

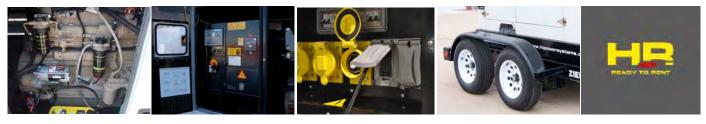
# Genset Ratings





Deration Operation		Ratings Rang
III Diesei	10001	
101	kW	Standby
127	kVA	
92	kW	Prime
115	kVA	
72 dBA	enuation: 7m / 23 ft	Sound Atte at

Pictures may include optional equipment and/or accessories. Generator available with or without trailer



# Key features

HIPOWER rental generators are an efficient, reliable and versatile source of power designed to operate in the most extreme working conditions. An unique combination of innovative materials and design features combine for easy user operation and dependable power you can rely on.

- The Genset features a heavy-duty John Deere 4 cycle diesel engine certified by the Environmental Protection Agency (EPA) to conform to Tier 3 non-road emissions regulations, an AC high capability alternator regulated by a precise Automatic Voltage Regulator controlled and protected by our own auto-start 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-in-class sound attenuated enclosure designed for durability and extreme application.
- Engine generating set tested to ISO 8528-5.
- The Genset engine is certified by the Environmental Protection Agency (EPA) Tier 3 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.
- Global product support.
- Operations and maintenance manuals.
- 1 Year Standard Warranty. Extended warranties are also available.



# HRJW John Deere

# Standard features



#### Engine

- Industrial grade Tier 3 John Deere diesel Engine, 4 stroke, water cooled, provided with:
- Electric start 12V. (24V optional)
- Radiator with pusher fan.
- Standard water separator visible level fuel filter.
- Secondary water separator fuel filter.
- J1939 stop the engine with ECU John Deere.
- Electronic engine governor.
- HWT/LOP senders.
- Heavy duty 2-stage air filter with service indicator.
- 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 (AVR) (+/-1%).
- Vacuum impregnation.
- Permanent Magnet Generator (PMG).

#### Control Panel

- Digital microprocessor based control panel with remote start capability.
- CEM7 Auto-start control panel (2 wires).
- 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<sup>(A)</sup>, Start failure, Emergency stop.

#### Industrial Rental Towable Generator



## Model: HRJW 115 T6

- Alternator protections: Over frequency (A), Under frequency (A), Over voltage (A), Under Voltage (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<sup>(1)</sup>, Oil pressure<sup>1)</sup>.
- Digital Metering: Total hour counter, Partial hour counter, kW meter, Starts valid and Starts failure counters. Maintenance.
- Communications (serial): CANBUS J1939 converter.
- Communications (optional): RS232, RS485, 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 (optional).
- 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) Alarm with Engine Stop.
 \* (M) Warning Alarm without Engine Stop.
 \* (1) Sensor installation necessary



# Standard features



#### Power Panel

- 3P Main Line Circuit Breaker for overload protection (UL listed)/ CSA 22.2).
- Main bus / Hardwire connection panel with safety protection. (open thermal magnetic protection and alarm).
- Battery disconnect switch.
- Fuel cut-off solenoid and safety switches.

#### **Control Panel BOX**

- Auxiliary socket box IP67, with individual breaker protection and 2 GFCI DUPLEX 20A 125VGFI for 110v duplex and 3 TWIST-LOCK 50A 2P+N+G.
- Direct access to auxiliary sockets with suitable protection.
- Voltage selector switch. Lockable, with 3 positions (3phase 277/480V 3phase 120/208V 1phase 120/240V).

#### **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

- Heavy duty skid base with forklift pockets and drawbars.
- Extended run time high capacity fuel tank.
- 110% spill containment for engine oil, coolant and fuel spills.
- Easy access for chassis cleaning and fast draining of fuel tank.

#### **Industrial Rental Towable Generator**



# Model: HRJW 115 T6

- Oversized chassis to protect canopy with skids for dragging embedded and Forklift pockets for easy transport.
- Vibration isolators between chassis and generator.
- External fuel tank filling (lockable fuel cap)
- Chassis ready for mobile kit installation. (see mobile kits options).

#### Enclosure

- Heavy duty sound attenuated canopy made with high quality 11 gauge steel.
- Powder coat paint which exceeds 1,000 hour salt spray test.
- Stainless steel hardware and fasteners.
- Ultra silent all weather enclosures with Rock-Wool insulation and curved edges with minimum outside fasteners.
- Reinforced Single eye lifting point.
- Fuel tank external filling system (lockable filler cap).
- 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.
- Outlet for power cables.
- Recesses provision for quick release couplings (external fuel supply).

#### Exhaust

• Steel residential silencer of -35dBA attenuation, with rain cap.



# **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 sensor contact).
- Heavy duty, three stage air filter with service indicator.

#### Alternator (optional)

• Anti-condensation heater.

## Electric Equipment (optional)

- Battery isolator.
- Automatic battery chargers.

#### Power Panel (optional)

- MPS Multiple Parallel System.
- Multiple genset paralleling in three different voltages. (120/240 1Ph, 120/208V 3Ph or 277/480V 3Ph) achieved through the voltage selector switch.

## Control Panel BOX (optional)

• Camlocks.

#### **Electronics** (optional)

- Remote Annunciator Module RAM7 to meet NFPA 110 installation.
- Digital timer.
- CANBUS LAN, converter.
- CANBUS USB, converter.
- Communication modules for tele-control.
- Transfer switch and MPS paralleling control panel.

### **Industrial Rental Towable Generator**



# Model: HRJW 115 T6

• Multiple remote annunciation options (CAN/USB, GSM, RS232, RS485, remote screen, tele-signal..).

#### Chassis (optional)

• Leakage detector sensor.

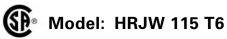
## Fuel System (optional)

- Three way fuel valve with quick disconnect fittings.
- Automatic fuel transfer pump.

#### Trailers (optional)

• Road towing trailers to DOT standards.





GENSET RATING													
GENSET ENGINE ALTERNATOR		VOLTAGE Ph H	Ph Hz STANDBY KA										
Model	Model	Model Model L-L	Model	L-L	L-L	L-L		kW	kVA	Amps L-L	kW	kVA	Amps L-L
HRJW 115 T6 4045HF285 - 118 UCI 274 D	120	1	60				63	79	2x328				
	240	1	60				63	79	328				
		208	3	60	100	125	347	91	114	316			
	240	3	60	101	126	304	92	115	277				
			480	3	60	101	126	152	92	115	138		

ENGINE SPECIFICATIONS				
Manufacturer			JOHN DEERE	
Engine model			4045HF285 -118	
EPA Certification for:	Stag	je	Tier 3	
Rated	RPI	N	1800	
Nominal Power (PRIME)	kW -	ΗP	107 144	
Nominal Power (STANDBY)	kW -	ΗP	118 158	
Engine type			Diesel 4 stroke	
Invection type			UNIT INJECTION	
Aspiration type			TURBOCHARGED	
Cylinder arrangement			4 - L	
Bore and stroke	(mm) -	In	(106 x 127) 4,19 x 5,00	
Displacement	L -	in3	4.5 275	
Cooling system			Liquid (water+50%paraflu11)	
Governor Type			electronic	
Make			С	
Standard			С	
Starting voltage	Vc	0	12	
Air cleaner type			Medium duty w/double cartridge	
Compression ratio			19.0 : 1	

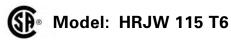
#### AMPERAGE

1 Phase 120V	2x328 Amps
1 Phase 240V	328 Amps
3 Phase 208V	316 Amps
3 Phase 240V	277 Amps
3 Phase 480V	138 Amps
Main Line Circuit Breaker Rating	400 Amps

ALTERNATOR SPECIFICATIONS			
Manufacturer	Stamford		
Model (480V)	UCI 274 D		
Alternator Type	4 poles, rotating field		
Excitation system			
Exciter Type	PMG		
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			
PMG regulator or EBS	MX341, Opt MX321		
Voltage regulation, no load to full load			
PMG regulator	+/-1%, +/- 0.5%		
Load acceptance	100% of rated standby current		
Unbalanced load capability	20% of standby rating		
Subtransient Reactance			
480V	12%		
TIF	<50		
Line Harmonics	5% Maximum		
Peak motor starting kVA:	30% dip		
480V	PMG excited MX series- 520kVA		







ELECTRICAL SY	ELECTRICAL SYSTEM		
Battery charging alternator:			
Ground (negative/positive)		Negative	
Volts (DC)	V	12	
Ampere rating	Amp	75	
Starter motor rated voltage (DC)	V	12	
Starter motor rated	kW	2.03	
Starter motor rated	HP	2.76	
Battery recommendations			
Quantity & Min. Amps rating	Amp	180	
Min. Cold Cranking Amps	Amp	800	
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	6 - 1.83
Max. Flow to pump	(l/h) - gal/h	59 - 15.6
Fuel filter		
Secondary filter		2µm
Secondary Water Separator		Included
Primary filter		30µm
Primary Water Separator		Included

FUEL CONSUMPTION		PRI	ME	STAN	IDBY
		l/h	gal/h	l/h	gal/h
100% Load	l/h - gal/h	28.6	7.5	31.2	8.2
75% Load	l/h - gal/h	22.8	6.0	24.8	5.4
50% Load	l/h - gal/h	16.4	4.3	17.8	4.0
25% Load	l/h - gal/h	8.7	2.3	9.5	2.1

EXHAUST SYS	PRIME	STANDBY	
Exhaust manifold type		Dry	Dry
Exhaust outlet diameter			
Sound Attenuated version	mm - In	120	- 4.728
Max. Exhaust temp. at full load	٥°	560	580
	°F	1040	1076
Exhaust Gas Flow	kg/h - Lb/h	534.24 - 1177.79	- 574.56 - 1266.68
	(m3/min) - ft3/min	(21.2) - 750	- (22.8) - 805
Evacuated by the exhaust heat	kcal/kWh - kcal/kWh	0.00	- 794.78
Maximum allowed back pressure	(mm/H2O) - inH2O	762	- 30
	(kPa) - inH2O	7.5	- 30

#### COOLING SYSTEM

Engine cooling air flow	m3/s - ft3/s	4.7 - 166.8			
Generator cooling air flow	m3/min - ft3/min	37.0 - 1,307.3			
Total cooling air flow (engine + generator + combustion)					
Sound Attenuated version	m3/min - ft3/min	658.0 - 23,237.1			
Total cooling capacity	l - gal	855.0 - 30,194.0			
Antifreeze recommended	I - gal	26.7 - 7.0			

#### LUBRICATION SYSTEM

Oil Filter: quantity. type		1 x Cartridge
		T x Oaithuge
Oil pan capacity	I - gal	15 - 3.96
Oil pan capacity with filter	I - gal	12 - 3.17
Oil cooler		Water Cooled
Recommended Oil		15W-40 or API CI-4 PLUS o CI-4
Specific oil consumption full load	% fuel	<0,1%
Oil Press	(psi) <sup>-</sup> kPA	46 - 320

#### **VENTILATION REQUIREMENTS**

Air requirement for combustion at 100% load/rated speed	m3/h - ft3/h	489.6 - 17280
Cooling airflow	m3/h - ft3/h	
Heat rejected to ambient:		
From engine	kW - btu/min	62 - 3544
From alternator	kW - btu/min	1.8 - 102.44





# HRJW John Deere



# **Control & Power Panel**

- 1. CM Control Panel.
- ✓ CEM7 Auto-start control panel.
- ✓ On/Off Switch..
- ✓ Emergency Stop.

#### 2. CP Power Panel.

- ✓ Main Line Circuit Breaker for overload protection (UL listed / CSA22.2).
- ✓ Main bus /hardwire connection panel with safety protection.
- ✓ Fuel cut-off solenoid and safety switches



Pictures may include optional equipment and/or accessories.

# **Control Panel BOX**

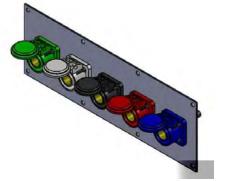
- 1. Auxiliary socket box IP67 with:
- ✓ Individual breaker protection for sockets
- ✓ 2 GFCI duplex 20A 125VGFI for 110v duplex
- ✓ and 3 TWIST-LOCK 50A 2P+N + G



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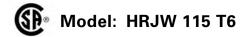
# Optional features Control Panel BOX

1. Camlocks



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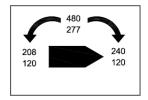


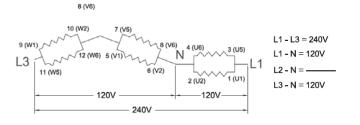
208/1200

# Voltage Selector Switch

- Voltage selector switch 3 positions padlockable (12h / 09h/ 03h).
- ✓ High (Series) Wye 480/277V 3Ph Y.
- ✓ Low (Parallel) Wye 208/120V 3Ph YY.
- ✓ Low (Parallel) Zig Zag 240/120V 1Ph ZZ
- 2. 7 contact stages, 14 contacts.
- 3. Switching angle 90°.

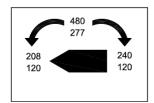
AC Generator Startor Widing connected for 2Phase +Neutral Parallel Zig-Zag: 120/240 VAC 60Hz



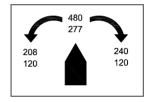


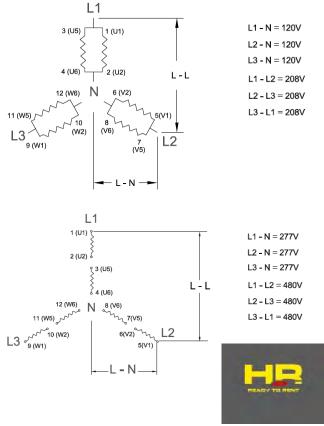
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AC Generator Startor Widing connected for 3Phase Low Wye: 208/120 VAC 60Hz

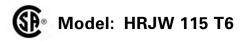


AC Generator Startor Widing connected for 3Phase Low Wye:480/277 VAC 60Hz









# 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 (total & partial).

# **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.



#### NOTES :

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) Alarm with Engine Stop.
\* (W) Warning Alarm without Engine Stop.
\* (1) Sensor installation necessary.

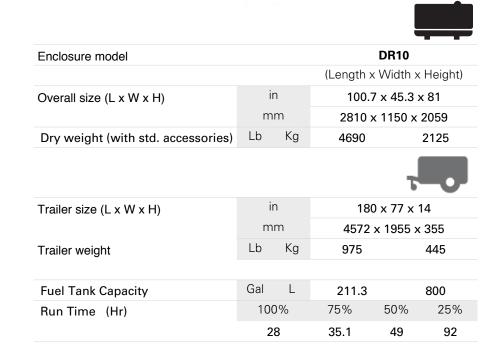
#### Generators Alarms

- 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. Short-circuit (A).
- Reverse Power (A). 8.
- 9. Incorrect phase sequence (A).



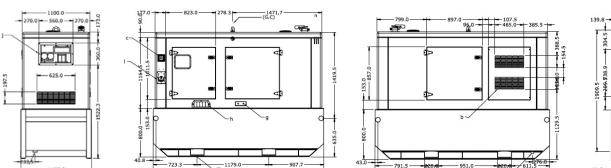


Model: HRJW 115 T6

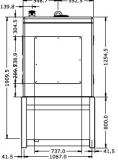


NOTE: The drawings are only representative of the overall dimensions.

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



2811



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