

# SPECIFICATION SHEET

| Power Ratings                                                              |         | kW    | kVA    |
|----------------------------------------------------------------------------|---------|-------|--------|
| Power                                                                      | Standby | 150.0 | 187.5  |
|                                                                            | Prime   | 135   | 168.75 |
| 0.8 PF                                                                     | 240V    | 452   |        |
| Single output Voltage Change Selector Switch: 120/240V, 120/208V, 277/480V |         |       |        |

## Rating Definitions: Rated for 1800 rpm.

Standby ratings is applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. A standby rated engine should be sized for a maximum of an 80% average load factor and 200 hours of operation per year. This includes less than 25 hours per year at the Standby Power rating. Ratings are established based on 85°F (29°C) and an elevation of 1,000 feet (305 meters). (Generator rated & tested in 40°C ambient)

## STANDARD FEATURES:

Tradewinds Power Corp (TPC) fully integrated Mobile power generator set, provides optimum performance, reliability and versatility. Efficiency matched heavy duty diesel engine, with an AC Synchronous, brushless, single bearing alternator. All TPC systems and components are prototyped, assembled and tested within a purpose built packaging, manufacturing, and test facility.

## Engine:

- Perkins model 1206F-E70TTAG4 diesel engine
- U.S. EPA non road ( or off road ) Tier 4 Final
- Aftertreatment technology with DOC, DPF, SCR/AMOX+DEF System
- Electronic high pressure common rail
- Heavy duty rated for standby and continuous prime power operation
- Cooling system capable of operation at 120°F ambient
- 1200 Series EP engines are a fully electronic fuel system for superior performance and low fuel consumption
- Series turbocharged aftercooled
- Hydraulic tappets, multi-vee belts, service free aftertreatment and 500 hour oil change intervals also keep your maintenance costs as low as possible

## Alternator:

- Marathon Electric 4-pole, brushless, 12 leads AC alternator
- Double shielded and pre-lubricated single bearing
- Class H insulation UL1446 utilizes an unsaturated polyester varnish for optimal insulation life and superior moisture protection. A tropical insulation is added for increased environmental protection
- Optimized electrical design with four-pole, brushless features, utilizes a 2/3 pitch winding to minimize harmonic distortion
- Vacuum-impregnated windings with fungus-resistant epoxy for dependability and long-life NEMA MG-32, BS5000, IEC 34-1.
- Permanent Magnet Generator (PMG) Excitation with BE2000 voltage regulator.

## Starting System:

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

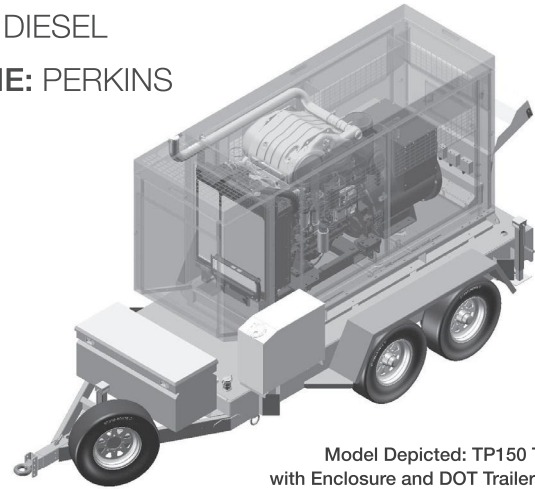
## Factory Fitted Generator Options for Model TP150:

- Voltage selector switch:** Single output 120/240V, 120/208V, 277/480V
- 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, and 175mph wind load rating, and sound attenuation 68dBA measured at 27ft
- Fuel Tank:** Double walled UL142 base mounted daily service tank
- Trailer:** DOT road towing heavy duty steel, hydraulic brakes, 12,000lb. cap. 2 spring axle, 7-way RV style plug, adjustable channel 6-Hole 5-position Military Hitch (3" lunette eye) coupler, 15" high side wind jack, and semi-gloss textured urethane UV resistant waterproof paint coating for protection against rust, corrosion, salt and damp conditions. .
- Battery Charge:** Fully automatic self adjusting to generator battery 6 Amp, 12 VDC, 90-265A AC 50/60Hz 115 VAC, compact type, UL Listed.

## MOBILE DIESEL GENERATOR SET

FUEL: DIESEL

ENGINE: PERKINS

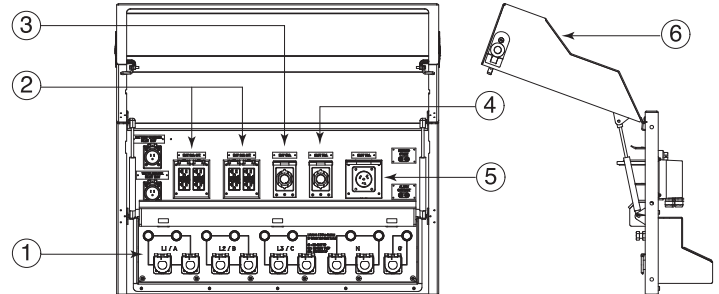


Model Depicted: TP150 T4  
with Enclosure and DOT Trailer Options

## CONNECTION PANEL & CONTROLS:

- 800A rated CAM docking station 120/240V, 120/208V, 277/480V, female connectors with snap cover
- 2 x (2 x Receptacle 120V-20A duplex GFCI)
- 1 x Receptacle 30A 120V
- 1 x Receptacle 30A 240V
- 1 x Receptacle Twist Lock 50A 240V
- Terminal connection panel lid

Note: DGC 2020 controller within enclosure, & emergency stop mounted externally



## AUTOMATIC GENERATOR CONTROLLER DGC2020:

- Automatic generator 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 fuel
- Low battery charging voltage
- Engine running
- Common engine alarm
- Switch in Emergency Position

## Optional Equipment:

- Low coolant level switch
- 17-light remote annunciator panel
- Low coolant level switch

## WARRANTY:

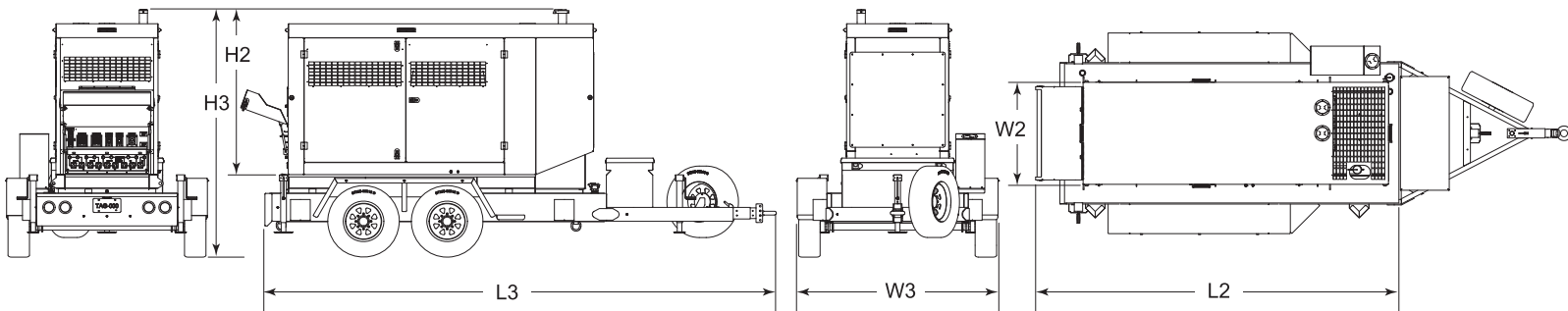
- Engine covered under the original equipment manufacturer's warranty - consult Tradewinds Power Corp for details
- Complete package supplied with 2-year limited warranty

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

**MOBILE DIESEL GENERATOR SET**

| ENGINE SPECIFICATION                          |                                   |
|-----------------------------------------------|-----------------------------------|
| Manufacturer and Model                        | Perkins Model 1206F-E70TTAG3      |
| Emissions                                     | EPA Tier 4                        |
| Engine speed (rpm)                            | 1800                              |
| Max. (Cont.) HP Power 1800 rpm                | 224.4                             |
| Cylinder arrangement                          | 6 in-line                         |
| Engine combustion system                      | Direct Injection                  |
| Aspiration                                    | Series turbocharged charge cooled |
| Fuel direct injection system (Diesel)         | High Pressure Common Rail         |
| Number of Cylinders                           | 6                                 |
| Displacement in³ (liters)                     | 427.8 (7.01)                      |
| Bore and Stroke inches (mm)                   | 4.13 x 5.3 (105 x 135)            |
| Cooling                                       | Water cooled                      |
| Governor                                      | Electronic                        |
| Starting aids                                 | Glow Plugs                        |
| Compression ratio                             | 16.5:1                            |
| Air cleaner type                              | Replaceable element               |
| Sound at 1m from engine block dBA             | 117                               |
| Max. Exh. Temp at full load degrees °F ( °C)  | 839.7 (448.7)                     |
| Exhaust aftertreatment                        | DOC, DPF, SCR/AMOX+DEF System     |
| COOLING SYSTEM FOR OPERATING AT 120° AMBIENT: |                                   |
| Cooling System                                | Water-cooled                      |
| Engine Coolant Capacity quarts (Liters)       | 6.4 (24.25)                       |
| Fan                                           | Belt driven pusher fan            |
| Radiator                                      | Engine mounted                    |
| Eng. Cooling air flow - ft³/min (m³/min)      | 173.8 (4.92)                      |
| LUBRICATING SYSTEM:                           |                                   |
| Total lubricating capacity quarts (Liter)     | 16.8 (16.0)                       |
| Recommended lubricating oil grade             | SAE 10W-30                        |
| Oil Pressure – psi (kPa)                      | 75.4 (520)                        |
| Oil Filter                                    | Full flow spin on, cartridge type |

| ENGINE ELECTRICAL SYSTEM:                                 |                                     |
|-----------------------------------------------------------|-------------------------------------|
| Starting motor voltage                                    | 12 volt                             |
| Charging alternator output - Amps                         | 100                                 |
| Wet Cell Battery                                          | Lead Acid                           |
| ALTERNATOR:                                               |                                     |
| Configuration                                             | 12-wire brushless rotating field    |
| Frequency                                                 | 60hz                                |
| Voltage regulation                                        | PMG PM300                           |
| No load to full load voltage regulation                   | 1/4% from no load to full load      |
| Coupling                                                  | Flange to Flywheel Housing          |
| Bearing                                                   | Single                              |
| Manufacturer                                              | Marathon                            |
| Model                                                     | 431PSL6202                          |
| Load acceptance                                           | 2/3 pitch design                    |
| Compliance                                                | NEMA MG-1                           |
| TIF Factor                                                | Shall not exceed 50                 |
| FUEL CONSUMPTION: PER HOUR GALS (LITERS) (STANDBY RATING) |                                     |
| 100%                                                      | 11.9 (45.0)                         |
| 75%                                                       | 8.4 (32.0)                          |
| 50%                                                       | -                                   |
| 25%                                                       | -                                   |
| 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:                                        |                                     |
| Enclosure                                                 | Aluminum sound attenuated to 68 dBA |
| Base arrangement                                          | Rigid steel base frame with AVMs    |
| Spill containment                                         | UL double wall base mounted         |

**DIMENSIONS & ARRANGEMENT DRAWING MOBILE MODEL (WITH DOT TRAILER & ENCLOSURE OPTION): TP150 T4**


| KEY DIMENSIONS AND WEIGHT BASIC OPEN SET, SOUND ENCLOSURE AND MOUNTED ON DOT TRAILER (* = Option Equipment) |        |        |       |      |        |        |                |                |           |                  |
|-------------------------------------------------------------------------------------------------------------|--------|--------|-------|------|--------|--------|----------------|----------------|-----------|------------------|
| Description ( inches)                                                                                       | Height |        | Width |      | Length |        | Dry weight lbs | Wet Weight lbs | Sound dBA | Fuel Tank Gals * |
| Enclosed Set *                                                                                              | H2     | 71.0   | W2    | 44.0 | L2     | 131.50 | 6566           | 6745           | 68        | 330              |
| Trailer mounted *                                                                                           | H3     | 106.25 | W3    | 86.5 | L3     | 214.28 | 9200           | 9345           |           |                  |