

## TOWN OF KENNEBUNKPORT, MAINE

# INVITATION TO BID

*1979 CAT 3412 Generator Set 300/450KW, S/N 81Z01598*

The Town of Kennebunkport, Maine will accept sealed bids until 2:00 p.m., Wednesday, June 16, 2021, at the Town Manager's Office, 6 Elm Street, Kennebunkport, Maine for a 1979 CAT 3412 Generator Set 300/450KW, S/N 81Z01598. Unit has approximately 1066 hours. (See attached specifications.)

Bids shall be submitted in sealed envelopes with the name and address of the Bidder and marked "1979 CAT 3412 Generator Set" on the face of the envelope. The bids will be opened and publicly read aloud at 2:00 p.m. on the same date.

The generator set will come with the parts, operation, and maintenance manuals. The generator may be inspected in person at the Kennebunkport Wastewater Treatment Plant Monday through Friday from 7:00 a.m. to 3:00 p.m. The unit may also be test run. The winning bidder will be responsible for arranging for the removal of the unit as it will likely require rigging services. The winning bidder and rigging company will need to provide evidence of liability insurance prior to the commencement of the removal process.

The Owner reserves the right to waive any informalities in or to reject any and all bids.

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Christopher Simeoni, Deputy Director  
Public Works Department  
Town of Kennebunkport  
207-967-2245

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Tel: (207) 967-2245 Fax: (207) 967-5372



# CATERPILLAR

## GENERATOR SET

# 3412

300 kW  
PRIME

350 / 450 kW  
STANDBY

## FEATURES

### • CAT DIESEL GENERATOR SETS

Factory Designed...assembled...tested and delivered to you in a package that is ready to be connected to your fuel and power lines...supported 100% by your Caterpillar Dealer.

### • RELIABLE, FUEL EFFICIENT DIESEL

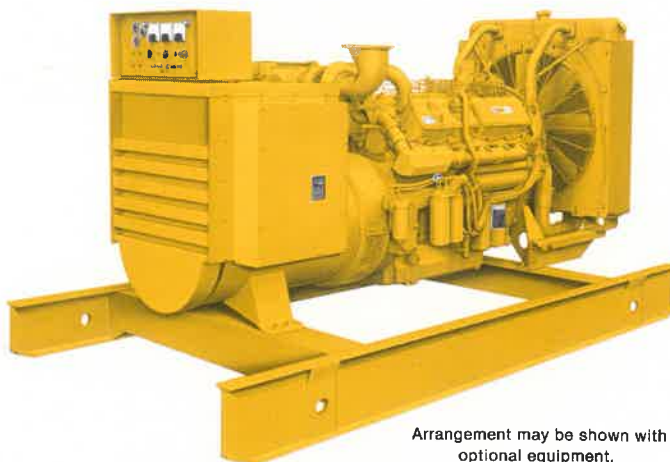
The compact, four-stroke-cycle diesel engine combines durability with minimum weight while providing dependability and economy. The fuel system operates on a variety of fuels.

### • THE CAT GENERATOR

Single-bearing wye connected brushless generator designed to match performance and output characteristics of the Caterpillar Diesel Engine that drives it.

### • BROAD LOAD ACCEPTANCE

Regulator features three phase sensing...Precisely monitors and regulates output to maintain excellent control.



Arrangement may be shown with optional equipment.

## STANDARD PACKAGE ARRANGEMENT

### Engine:

Air Cleaner, Panel-Type  
Base, Structural Steel  
Breather, Crankcase  
Cooler, Lubricating Oil  
Fan (blower) and Fan Drive  
Filters, Fuel and Oil  
Fuel Pressure Gauge  
Governor, Hydra-Mechanical  
(3% speed regulation)

### Pumps

Fuel Priming  
Fuel Transfer  
Jacket Water  
Radiator with Duct Flange  
Service Meter  
Starting, Electric, 24 Volt

### Generator:

SR4 Brushless  
with Voltage Regulator

### Control Panel:

Ammeter, Voltmeter, and  
Switch  
Frequency Meter  
Voltage Adjust Rheostat  
Oil Pressure and Water  
Temperature Gauges  
Automatic Start-Stop  
Selector Switch for Auto,  
Manual, Stop, Off  
Shutoffs and Indicators  
for Oil Pressure  
Water Temperature,  
Overspeed,  
Overcrank  
Contacts for Remote  
Alarms  
Illumination Lights and  
Switch

## ACCESSORY EQUIPMENT

### Engine:

Air Cleaner, Heavy-Duty  
Air Precleaner  
Cooling Systems  
Exhaust Fittings  
Fuel Tank Base  
Governor, Woodward PSG  
Lifting arch  
Muffler  
Power Takeoffs  
Prealarm Contactors  
Protection Devices  
Starting Aids  
Starting, Air and Electric  
Tachometer and  
Tachometer Drives

### Generator:

Canadian Standards  
Association (CSA)  
Compliance Kit  
Generator extension  
terminal box

### Control Panel:

Annunciator Panel and  
Prealarm Module (meets  
NFPA 76-A requirement)  
Provision for:  
PSG Governor Switch,  
Charging Ammeter,  
Heat Start Switch,  
Cycle Cranking,  
Auxiliary Relay,  
Prealarm Module,  
Synchronizing Lights

## GENERAL SPECIFICATIONS

### CAT 3412 ENGINE

#### 1800 RPM

Type—Watercooled Diesel  
Aspiration—Turbocharged  
Cycle—Four-Stroke  
No. of Cylinders—V12

Bore—5.4 in (137 mm)  
Stroke—6.0 in (152 mm)  
Piston Displacement—  
1649 cu in (27.0 liter)

### CAT SR4 GENERATOR

#### 60 Hertz

Type—Brushless, Revolving field, Solid-State Exciter  
Construction—Single Bearing—Close Coupled  
Phase—3  
Wire, Connection—4 Wire, Wye  
Meets or exceeds NEMA MG 1-22 std. requirements  
Insulation—Class F with tropicalization & anti abrasion  
Three Phase Sensing  
Enclosure—Drip Proof  
Alignment—Pilot Shaft  
Overspeed Capability—150%  
Wave Form—Less than 5% deviation  
Parallel Capability—Standard  
Voltage Regulator—Generator Mounted, Volts per Hertz  
Voltage Regulation—Less than  $\pm 1\%$   
Voltage Droop—Adjustable for parallel operation  
Voltage Gain—Adjustable to compensate for engine  
speed droop and line loss

### CAT CONTROL PANEL

#### 24 V DC Control

Generator Mounted  
Vibration Isolated  
NEMA 1 Enclosure  
Dead Front  
Lockable Hinged Door  
Generator Instruments meet ANSI C-39-1

## VOLTAGES AVAILABLE

120/208, 240/416, 139/240,  
277/480, 346/600  
(Adjustable a minimum of +5% - 10%)

# 3412 GENERATOR SET 300/450 kW



**PRIME**  
**300 kW** — 375 kV•A w/fan  
 320 kW@0.8 PF without fan  
 465 Engine HP without fan\*

**STANDBY**  
**350 kW** — 438 kV•A w/fan  
 370 kW@0.8 PF without fan  
 536 Engine HP without fan\*

**STANDBY**  
**450 kW** — 563 kV•A w/fan  
 470 kW@0.8 PF without fan  
 702 Engine HP without fan\*

## FUEL RATE DATA

PERCENT LOAD	25	50	75	100	25	50	75	100	25	50	75	100
kW with Fan	75	150	225	300	87	175	262	350	113	225	338	450
gal/hr	8.5	13.8	18.7	24.0	9.5	15.3	21.2	27.6	12.1	18.9	26.4	34.6
liter/hr	32.2	52.2	70.7	91.0	35.8	57.8	80.2	104.5	45.6	71.4	100.1	131.0

## DERATION DATA

AMBIENT TEMPERATURE	°F	68	86	104	122	68	86	104	122	68	86	104	122
°C		20	30	40	50	20	30	40	50	20	30	40	50
ALTITUDE	feet	8200	7544	6560	5838	4920	4231	3280	2542	5871	4920	4018	3247
meter		2500	2300	2000	1780	1500	1290	1000	775	1790	1500	1225	990

## TECHNICAL DATA

Rating Information	Rating Type		SI METRIC				ENGLISH		
			PRIME	STBY	STBY		PRIME	STBY	STBY
	Power Rating @ 0.8 PF w/Fan	kW	300	350	450	kW	300	350	450
	Power Rating @ 0.8 PF w/o Fan	kW	320	370	470	kW	320	370	470
Cooling System	Engine Coolant Capacity w/o Radiator	L	54.9	54.9	54.9	gal	14.5	14.5	14.5
	Engine Coolant Capacity with Std. Rad.	L	94.6	111.7	111.7	gal	25.0	29.5	29.5
	Standard Radiator Arrangement Data:								
	Air Flow (Max. @ Rated Speed)	m³/min	413.43	672.52	672.52	cfm	14,600	23,750	23,750
	Air Flow Restriction (Max. Allowable)	kPa	0.12	0.12	0.12	in H₂O	0.5	0.5	0.5
	Ambient Air Temperature (Max. Allowable)	°C	45.0	53.9	41.7	°F	113	129	107
	Coolant Pump External Resistance (Max. Allowable)	m H₂O	7.0	7.0	7.0	ft H₂O	23.0	23.0	23.0
	Coolant Pump Flow @ Max. Allowable Resistance	L/min	682.2	682.2	682.2	gpm	180	180	180
Exhaust System	System Backpressure (Max. Allowable)	kPa	6.7	6.7	6.7	in H₂O	27	27	27
Mounting System (Eng., Gen. & Rad.)	Length Overall	mm	3824.0	3824.0	3824.0	in	150.55	150.55	150.55
	Height Overall	mm	1819.4	2005.1	2005.1	in	71.63	78.94	78.94
	Width Overall	mm	1779.3	1779.3	1779.3	in	70.05	70.05	70.05
	Unit Dry Weight	kg	4019	4019	4019	lb	8860	8860	8860
Performance Data @ Rated Conditions	Combustion Air Inlet Flow Rate	m³/min	13.1	38.8	41.7	cfm	1257	1370	1470
	Exhaust Gas Flow Rate	m³/min	82.5	93.0	112.0	cfm	2910	3285	3970
	Exhaust Gas Stack Temperature	°C	420	450	540	°F	788	842	1004
	Heat Rejection to Coolant (Total)	kW	239	278	325	Btu/min	13,592	15,810	18,483
	Heat Rejection to Exhaust (Total)	kW	343	396	520	Btu/min	19,506	22,520	29,572
	Heat Rejection to Atmosphere From Engine	kW	67	72	73	Btu/min	3810	4095	4152
	Heat Rejection to Atmosphere From Generator	kW	24.5	29.4	35.4	Btu/min	1393.3	1672.0	2009.3

Materials and specifications are subject to change without notice.  
 The International System of Units (SI) is used in this publication.

## CONDITIONS & DEFINITIONS

**Standby** — For continuous electrical service during interruption of normal power.

**Prime** — For continuous electrical service.

Performance is based on SAE J 1349 standard conditions of 100 kPa (29.61 in Hg) and 25°C (77°F). Performance also applies at ISO 3046/1, DIN 6271 and BS 5514 standard conditions of 100 kPa (29.61 in Hg), 27°C (81°F) and 60% relative humidity.

Fuel consumption is based on fuel oil having an HHV of 45 570 kJ/kg (19,590 Btu/lb) and weighing 848 g/liter (7.076 lb/U.S. gal).

No engine deration is required for ambient temperature up to 50°C (122°F) except as shown on the deration data chart.

These capability charts apply to the engine only and include considerations for humidity. If air cleaner inlet conditions exceed the appropriate standard conditions, consult your Caterpillar Dealer for necessary deration.

\* Fuel stop power ISO 3046/1 or DIN 6271 or BS 5514