

# SPECIFICATION SHEET

Fuel	Rating	Standby Power	Prime Power
Diesel	Power: hp (kW) 1800 rpm	67.0 (50.0)	59.0 (44.0)
	Power: hp (kW) 1500 rpm	56.3 (42.0)	51.0 (38.0)

**Rating Definitions:** Power ratings of Emergency Standby and Prime are in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046.

**Standby Power Rating** - 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.

**Prime Power Rating** - is available for an unlimited number of hours per year in variable load application. Variable load should not exceed a 70% average of the Prime Power rating during any operating period of 24 hours. The Total operating time at 100% Prime Power shall not exceed 500 hours per year. A 10% overload capability is available for a period of 1 hour within a 12 hour period of operation. Total operating time at the 10% overload power shall not exceed 25 hours per year..

## STANDARD FEATURES:

DT Power Corp Hyundai Infracore Compact Diesel Engines are designed for efficiency, as well as performance, with the durability and quality you expect. Lower fuel consumption, longer maintenance intervals and maintenance-free after-treatment systems lowers the total cost of ownership over the life of your engine.

With its strong power at small displacement, Hyundai Infracore Compact Diesel Engines are ideal for a wide variety of compact stationary and mobile generator set systems.

## Key System Features are:

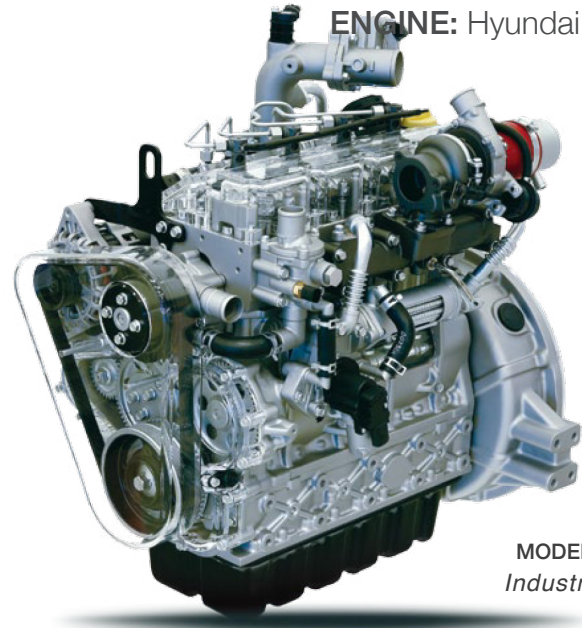
- EPA Tier 4 Engine certified for Industrial applications
- Packaged with flywheel housing to SAE standards
- Flywheel machined to SAE J620 adaptation
- Compact design to adapt to multiple genset applications
- Adds value to generator equipment
- No DPF (Diesel Particulate Filter)
- Strong power and high low-end torque for enhanced performance
- Low total cost of ownership

## Engine:

- Hyundai Infracore D24
- Rated for high intermittent power with high torque lower down the power curve for better performance
- Cooling system capable of operation at 120°F ambient
- Overhead valve assembly with 2-intake and 2-exhaust valves
- DELPHI DFP 4.4 injection pump for direct injection engine
- High Pressure Common Rail operating at 1800 bar
- Full electronic engine management with ECU governor control
- External cooled EGR
- Aspiration as waste gate type turbo-charged with inter-cooler
- DOC (Diesel Oxidation Catalyst) aftertreatment

## Engine Mountings and Drive Configuration:

- SAE #4 flywheel housing
- Fittings for mounting exhaust, radiator, and air cleaner
- All rotating surfaces protected with guards
- Oil and water drain lines



**MODEL TPD24-G**  
*Industrial Engine*

## Maintenance:

- Oil filter change 500-hours
- Fuel filter change 500-hours
- Valve adjustment after 1000-hours

## After Treatment:

While traditional engine makers are relying on conventional technologies to satisfy the regulations of emission control, Hyundai Infracore Infracore has developed a unique after-treatment system.

Hyundai Infracore Compact Diesel engines use a Non-DPF System which is a much simpler system than the DPF-type systems solutions – no concerns on maintenance or quality issues.

Consider the benefits:

- Elimination of unnecessary parts (DPF with complicated sensors, wires, diagnosis lamp and etc)
- Prevention of after-treatment quality issues
- Maintenance – Free (No regeneration process and ash cleaning required)

## Advanced Fuel Injection System:

The fuel injection system of Hyundai Infracore Compact Diesel Engines is 1,800 bar common rail system. The advanced fuel injection system enables accurate fuel injection control thanks to high pressure of the common rail.

- Low exhaust gas emission
- Low noise vibration
- Better fuel efficiency
- Optimized governing for each application

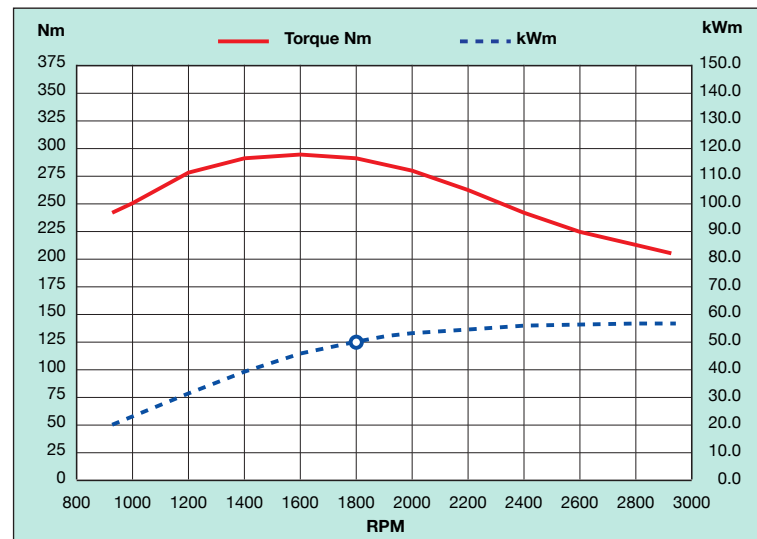
## WARRANTY:

- Engine covered under the original equipment manufacturer's warranty - consult DT Power Corp for details

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

DRIVE ASSEMBLY:	
Configuration	Bare engine with mounting points
Drive connections	SAE housing
Configuration	G-Drive constant speed
Drive shaft speed rpm	1500 or 1800 rpm
ENGINE SPECIFICATION:	
Manufacturer	Hyundai Infracore
Model	D24
Emissions	Tier 4 - Final & Stage IIIB
Crankshaft speed	1,800 rpm
Engine Type & Combustion	Diesel Direct Injection
Fuel Injection System	High Pressure Common Rail
Fuel Pressure	1800 bar
Aspiration	Turbo-Charged & Intercooled
Diesel fuel grade	EN590 : 2009 Diesel
Cylinder Arrangement	In-line 4
Displacement in <sup>3</sup> (liters)	146 (2.392)
Bore and stroke ins (mm)	3.53 X 3.92 (90 X 94)
Peak power hp (kW) @ 2800 rpm	74 (55.0)
Cooling	Water Cooled
Engine Control	Full Electronic Engine Management
Compression ratio	17.0:1
Air cleaner type	Canister air cleaner
Aftertreatment	Diesel Oxidation Catalyst DOC
Ventilation System	Closed-Circuit Ventilation
Max. back pressure - ins H <sub>2</sub> O (kPa)	32.95 (8.2)
Rotation viewed on flywheel	Counter clockwise
Flywheel housing	SAE No.4
Sound at 1m from engine block dB(A)	87.8
Max. Exh. Temp at full load degrees °F (°C)	819 (437)
Exhaust Gas Flow - ft <sup>3</sup> /min (m <sup>3</sup> /min)	112 (3.17) Standby
COOLING SYSTEM FOR OPERATING AT 120°F AMBIENT:	
Water pump belt driven	Centrifugal type
Eng. Cooling air flow - ft <sup>3</sup> /min (m <sup>3</sup> /min)	N/A
Engine Coolant Capacity gallons (Liters)	1.06 (4.0)

FUEL CONSUMPTION 1800 RPM	Continuous / {Intermittent}
100%	2.96 (11.2) / {3.41 (12.9)}
75%	2.25 (8.5) / {2.56 (9.7)}
50%	1.61 (6.1) / {1.77 (6.7)}
25%	0.95 (3.6) / {1.00 (3.8)}
LUBRICATION SYSTEM	
Oil pan capacity with filter - quarts	9.01 (8.6)
Recommended lubricating oil grade	10W30 CJ-4
Oil pump	Gear type driven by crankshaft
Oil consumption at full load	< 0.1% of fuel consumption
Oil Filter	Full flow, cartridge type
Oil pressure min. - psi (kPa)	43.5 (300)
ELECTRICAL SYSTEM	
Battery charger	12 volt x 75A Alternator
Starting motor	12 volt x 2.7kW
Wet cell battery	Lead Acid
Battery Capacity recommended	100 AH, 950CCA
Starting Aid	Glow Plugs

**50.0kWm 1800 rpm DTP24-G Power Curves**

**ARRANGEMENT DRAWING & DIMENSIONS MODEL: DTP24-G G-Drive Diesel Engine**

KEY DIMENSIONS AND WEIGHT with DOC + SCR		
Description	Key	Inches
Height	H	30.0
Length	L	34.0
Width	W	21.0
Shaft Height	SH	8.0
Dry Weight lbs (Kg)		448 (204)
DT Power Corp 5820 NW 84 <sup>th</sup> Avenue Miami, Florida 33166 Call: 305.592.9745		

