YOUR **ELECTRIFICATION** PARTNER

UL891 SWITCHBOARD

10 Green Street Unit 4-262, Woodbridge, NJ 07095 | Sales: (732) 498-0299
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Golden Anvil Forged Series – UL 891 Switchboard

Powering Hyperscale Infrastructure with Confidence

Tailored for Hyperscale Applications

As hyperscale data centers, AI campuses, and mission-critical facilities push the boundaries of power demand, they need infrastructure that doesn't just keep up — it leads. The Forged Series Switchboard by Golden Anvil is purpose-built to meet the evolving needs of hyperscalers, providing rock-solid power distribution with scalability, safety, and speed at its core.

Designed for Scale

The Forged Series is engineered for multi-megawatt campuses, with ampacity options up to 6000A and flexible configurations to support fast deployment across white space expansions, server halls, and power rooms.

Speed to Deployment

For hyperscalers, time is everything. The Forged Series' modular design allows for pre-configured and pre-assembled sections, enabling rapid and seamless installation.

Built for Uptime

Downtime isn't an option in the hyperscale world. The Forged Series incorporates redundant busbar pathways, fully compartmentalized breaker sections, and hot-swappable components — minimizing maintenance windows and maximizing uptime.

UL 891 Certified – Hyperscale Grade Safety

The Forged Series meets and exceeds UL 891 standards, with additional design focus on arc flash mitigation, fault containment, and finger-safe bus stacks — vital in high-energy environments typical of hyperscale campuses.

Power Density Ready

Hyperscale sites are densifying their loads — the Forged Series handles it all. From standard 480V distribution to specialized high-density loads for AI training servers, the Forged Series is future-proofed for next-gen power demands.

Data Center-First Features

- Front and rear access for service flexibility
- Clear breaker labeling for instant identification during critical events
- Smart monitoring integration-ready (optional for remote power health checks)
- Optional busway tie-in for direct connection to overhead distribution systems

Built Tough – Branded with Pride

Every Forged Series Switchboard carries the Golden Anvil name — a symbol of strength, reliability, and engineering excellence, forged for the world's largest, most demanding hyperscale facilities.

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General Description:

UL891 Switchboard:

Our UL891 low-voltage switchboard is engineered for superior electrical distribution and protection. Designed, manufactured and tested to UL891 standard, it is suitable for both service entrance and a distribution. Designed to cater to diverse markets that demand high reliability and safety, our metal-enclosed, free-standing switchboard provides an efficient and cost-effective solution for power distribution.

Ratings

- Voltage: upto 600Vac
- Frequency: 50/60 Hz
- Main bus rated: upto 6,000 A
- Vertical bus rated: upto 6,000 A
- Main circuit breaker available: up to 6,000 A

Design:

- Front and rear accessible
- NEMA Type 1 and 3R enclosure (Option)

Standards:

Switchboard

- UL 891 Low voltage Switchboard

Power Circuit Breakers (ACB)

- ANSI C37.13,ANSI C37.16,ANSI-C37.17, ANSI C37.50
- UL 1066 (UL Listed)
- CSA C22.2 No.31-10

Molded Case Circuit Breaker(MCCB)

- UL 489

Structural features

1. Frame

Our UL 891 switchboard frames are constructed as a robust, solid structure. Each switchboard section is made from formed steel channels and securely fastened using thread-rolling screws. The frames are firmly anchored to the base channel, which helps minimize warping and ensures stable support for internal components.

2. Door and cover

For enhanced structural strength, all covers and doors are made from formed steel. Additionally, the back is enclosed with removable plates featuring formed edges, while all covers are securely fastened using slot/hex head thread-rolling screws.

3. Enclosure

Our UL 891 switchboards come standard with NEMA Type 1 indoor enclosures, with the option for NEMA Type 3R outdoor enclosures and other if needed.

4. Cable compartment

Cable compartments are designed with ample wire-bending space to simplify cable termination and installation. Sufficient workspace is provided to accommodate the cable's bending radius for efficient cable operations.

- Designed to accommodate cable, bus duct riser, cable bus, cable duct and transformer connections.
- Provides secure front access with fully isolated control and communication wiring sections.
- Modular booth structure allows for future equipment installation and expansion.

5. Finish

The standard color is gray (ANSI61), with additional color options available upon request.

6. Section

Each section is equipped with lifting angles for easy handling and installation. To provide flexibility during transportation and placement, sections are shipped separately.
Once positioned, the sections are securely connected to each frame. An auxiliary (or extendable) section can be added to provide extra space for cable or bus transitions or for connecting service conductors to the main line. Designed to match the height of existing sections for a uniform appearance, the auxiliary section extends only in depth. It can also serve as an installation space for customer metering (such as CTs and PTs) or as a housing for the main bus and incoming lug pads.

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Detailed Technical Specifications

Voltage, Current & Short-Circuit Withstand Ratings

Parameter	Specification
Voltage Ratings	Upto 600Vac
Frequency	50Hz / 60Hz
Current Ratings	Upto 6000A
Neutral Bus Rating	100% Rated
Short- Circuit Withstand Rating @ 480Vac	35kA, 65kA, 85kA, 100kA

Breaker Types & Configurations

Breaker Type	Configuration	Trip Mechanism	Interrupting Rating
Molded Case Circuit Breakers (MCCB)	Fixed / Draw-out	Thermal-Magnetic / Electronic	Upto 100kA @ 480Vac
Insulated Case Circuit Breakers (ICCB)	Fixed / Draw-out	Electronic	Upto 200kA @ 240Vac
Power Circuit Breakers (ACB)	Fixed / Draw-out	Electronic (LSI, LSIG)	Upto 130kA @ 508Vac

MCCB: Used for feeder and branch circuits.
ICCB & ACB: Used for main breakers with adjustable protection settings.
LSI, LSIG Protection:
L = Long-time S = Short-tim
I = Instantaneous G = Ground fault

Busbar Material & Ratings

Busbar Type	Material	Ampacity Range	Plating
Horizontal Bus	Copper	Upto 6000A	Tin or Silver
Neutral Bus	Copper	100% Rated	Tin or Silver
Ground Bus	Copper	Per NEC 250/UL891	Unplated
Vertical Bus	Copper	Upto 6000A	Tin or Silver

Copper busbars are preferred for high-conductivity applications.

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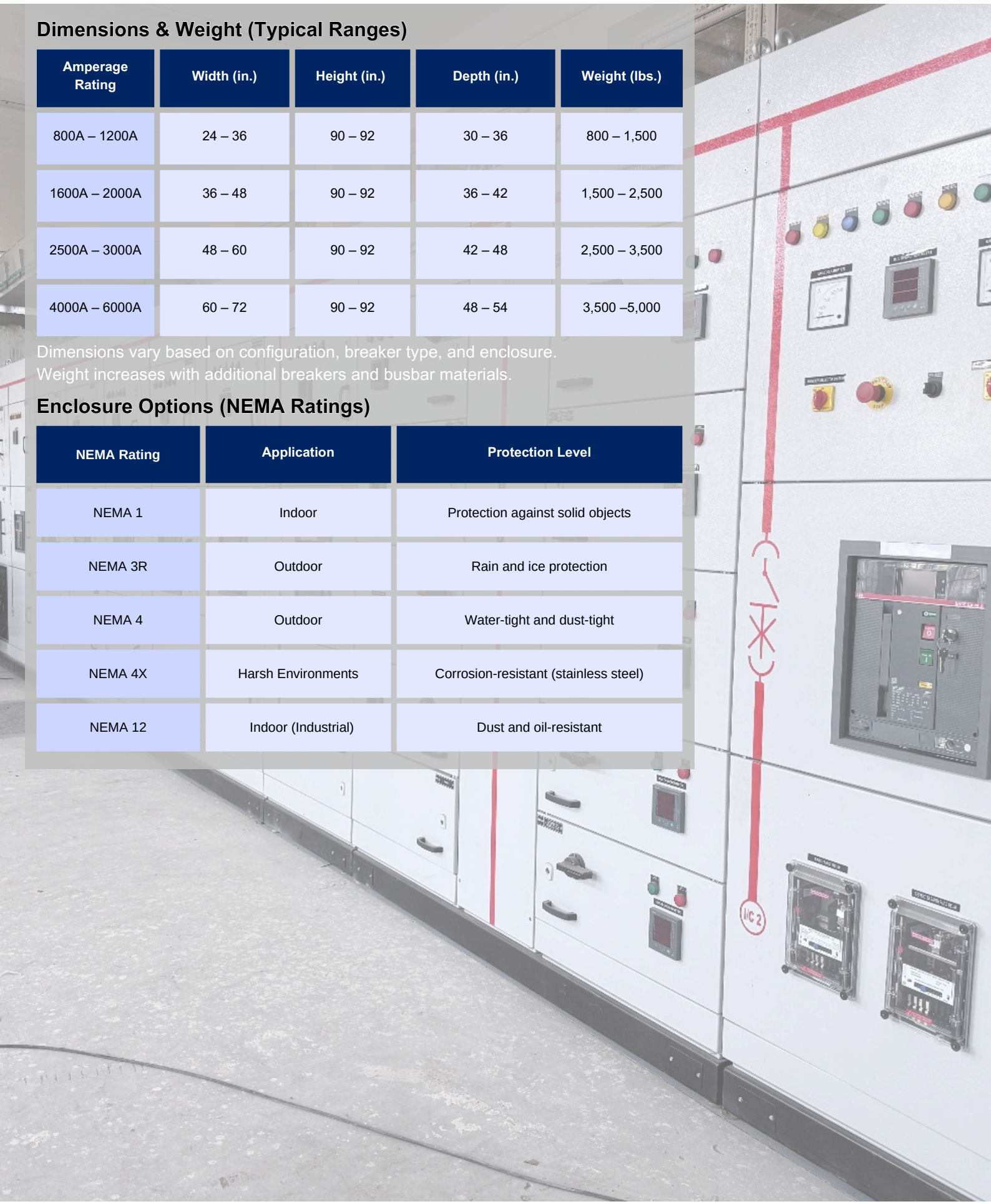
Dimensions & Weight (Typical Ranges)

Amperage Rating	Width (in.)	Height (in.)	Depth (in.)	Weight (lbs.)
800A – 1200A	24 – 36	90 – 92	30 – 36	800 – 1,500
1600A – 2000A	36 – 48	90 – 92	36 – 42	1,500 – 2,500
2500A – 3000A	48 – 60	90 – 92	42 – 48	2,500 – 3,500
4000A – 6000A	60 – 72	90 – 92	48 – 54	3,500 –5,000

Dimensions vary based on configuration, breaker type, and enclosure.
Weight increases with additional breakers and busbar materials.

Enclosure Options (NEMA Ratings)

NEMA Rating	Application	Protection Level
NEMA 1	Indoor	Protection against solid objects
NEMA 3R	Outdoor	Rain and ice protection
NEMA 4	Outdoor	Water-tight and dust-tight
NEMA 4X	Harsh Environments	Corrosion-resistant (stainless steel)
NEMA 12	Indoor (Industrial)	Dust and oil-resistant



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Bus system

The bus is installed in the rear section of the switchboard, with a 1000A sq in bolted copper bus provided in accordance with UL891 standards. The busbar is made from tin-plated electrolytic copper, with an option for silver plating.

Main Horizontal and vertical bus

The main bus is a critical component factor of the switchboard. Its ratings include 2000, 2500, 3200, 4000, 5000, and 6000A, with a short-circuit current rating of up to 100kA for all types. Vertical bus ratings mirror these values, ranging from 2000 to 6000A, also with a short-circuit current rating of up to 100kA.

Neutral and branch bus

The neutral bus is rated at 100% of the main bus rating. The cross-sectional area of the ground busbar for all types is ¼" X 4". Branch bus ratings are determined by the circuit breaker ratings.

Short circuit current

The rated short-circuit current is 100kA for ACBs ranging from 800-3200A and 100kA for ACBs from 3200-6000A. MCCBs are used in the interior, with a maximum short-circuit current rating of 100kA at 480Vac.

Applications:

Building:

- Data center
- Hospital
- Large office building
- Large warehouse
- University

Industry:

- Chemical
- Mining and material
- Iron and steel
- Food and beverage
- Pharmaceutical
- Automobile
- Battery

Utility/Public:

- Waste water
- Airport

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Additional Features and Technologies

Relays
Our switchboards come with integrated relays for protection, control, and monitoring. These relays offer enhanced functionality for fault detection, ensuring optimal performance and minimizing downtime.

Automatic Transfer Switch (ATS)
The ATS ensures uninterrupted power supply by automatically transferring the load to an alternate power source in the event of a primary power failure. This feature is crucial for applications that demand continuous, reliable power without interruption.

Dual Incoming Schemes
For added reliability, our switchboards can be configured with dual incoming power schemes. This setup allows the switchboard to receive power from two separate sources, ensuring redundancy and minimizing the risk of power loss.

Other Technologies

- **Power Monitoring:**
Integrated power meters and monitoring systems allow real-time tracking of electrical parameters such as voltage, current, power, and energy consumption.

- **Remote Monitoring & Control:**
modules for remote monitoring and control, providing users with enhanced visibility and control over their electrical systems.

- **Arc Flash Protection:**
Advanced arc flash protection systems are included to prevent potential hazards, enhancing safety during operation and maintenance.

- **Thermal Management:**
Efficient cooling and thermal management technologies ensure the switchboard operates within safe temperature limits, preventing overheating and improving the longevity of the components.

- **Smart Grid Integration:**
Our switchboards are designed for compatibility with smart grid technologies, providing seamless integration with modern electrical networks and enhancing energy management capabilities.

These features make our UL 891 switchboards not only reliable and safe but also adaptable to meet the demands of various industries, ensuring your operations run smoothly and efficiently.

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