

# SPECIFICATION SHEET

| Power Ratings                                                  |         | kW    | kVA   |
|----------------------------------------------------------------|---------|-------|-------|
| Power                                                          | Standby | 350.0 | 437.5 |
|                                                                | Prime   | 315.0 | 393.8 |
| Amps 0.8 Power Factor 3-phase 208V                             |         | 1216  |       |
| 12-wire voltages: 1P = 120/240; 3P = 120/208, 120/240, 480/277 |         |       |       |

## Rating Definitions: Rated for 1800 rpm.

Standby ratings are applicable for the duration of any power outage. No overload is available at these ratings. Prime ratings are continuous per BS 5514, DIN 6271, ISO3046 & IEC 34-1. Overload capacity on prime-power ratings is 10% for one hour in each twelve hours of operation. All single phase ratings are based on a 1.0 power factor, three (3) phase ratings based on a 0.8 power factor. Ratings are established based on 85°F (29°C) and an elevation of 1,000 feet (305 meters).

## STANDARD FEATURES:

Tradewinds Power Corp (TPC) PERKINS diesel powered generator sets are UL2200 approved self contained standby generator packages complete with mounted auto control panel, fuel connector, air cleaners, exhaust silencers, and other accessories mounted on a rigid base frame. All TPC systems and components are prototyped, assembled and tested within a purpose built packaging, manufacturing, and test facility.

### Engine:

- PERKINS model 2206D-E13TAG2 6-cylinder diesel engines designed to provide economic and durable operation at prime and standby duties, hitting the key power nodes required by the power generation industry.
- Among the features and benefits of the 2000 Series are flexible packaging to cater for the space you have available, mechanically operated unit fuel injectors, electronic control and carefully matched turbocharging
- Its premium features provide exceptional power to weight ratio resulting in exceptional fuel consumption
- Designed to provide excellent service access for ease of maintenance
- High compression ratios ensure clean rapid starting in all conditions
- Spin-on full-flow lub oil filter

### Alternator:

- Marathon 4-pole, 12-wire brushless generator, single bearing
- Superior voltage waveform achieved by a 2/3 pitch and skewed rotor.
- Vacuum-impregnated windings with fungus-resistant epoxy for dependability and long-life
- Sustained short-circuit capability enabling down-line circuit breakers to trip without collapsing the generator field

### Starting System:

- 24-VDC Starter
- Engine mounted Battery Charging Alternator
- Battery Cables and Rack along with Grounding Strap

### Enclosure and Arrangement of Complete Assembly:

- Engine and generator close coupled on rigid frame with vibration isolators
- Vertical radiator and exhaust discharge
- Oil & Coolant Drain Lines with Brass Ball Check Valves

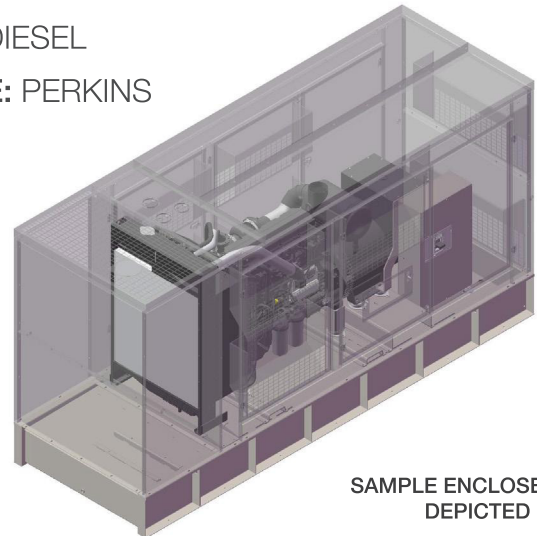
### Generator Options:

- Weather Protective Enclosure constructed of Marine Grade Aluminum 0.125 thickness, SS Hardware, white powder coat paint finish on both sides, sound Insulation resistant to high temperatures, fuel and oil, hinged / removable / keyed alike doors
- UL double wall base mounted fuel tank
- Residential rated interior mounted exhaust silencer kit

## STANDBY UL GENERATOR SET

FUEL: DIESEL

ENGINE: PERKINS



SAMPLE ENCLOSED SET  
DEPICTED

## AUTOMATIC ENGINE CONTROLLER DGC2020:

- Automatic engine controller with analog display of all functions
- Microprocessor Based, Navigation key with large LCD display
- SAE J1939 CANBUS Communication
- Event Recording
- Transfer Switch Control (main failures)
- Alternator Protection: under/over voltage, under/over frequency
- Engine Protection: Low oil pressure, High coolant temperature, Over speed & over crank, Sender Unit failure, Fuel Failure sensor, Battery Charger Failure
- All protections are programmable as Alarms or Pre-alarms
- Metering ( ample range ): Volts, Current, Hz, Watts, VA, Pf, Oil Pressure, Coolant Temperature, RPM, DC Volts, Fuel Level, Engine running time
- Engine Control with Timers
- External remote start input (on or off load)
- 16 programmable contact inputs - 7 Contact outputs

### SCADA interface points:

- No fuel
- Low battery charging voltage
- Engine running
- Common engine alarm
- Switch in Emergency Position



DGC-2020 DIGITAL  
CONTROLLER

## OPTIONAL CONTROL EQUIPMENT:

- Low coolant level switch
- Water separator fuel filter
- Space heater
- Generator drip covers
- 17-light remote annunciator panel

## WARRANTY:

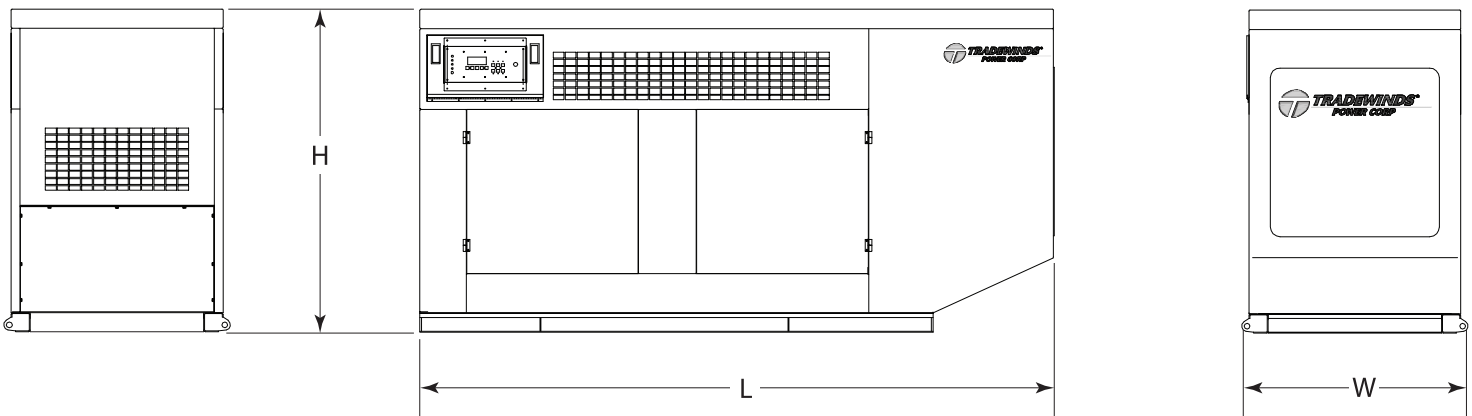
- Engine covered under the original equipment manufacturer's warranty - consult Tradewinds Power Corp for details
- Complete package supplied with 2-year limited warranty

*The manufacture reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.*

**STANDBY UL2200 GENERATOR SET**

| ENGINE SPECIFICATION                          |                                   |
|-----------------------------------------------|-----------------------------------|
| Manufacturer                                  | Perkins                           |
| Model                                         | 2206D-E13TAG2                     |
| Emissions                                     | EPA Tier 3                        |
| Engine speed (rpm)                            | 1800                              |
| Nominal Engine hp 1800rpm                     | 546                               |
| Cylinder arrangement                          | Vertical inline                   |
| Combustion system                             | Direct Injection                  |
| Aspiration                                    | Turbo air-to-air charge cooled    |
| Engine type                                   | Diesel                            |
| Diesel Fuel Grade                             | ASTM D975 D2                      |
| Number of Cylinders                           | 6                                 |
| Displacement in³ (liters)                     | 762.8 (12.5)                      |
| Bore and Stroke inches (mm)                   | 5.12 x 6.18 (130 X 157)           |
| Cooling                                       | Water-cooled                      |
| Governor                                      | Electronic                        |
| Starting aids                                 | Glow Plugs                        |
| Compression ratio                             | 16.3:1                            |
| Air cleaner type                              | Medium duty dry type              |
| Exhaust Silencer dBA                          | 80dBA                             |
| Oil Filter                                    | Engine mounted/ water separator   |
| COOLING SYSTEM FOR OPERATING AT 120° AMBIENT: |                                   |
| Total coolant capacity gals (Liter)           | 13.58 (51.4)                      |
| Cooling System                                | Water-cooled                      |
| Radiator System                               | Engine Mounted                    |
| Maximum Allowable Oil Temperature F (C)       | 250 (121)                         |
| LUBRICATING SYSTEM:                           |                                   |
| Total lubricating capacity quarts (Liter)     | 10.57 (40.0)                      |
| Oil consumption at full load                  | < 0.1% of fuel consumption        |
| Recommended lubricating oil grade             | SAE 15W40                         |
| Oil Filter                                    | Full flow spin on, cartridge type |

| ENGINE ELECTRICAL SYSTEM:                |                                          |
|------------------------------------------|------------------------------------------|
| Starting motor voltage                   | 24 volt                                  |
| Charger                                  | 46 amp alternator with DC output         |
| Wet Cell Battery                         | Lead Acid                                |
| ALTERNATOR:                              |                                          |
| Configuration                            | Brushless, 12-wire, 4-pole               |
| Frequency                                | 60 Hz                                    |
| Voltage regulation                       | + / - 1%, V/Hz, Electronic, EMI filtered |
| No load to full load voltage regulation  | +/- 2%.                                  |
| Coupling                                 | SAE Adapter, Flexible Disc, Direct       |
| Bearing                                  | Single                                   |
| Manufacturer                             | Marathon                                 |
| Model                                    | 432CSL6216                               |
| Load acceptance                          | One Step, 100% per NFPA 110              |
| Compliance                               | NEMA, IEEE & ANSI for temp. rise         |
| TIF Factor                               | Self ventilated drip-proof               |
| FUEL CONSUMPTION: PER HOUR GALS (LITERS) |                                          |
| 100%                                     | 24.5 (93.0)                              |
| 75%                                      | 17.7 (67.0)                              |
| 50%                                      | 12.7 (48.0)                              |
| 25%                                      | TBA                                      |
| CONTROL PANEL SPECIFICATIONS:            |                                          |
| Manufacturer (Model)                     | Basler (DGC-2020ES)                      |
| MPC-10 Controller Inputs                 | 16                                       |
| MPC-10 Controller Outputs                | 12                                       |
| Operating power/consumption              | 6-32 VDC; Average load 14.2W             |
| Communications                           | UL 508 R & CSA C22.2 #14                 |
| GENERATOR OPTIONS:                       |                                          |
| Aluminum Enclosure                       | Sound attenuated to 68 dBA               |
| Base arrangement                         | Rigid steel base frame with AVMs         |
| Spill containment                        | UL double wall base mounted              |

**DIMENSIONS & ARRANGEMENT DRAWING UL2200 MODEL: TP350 T3**


| KEY DIMENSIONS (inches), WEIGHT (pounds) FUEL TANK ( US gals) |        |       |        |        |       |       |                |           |
|---------------------------------------------------------------|--------|-------|--------|--------|-------|-------|----------------|-----------|
| Description & Configuration                                   | Height |       | Length |        | Width |       | Dry Weight lbs | Fuel Tank |
| Open set                                                      | H1     | 77.00 | L1     | 139.00 | W1    | 47.00 | 6874           | 325       |
| Enclosed Set                                                  | H2     | 99.00 | L2     | 188.00 | W2    | 64.00 | 10045          | TBA       |