

# GENERATOR DOCKING STATIONS

# YOU EAN'T AVO DISASTER YOU CAN PREPA FOR IT.

# WEATHER DISASTERS AREN'T ONLY PREDICTABLE. THEY'RE INEVITABLE.

# WEATHER-RELATED EVENTS INCREASE

Since 1980, the average number of weather-related events per year that caused more than \$1B in damage has been 5. In 2017, there were 17. These events include hurricanes, wildfires, tornadoes, floods, ice storms, mudslides and storm surges,

# 150-YEAR HURRICANE MAP

Historically, hurricanes have been a frequent and normal occurrence in the Gulf Region and the East Coast. What has changed is their frequency and growing destructiveness.

# DAMAGE AMOUNTS INCREASE

Total damage for all events set a new record of over \$300B in 2017. That is \$100B higher than the second most costly year ever, and over \$200B higher than the third. The greatest damage is caused by hurricanes.

## POPULATION GROWS

In 1920, the population of Miami, Florida was 29,000. Today, the Miami metro population is 5.5M. The rest of the Gulf and East Coast have witnessed similar explosive growth, so it no longer requires a major hurricane to cause significant damage.









T R Y S T A R





# **KEEP THE** LIGHTS ON WHEN THE POWER

# GOES OFF.

For most people, a power outage is a mere nuisance. Nothing to really worry about. A missed TV show. A few hours without air conditioning. It's a problem maybe, but not a disaster.

However, for some people a power outage is a

serious matter indeed. We're paid to worry about it. For us, protecting our power supply can be a matter of life or death or a multi-million dollar business disaster.

One thing we know for sure: the power will go out

at some point. It's inevitable. Our challenge is to be prepared. What's the best strategy? What are the risks we face? What level of preparation can mitigate or even eliminate our risks? What are the consequences of failure?

Those are the questions we think about all day at Trystar. So you can rest assured that we're on the same page as you. And together, we will find a way



# WITH GENERATOR DOCKING STATIONS FROM TRYSTAR®

to keep you powered up even when the power is out. At Trystar, we've gone to extraordinary lengths to become the very best at what we do. It starts with Trystar engineers who develop our Docking Stations and oversee their production right through to final testing. They specify the heavy gauge metals in our cabinets and make sure that their designs meet the relevant NEC and UL codes and standards.

To offer you the confidence you deserve, we manufacture our Docking Stations in our own factory in Minnesota. Starting with raw rolls of metal, we use the latest fabrication techniques to create Docking Stations that stand the test of time And that pass the strictest testing protocols. Because when the power does go out, you need to have confidence that you've chosen the right company to get the lights back on.

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# UTILITY POWER

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Most facilities are connected to the grid, which increasingly suffers from outages due to aging infrastructure and severe weather. The primary function of a Generator Docking Station is to mitigate or eliminate the effects of outages by providing rapid or instantaneous switching to backup power.

# **GENERATOR POWER**

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Depending on the needs of a particular facility, a permanent on-site generator may be required. In extreme cases, uninterruptible battery backup may be required to supply power during the few seconds it takes for a generator to start up and reach full power. In most cases, however, a temporary mobile generator will be sufficient to provide the backup needs of the facility.

# **GENERATOR DOCKING STATION**

Regardless of whether a facility is connected to a permanent or temporary generator, the Docking Station serves several important functions. In the case of a temporary generator, the Docking Station simplifies switching over to backup power and also makes connections faster and safer. It offers all the same benefits for facilities with a permanent generator, and also allows the generator to be tested and maintained without interrupting utility power or risking an outage during maintenance. In general, it's possible to prioritize the electrical needs of a facility. For a hospital, the surgical suites and critical care wards are the top priority. An inside connection cabinet allows the facility to power the critical circuits first. Then, if more generators can be brought on line, additional circuits can be added at a later time. The customer has the ability to switch power to various circuits at different times depending on the needs of the facility

# INSIDE CONNECTION CABINET

Because all of the equipment has been installed prior to the power loss event, once the generator is rolled up to the Docking Station and the cables are connected, the facility can quickly be back up and running. Often this entire process takes only a few hours.

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# SOME LOSSES DUE TO DISASTER CAN BE FORGIVEN.

OTHERS CAN'T.

When the stakes are highest. In a healthcare setting, the loss of power can risk the health and lives of vulnerable patients dependent on medical equipment, or patients who may be in the middle of a medical procedure.

Reliable power is the foundation of almost every hospital capability, from monitoring equipment, communication networks, labs and surgical suites to HVAC and elevators.

Trystar Generator Docking Stations facilitate a seamless switch from utility power to backup power, with options for performing maintenance and testing of the backup systems. Nursing homes and other types of care facilities, such as mall clinics and urgent care

offices, often have less critical power needs than hospitals, but they too need the assurance that their Docking Stations and backup generators can come to the rescue.

Our NEC 700.3 compliant Dual Purpose Docking Stations and Load Bank Docking Stations take most of the hassle out of connecting backup power during routine maintenance, or while exercising your generators with load banks.

TAMPA GENERAL HOSPITAL IS THE ONLY LEVEL ONE TRAUMA CENTER IN THE TAMPA AREA, AND ONE OF ONLY THREE BURN CENTERS IN FLORIDA. CRITICALLY INJURED OR SICK PATIENTS ARE TRANSPORTED TO TGH. SOMETIMES BY HELICOPTER, FROM 23 SURROUNDING COUNTIES TO RECEIVE ADVANCED CARE. TGH IS ALSO A NATIONALLY-DESIGNATED STROKE CENTER, AND THE NEUROSCIENCE INTENSIVE CARE UNIT IS THE LARGEST ON THE WEST COAST OF FLORIDA. THE CHILDREN'S MEDICAL CENTER FEATURES A PEDIATRIC INTENSIVE CARE UNIT AND PEDIATRIC

DIALYSIS UNIT WITH SO MUCH CRITICAL CARE HAPPENING AT TGH EVERY HOUR OF EVE DAY. A POWER OUTA



IS UNTHINKABLE. AND TRYSTAR DOCKING STATIONS ARE A CRUCIAL PART OF THE BACKUP POWER STRATEGY FOR TGH.

OUR TIME-TESTED DUAL PURPOSE LOAD BANK AND GENERATOR DOCKING STATIONS ALONG WITH OUR ROTARY BREAKERED DOCKING STATIONS SUPPLEMENT THE ON-SITE TGH EMERGENCY POWER GENERATORS IN CASE OF A FAILURE. AND ALSO ALLOW FOR TESTING OF THEIR UNINTERRUPTIBLE POWER SUPPLIES.

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# DATALOSI DURING AN OUTAGE IS DATA LOST/FOREVER.

'Data Center' is a terrible name. A better description would be a digital concert hall or a virtual movie theater, a bank, a museum, a library, a family photo album, or an electronic marketplace, with orders flowing one way and dollars flowing the other. Data centers are all those things and hundreds more. They are the physical embodiment of 'the cloud.' The invisible repository for all our emails, photos, contacts and business information. Data centers are invisible. And that's the way it should be. Because when they are operating as designed, nobody notices. It's only when there's a problem that people care about them. And boy do they care. Customers get angry. Business is lost.

Accounts change hands.

At Trystar, we've worked on some of the latest and most critical data centers in the country. We've partnered with the top architects, engineers and tradespeople. We are right on the cutting edge of data center design and construction, and ready to help you get your project off the ground right now Give us a call.

CONSTRUCTION SPEED. A LEADING DATA CENTER COMPANY, AND TRYSTAR CLIENT, RECENTLY DECIDED TO EXPAND ITS U.S. DATA CENTER CAPACITY. THE COMPANY IS KNOWN FOR THE HYPER SPEED WITH WHICH IT CONSTRUCTS NEW DATA CENTER FACILITIES. SO, WHEN THEY CONTACTED TRYSTAR, THE TIMELINES WERE AGGRESSIVE. SPECIFICALLY TO HAVE A 120.000 SQUARE FOOT. 10 MEGAWATT DATA CENTER COMPLETED IN 180 DAYS. TRYSTAR PROVIDED A KEY COMPONENT TO THE PROJECT IN THE FORM OF OUR DUAL PURPOSE LOAD BANK

AND GENERATOR DOCKING STATIONS OUR DOCKING **STATIONS SERVED** TWO PURPOSES.



FIRST. TO LOAD BANK THE EXISTING PERMANENT GENERATORS, WHICH ARE CONSTANTLY AT THE READY IN THE EVENT OF A POWER OUTAGE. AND SECOND. IN THE EVENT OF A PROLONGED OUTAGE. TO GIVE AN ACCESS PORT AND CONNECTION POINT FOR MOBILE TEMPORARY GENERATORS TO BACK UP THE PERMANENT GENERATORS. TRYSTAR FULFILLED ITS COMMITMENT TO THE PROJECT, AND ITS AGGRESSIVE SCHEDULE.

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# YOUR INVENTORY SPERISHABL SO IS YOU CUSTOMER BASE.

**MEIJER: TRYSTAR GENERATOR DOCKING STATIONS ARE** KEY TO THE SUCCESSFUL BACKUP POWER STRATEGY OF A MAJOR REGIONAL GROCERY CHAIN. WHICH DPERATES STORES IN A NUMBER OF STATES. THEIR STRATEGY IS DESIGNED TO KEEP THEIR STORES OPEN. AND ALSO KEEP GROCERIES FLOWING OUT FROM THEIR DISTRIBUTION CENTERS. THEY HAVE INSTALLED TRYSTAR DOCKING

STATIONS AT THEIR DISTRIBUTION CENTERS AND PARKED SEVERAL LARGE (ONE MEGAWATT) MOBILE GENERATORS AT EACH LOCATION.

IN THE EVENT OF A POWER LOSS AT ANY ONE OF THEIR DISTRIBUTION CENTERS. THE GENERATORS ARE ALREADY ON SITE AND CAN QUICKLY SUPPLY POWER.



THE OTHER HAND. N CASE OF A LOSS OF POWER AT ANY DIVIDUAL STORE, THE IERATORS CAN BE

UICKLY DISPATCHED TO POWER UP THE STORE. THIS ECONOMICAL SOLUTION TO A COMPLEX BACKUP POWER PROBLEM HAS BEEN SO SUCCESSFUL THAT TRYSTAR DOCKING STATIONS HAVE BECOME A STAPLE OF ALL THEIR FUTURE GROCERY STORES.

Open for business. On paper, retailers have a simple mission. Get products into the hands of customers. But in real life, things are tricky. Power outages happen. When they happen, precious time can go by where inventory is sitting in the warehouse.

That's why Trystar is indispensable to retailers. We provide equipment, such as Generator Docking Stations, with expertly designed control keys and switches, capable of absorbing all manner of power challenges. With Trystar, distribution centers rest easy. They know their operations will proceed.

Food safety is a critical issue for everyone in the entire delivery chain. From the grocery store or restaurant all the way up to the wholesale distribution facility, the quality and safety of food must be protected.

It's a job that requires constant vigilance and redundant systems. The danger of loss through spoilage is ever present, and protecting power supplies is a major factor in good food safety practices.

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# WHEN THE POWER CAME BACKON, THEHEALING BEGAN.

# SCHOOLS/CHURCHES/MUNICIPALITIES/POLICE & FIRE

Disaster Relief. Extreme weather and natural disasters often have devastating and even lethal effects on communities, municipalities, and major metropolitan areas. Floods, blizzards, earthquakes, wildfires, hurricanes and tornadoes are natural events that can strike almost anywhere at any time.

While such events may be unpredictable and unavoidable, they do not have to be completely unmanageable. With foresight and planning, it's possible to mitigate some of the worst effects and accelerate the process of recovery.

Trystar has extensive experience helping communities to prepare for the unthinkable, and then deal with the aftermath. A little preparation can go a long way. For example, the simple addition of a Generator Docking Station to a municipal lift station might prevent flooded basements in an entire neighborhood.

Each community has unique needs, but there are certain critical areas that generally need careful planning. These include police, fire and rescue,

public works and wastewater treatment plants. Our Generator Docking Stations have proven themselves over and over in exactly these types of situations.

DISASTER PREPAREDNESS. THE UNITED STATES EXPERIENCES HUNDREDS OF WIDESPREAD POWER OUTAGES IN ANY GIVEN YEAR. IN ADDITION TO THESE LARGE. BUT ISOLATED EVENTS. THE COUNTRY IS **REGULARLY BATTERED BY REGIONAL EVENTS LIKE** IURRICANE SANDY WHICH DELIVERED A BLOW TO THE EASTERN SEABOARD THAT KNOCKED OUT POWER TO AN ESTIMATED EIGHT MILLION PEOPLE.

IN 2017. HURF HARVEY HIT HOUST HARD. WHEN THAT HAPPENED, TRYST/ **IUMPED INTO ACTIO** 



SHIPPING 300 MILES WORTH OF CABLES. TRUCKS FULL OF OUR CABLES, CONNECTORS, ELECTRICAL PANELS AND DOCKING STATIONS WERE PARKED IN HURTING NEIGHBORHOODS, ALLOWING HOMEOWNERS ACCESS TO POWER. WE'RE PROUD OF OUR WORK WITH MUNICIPALITIES. WE'RE THERE FOR ALL OF THEIR NEEDS. FROM WASTEWATER TREATMENT. TO FIRE AND RESCUE. AND NATURAL DISASTER RESPONSE.

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# CAN GET POWER BUT BACKUP USTOMERS ARE ARD TO FIND.

Retail services. Most retail businesses can't operate without power. The signs flicker off. The store goes dark. The cash register won't work. The coffee goes cold. The cold drinks get warm. The pumps won't pump gas. And the customers look for a store that's open. And at that point, you've lost the ability to serve your community. Bank, restaurant, drug store, shopping mall. Whatever kind of retail business you operate, losing power for any significant length of time can have a severe short-term effect, in addition to a long-term impact on customer loyalty. Retail distribution and shipping facilities are also vulnerable to power outages. Consumers are accustomed to receiving next day shipping For retailers who promise a delivery date, even one hour of downtime can cost a customer. The annual cost to the economy from power outages averages in the billions. As a retail operator, you depend on power for your business but you have to assume the power will go out at some point. Don't become a statistic. Don't be

# RESTAURANTS/BOX STORES/BANKS/SHOPPING MALLS

caught without a backup power strategy. We have the generator docking equipment you need. With our Docking Stations you can plug your building into an external power source. Don't just survive an outage. Thrive during an outage.

**TEXAS ROADHOUSE OPERATES MORE THAN 500** RESTAURANTS IN 49 STATES AND SIX FOREIGN COUNTRIES. EACH STORE GENERATES A SIZABLE DAILY REVENUE, SO ANY DOWNTIME DUE TO POWER OUTAGES CAN BE VERY COSTLY. AND IT'S NOT JUST DAILY LOSSES THAT TEXAS ROADHOUSE HAS TO CONSIDER. A POWER OUTAGE ALSO THREATENS A LARGE AND PERISHABLE

INVENTORY OF STEAKS. BARBECUE AND SEAFOOD.

THAT'S WHERE TRYSTAR GENERATION **DOCKING STATIONS** COME TO THE RESCU **OUR ROTARY AND KI** 



**KEY DOCKING STATIONS ALLOW A TEXAS ROADHOUSE** RESTAURANT TO QUICKLY AND EASILY CONNECT A TEMPORARY GENERATOR AND GET THE STORE BACK UP AND RUNNING. WHICH IS WORTH ITS WEIGHT IN GOLD IN PEACE OF MIND.

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# KEEP THE **FG** GHTS

Brain Power. Education requires illumination. It's hard to learn in the dark. That's why universities turn to us for support. When outages happen on campus, our Generator Docking Stations connect to backup power sources. That way the lights stay on, and the learning and research can continue. It's not uncommon for an educational campus to include dormitories, dining rooms and even a student health clinic, in addition to the classrooms, offices and laboratories. Most campuses also have an on-site data center and campus-wide wifi capabilities which are essential to both the faculty and the students. That puts the power requirements of an educational campus on a similar footing with a small municipality. And requires facilities management personnel to take steps to protect the critical infrastructure of the campus. A strong storm can easily knock out campus power for days if not weeks, putting student safety at risk and causing significant losses of perishable foodstuffs. Where high-rise and even medium-rise

# COLLEGES/UNIVERSITIES/BOARDING & PRIVATE SCHOOLS

buildings are involved, a power outage will also disable the elevators, which poses another set of significant issues.

Trystar Generator Docking Stations have proven themselves over the years on campuses around the United States.

AT A MAJOR MIDWESTERN UNIVERSITY, TH PERMANENT EMERGENCY GENERATORS HAD TO BE DISCONNECTED DURING ROUTINE LOAD BANK TESTING. UNFORTUNATELY, IF UTILITY POWER HAD FAILED DURING TESTING, THE BACKUP GENERATORS WOULD NOT BE AVAILABLE. THAT WAS UNACCEPTABLE, SO THE UNIVERSITY ADDED TRYSTAR LOAD BANK DOCKING STATIONS TO ALL THEIR EMERGENCY GENERATORS. THEY CAN NOW TEST AND CERTIFY THEIR PERMANEN

**GENERATORS WITHO INTERRUPTION TO** THEIR CRITICAL BUILDING LOADS. I ADDITION. TRYSTAR'S



DUAL PURPOSE DOCKING STATIONS PROVIDE QUICK CONNECTIONS TO BOTH A LOAD BANK AND A MOBILE TEMPORARY GENERATOR IN THE EVENT OF A PROLONGED OUTAGE.

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# THE SHOW MUSTGO ON.

With the appropriate Trystar Docking Stations in

The power requirements of a huge sporting event, music festival or convention can strain the capabilities of any utility company. So it's common practice for event promoters to bring in their own supplemental power generators. Trystar Generator Docking Stations make the process faster, easier and safer.

place, contractors can run all the cabling and prep the

entire site. Once everything is in place and tested, the supplemental power generation can be turned on to energize the circuits.

Event promoters have a lot of pressure. Their success often depends on just a handful of dates a year. Trystar has extensive experience with large events that must operate flawlessly over the course of several days, and our Docking Stations have proven themselves over and over. We've provided Generator Docking

Stations for football's biggest contest in addition to events like the Ryder Cup and the Bonnaroo Music & Arts Festival.

MIAMI DOLPHINS/HARD ROCK STADIUM IS HOME TO TH MIAMI DOLPHINS FOOTBALL TEAM. BUT IT IS ALSO THE VENUE FOR THE ORANGE BOWL AND HAS HOSTED FIVE SUPER BOWLS, PLUS TWO WORLD SERIES AND A PRO BOWL. IN MARCH OF 2019. THE STADIUM WILL ALSO HOST THE MIAMI OPEN TENNIS TOURNAMENT. THE STADIUM IS LOCATED IN SUNNY FLORIDA WHERE THE HEAT CAN BECOME OPPRESSIVE, SO. IN 2015 A CANOPY WAS INSTALLED TO PROTECT FANS. THIS CREATED A PARADOXICAL PROBLEM: SHADE FROM THE CANOPY STARVED THE GRASS OF SUNLIGHT. ARTIFICIAL GROW LIGHTS HAD TO BE INSTALLED ON

A SPECIAL ROLLING GANTRY SYSTEM. EVERY NIGHT. THE GANTRY ROLLS SLOWLY ACROSS THE FIELD GIVING THE GRASS THE LIGHT IT NEEDS TO GROW. TO POWER THE LIGHTS, TRYSTAR BUILT 44 CUSTOM POWER OUTLETS, EACH PROVIDING 150-200 AMPS.



TRYSTAR ALSO PROVIDED THE TADIUM WITH DOCKING STATIONS OR THE TV TRUCKS THAT COVER ELEVISED EVENTS. EACH OF THE OCKING STATIONS PROVIDES 400 AMP SERVICE TO THE TV TRUCKS, AND POWER TO

EVERYTHING FROM THE BROADCAST CONTROL ROOM TO THE SATELLITE UPLINKS.

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# SOMETIMES, IT REALLY IS LIFE **OR DEATH WHEN** YOU HAVE TO STOP PRODUCTION.

You're growing, not making. Agriculture is inherently risky and uncertain. Weather, pests and disease all take their toll. So it's comforting to know that the simple addition of a Trystar Generator Docking Station can reduce your risk. The ability to quickly and easily connect a generator could save a barn full of vulnerable animals or a greenhouse full of valuable plants That knowledge can be particularly comforting in the middle of a severe cold snap or an oppressive heat wave.

The same goes for storage and processing facilities. When it's time to harvest, you need to get the crops out of the field or risk losing everything. Fresh fruits and vegetables are particularly time sensitive. Picking and processing is often a 24-hour operation. A processing plant may sit silent most of the year, but when it's harvest time there's no room for error, such as a prolonged power outage which can knock the entire facility offline, completely stopping production.

Fortunately, a Trystar Generator Docking Station can offer peace of mind, and the knowledge that getting the facility up and running again will be easy and safe.

KRELL FAMILY FARM OPERATING AN 1800 ACRE FAMILY FARM IS A BIG JOB FOR ANYBODY. AND FOR RODNEY KRELL OF BLOOMING PRAIRIE, MINNESOTA, IT'S A 24/7 JOB. SUMMER AND WINTER. WITH CROPS IN THE FIELD AND LIVESTOCK IN THE BARN, RODNEY NEEDS TO KNOW THAT HIS ELECTRIC SUPPLY WILL BE THERE WHEN HE NEEDS IT, ESPECIALLY URING FALL HARVEST WHEN HIS CORN DRYERS RUN AROUND THE CLOCK. AND THE SAME IS TRUE

IN THE DEPTHS OF MINNESOTA'S SUB **ZERO WINTERS WH** HIS CATTLE NEED WATER AND HIS TA



HEATERS ARE WORKING OVERTIME TO MELT THE ICE. THAT'S WHY RODNEY TURNED TO TRYSTAR FOR A TURNKEY GENERATOR DOCKING STATION. IT GIVES HIM THE PEACE OF MIND HE NEEDS IN A BUSINESS THAT HAS MORE THAN ITS SHARE OF RISKS.

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Plants and facilities. Large-scale manufacturing operations are heavily dependent on reliable electrical supplies. It isn't just a matter of keeping the lights on and the machinery operating. It's also the fact that many plants must maintain a constant power supply for the manufacturing processes they employ. Once the line is up and operating, it has to stay that way. A power outage is a real threat, because if a continuous manufacturing process isn't shut down in an orderly way, it can cause the loss of a significant amount of product. Solder has to be liquid or the circuit boards will fail testing. Chemicals must be combined at a specific temperature or the catalyst won't work. Plastics must be injected at the right heat and pressure or the moldings will be defective.

Generally, such facilities employ permanent backup power. Our Generator and Load Bank Docking Stations make the process of maintaining and exercising the generators extremely easy.

Other types of manufacturing may not require an on-site generator, but can still benefit from a Trystar Docking Station. It's a simple matter of connecting a generator to the Docking Station and the plant is up and running again. Considering lost production from the plant and the cost of idle labor, the Docking Station could pay for itself based on one power outage, which is a terrific return on investment.

**'LIGHT' INDUSTRY MAY NOT SOUND DRAMATIC** COMPARED TO 'HEAVY' INDUSTRY, BUT IT IS THE LIFEBLOOD OF ANY ECONOMY. RELIABLE POWER IS ESSENTIAL FOR INDUSTRIES SUCH AS BAKERS.

**FOOD PROCESSORS** MACHINE SHOPS. A **PRINTERS. ALMOST ANY PRINT SHOP. FOI EXAMPLE, WOULD** 



BENEFIT FROM TRYSTAR'S MEDIUM VOLTAGE DOCKING STATION AND SWITCHGEAR. OUR BACKUP POWER SOLUTIONS COULD HANDLE THE ELECTRICAL LOAD OF THEIR ENTIRE FACILITY, SO THEIR PRESSES WOULD NEVER BE OUT OF SERVICE FOR LONG.

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# ABOUT BUILDING BOUT THE REOPLE. A

Modern secure facilities depend on a wide range of electronic devices. Everything from video cameras and IR sensors to motion detectors and buried perimeter sensors. Whether the goal is to keep people in or out, the entire system depends on reliable power The consequences of a system failure are dire in many instances, and can even be lifethreatening for first responders. That's why it's critical for every secure facility to make advance provisions for backup power. In fact, many governmental agencies, which are usually responsible for operating and maintaining secure facilities are now enforcing strict guidelines for the installation of backup power equipment. While the maintenance of a secure perimeter is essential, it's equally important to provide for

# CORRECTIONAL FACILITIES/MILITARY BASES/BORDERS

the safety and security of the people who may are a population of psychiatric patients who

need constant attention and care, or people who have been detained by the courts. Modern standards for the treatment of detainees demand a basic level of care in terms of heating and cooling, nutrition, and physical exercise. In the event of a long-term power outage at any secure facility with a large population, backup power must be available to quickly provide these services. Many secure facilities are now being constructed in relatively remote locations, oftentimes at the end of a long electrical transmission line, which makes them even more vulnerable to power outages. Trystar has developed a range of products that are suitable for secure facilities. Trystar products are UL listed, professionally designed and engineered, constructed of high quality materials and manufactured to our strict standards. These products have already been be detained inside the perimeter; whether they installed on many secure facilities and have proven themselves in the field.

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# UL1008 LOAD BANK DOCKING STATION



Trystar Load Bank Docking Stations are designed to easily and safely connect a Load Bank to any permanent generator and/or UPS system for annual maintenance. Without this quick camlok connection, the service company can spend hours hardwiring cable from the Load Bank to a generator. In life safety situations, the permanent generator may have to be tested up to 4 times annually; having to hardwire each time adds significant cost to an annual service agreement. In situations like this, the Load Bank connection cabinet pays for itself after one year.

AMPERAGE RANGE: 100A-4000A VOLTAGE OPTIONS: 120/240V, 120/240V Delta, 208Y/120V, 480V, 480Y/277V, 600V

# GRID TO BACKUP AT THE FLIP OF A SWITCH

Trystar's Dual Purpose Load Bank and Generator Docking Station allows your facility to back up your permanent generator with a temporary generator. This will give you peace of mind when maintenance is needed on your permanent generator, that if the power goes out, you still have the ability to power your facility.



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# CONTROL WHICH CIRCUITS ARE ENERGIZED

Switchboards are essentially your main distribution panels that normally (not always) have your service entrance conductors running to them from the utility. From there, power can be broken down and distributed to the rest of your facility. Trystar is equipped with a full engineering staff and team of master electricians to ensure everything is functioning and built to code.

Everything is manufactured in house, giving us full control of the manufacturing process so we can

guarantee you're getting what you need.

## Trystar UL891 Switchboards feature:

- All aluminum construction
- Branch circuit over current protection with the option of having a main breaker
- Enclosures designed in house
- Custom powder coat and UV printed graphics
- Customizable Order with the exact breakers needed for your job
- Multiple Amperage options available from 400-4000A
- Options for having service/convenience receptacles pre-wired and installed on the enclosure

## Additional standard features, and options:

- Easy to access, removable gland plates simplifies the installation, maintenance and Inspection • NEMA 1, 3R and 4X
- 65KaIC Standard (with options for higher ratings available upon request)
- Oversized conduit entry area for easier installation
- Other options include, but are not limited to:
- Cam loks for Load Banking and temporary generators
- Automatic or manual transfer switches
- Full turnkey, one single point of installation entry for Switchboards that include breakers, Docking Stations and transfer switches





# TESTED, PROVEN, CERTIFIED.

Trystar carries multiple Listings to ensure that you get a product that has been tested to the correct standard for your application. Our Listings have you covered in the US and Canada. We use multiple NRTLs (Nationally Recognized Testing Laboratories) such as Intertek (ETL), UL, and CSA so you can have peace of mind that the product you buy is safe and will function properly when you need it to. Our products go through a rigorous testing process in order to meet or exceed the applicable standard, which can sometimes require several trials prior to approval.

# CRITICAL LISTINGS APPLICABLE TO DOCKING STATIONS



# Tested to UL 1008

- Accessory to a Transfer Switch
- Every box style must be tested and certified
- Function: Transfer of power from utility source to a generator



# **CRITICAL LISTINGS NOT APPLICABLE TO DOCKING STATIONS**

UL 508A



- Does not require testing
- Takes 1 day of class to obtain Listing
- Function: By definition must control something like a dial or relay switch



# Tested to UL 1773

- Standards for termination boxes
- Rated 600V or less
- Bus bars, terminal strips or blocks
- Incoming or outgoing conductors or both



- Switchboards
- Does not require testing
- Takes 1 day of class to obtain Listing.
- Option for testing to get higher KAIC ratings
- Function: Using breakers and other switching devices to control electrical flow



# ENGINEERED PRODUCT



Trystar employs a strong team of engineers and master electricians who design all our products with customer requirements in mind. Their designs must also meet strict UL, ETL and CSA standards. Our team stays informed of the latest regulations so that we are offering only certified quality products.

# CUSTOMIZED DESIGN



Trystar's flexible production approach allows the company to quickly alter a given design to meet specific customer demands. All equipment has been carefully chosen to combine quality with speed and flexibility. This unique approach to the production process allows each customer a high degree of customization.

# TEMPORARY GENERATOR CABLES



Trystar started life as a cable company. Today, we manufacture a large selection of cable products for many industries. We also offer a wide range of termination options, depending on the application. Cables are a core product at Trystar, and we give our cables the attention they deserve.

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# TRYSTAR DOCKING STATIONS



**1008 LISTED AND TESTED PRODUCT** MALE CAM LOK CONNECTIONS FEMALE CAM LOK CONNECTIONS HARDWIRE CONNECTIONS PHASE ROTATION STANDARD THEFT-RESISTANT RAKE SYSTEM MANUAL TRANSFER SWITCH-ROTARY MANUAL TRANSFER SWITCH-KIRK KEY **UP TO 1 BREAKER** MULTIPLE BREAKERS PADLOCKABLE MAIN DOOR WALL MOUNT PAD MOUNT NEMA 3R

PROTECTIVE FLIP LIDS ON ALL CAM LOKS





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LOAD BANK DOCKING DUAL PURPOSE DOCKING STATION STATION 900-UP TO 4000A

X	UP TO 2000A	UP TO 800A
		x
Х	Х	Х
		Х
Х	X	Х
Х	UP TO 2000A	UP TO 800A
Х	2000A AND ABOVE	1000A AND ABOV
Х	Х	Х

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# CREATE YOUR DOCKING STATION WITH OUR PARTS PLANNER, THEN GET A QUOTE

FAQS

	TO ORDER A TRYSTAR GENERATOR DOCKING STATION COMPLETE THE FOLLOWING CATALOG NUMBER												
(	GDS 16			3 VOLTAGE		W MOUNTING STYLE		L PERMANENT CONNECTION		м	AC2H OPTIONS	1. Laire	
BASE MODEL		AMPERAGE										ENERATOR CONNECTION	
GDS N	IO BREAKER	1	100A	1	120/240V 1Ph	F	FLUSH	с	COMPRESSION LUGS	A	PIN & SLEEVE STYLE		genera
DBDS 1 B	REAKERS	3	200A 300A	3	208Y/120V 3Ph	P	PAD MOUNT	L	MECHANICAL LUGS	F	FEMALE CAMLOKS	REQUIRED, LEAVE THIS SECTION	connec
		4	400A 600A	4	480V 3Ph 480/277V 3Ph	W	WALL MOUNT			-		BLANK. SEE TABLE BELOW FOR ADDITIONAL OPTIONS AND	
		8	800A 1000A	6	600V 3 Ph 600Y/347V 3Ph					-		CORRESPONDING CODE NUMBERS.	2. Wha
		12	1200A			1				м	MALECAMLOKS		Genera
		20	2000A							P	COOPER POSI-LOC		permar
		24	2400A 2500A		Note: Trystar also manufactu	ires gen	erator cable and attaches con	ne cto rs	;	v	VEAM POWER LOCKS	Note about options:	testing
		28 30	2800A 3000A	_	daily. Please c	ontact u	is for more information.			LM	MECHANICAL LUGS & MALE CAMLOKS	-For 400-800A choose up to 2 options from A-F.	
		32 40	3200A 4000A	_						LF	MECHANICAL LUGS & FEMALE CAMLOKS	to 3 options from A-F.	3. Are
										MF	MALE & FEMALE CAMLOKS	standard on all 30 Models.	
Sample Construction: No Breaker, 1600A, 208/120V, Wall Mount, Mechanical Lug Permanent Bus Bar Connection, Male Camlok Generator Connection, Auto Start Terminals, 2x Duplex GFCI, Generator Signal Terminal Block - GDS-153W-L M-4C2H						LMF	MECH. LUGS & MALE & FEMALE CAMLOKS	Standard	4. If I c				

MECHANICAL LUG TERMINATIONS								
100-400A	2-6AWG-350 kcmil OR 2-4AWG-600 kcmil Terminations							
600-800A	4-4AWG-600 kcmil Terminations							
1000-1600A	6-4AWG-600 kcmil Terminations							
2000-2400A	8-4AWG-600 kcmil Terminations							
2500-3000A	10-4AWG-600 kcmil Terminations							
3200A	12-4AWG-600 kcmil Terminations							
4000A	14-4AWG-600 kcmil Terminations							

Note about lugs: Mechanical Lug terminations listed above are standard. Additional sizes as well as Compression Type Lugs are available upon request. Please specify size and quantity of terminations required when ordering

# CALL 507-333-3990 OR VISIT TRYSTAR.COM

AVAILABLE OPTIONS AND CORRESPONDING CODE NUME	IERS	
AUTO START - 5 WIRE BINDING POSTS	A	5
1Ø 120V DUPLEX RECEPTACLE	B	In
1Ø 120V DUPLEX GFCI RECEPTACLE	C	
1Ø 120V 30A NEMA L5-30 RECEPTACLE	D	
1Ø 125/250V 50A TWIST LOCK RECEPTACLE (CS6369)	F	
100% GROUNDING BUS	G	6
GENERATOR SIGNAL TERMINAL WIRING BLOCK / SCADA	н	
STAINLESS STEEL CONSTRUCTION	É	
BOTTOM CONDUIT ACCESS / EXTRA DEPTH ENCLOSURE	J	_
KIRK KEY INTERLOCK (#-NUMBER OF KEY CYLINDERS IN PANEL)	K#	/
CUSTOM LUG SIZE OR COMPRESSION TYPE	L	hı
ANY LISTED MONITORING DEVICE FOR CORRECT VOLTAGE & AMPERAGE	M	DU
HEATER AND THERMOSTAT	N	0
ANY LISTED RECEPTACLE 50A AND BELOW OTHER THAN CS6369	0	'
SURGE PROTECTION DEVICE	P	
LOAD DUMP RECEPTACLE	Q	
SPECIAL (EXPLAIN)	S	
UTILITY LIGHT / ALARM	U	

eady have a permanent generator, what do I need a Docking Station for? For applications with a permanent tor on site, a Generator Docking Station gives redundancy in the event of permanent generator failure, and/or a tion point for maintenance on the permanent generator.

t is a dual purpose Generator and Load Bank Docking Station? This is for facilities that have a permanent tor. The Trystar Dual Purpose Generator and Load Bank Docking Station acts as a back up in the event of ent generator failure or maintenance need, as well as the Load Bank access port for fulfilling the mandated of the permanent generator.

you NEC 700.3(F) Compliant? Trystar has products that do meet all of the NEC 700.3 needs for compliance.

hoose to install a Generator Docking Station, where do I rent a generator? Any rental company that supplies mounted generators can hook up to a Trystar Generator Docking Station.

. How long does it take to get a generator connected and powered up from the moment the power has been lost? n most cases it takes 2 to 10 minutes depending on the ampacity of the Generator Docking Station.

5. Do you have a generic bid spec form? You can get that information by contacting your local sales person at Trystar.

7. Does my whole building have to be backed up, or just the critical loads? That is up to the facilities manager at the uilding. Our Generator Docking Stations are designed to energize very large facilities, or parts of those facilities, at the ption of the facility.

# S





# FAQS (cont.)

**8. Where can I find additional information and specification info?** Visit www.trystar.com or call your Trystar sales person.

9. Is this available in Nema 3R? Nema 4X? Trystar's standard NEMA configuration is 3R, but we also can meet 4X.

**10. What does Service Entrance Rated mean?** Service Entrance Rated refers to the necessary equipment, usually consisting of a main breaker, that acts as the main control and means of disconnect from the electrical utility (service).

**11. Can Trystar integrate a manual transfer switch?** Yes, Trystar offers multiple options for integrated manual transfer switches up to 4000A and integrated automatic transfer switches up to 1200A.

12. What is the difference between a Docking Station and a transfer switch? A transfer switch is a piece of electrical equipment designed to switch a load between two sources. A Docking Station is a dedicated connection point for a temporary generator or temporary load bank. Trystar Docking Stations can be used in conjunction with a transfer switch or can be built to incorporate integrated transfer switch capabilities.



TRYSTAR



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Emergency after hours: 507-384-1751

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