SERIES DCC BRIDGE RANGE EXTENDERS

Like the 6623A-3A, the 150 Amp and 300 Amp models can be used with standard dedicated, 120 VAC power. This means you do not need special power, or mechanical switches to operate these models. There is also no requirement for special heat exhausts. These features allow for complete flexibility when designing room layouts. As with all 6623A models, the 150 Amp and 300 Amp models can be expanded all the way to our world leading 10,000 Amp model. Complete investment protection!

6623A-450 Amp and 6623A-600 Amp Standard Models

The 450 and 600 Amp models are also available in bench or rack mount configuration and like our lower current series can be expanded all the way to 10,000 Amps. At only 5U (8.75") in height, these compact models produce more current in the world's smallest available footprint for range extenders than any other product sold today. In fact, these complete current extender models are about the same size as the separate power supplies required by other manufacturers. These models only require single phase 120 to 220V, 50 Hz or 60 Hz. Like the 150 and 300 Amp models, these models are cascaded models with no additional standards required. This one unit shown is ALL you need is all you need for current measurements to 600 Amps!



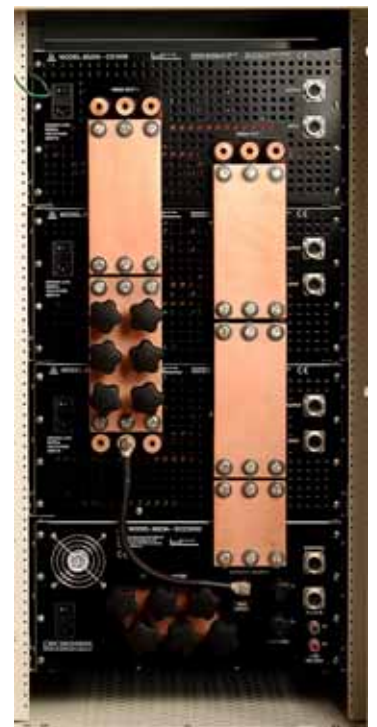
6623A-1000 Amp, 6623A-2000 and 6623A-3000 Amp Standard Models

Need higher currents? Then consider the 6623A Series of 1000, 2000 and yes - even 3000 Amp Standard models. With our unique 150 Amp patent pending design, we can provide standard models in-between these values (such as

750 Amps, 900 Amps, 1500 Amps, 2150 Amps, 2300 Amps, etc), however we have selected our most popular current ranges and provide them as standard configurations. All these currents are available as standard products or through our unique upgrade paths from smaller current models. Procedures developed for any previous Model will continue to work and these Models, just add the extra current capability you need!

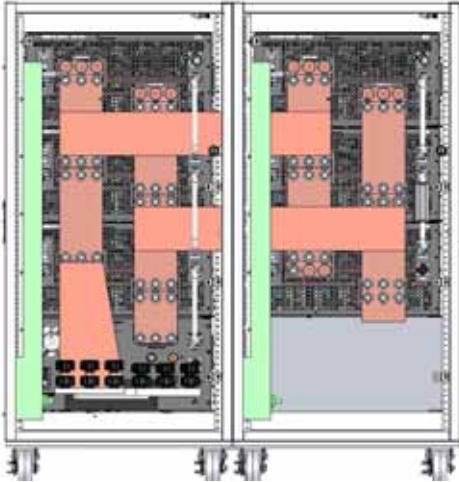
These are extremely compact models. The 1000 Amp model, including the 3 Amp current division and toroid, is still only 13U (i.e 23 inches or 58 cm) in height.

Better yet, each additional 1000 Amps (or increment of) only adds 5U (that's 8.75") to the total height. This means that a 2000 Amp Model is 18U, while our 3000 Amp model is only 23U (i.e. about 40 inches or 1 meter). When installing these models, they only require single phase 220 VAC, and all terminals are in the rear for operator safety!



6623A-4000 Amp, 6623A-5000 and 6623A-6000 Amp Standard Models

When you move to the 4kA to 6kA Models, only a second rack is required. The Range Extender is still controlled via the Bridge or optional 66259 independent controller. The additional CS1000's are simply mounted in a second cabinet and the buss bar system allows easy access for connecting cables up to the unit.



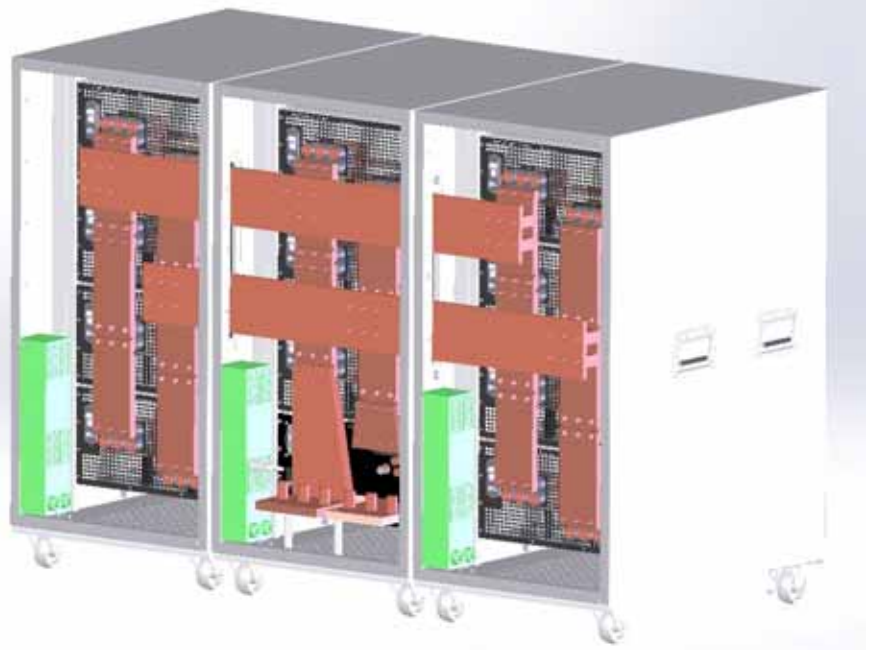
As you move higher in currents you will find that the toroid ratio changes to accommodate the best possible current outputs. As an example, you can output current from 300 Amps to 6000 Amps without ever having to change a cable. All switching and programming is accomplished from the bridge and it is as simple as entering the desired current output. No other manufacturer provides such an easy and cost effective solution as the 6623A Series.

6623A-7000 Amp, 6623A-8000, 6623A-9000 Amp & 6623A-10000 Standard Models

All from a single patented 150 Amp Precision Current Source, Guildline now has the capability to deliver standard Range Extender systems all the way to 10,000 Amps with no special requirements other than a venting system. No water, no compressed air, nothing else is required.

When we go above 6 kA's all we have to do is mount the additional power in a third cabinet. You can visually see how easy it is to go from 6 kA all the way to 10 kA in a modular and upgradeable path that no one else can provide.

Like all of our 6623A Series Range Extenders, no special control or programming is required. The current outputs are simply entered as a desired current output from the Bridge or Programmable controller and the system responds. Unlike our competition there is no matching of external power supplies, no multiple current switching systems, no cascaded external mechanical switches.



The 6623A Series - Built on years of experience and unique engineering design – providing ease of use and built-in expansion capability for customers!

6623A SERIES DCC BRIDGE RANGE EXTENDERS

BRIDGEWORKS SOFTWARE

Not only does Guildline provide unique Current Range Extender and DCC Bridge hardware, but we offer a complete software solution. Two new software programs called **Bridgeworks-R** and **Bridgeworks-C** are now provided for setup, control, measurements, and reporting using both the 6622A Bridge and the 6623A range extender. This allows full automation of measurements using any model of the 6623A Series. The control is provided via the 6622A Series Bridge, which is fully programmable via IEEE 488.2 control.

6623A SERIES SPECIFICATIONS

12 Month Ratio Accuracy

| Standard Model ¹ | Transformation Ratio(s) | Ratio Accuracy | Maximum Ratio Current | Resistance Range |
|---|-------------------------|----------------|-----------------------|------------------|
| 6623A - 3A | 20 : 1 | ±0.2 ppm | 3A | 1 mΩ to 100 Ω |
| 6623A - 150A | 20 : 1 | ±0.3 ppm | 3A | 1 μΩ to 100 Ω |
| | 100 : 1 | ±0.4 ppm | 15A | |
| | 1000 : 1 | ±0.5 ppm | 150A | |
| 6623A - 300A | 20 : 1 | ±0.3 ppm | 3A | 1 μΩ to 100 Ω |
| | 200 : 1 | ±0.4 ppm | 15A | |
| | 2000 : 1 | ±0.5 ppm | 300A | |
| 6623A - 450A 6623A - 600A | 20 : 1 | ±0.3 ppm | 3A | 1 μΩ to 100 Ω |
| | 400 : 1 | ±0.4 ppm | 30A | |
| | 4000 : 1 | ±0.5 ppm | 450/600A | |
| 6623A - 1000A 6623A - 2000A 6623A - 3000A | 200:1 | ±0.4 ppm | 30A | 0.1 μΩ to 100 Ω |
| | 2000 : 1 | ±0.5 ppm | 150A | |
| | 20,000 : 1 | ±0.6 ppm | 1k/2k/3kA | |
| 6623A - 4000A 6623A - 5000A 6623A - 6000A | 400:1 | ±0.4 ppm | 30A | 0.1 μΩ to 100 Ω |
| | 4000 : 1 | ±0.5 ppm | 300A | |
| | 40,000 : 1 | ±0.6 ppm | 4k/5k/6kA | |
| 6623A - 7000A 6623A - 8000A 6623A - 9000A 6623A - 10000A | 100:1 | ±0.3 ppm | 10A | 0.1 μΩ to 100 Ω |
| | 1000:1 | ±0.5 ppm | 30A | |
| | 10,000 : 1 | ±0.6 ppm | 300A | |
| | 100,000 : 1 | ±0.7 ppm | 7k/8k/9kA/10kA | |

12 Month Test Current Specifications (All Models)

| 6623A-3A | | 3A |
|------------------------------------|------------------------|------------------|
| Test Current Specifications | Output Range | ± 0.1 A to ± 3 A |
| | Accuracy | ±0.1% ± 0.4 mA |
| | Stability (10 minutes) | ±0.01% ± 0.1 mA |
| | Compliance | ± 5 Volts |

| 6623A-150 | | 3A | 15A | 150A |
|------------------------------------|------------------------|------------------|-----------------|-------------------|
| Test Current Specifications | Output Range | ± 0.1 A to ± 3 A | ± 3 A to ± 15 A | ± 15 A to ± 150 A |
| | Accuracy | ±0.1% ± 0.4 mA | ±0.3% ± 5 mA | ± 0.3% ± 30 mA |
| | Stability (10 minutes) | ±0.01% ± 0.1 mA | ±0.03% ± 2 mA | ±0.04% ± 3 mA |
| | Compliance | ± 5 Volts | ± 7.5 Volts | ± 1.5 Volts |

| 6623A-300 | | 3A | 15A | 300A |
|------------------------------------|------------------------|------------------|-----------------|-------------------|
| Test Current Specifications | Output Range | ± 0.1 A to ± 3 A | ± 3 A to ± 15 A | ± 15 A to ± 300 A |
| | Accuracy | ±0.1% ± 0.4 mA | ±0.3% ± 5 mA | ±0.3% ± 30 mA |
| | Stability (10 minutes) | ±0.01% ± 0.1 mA | ±0.03% ± 2 mA | ±0.04% ± 3 mA |
| | Compliance | ± 5 Volts | ± 7.5 Volts | ± 1.5 Volts |

| 6623A-450/600 | | 3A | 30A | 450/600A |
|------------------------------------|------------------------|------------------|-----------------|-----------------------|
| Test Current Specifications | Output Range | ± 0.1 A to ± 3 A | ± 3 A to ± 30 A | ± 30 A to ± 450/600 A |
| | Accuracy | ±0.1% ± 0.4 mA | ±0.3% ± 5 mA | ±0.3% ± 30 mA |
| | Stability (10 minutes) | ±0.01% ± 0.1 mA | ±0.03% ± 2 mA | ±0.04% ± 3 mA |
| | Compliance | ± 5 Volts | ± 7.5 Volts | ± 1.5 Volts |

| 6623A-1000/2000/3000 | | 30A | 150A | 1kA / 2kA / 3kA |
|------------------------------------|------------------------|-----------------|-------------------|-------------------------|
| Test Current Specifications | Output Range | ± 3 A to ± 30 A | ± 30 A to ± 150 A | ± 150 A to ± 1k/2k/3k A |
| | Accuracy | ±0.3% ± 5 mA | ±0.3% ± 30 mA | ±0.35% ± 150 mA |
| | Stability (10 minutes) | ±0.03% ± 2 mA | ±0.04% ± 3 mA | ±0.05% ± 50 mA |
| | Compliance | ± 7.5 Volts | ± 1.5 Volts | ± 1.5 Volts |

| 6623A-4000/5000/6000 | | 30A | 300A | 4kA / 5kA / 6kA |
|------------------------------------|------------------------|-----------------|-------------------|------------------------|
| Test Current Specifications | Output Range | ± 3 A to ± 30 A | ± 30 A to ± 300 A | ± 300 A to ± 6000A |
| | Accuracy | ±0.3% ± 5 mA | ±0.3% ± 30 mA | ±0.35% ± 150 mA |
| | Stability (10 minutes) | ±0.03% ± 2 mA | ±0.04% ± 3 mA | ±0.05% ± 100 mA |
| | Compliance | ± 7.5 Volts | ± 1.5 Volts | ± 1.5 Volts |

| 6623A-7k/8k/9k/10k | | 30A | 300A | 7kA / 8kA / 9kA / 10kA |
|------------------------------------|------------------------|-----------------|-------------------|-------------------------------|
| Test Current Specifications | Output Range | ± 3 A to ± 30 A | ± 30 A to ± 300 A | ± 300 A to ± 10000A |
| | Accuracy | ±0.3% ± 5 mA | ±0.3% ± 30 mA | ±0.35% ± 150 mA |
| | Stability (10 minutes) | ±0.03% ± 2 mA | ±0.04% ± 3mA | ±0.05% ± 100 mA |
| | Compliance | ± 7.5 Volts | ± 1.5 Volts | ± 1.5 Volts |

1 - For currents <3 refer to 6623A-3A Specifications.

6623A SERIES DCC BRIDGE RANGE EXTENDERS

6623A Range Extender Complete System Measurement Specifications

Includes Specified Bridge(s) Specifications, Patented Internal Precision Current Source, Internal Switching, System Scanner and Wiring. Coverage Factor k=2 (95%), Temperature Environment of 23°C +/- 2°C

| 6623A Range Extender Complete System Measurement Specifications | | | | | | |
|--|---------------|---------------|---------------|---------------|---------------|--------------|
| Includes Specified Bridge(s) Specifications, Patented Internal Precision Current Source, Internal Switching, System Scanner and Wiring. Coverage Factor k=2 (95%), Temperature Environment of 23°C +/- 2°C | | | | | | |
| 6623A-3A | | | | | 1mΩ ~ 0.1Ω | 10mΩ ~ 100 Ω |
| 6622A Base, 6622- XR | | | | | ± 0.8 ppm | ± 0.7 ppm |
| 6622A-XP, XPR. & HV Models | | | | | ± 0.7 ppm | ± 0.6 ppm |
| 6623A-150A | 1 μΩ ~ 10 μΩ | 10 μΩ ~ 0.1mΩ | 0.1mΩ ~ 0.5mΩ | 0.5mΩ ~ 0.01Ω | 1mΩ ~ 0.1Ω | 10mΩ ~ 100 Ω |
| 6622A Base, 6622- XR | ± 20 ppm | ± 10 ppm | ± 3 ppm | ± 0.8 ppm | ± 0.7 ppm | ± 0.7 ppm |
| 6622A-XP, XPR. & HV Models | ± 18 ppm | ± 9 ppm | ± 2.5 ppm | ± 0.7 ppm | ± 0.6 ppm | ± 0.6 ppm |
| 6623A-300A | 1 μΩ ~ 10 μΩ | 10 μΩ ~ 0.1mΩ | 0.1mΩ ~ 0.5mΩ | 0.5mΩ ~ 0.01Ω | 1mΩ ~ 0.1Ω | 10mΩ ~ 100 Ω |
| 6622A Base, 6622- XR | ± 15 ppm | ± 8 ppm | ± 2 ppm | ± 0.8 ppm | ± 0.7 ppm | ± 0.7 ppm |
| 6622A-XP, XPR. & HV Models | ± 12 ppm | ± 7 ppm | ± 1.5 ppm | ± 0.7 ppm | ± 0.6 ppm | ± 0.6 ppm |
| 6623A-450A/600A | 1 μΩ ~ 10 μΩ | 10 μΩ ~ 0.1mΩ | 0.1mΩ ~ 0.5mΩ | 0.5mΩ ~ 0.01Ω | 1mΩ ~ 0.1Ω | 10mΩ ~ 100 Ω |
| 6622A Base, 6622- XR | ± 15 ppm | ± 8 ppm | ± 2 ppm | ± 0.8 ppm | ± 0.7 ppm | ± 0.7 ppm |
| 6622A-XP, XPR. & HV Models | ± 12 ppm | ± 7 ppm | ± 1.5 ppm | ± 0.7 ppm | ± 0.6 ppm | ± 0.6 ppm |
| 6623A-1k/2k/3kA | 0.1 μΩ ~ 1 μΩ | 1 μΩ ~ 10 μΩ | 10 μΩ ~ 0.1mΩ | 0.1mΩ ~ 0.5mΩ | 0.5mΩ ~ 0.01Ω | 1mΩ ~ 0.1Ω* |
| 6622A Base, 6622- XR | ± 18 ppm | ± 12 ppm | ± 8 ppm | ± 2 ppm | ± 0.8 ppm | ± 0.7 ppm |
| 6622A-XP, XPR. & HV Models | ± 16 ppm | ± 10 ppm | ± 7 ppm | ± 1.5 ppm | ± 0.7 ppm | ± 0.6 ppm |
| 6623A-4k/5k/6kA | 0.1 μΩ ~ 1 μΩ | 1 μΩ ~ 10 μΩ | 10 μΩ ~ 0.1mΩ | 0.1mΩ ~ 0.5mΩ | 0.5mΩ ~ 0.01Ω | 1mΩ ~ 0.1Ω* |
| 6622A Base, 6622- XR | ± 16 ppm | ± 10 ppm | ± 6 ppm | ± 1.8 ppm | ± 0.8 ppm | ± 0.7 ppm |
| 6622A-XP, XPR. & HV Models | ± 14 ppm | ± 8 ppm | ± 5 ppm | ± 1.4 ppm | ± 0.7 ppm | ± 0.6 ppm |
| 6623A-7k/8k/9k/10kA | 0.1 μΩ ~ 1 μΩ | 1 μΩ ~ 10 μΩ | 10 μΩ ~ 0.1mΩ | 0.1mΩ ~ 0.5mΩ | 0.5mΩ ~ 0.01Ω | 1mΩ ~ 0.1Ω* |
| 6622A Base, 6622- XR | ± 14 ppm | ± 8 ppm | ± 5 ppm | ± 1.6 ppm | ± 0.8 ppm | ± 0.7 ppm |
| 6622A-XP, XPR. & HV Models | ± 12 ppm | ± 6 ppm | ± 4 ppm | ± 1.2 ppm | ± 0.7 ppm | ± 0.6 ppm |

*Note: For 3 Amp (10 mΩ ~ 100 Ω range) and below, refer to 6623A-3A Specifications

6623A Series Dimensions

| Standard Models ¹ | 6623A Dimensions (Height x Width x Depth) | | | |
|------------------------------|---|---------------------|----------------------|--------------------|
| | Rack | | Bench | |
| 6623A-3A | 5.2" x 20.7" x 20.3" | 132 x 526 x 516 mm | 5.7" x 17.3" x 20.3" | 145 x 440 x 516 mm |
| 6623A-150A | 5.2" x 20.7" x 27.1" | 132 x 526 x 693 mm | 5.7" x 17.5" x 27.1" | 145 x 445 x 693 mm |
| 6623A-300 | 7.0" x 20.7" x 27.1" | 178 x 526 x 693 mm | 7.5" x 17.5" x 27.1" | 145 x 445 x 693 mm |
| 6623A-450/600 | 8.75" x 20.7" x 29.1" | 222 x 526 x 739 mm | 10" x 17.5" x 29.4" | 254 x 445 x 747 mm |
| 6623A-1k/2k/3kA | 38.5" x 21.8" x 35" | 978 x 552 x 889 mm | | |
| 6623A-4k/5k/6kA | 38.5" x 44.1" x 35" | 978 x 1120 x 889 mm | | |
| 6623A-7k/8k/9k/10kA | 38.5" x 66.2" x 35" | 978 x 1682 x 889 mm | | |

6623A Series Power and Weight Requirements

| Standard Models ¹ | 6623A Power Requirements and Weight | | | | | | |
|------------------------------|-------------------------------------|-------------------|-------------|-------------------|------|-------------------|------|
| | Power | | | Rack Model Weight | | Bench Unit Weight | |
| | Voltage | Frequency | VA (max) ** | lbs | kg | lbs | kg |
| 6623A-3A | 100 VAC to 240 VAC ± 10 % | 50/60 Hz ± 5 % | 100 | 23 | 10.5 | 28 | 12.7 |
| 6623A-150A | | | 800 | 46 | 21 | 50 | 22.7 |
| 6623A-300 | | | 1000 | 62 | 28.2 | 70 | 31.8 |
| 6623A-450 | 208 VAC to 240 VAC ± 10 % | 50/60 Hz ± 5 % | 1250 | 67 | 30.5 | 86 | 39.1 |
| 6623A-600 | | | 1900 | 76 | 34.5 | 95 | 43.2 |
| 6623A-1000 | | | 2600 | 360 | 164 | | |
| 6623A-2000 | | | 4700 | 490 | 223 | | |
| 6623A-3000 | | | 6800 | 620 | 282 | | |
| 6623A-4000 | 208 VAC to 240 VAC ± 10 % | 50/60 Hz ± 5 % | 9200 | 930 | 423 | | |
| 6623A-5000 | | | 11400 | 1070 | 486 | | |
| 6623A-6000 | | | 13600 | 1210 | 550 | | |
| 6623A-7000 | | | 16100 | 2030 | 923 | | |
| 6623A-8000 | | | 18400 | 2170 | 986 | | |
| 6623A-9000 | | | 20700 | 2310 | 1050 | | |
| 6623A-10000 | | | 23000 | 2450 | 1114 | | |

1 - Any model in increments of 150A from 150A to 10,000 amps is available. Please contact Guildline for specs. As a general rule, the specifications are typically close to the next higher model (eg a 1100 to 1850 Amp model would have the same specifications as the 2000 Amp model).

6623A SERIES DCC BRIDGE RANGE EXTENDERS

| General Specifications (All Models) | | | |
|--|---------------|---|-----------------|
| Temperature Coefficient ▶ | | ±0.02 ppm/°C | |
| Ratio Transformation Linearity ▶ | | ±0.02 ppm of Full Scale Ratio | |
| Communication via 6622A Series Bridge ▶ | | IEEE 488.2 (SCPI Based Language Instructions) | |
| Test Current Resolution ▶ | | ± 17 bits | |
| Operating Temperature to Full Specifications ▶ | | 23°C ± 3°C | 73°F ± 5.4°F |
| Maximum Operating Range (<50% RH) ▶ | | +10°C to +40°C | +50°F to +104°F |
| Temperature Storage Range ▶ | | -20°C to +60°C | -4°F to +140°F |
| Operating Humidity | 20% to 70% RH | Storage Humidity | 15% to 80% RH |

SERVICE AND SUPPORT

Guildline is pleased to announce that we are **ISO 17025 Accredited**. We have the widest range of resistance accredited with a range of **1 µΩ all the way to 10 PΩ**. Whether you own a Guildline product and have other manufacturer's standards, **call today** and see what we can do for you.

| ORDERING INFORMATION | |
|--|--|
| Model | 3 Amp to 600 Amp Available in Bench Configuration. |
| 6623A-3 | External 3A Range Extender for DCC Resistance Bridge |
| 6623A-150 | External 150A Range Extender for DCC Resistance Bridge |
| 6623A-300 | External 300A Range Extender for DCC Resistance Bridge |
| 6623A-450 | External 450A Range Extender for DCC Resistance Bridge |
| 6623A-600 | External 600A Range Extender for DCC Resistance Bridge |
| 6623A-1000 | External 1000A Range Extender for DCC Resistance Bridge |
| 6623A-2000 | External 2000A Range Extender for DCC Resistance Bridge |
| 6623A-3000 | External 3000A Range Extender for DCC Resistance Bridge |
| 6623A-4000 | External 4000A Range Extender for DCC Resistance Bridge |
| 6623A-5000 | External 5000A Range Extender for DCC Resistance Bridge |
| 6623A-6000 | External 6000A Range Extender for DCC Resistance Bridge |
| 6623A-7000 | External 7000A Range Extender for DCC Resistance Bridge |
| 6623A-8000 | External 8000A Range Extender for DCC Resistance Bridge |
| 6623A-9000 | External 9000A Range Extender for DCC Resistance Bridge |
| 6623A-10000 | External 10000A Range Extender for DCC Resistance Bridge |
| 6623A-XXX | Other Value - Specify Value in 150A Increments |
| SM6623A | Service Manual (Extra Charge) |
| 66259 | Programmable Extender Controller |
| Many other types of test and communication leads and accessories are available | |

GUILDLINE IS DISTRIBUTED BY:

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