



Ratings Range - 60Hz Operation

Standby	kW kVA	26-30 32-37
Prime	kW kVA	26-27 32-33

Sound Attenuation:

at 7m / 23 ft 62 dBA

Key features

HIPOWER industrial generators are an efficient, reliable and versatile source of power for Stationary Standby or Prime Power Applications.

The Genset features a heavy-duty John Deere 4 cycle diesel engine certified by the Environmental Protection Agency (EPA) to conform to Tier 4 non-road emissions regulations, an AC high capability alternator regulated by a precise Automatic Voltage Regulator controlled and protected by our own autostart CEM7 control panel available CANBUS communications including a powerful microprocessor and easy user programming. A heavy-duty constructed chassis supports the complete set. The generator is protected by a best-inclass sound attenuated enclosure designed for prime or standby applications.

- Engine generating set tested to ISO 8528-5.
- The Genset engine is certified by the Environmental Protection Agency (EPA) Tier 4 non-road emissions regulations.
- The brushless, single bearing, 4 poles, 12-wire generator end, with automatic voltage regulator has broad range reconnectability.
- The Genset is CSA certified and is available as UL2200
- Generating set meets NFPA 110, level 1, when equipped with the necessary accessories and installed per NFPA standards.
- Global product support.
- Operations and maintenance manuals.
- 2 Year Standby Warranty Standard. Extended warranties are also available.

Genset Ratings

GENSET Model	ENGINE Model	ALTERNATOR Model	VOLTAGE L-N L-L	150°C RISE Ph Hz STANDBY RATING		_	125°C RISE PRIME RATING					
			'			kW	kVA	Amps	kW	kVA	Amps	
HJW 30 T6	HJW 30 T6 4024TF281 - 36 PI 144 G	120/208	3	60	28	36	99	26	32	90		
		127/220	3	60	29	37	97	26	33	86		
				120/240	3	60	28	36	85	26	33	79
		138/240	3	60	30	37	89	26	33	79		
		277/480	3	60	30	37	44	26	33	39		
HJW 30 T6	4024TF281 - 36	PI 144 G	347/600	3	60	30	37	36	27	33	32	

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NOTES:

**Ratings definitions & Reference Conditions".

*Performance data refers to ISO 8528/1 Standard Reference Conditions: +25 °C (77°F) air temperature, 100m (3285ft) altitude, 30% relative humidity.

*Standby power ratings do not have an overload capability but can be used for the duration of the utility failure in accordance with ISO-3046/1, BS5514, AS2789, and DIN6271. No overload is available.

*Prime power (Unlimited Running Time) ratings are continuous in accordance with ISO-8528. 10% overload is available for a maximum of 1 hour in 12 hours of operation, in accordance with ISO-3046/1, BS 5514, AS2789, and DIN6271.

*The ratings may be subject to derate at different operating conditions. Please request Derate Guidelines for other conditions.

*All three-phase units are rated at 0.8 power factor.



Standard features

Engine

- Industrial grade Tier 4 John Deere diesel Engine.
- 4 stroke, water cooled, provided with:
- Electric start 12V.
- Radiator with pusher fan.
- Standard water separator not visible level fuel filter. J1939 stop the engine with ECU John Deere.
- Electronic governor.
- HWT/LOP senders.
- Heavy duty 2-stage air filter
- Hot & rotating components (exhaust, fan,...) protections and radiator guards.
- Oil drain hand pump
- Spin type fuel and oil filters.

Alternator

- Self excited, self regulated alternator.
- Insulation class H, IP23 Protection.
- Automatic Voltage Regulator.
- Vacuum impregnation.

Control Panel

- Digital microprocessor based control panel with remote start capability.
- CEM7 Auto-start control panel ("DEEP SEA" for UL option)
- Engine protections: High coolant temperature (A), High coolant temperature by sensor (W), Low engine temperature by sensor (W), Low oil pressure(A), Low coolant level(A), Unexpected shutdown, Fuel level (W), Stop failure, Battery voltage failure (W), Battery charging alternator failure (W), Overspeed(A), Underspeed(A), Start failure, Emergency stop.

- Alternator protections: Over frequency (A), Under frequency (A), Over voltage (A), Under Voltage (A), Over amperage (A), Short-circuit(A), Unbalanced voltage (A), Incorrect phase sequence (A), Reverse power (A), Overload (A).
- Genset readings: Voltage among phases, Voltage among phases and neutral, Amperage, Frequency, Apparent power(kVA), Active power (kW), Reactive power (kVAr), Power factor.
- Engine readings: Fuel level(%), Battery voltage, R.P.M, Battery charge alternator voltage, Coolant temperature (optional) (1), Oil pressure (optional) (1).
- Digital Metering: Total hour counter, Partial hour counter, kW meter, Starts valid and Starts failure counters. Maintenance.
- Communications (optional): RS232, RS485, J1939, Modbus, CCLAN, Software for PC, Analog modem, GSM/GPRS modem, Remote screen, Tele-signal.
- Other features: Alarms history, External start, Start inhibition, Start under EJP normative, Pre-heating engine control, Genset contactor activation, Fuel transfer control, Engine temperature control, Manual Override, Programmable alarms, Genset start function in test mode. Programmable outputs, Magnetic Pick-up control.
- Multilingual capability
- Remote Communications to our RAM7 Remote Annunciator Module.
- NFPA110 Level Compatible.
- On/Off Switch.
- Emergency Stop Button.

- NOTES:

 **All the protections are programmable to carry out "Warning Alarm without engine stop" or "Alarm with Engine Stop (with or without cooling cycle)".

 **A(A) Alarm with Engine Stop.

 **(W) Warning Alarm without Engine Stop.

 **(I) Sensor installation necessary

Standard features

Power Panel.

- Main Line Circuit Breaker for overload protection (CSA, UL and UL-C listed).
- Main bus / Hardwire connection panel with safety protection. (open thermal magnetic protection and alarm)
- Fuel cut-off solenoid and safety switches.

Electric Equipment.

- Battery charging alternator.
- Gel type, heavy-duty Starting battery(s) installed and connected to the engine include cables and rack.
- Ground connection prepared for ground spike (not supplied).

Chassis

- Skid with integral day fuel tank. (non UL)
- Fully welded steel skid with forklift pockets and 110% spill containment.
- Chassis ready for mobile kit installation or Extended capacity fuel tank. (see models and mobile kit options).
- Easy access for chassis cleaning and fast draining of fuel tank.
- Vibration isolators between chassis and generator.

Enclosure

- Sound attenuated canopy made with high quality 11 gauge steel.
- Powder coat paint which exceeds 1,000 hour salt spray test.
- Heavy-duty construction designed for prime or standby applications.
- Stainless steel hardware and fasteners.
- Ultra silent all weather enclosures with Rock-Wool insulation and curved edges with minimum outside fasteners.
- Single eye lifting point.
- Emergency stops (double protection for emergency stop; inside on control panel + external on canopy)
- Door with window to view control panel.
- Easy access to radiator fill through roof on enclosure.

Exhaust

 Steel residential silencer of -35dBA attenuation, with rain cap. (optional for Open Skid genset versions).

Optional features

Engine (optional)

- Water Jacket Heater
- Low coolant level sensor.
- Secondary water separator fuel filter -RACOR type (Decanting filter with water detection kit, alarm signal and shot sensor).
- Heavy duty, three stage air filter with service indicator.

Alternator (optional)

- Permanent Magnet Generator (PMG).
- Anti-condensation heater

Electric Equipment (optional)

- Battery isolator.
- Automatic battery chargers.

Electronics (optional)

- Remote Annunciator Module RAM7 to meet NFPA 110 installation.
- Digital timer.
- CANBUS LAN, converter.
- CANBUS USB, converter.
- CANBUS J1939, converter (series >HJW 85T6 / HJW 410T6).
- Communication modules for tele-control.
- Transfer switch and MPS paralleling control panel.
- Multiple remote annunciation options (CAN/USB, GSM, RS232, RS485..).

Chassis (optional)

- Sub-base UL 142 double wall fuel tanks to customer specification.
- Oil field type skid.

Trailers (optional)

• Road towing trailers to DOT standards.



Engine specifications

GENERAL DATA		
Manufacturer		JOHN DEERE
Engine model		4024TF281 -36
EPA Certification for:	Stage	Tier 4
Rated	RPM	1,800
Nominal Power (PRIME)	kW - HP	32 43
Nominal Power (STANDBY)	kW - HP	36 49
Engine type		Diesel 4 stroke
Inyection type		DIRECT
Aspiration type		TURBO CHARGED
Cylinder arrangement		4 - L
Bore and stroke	(mm) - In	(86 x 105) 3.4 x 4.1
Displacement	L - in3	2.4 149
Cooling system		Liquid (Cool-Gard II)
Governor Type		electronic
Make		С
Standard		С
Starting voltage	Vcc	12
Air cleaner type		Medium duty w/double cartridge
Compression ratio		20.5 : 1





Alternator specifications

Manufacturer	Stamford
Model (480V)	PI 144 G
Alternator Type	4 poles, rotating field
Excitation system	
Exciter Type	Brushless, self-excited
	EBS (Optional)
Leads: quantity, type	12, reconnectable
Stator Pitch	2/3
Insulation system	
Material	Class H
Temperature rise	150°C Standby
	125°C Prime
Bearing: quantity, type	Single bearing sealed
Coupling	Flexible disc
Amortisseur windings	Full
Automatic Voltage regulator	
STD regulator	AS480
PMG regulator or EBS	Opt. EBS (Excitation Boots System)
Voltage regulation, no load to full load	
STD regulator	+/-1%
PMG regulator	+/-1%
Load acceptance	100% of rated standby current
Unbalanced load capability	-
Subtransient Reactance	
480V	12%
TIF	<50
Line Harmonics	5% Maximum
Peak motor starting kVA:	30% dip
480V	Self-excited - 78kVA
480V	-



Application data

EXHAUST SYSTEM		PRIME	STANDBY	
Exhaust manifold type		Dry	Dry	
Exhaust outlet diameter				
Open Skid version	mm - In	45 ⁻ 1.77		
Sound Attenuated version	mm - In	65 ⁻ 2.56		
Max. Exhaust temp. at full load	°C	517	552	
	°F	963	1026	
Exhaust Gas Flow	kg/h - Lb/h	186.48 - 411.12	201.6 - 444.45	
	(m3/min) - ft3/min	(7.4) - 261	(8.0) - 283	
Evacuated by the exhaust heat	kcal/kWh - kcal/kWh	0.00 -	920.15	
Maximum allowed back pressure	(mm/H2O) - inH2O	762 -	30	
	(kPa) - inH2O	7.5 -	30	
COOLING SYSTEM				
Engine cooling air flow	m3/s - ft3/s	2.6 -	92.0	
Generator cooling air flow	m3/min - ft3/min	1.2 -	41.3	
Total cooling air flow (engine + generator -	- combustion)		-	
Open Skid version	m3/min - ft3/min	322.0 -	11,371.3	
Sound Attenuated version	m3/min - ft3/min	418.0 - 14,761.5		
Total cooling capacity	l - gal	12.2 - 3.2		
Antifreeze recommended	I - gal	6.1 - 1.6		
LUBRICATION SYSTEM				
Oil Filter: quantity. type		1 x Ca	rtridge	
Oil pan capacity	l - gal		1.85	
Oil pan capacity with filter	l ⁻ gal	5 -	1.32	
Oil cooler		Water (Cooled	
Recommended Oil		15W-40 or API C	I-4 PLUS o CI-4	
Specific oil consumption full load	% fuel	<0.1%		
Oil Press	(psi) - kPA	43 -	296	
VENTILATION REQUIREMENTS				
Air requirement for combustion at 100% load/rated speed	m3/h - ft3/h	180 - 6360		
Cooling airflow	m3/h - ft3/h	<u>-</u> -	-	
Heat rejected to ambient:				
From engine	kW - btu/min	25 -	1412	
From alternator	kW - btu/min	0.92 -	52	



Application data

ELECTRICAL SYSTEM			1:	2V		
Battery charging alternator:						
Ground (negative/positive)		Negative				
Volts (DC)	V		-	12		
Ampere rating	Amp		7	70		
Starter motor rated voltage (DC)	V		-	12		
Starter motor rated	kW		2.	.02		
Starter motor rated	HP		2.	.75		
Battery recommendations						
Quantity & Min. Amps rating	Amp		1 >	(92		
Min. Cold Cranking Amps	Amp		7	50		
Battery Voltage (DC)	V		-	12		
FUEL SYSTEM						
Recommended fuel		#2 Diesel				
Fuel supply line. min. ID	mm ⁻ in	11 0.44				
Fuel return line. min. ID	mm ⁻ in	6 0.24				
Fuel pump Type		Engine Driven				
Max. Lift fuel pump	m ⁻ ft	3 9.84				
Max. Flow to pump	(l/h) ⁻ gal/h		99 26.1			
Fuel filter						
Secondary filter			5µm @	98% Eff.		
Secondary Water Separator			Incl	uded		
Primary filter				С		
Primary Water Separator		С				
FUEL CONSUMPTION		PRIME rating STANDBY ratin			BY rating	
		l/h	gal/h	l/h	gal/h	
100% Load	l/h - gal/h	9.5	2.5	10.6	2.8	
75% Load	l/h - gal/h	7.2	1.9	7.8	2.1	
50% Load	l/h - gal/h	4.7	1.2	5.3	1.4	
25% Load	l/h - gal/h	2.4	0.6	3.2	0.8	



Control & Power Panel

- 1. CM Control Panel.
- 2. CEM7 Auto-start control panel.
- 3. On/Off Switch..
- 4. Emergency Stop.
- 5. CP Power Panel.
- 6. Main Line Circuit Breaker for overload protection.
- 7. Main bus /hardwire connection panel with safety protection.
- 8. Fuel cut-off solenoid and safety switches

CEM7 Auto-start control panel

- 1. Voltage between each Phase & Neutral.
- 2. Voltage between Phases.
- 3. Current (Amps) on each Phase.
- 4. Frequency.
- 5. Active, Apparent & Reactive Power.
- 6. Power Factor.
- 7. Instant Power (kWH) and Accumulative power (day, month & year).
- 8. Fuel reserve.
- 9. Oil pressure, coolant temperature.
- 10. Battery voltage.
- 11. Battery charging alternator voltage.
- 12. Engine Speed.
- 13. Hours running.

Engine Alarms

- 1. High coolant temperature (A).
- 2. Low oil pressure (A).
- 3. Low coolant level (A).
- 4. Unexpected shutdown.
- 5. Low fuel level (W).
- 6. Stop failure.
- 7. Battery voltage failure (W).
- 8. Battery charging alternator failure (w).
- 9. Overspeed (A).
- 10. Under-speed (A).
- 11. Start failure.
- 12. Emergency stop.



Pictures may include optional equipment and/or accessories



** All the protections are programmable to carry out "Warning Alarm without engine stop" or "Alarm with Engine Stop (with or without cooling cycle)".

★ (A) Alarm with Engine Stop.

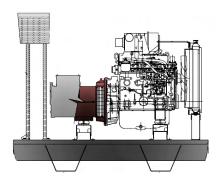
★ (W) Warning Alarm without Engine Stop.

★ (1) Sensor installation necessary.

Generators Alarms

- 1. Over-load (A).
- 2. Unbalanced voltage (A).
- 3. Over voltage (A).
- 4. Under voltage (A).
- 5. Over frequency (A).
- 6. Under frequency (A).
- 7. Over amperage (A).
- 8. Short-circuit (A). 9. Reverse Power (A).
- 10. Incorrect phase sequence (A).





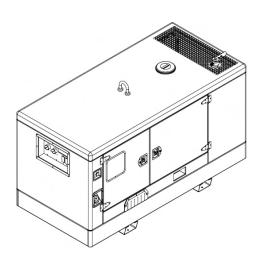
OPEN SKID MODEL



Overall size (L x W x H)	(Length x	Width x Height)	
	mm	1850 x	780 x 1280
	in	72.8 x	30.7 x 50.4
Dry weight (with std. accessories)	kg Lb	547	1205
Fuel Tank Capacity	L Gal	120	31.7
Run Time (Hr)	100%	75%	50% 25%
Prime Power	12.6	16.9	25.6 51.1
Standby Power	11.4	15.5	22.7 37.5

NOTE: The drawings are only representative of the overall dimensions.

For full detailed installation drawings please consult your local distributor or contact Himoinsa Power Systems www.hipowersystems.com



SOUND ATTENUATED MODEL



STANDARD SIZE	(Length x Width x Height)					
	mm	2200 ×	1050	x 1360		
	in	86.6 ×	41.3	x 53.5		
Dry weight (with std. accessories)	kg Lb	1025		2260		
Fuel Tank Capacity	L Ga	al 100		26.4		
Run Time (Hr)	100%	75%	50%	25%		
Prime Power	10.5	14.1	21.3	42.6		
Standby Power	9.5	12.8	18.9	31.2		

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