

Model: HFW 350 T6U

IVECO UL 2200 Series

Specification & Application Data

Standby

kVA

N/A

438

438

438

433

kW

N/A

350

350

350

346

Prime *

kVA

N/A

394

394

394

397

kW

N/A

315

315

315

318



Generator depicted with sound attenuated option, some accessories for display only.

Rating Definitions: (N/A = Not available for model designated)

PF

N/A

0.8

0.8

0.8

0.8

60Hz Power Ratings kW (kVA) * Prime power rating for reference only.

Phase

1

3

3

3

3

Voltage VAC

120/240

120/208

120/240 Delta

277/480

347/600**

Standby - All Industrial Sets are Standby Rated, applicable for a varying emergency load for the duration of a utility power outage with no overload capability. Alternator winding temperature rise is 120°C.

Prime - Prime rating is applicable for supplying power to a varying load in lieu of utility for an unlimited amount of running time. (Max. load factor = 80%) A 10% overload capacity is available for 1 out of every 12 hours.

** 600 Volt configuration not available as UL2200 certified generator set.

Overview of the HIPOWER® IVECO series of Industrial Generator Sets:

HIPOWER[®] Industrial generators are factory-built in facilities that utilize the latest technology in sheet metal fabrication, mechanical and electrical component assembly, production and testing.

Each model is the result of computer aided design and modeling backed up by exhaustive prototype-testing. Our development technology results in a unique range of inovative designs for highly reliable generator sets backed-up by a limited warranty covering all components.

Standard Configuration of Industrial Sets:

- **IVECO Diesel Engine:** Long-life, heavy-duty, 4-cycle, direct injection engine from a world renown manufacturer for economy of operation and maximum reliability and durability. Capable of full rated load acceptance in one step.
- Cooling: Radiator with belt driven pusher fan.
- Filtration: Heavy duty replaceable element air-cleaner
- Alternator: Single bearing, 4-pole, rotating field, self-excited, self-ventilated, 12-wire re-connectable, 60Hz brushless alternator with Class H insulation. Automatic voltage regulator (AVR) providing close voltage regulation.
- Certification: Generator set is UL2200 certified and meets ISO 8528-5.
- Arrangement: Open skid with engine and alternator units closed coupled together and with resilent anti-vibration isolators mounted between the assembly and a heavy-duty steel base. The sturdy base frame has openings allowing for winching, slinging and lifting.
- Auto Start Control Panel: Digital auto-start microprocessor based control panel with remote start capability.
- Starting System: 24 volt starter motor, battery cables, battery and belt driven charging alternator.

Standard Features of Industrial Sets:

- HIPOWER[®] is a single source for all the generator system
- Generators are produced in a facility dedicated to generator set manufacture
- The generator set can accept rated load in one step
- 2 years or 1000 hours limited warranty given as standard. Extended warranties offered as options to the standard
- Base set meets NFPA 110, Level 1, when accessorized with the required equipment and installed per NFPA standards
- Test certificates available for the fully factory tested industrial generator sets

- HIPOWER[®] generator sets are designed to fit a full range of options for complying with many diverse applications
- Full range of safety features to ensure full protection of the generator system. (See back-page for details).



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Application & Specification Data

Industrial Generator Set Specification:

INDUSTRIAL Diesel Generator Model: HFW 350 T6U IVECO Series

Governor regulation class	ISO 8528 Part 1 Class G3
Voltage regulation, no load to full load	+/- 1%
Frequency regulation	Ischronous
Radio frequency emissions compliance	Meets requirements of most industrial and commercial applications
skVA@30% voltage dip (480 volts)	1440
Main Line Circuit breaker – amps capacity	600A (480V) - 1200A (240V) - 1600A (208V) - 400A (600V)
Engine Specification:	
Manufacturer	FPT lveco
Model	С13ТЕЗХ
EPA certified	Tier 3
Crankshaft speed	1,800 rpm
Туре	Diesel, 4-stroke
Injection	Direct
Aspiration	Turbocharged, aftercooled
Number of Cylinders	6
Cylinder arrangement	In-line
Displacement CID (liters)	786.0 (12.88)
Bore and Stroke inches (mm)	5.33 x 5.91 (135 x 150)
Nominal power HP	497
Cooling	Liquid
Governor	Electronic
Starting motor & alternator	24 volt
Compression ratio	16.5:1
Air cleaner type	Medium duty - double cartridge
Exhaust gas flow lb/sec (Kg/sec)	1.492 (0.678)
Max. Exhaust temp at full load degrees $^\circ F$ ($^\circ C$)	1076 (580)
Max. permissible back pressure - ins H_2O (kPA)	5
Cooling System:	
Engine cooling air flow - cu. ft./second (cu. m/second)	388.9 (11.0)
Alternator cooling flow - cu. ft./second (cu. m/second)	35.0 (0.99)
Total cooling air flow (engine + alternator + combustion)	1355.1 (38.33)
Total cooling capacity - US gallons (liters)	17.95 (68.0)
Lubrication system:	
Oil pan capacity - US gallons (liters)	8.45 (32.0)
Oil pan capacity with filter - US gallons (liters)	9.24 (35.0)
Oil cooler	Liquid
Recommended lubricating oil grade	ACEA E3-E5
Oil consumption at full load	<0.1% of fuel consumption
Oil pressure – psi (kPA)	46 (320)
Engine Electrical System:	
Starting motor voltage	24 volt
Battery capacity	2 x 185 amps
Cold Cranking Amps - minimum	800 amps
Alternator charger	24V - 90 AMP

Fuel System:

Recommended fuel	# 2 - ULSD			
Fuel supply line, min. ID mm(in.)	-			
Fuel return line,min. ID, mm (in.)	-			
Max. lift, fuel pump, type, m (ft)	Engine-Driven, 1.8 (6.0)			
Fuel filter	Secondary 8 Microns @ 98% Efficiency			
Fuel consumption:	Standby Power Rating	Prime Power Rating		
100% load – US gallons/hour	26.9	24.21		
75% load - US gallons/hour	20.38	18.16		

14.10

10.6

Alternator Specification:

50% load - US gallons/hour

25% load - US gallons/hour

Manufacturer	Stamford
Model	HCI 544 D - HCI 444 F (347/600V)
Voltages	120/208V - 277/480 - 347/600V (Special WDG)
Alternator Type	Four pole, rotating field
Excitation System	Brushless self-exited with AVR
Power factor	0.8
Number of leads	12 leads, reconnectable
Stator Pitch	2/3
Insulation	Class H
Windings – Temperature Rise	150° C
Enclosure (IEC-34-S)	IP21
Bearing	Single, sealed
Coupling	Flexible disc
Amortisseur windings	Full
Voltage regulation – no load to full load with AVR	± 1%
TIF	<50
Line harmonics	5% maximum

Standard Features: (see back-page for control panel details)

Radiator with pusher fan	Standard fuel filter		
Medium - duty, two-stage dry element	• All rotating components (i.e. fan) protected with metal guards		
• Heavy-duty engine start batteries in rack with cables	• All hot components (i.e. exhaust) protected with metal guards		
Emergency stop switch	Ground connection prepared for ground spike (not supplied)		
Control Panel DSE 7310 (See over for details)	Main line ABB UL listed circuit breaker for overload protection		
Oil drain extension	Operation and installation literature		
Steel base for mounting on fuel tank and/or concrete surface	CSA certified		

Available Options:

🗆 Sound attenuated canopy with rock-wool insulation, silencer, rounded corners for rigidity and weather protection & stainless steel fixtures					
Electric actuator & louvers for air intake and exhaust (for above)) Alternator anti-condensation heaters				
□ Residential silencer -35dBA (for open skid only)	Murphy oil make-up tank 2 or 4 gallon				
Fuel Tank Options:	🗆 24-hr UL142	🗆 48-hr UL142			
Remote annunciator	□ Static battery charger 2.5A or 10A UL				
Engine block heater	Control panel heater				
□ Radiator/Duct Mounted Load Bank - 30% of generator power	Battery blanket				
Auto Transfer Switch (ATS) Options:	□ Open transition ATS □ Closed transition ATS		n ATS		
	Delayed transiti	d transition ATS		e ATS	

13.62

10.21

Generator Digital Control Panel - for manual, automatic and remote control

HIPOWER DSE 7310 Control Panel: HIPOWER's auto-start control panel DSE 7310 is supplied by Deep Sea Electronics with a manual or auto start selection switch with push button reset. Displays with indication of: phase to neutral voltage, voltage between phases, current (amps) per phase, frequency, power factor, kW and kVA outputs, fuel level, engine speed, hours run, battery voltage and battery charge voltage.

Engine and generator alarms for: battery charge failure, emergency stop activated, over-speed, underspeed, low oil pressure, high coolant temperature, low coolant level, low fuel level, overload, unbalanced voltage, over and under voltage, over frequency, short circuit, inverse power and incorrect phase sequence. All protections are programmable to: Warning alarm without engine shutdown or alarm with engine



shutdown, with or without cooling period. Warning alarms for: low fuel level, battery voltage failure and battery charging alternator failure

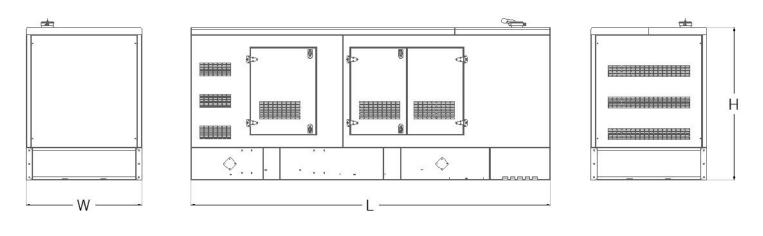
Alternator alarms included: Overload, unbalanced voltage, over voltage, under voltage, over frequency, under frequency, short circuit, reverse power, and incorrect phase sequence.



Pictures of Control Panel RH and Distribution Panel LH may include optional equipment and/or accessories

Model HFW 350 T6U Enclosed Set

key dimensions and sound levels



Configuration	Fuel Tank Data (base option)		Generator Data *				
	Run Time Hours	Capacity (Gals)	L = Length	W = Width	H = Height	Weight lbs	dBA
Enclosed Set (as diagram)	ТВА	ТВА	171.3″	55.1″	72.9" (77")	9845	72
Open Set (not shown)	ТВА	ТВА	130.3″	54.7″	70.8″	6832	ТВА

* All measurements are approximate and for estimation purposes only. Weights are without fuel tank. Sound levels measured at 23ft (7m) and does not account for ambient site conditions.

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Codes and Standards Compliances used where applicable



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 NFPA 110

 ISO 8528-5

 ISO 1708A.5

 ISO 3046

 NEMA ICS 1

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NFPA 99