**PART 1 GENERAL**

* 1. GENERAL
	2. QUALITY ASSURANCE
1. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
2. ETL LISTED to UL 1008 Standards up to 4000A
3. PE LISTED to 5000A
4. UL 50 LISTED
	1. COORDINATION
5. Coordinate layout and installation of Generator Docking Station, and components with equipment served and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels
	1. GUARANTEE/WARRANTY
6. Manufacturer Warranty shall be provided for a minimum of 1 Year,
	1. Extended Warranty will be supplied upon at user’s request at an additional charge from Manufacturer.
7. The equipment installed under this contract shall be left in proper working order
8. New materials and equipment shall be guaranteed against defects in composition, design or workmanship. Guarantee certificates shall be furnished.

**PART 2 PRODUCTS**

* 1. DOCKING STATION
1. Manufacturers: Subject to compliance with requirements, provide products by the following:
	1. TRYSTAR: High Amperage Dual Breaker Docking Station with Automatic Transfer Switch
	2. TRYSTAR Model No.: HA TATS
	3. TRYSTAR One-Line Code:DBDS-20
	4. TRYSTAR Representative: <https://www.trystar.com/contact/> **and/or** info@trystar.com
	5. GENERAL REQUIREMENTS
2. Enclosure
	1. NEMA 3R Rain-Tight Aluminum Enclosure
		1. Lockable front door shall include a hinged access plate at the bottom for entry of temporary cabling that prevents unauthorized tampering while in use.
		2. NEMA 3R Integrity shall be maintained while temporary cabling is connected during use
		3. Front and Side shall be accessible for maintenance
		4. Top, Side, and Bottom shall be accessible for permanent cabling
	2. Powder coat
		1. Paint after fabrication shall be Hammer tone Gray
3. Phase, Neutral, and Ground Busbar
	1. Material: Silver-plated Copper
	2. Equipment Ground Bus: bonded to box.
	3. Isolated Ground Bus: insulated from box.
	4. Ground Bus: 50% of phase size.
	5. Neutral Bus: Neutral bus rated 100 percent of phase bus.
4. Temporary generator and Load Bank connectors shall be camlock-style mounted on gland plate.
	1. Connections shall be 16 Series model and color coded according to system voltage requirements.
	2. Connections shall be Bus Bar Style, Cabling or Double Set Screw is not acceptable
	3. Connections shall be protected against accidental contact while not in use
5. Permanent Connection shall be factory installed broad range set-screw mechanical type, located behind a physical barrier
6. Transfer Switch Configuration
	1. HA TATS Docking Station shall have and integrated Automatic Transfer Switch (ATS).
		1. ATS shall work in conjunction with dual breakers to enable two primary sources and one temporary source.
		2. ATS shall be located behind a lockable door to prevent any tampering by unauthorized personnel.
		3. ATS Control shall be Siemens [ATC6300 | ATC6500] or equal
7. Short Circuit & Withstand Rating
	1. Shall be minimum 65 KAIC unless otherwise indicated on drawings
8. Voltage & Amperage
	1. Amperage:
		1. [1600A | 2000A | 2500A | 3000A | 3200A | 4000A (ETL Listed)] or [5000A (PE-Listed)]
	2. Voltage:
		1. [208Y/120V | 480Y/277V | 600Y/347V @ 60Hz] or [ 400Y/230V @ 50Hz]
9. Factory Installed Phase Rotation Monitor Device:
	1. Phase monitoring relay to be Siemens 3U4512-1AR20 or equal and factory installed
10. Breaker Disconnects (two)
	1. Must be UL 489 Listed Breaker
	2. Breakers shall be removable for service and maintenance
11. Grounding System: [3-pole or 4-pole]
12. Additional accessories shall be included in submittal drawing as follows:

A: Two Wire Auto Start

B: Battery Charger Receptacle 20A DUPLEX 125V

C: Battery Charger Receptacle 20A GFCI 125V

D: Block Heater Receptacle 30A L5-30 125V

F: 50A Twist-Lock 125V/250V

H: SCADA Terminal Port

K#: Kirk Key Door Interlock

M: Listed Monitoring Device

N: Strip Heater & Thermostat

P: Surge Protection Device

Q: Load Dump Receptacle

U: Utility Light/Alarm (Customer Specified)

**PART 3 EXECUTION**

* 1. EXAMINATION
1. Examine elements and surfaces to receive Generator Docking Station for compliance with installation tolerances and other conditions affecting performance of the Work.
2. Proceed with installation only after unsatisfactory conditions have been corrected
	1. INSTALLATION
3. Surface, Flush or Base Mounted: Determined by Application
	1. Install anchor bolts to elevations required for proper attachment to Generator Docking Station.
	2. IDENTIFICATION
4. Comply with requirements in Division 26 Section "Identification for Electrical Systems."
5. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs.
6. Label each enclosure with engraved metal or laminated-plastic nameplate.
	1. FACTORY COMMISSIONING
7. Upon completion of the installation, the docking station shall be commissioned by the Manufacturer’s factory authorized technician. **THIS SERVICE IS PROVIDED AT AN ADDITIONAL COST.**
8. **SCOPE OF WORK SHALL INCLUDE:**
	1. Review and verify the installation of all Trystar components and verify the correct electrical flow as depicted on the one-line drawings.
	2. (If Applicable) The Manufacturer’s authorized technician will set the long time, short time, instantaneous and ground fault protection settings on the Generator Docking Station circuit breaker(s) in accordance with the engineers specifications or as provided as part of the coordination study.
	3. Factory training for on-site personnel to educate them on how to connect the GDS to a portable generator
	4. The Manufacturer’s factory authorized technician shall, upon completion of the commissioning provide a written report to the electrical contractor and electrical engineer indicating the completion of the work.
	5. Any issue that is found during the start-up that is determined at that time to be a warranty issue will be covered by Manufacturer. Any issues that are specific to the scope for the electrical installing contractor are the sole responsibility of the installing contractor.
	6. Upon successful completion of the commissioning, Trystar will provide a complimentary 12-month warranty extension, above and beyond the 12-month manufacturer warranty.
	7. FIELD QUALITY CONTROL
9. Third Party Tests and Inspections to include the following:
	1. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
10. Prepare test and inspection reports, including a certified report that identifies Generator Docking Station and that describes scanning results. Include notation