



# SWITCHGEAR AND POWER SYSTEMS

## Solutions

Medium Voltage Switchgear | Low Voltage Switchgear  
Low Voltage Switchboards | Panelboards  
Automatic Transfer Switches | Control Panels

Facility Power Distribution  
On-Site Power | Generator-Utility Paralleling  
Generator Mounted Power Distribution | 24/7 Critical Power  
Enclosed Distribution & Unit Substations



*Intelligent Power Systems*



## *Intelligent Power Systems*

*We provide dependable, cost effective power system solutions through innovative integration of electrical infrastructure and advanced power management. Our Customers are Owners, Operators, Consultants and Providers of Commercial, Industrial, Institutional, Government and Utility power systems.*

When it comes to providing intelligent power systems, if it can be done, we can do it. We routinely complete projects with challenges including custom layouts, expansion to existing equipment, modernization, integration and complex power automation. Our team of Engineers is focused on listening to your performance expectations, then designing and supplying a system to meet them.

### **Solutions:**

- LV & MV Switchgear
- Switchboards
- Panelboards
- Automatic Transfer Switches
- Control Panels
- Generator Mounted Power Distribution and Control

### **Applications:**

- Facility Power Distribution
- On-Site Power
- Generator/Utility Paralleling
- 24/7 Critical Power

### **Packages:**

- Drop-In Control Houses
- Enclosed Distribution Substations

### **Range:**

- 120V to 38kV
- Indoor/Outdoor
- NEC, NEMA, UL, ANSI, IEEE and other related standards
- New, Retrofit and Expansion

### **Services:**

- Site Surveys
- Estimates and Proposals
- Design
- Engineering
- Fabrication
- Installation
- Factory Acceptance Testing
- Site Acceptance Testing
- Commissioning
- Training
- Maintenance
- Field Service

You are welcome to visit our three engineering/manufacturing locations near Raleigh, N.C. We look forward to your custom requirements and lead-times.

NexGear is a PowerSecure Company (NASDAQ: POWR)



## *Intelligent Power Systems*

### Medium Voltage Switchgear

- Metal Clad and Metal Enclosed
- Transfer and Load Shed Schemes
- Paralleling Controls
- New or Expansion Switchgear
- Retrofit of Existing Switchgear
- Drop-In Substation and Portable Designs
- Indoor/Outdoor
- Manufactured per UL, ANSI/IEEE and other standards per your project's requirements



### Low Voltage Switchgear

- Transfer and Load Shed Schemes
- Paralleling Controls
- New or Expansion Switchgear
- Retrofit of Existing Switchgear
- Drop-In Substation and Portable Designs
- Indoor/Outdoor
- Manufactured per UL1558 and other standards per your project's requirements





## *Intelligent Power Systems*

### Low Voltage Switchboards

- 600V Class AC & DC
- Transfer and Load Shed Schemes
- Paralleling Controls
- New or Expansion Switchgear
- Retrofit of Existing Switchgear
- Drop-In Substation and Portable Designs
- Indoor/Outdoor
- Steel and Stainless Steel
- Manufactured per UL891 and other standards per your project's requirements



### Low Voltage Panelboards

- 600V Class AC and DC
- 250V DC
- By-Pass Panel Designs
- Indoor/Outdoor
- New or Expansion Panels
- Retrofit of Existing Panels; Retrofit for Existing Can In Wall
- UL Tested and Listed
- Meets NEC and NEMA Standards
- Manufactured per UL and other standards per your project's requirements





# Intelligent Power Systems

## Automatic Transfer Switches

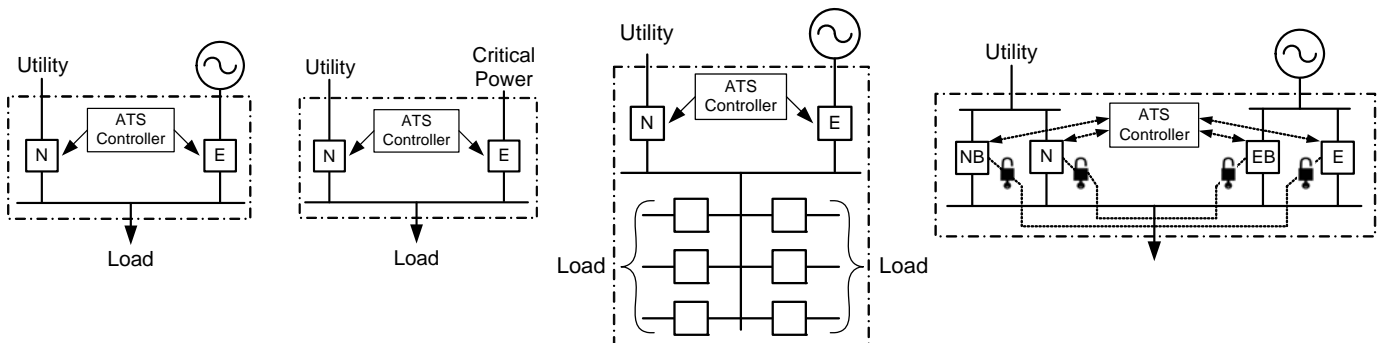
- 600V Class AC
- PowerSecure PS 200 ATS Controller
- Adjustable timers and logic for source transfers
- Engine Start/Stop Control
- UL 1008; UL 891 or UL 1558 versions available
- 600A – 5000A\*\*
- Fixed or Drawout Breaker Designs
- Open or Closed Transition
- Bypass Isolation Available
- Seamless Bus Transition to NexGear Switchgear
- Service Entrance Configurations
- Ability to Integrate Service Entrance, Transfer Switch, Bypass Isolation and Load Switchboard into a Single Bused Assembly



Transfer Switch



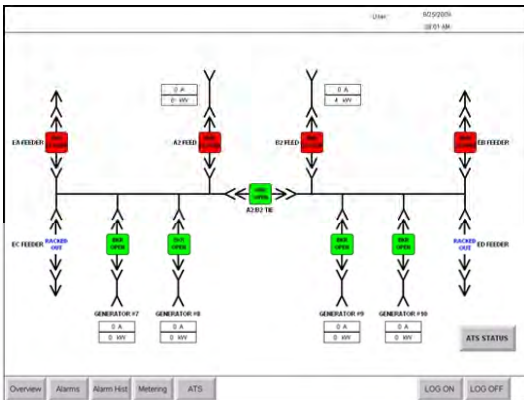
Transfer Switch with Bypass Isolation



\*\* = 5000A, UL 891 or UL 1558 listing only

## Control Panels

- Protection, control and power automation applications
- Enclosures types NEMA 1, 3, 3R, 3S, 4, 4X, 12
- Freestanding or bracket/wall mounted
- Conduit entrance from top, side and bottom as required
- Steel, aluminum and stainless steel
- Custom paint available
- UL508A





## *Intelligent Power Systems*

### **On-Site Power Systems**

- Utility paralleled operation includes applications of peak shaving (demand reduction), and bumpless transitions to Utility power from emergency operation to utility power, and from/to Utility power for deliberate proactive facility isolation (PQ reasons, storm mode, planned Utility outage)
- New and retrofit advanced on-site power systems using state of the art protection, control and switchgear (LV, MV and Combination LV/MV)
- Systems deliver outstanding performance in terms of reliability, operational flexibility, fuel economy, and ability to record and present operational data for monitoring and event analysis
- Complete systems including generation, as well as switchgear and control only systems, can be optimally configured to meet application requirements.
- For critical power requirements (24/7), systems can be designed to accommodate multiple Utility sources, multiple generators and generator buses, UPS and redundant feeds to the loads using transfer switches.





## *Intelligent Power Systems*

### **Generator Mounted Power Distribution and Control "GENKIT" and "GENBOX"**

- GENKIT and GENBOX are ideal systems for site specific power distribution and control mounted directly on a generator
- Solutions are available for new generators and retrofit applications
- A GENKIT consists of breakers, busing, cabling, mounting hardware and control (if required) to be mounted in an existing alternator termination/breaker enclosure
- A GENBOX consists of breakers, busing, cabling, mounting hardware, control (if required) and a new or expansion alternator termination/breaker enclosure

GENKIT and GENBOX provide an economical answer to power distribution and control for generators as it eliminates the need for costly external switchgear. It can streamline generator installations with resulting reduction in engineering, wiring, use of external switchgear, construction, use of space, testing and commissioning.



In addition to the power distribution, various types of sensing, control, protection and external system communication connectivity may be provided.





## *Intelligent Power Systems*

### **Engineering and Services:**

#### Site Surveys

- NexGear Project Engineers and Sales Engineers can visit your facility to survey needs for new and retrofit work.

#### Design/Engineering

- Including switchgear, transformers, cabling, panels, protection, automation, metering, communications and integration. We also provide Coordination Studies, Short Circuit Analysis and Arc Flash Studies.

#### Procurement

- Multi-vendor capable with agreements with major suppliers of breakers, transformers, protection, automation, metering, communications and integration.

#### Fabrication

- Complete fabrication including metal work, bus work, all component mounting and wiring, permanent housing and mobile enclosures.

#### Factory Testing

- All systems are exercised with secondary or primary quantities as appropriate to ensure functionality. This includes highly integrated protection, automation, metering and communication systems.

#### Site Construction/Installation

- Our experienced Crews and Project Managers ensure smooth installation of your project.

#### Site Testing/Commissioning

- We apply primary and secondary quantities as appropriate to ensure all field connections are correct and the installation is fully functional.

#### Training

- On-site training for engineering, operations and maintenance personnel, as well as training at our facility during construction and factory test.

#### Maintenance

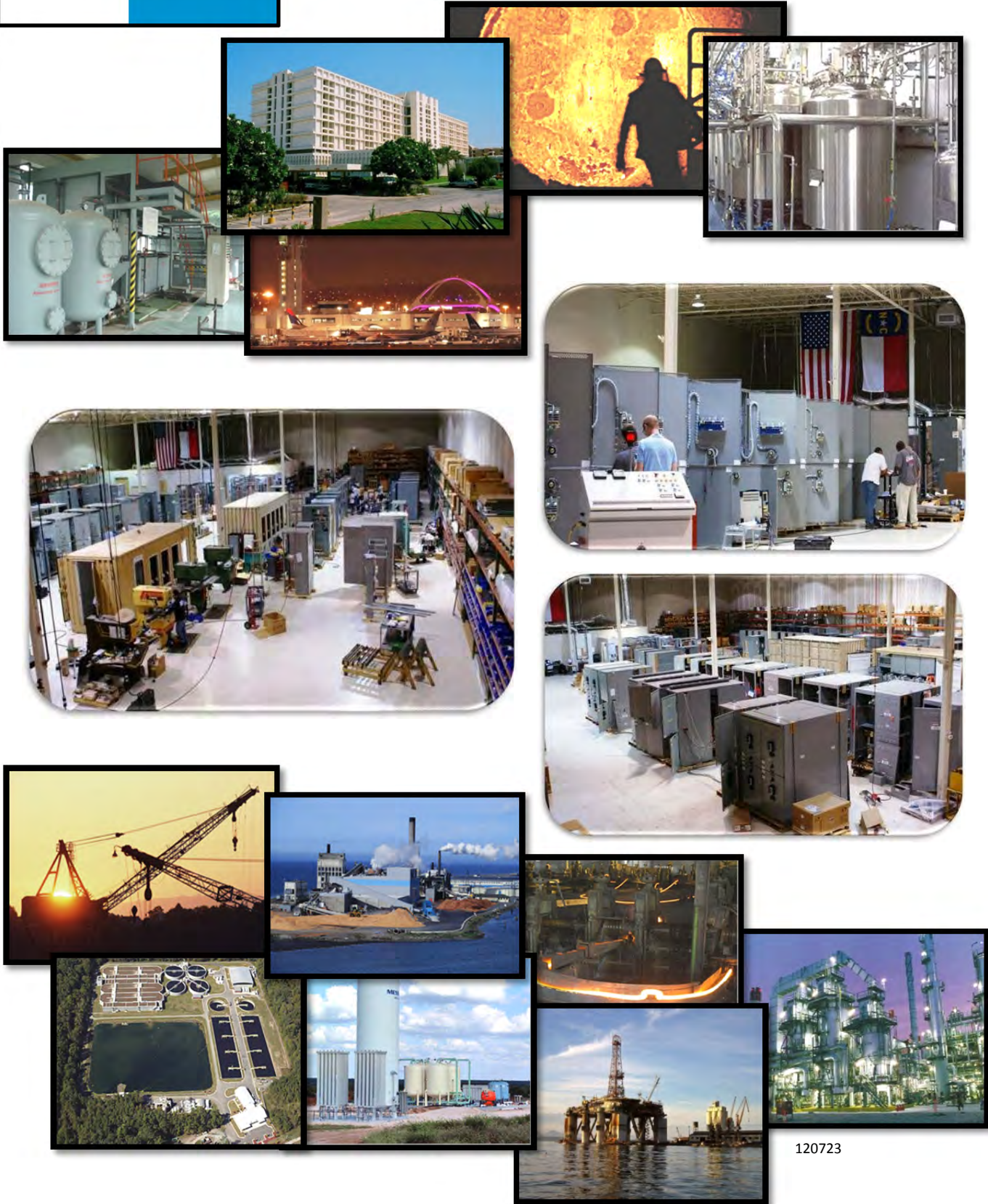
- We can care for your installation to ensure many years of highly reliable electric service. In many instances we can employ remote systems that gather advanced diagnostic information.

#### Field Service

- Switchgear Maintenance, Infrared Testing, Relay Testing, Switchgear Trouble Shooting



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