

Shown with Accessory Equipment

#### STANDARD EQUIPMENT

#### Air Inlet System

Regular duty single stage air cleaner, rain cap

#### **Charging System**

24V 35 Amp alternator

#### **Cooling System**

Gear driven self priming centrifugal auxiliary water pump with rubber impeller (heat exchanger engines), gear driven centrifugal jacket water pump, oil cooler, engine mounted heat exchanger with removable tube bundle and replaceable copper-nickel tubes (heat exchanger engines), expansion tank, thermostat and housing

#### **Exhaust System**

Watercooled manifold and turbocharger; dry elbow and flange, 102 mm (4 in.)

#### Flywheel and Flywheel Housing

SAE No. 1 (156 teeth)

#### **Fuel System**

Fuel priming pump, fuel transfer pump, fuel filter, primary fuel filter, flexible fuel lines

#### **Generator and Attachments**

Brushless PM excited SR4 generator

#### Instruments

RH instrument panel with oil pressure, water temperature, and fuel pressure gauges; service meter

#### Lube System

Top-mounted crankcase breather, oil filter, LH oil level gauge, oil pan

#### **Mounting System**

Supports

#### **Starting System**

24 Volt electric starting motor

#### Genera

Caterpillar yellow paint, lifting eyes

## Marine Generator Set

# 3304B

85 ekW (106 kVA) 50 Hz @ 1500 rpm

#### **SPECIFICATIONS**

#### I-4, 4-Stroke-Cycle-Diesel

Emissions      IMO compliant         Displacement       7.0 L (425 cu. in.)         Bore       121 mm (4.75 in.)         Stroke       152 mm (6.0 in.)
Aspiration Turbocharged
Governor Hydra-mechanical or PSG
Engine Weight, Net Dry (approx) Heat Exchanger Cooled
Capacity for Liquids Cooling System (engine only) 13 L (3.5 U.S. gal) Lube Oil System (refill) 22 L (5.7 U.S. gal)
Oil Change Interval
Rotation (from flywheel end) Counterclockwise

#### ACCESSORY EQUIPMENT

Air Starting Motor

Alarm Contactor — Oil Pressure, Water Temperature 12V 51 Amp, 24V 35 Amp or 60 Amp Alternator

**Auxiliary Drive Pulley** 

**Digital Tachometer** 

Double Wall Fuel Lines and Drain

12V Electric Gauges — Oil Pressure, Water Temperature 24V or 32V Electric Gauges — Oil Pressure, Water Temp.

Electric Shutoffs — Oil Pressure, Water Temperature, Overspeed

12V Electric Starting Motor

Ether Starting Aid

Exhaust Elbow, Pipe, Flexible Fittings

**Extension Terminal Box** 

**Fuel Ratio Control** 

Hydraulic Pump Drive and Adapter

Low Voltage Connections

Magnetic Pickup

Manual Shutoff Lever

Manual Voltage Control

Mechanical Tachometer Drive

Mechanical Overspeed Contactor

Paralleling Kit

RFI Filter

RH Oil Level Gauge

Solenoid Shutoff — 12V or 24V, ETR or ETS

Spare Parts Kit

**Terminal Strip Connections** 

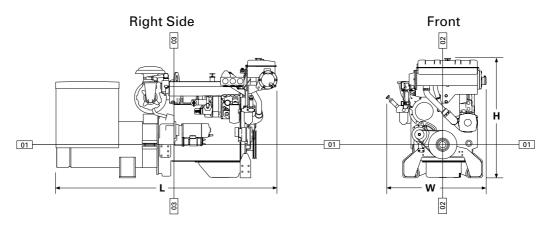
#### PERFORMANCE DATA

#### Turbocharged

#### TM8322-01

85 ekW (.8 pf) 106 kVA				
% load	ekW	Lph	gph	
100	85	26.7	7.1	
71	60	18.7	4.9	
47	40	13.3	3.5	
24	20	8.3	2.2	

### **3304B** MARINE GENERATOR SET — 85 ekW (106 kVA)



#### **DIMENSIONS\***

	mm	in.
Overall Length	2118.5	83.4
Length from front to rear face of block	986.6	38.8
Length from rear face of block to back of generator	1131.9	44.6
Overall Height	1145.2	45.1
Height from crankshaft centerline to top of engine	827.7	32.6
Height from crankshaft centerline to bottom of rails	317.5	12.5
Overall Width	917.7	36.1
Width from crankshaft centerline to port side (left side)	374.9	14.8
Width from crankshaft centerline to starboard side (right side)	542.8	21.4

	Front		Rear	
	mm	in.	mm	in.
Customer mounting hole diameter	17.5	0.7	22.5	0.9
Width from crankshaft centerline to side	285.8	11.3	285.8	11.3
Length from rear face of block to mounting holes			407.1	16.0
			483.3	19.0

<sup>\*</sup>Illustrations and dimensions from drawing: 118-7826.

#### **CATERPILLAR SR4 GENERATOR**

Type Brushless, revolving field, permanent magnet excited
Construction Single bearing, close coupled
Three-phase 12 wire, wye or delta connected
Insulation Class F with tropicalization and anti-abrasion
Voltage Regulator Generator mounted, volts-per-hertz
Voltage Regulation±1/2%
Voltage Gain Adjustable
Generator Weight, Net (approx)
368 frame 511 kg (1127 lb)
Space Heater
Voltages Available (adjustable +10%, -5%) 50 Hz — 190-380 volts
Meets or exceeds Marine Society requirements

#### **RATING CONDITIONS**

Engine Performance Parameters	
Power	±3%
Specific Fuel Consumption	±3%
Fuel Rate	±5%

Ratings are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in. Hg), 25°C (77°F), and 30% relative humidity. These ratings also apply at ISO3046/1, DIN6271/3, and BS5514 conditions of 100 kPa (29.61 in. Hg), 27°C (81°F), and 60% relative humidity.

Fuel rates are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/L (7.001 lb/U.S. gal).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

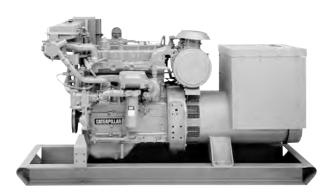
Performance data is calculated in accordance with tolerances and conditions stated in this specification sheet and is only intended for purposes of comparison with other manufacturers' engines. Actual engine performance may vary according to the particular application of the engine and operating conditions beyond Caterpillar's control.

TMI Reference No.: TM8322-01 (6-15-01)

Materials and specifications are subject to change without notice.

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Regular duty single stage air cleaner, rain cap

#### **Charging System**

24V 35 Amp alternator

#### **Cooling System**

Gear driven self priming centrifugal auxiliary water pump with rubber impeller (heat exchanger engines), gear driven centrifugal jacket water pump, oil cooler, engine mounted heat exchanger with removable tube bundle and replaceable copper-nickel tubes (heat exchanger engines), expansion tank, thermostat and housing

#### **Exhaust System**

Watercooled manifold and turbocharger; dry elbow and flange, 102 mm (4 in.)

#### Flywheel and Flywheel Housing

SAE No. 1 (156 teeth)

#### **Fuel System**

Fuel priming pump, fuel transfer pump, fuel filter, primary fuel filter, flexible fuel lines

#### **Generator and Attachments**

Brushless PM excited SR4 generator

#### Instruments

RH instrument panel with oil pressure, water temperature, and fuel pressure gauges; service meter

#### Lube System

Top-mounted crankcase breather, oil filter, LH oil level gauge, oil pan

#### **Mounting System**

Supports

#### **Starting System**

24 Volt electric starting motor

#### General

Caterpillar yellow paint, lifting eyes

## Marine Generator Set

# 3304B

105 ekW (131 kVA) 60 Hz @ 1800 rpm

#### **SPECIFICATIONS**

#### I-4, 4-Stroke-Cycle-Diesel

Emissions       IMO compliant         Displacement       7.0 L (425 cu. in.)         Bore       121 mm (4.75 in.)         Stroke       152 mm (6.0 in.)
AspirationTurbocharged
Governor Hydra-mechanical or PSG
Engine Weight, Net Dry (approx) Heat Exchanger Cooled
Capacity for Liquids Cooling System (engine only) 13 L (3.5 U.S. gal) Lube Oil System (refill) 22 L (5.7 U.S. gal)
Oil Change Interval
Rotation (from flywheel end) Counterclockwise

#### ACCESSORY EQUIPMENT

Air Starting Motor

Alarm Contactor — Oil Pressure, Water Temperature 12V 51 Amp, 24V 35 Amp or 60 Amp Alternator

**Auxiliary Drive Pulley** 

**Digital Tachometer** 

Double Wall Fuel Lines and Drain

12V Electric Gauges — Oil Pressure, Water Temperature 24V or 32V Electric Gauges — Oil Pressure, Water Temp.

Electric Shutoffs — Oil Pressure, Water Temperature, Overspeed

12V Electric Starting Motor

Ether Starting Aid

Exhaust Elbow, Pipe, Flexible Fittings

**Extension Terminal Box** 

**Fuel Ratio Control** 

Hydraulic Pump Drive and Adapter

Low Voltage Connections

Magnetic Pickup

Manual Shutoff Lever

Manual Voltage Control

Mechanical Tachometer Drive

Mechanical Overspeed Contactor

Paralleling Kit

RFI Filter

RH Oil Level Gauge

Solenoid Shutoff — 12V or 24V, ETR or ETS

Spare Parts Kit

**Terminal Strip Connections** 

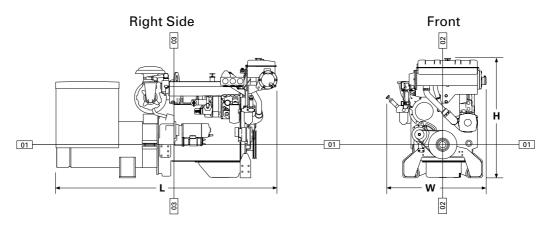
#### PERFORMANCE DATA

#### Turbocharged

#### TM7786-01

105 ekW (.8 pf) 131 kVA				
% load	ekW	Lph	gph	
100	105	33.0	8.7	
76	80	25.1	6.6	
48	50	16.9	4.5	
29	30	11.9	3.1	

### **3304B** MARINE GENERATOR SET — 105 ekW (131 kVA)



#### **DIMENSIONS\***

	mm	in.
Overall Length	2118.5	83.4
Length from front to rear face of block	986.6	38.8
Length from rear face of block to back of generator	1131.9	44.6
Overall Height	1145.2	45.1
Height from crankshaft centerline to top of engine	827.7	32.6
Height from crankshaft centerline to bottom of rails	317.5	12.5
Overall Width	917.7	36.1
Width from crankshaft centerline to port side (left side)	374.9	14.8
Width from crankshaft centerline to starboard side (right side)	542.8	21.4

	mm	in.	mm	in.
Customer mounting hole diameter	17.5	0.7	22.5	0.9
Width from crankshaft centerline to side	285.8	11.3	285.8	11.3
Length from rear face of block to mounting holes			407.1	16.0
			483.3	19.0

<sup>\*</sup>Illustrations and dimensions from drawing: 118-7826.

#### **CATERPILLAR SR4 GENERATOR**

Type Brushless, revolving field, permanent magnet excited
Construction Single bearing, close coupled
Three-phase 12 wire, wye or delta connected
Insulation Class F with tropicalization and anti-abrasion
Voltage Regulator Generator mounted, volts-per-hertz
Voltage Regulation±1/2%
Voltage Gain Adjustable
Generator Weight, Net (approx)
368 frame 511 kg (1127 lb)
Space Heater
Voltages Available (adjustable +10%, -5%) 60 Hz — 220-440 volts
Meets or exceeds Marine Society requirements

#### RATING CONDITIONS

**Front** 

Engine Performance Parameters	
Power	±3%
Specific Fuel Consumption	±3%
Fuel Rate	±5%

Rear

Ratings are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in. Hg), 25°C (77°F), and 30% relative humidity. These ratings also apply at ISO3046/1, DIN6271/3, and BS5514 conditions of 100 kPa (29.61 in. Hg), 27°C (81°F), and 60% relative humidity.

**Fuel rates** are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/L (7.001 lb/U.S. gal).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

Performance data is calculated in accordance with tolerances and conditions stated in this specification sheet and is only intended for purposes of comparison with other manufacturers' engines. Actual engine performance may vary according to the particular application of the engine and operating conditions beyond Caterpillar's control.

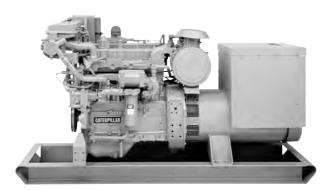
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TMI Reference No.: TM7786-01 (6-15-01)

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Shown with Accessory Equipment; Radiator Not Shown

#### STANDARD EQUIPMENT

#### Air Inlet System

Regular duty single stage air cleaner, rain cap

#### **Charging System**

24V 35 Amp alternator

#### **Cooling System**

Engine mounted radiator, blower fan, fan drive, fan guard, oil cooler, thermostat and housing, gear driven centrifugal jacket water pump

#### **Exhaust System**

Watercooled manifold and turbocharger; dry elbow and flange, 102 mm (4 in.)

#### Flywheel and Flywheel Housing

SAE No. 1 (156 teeth)

#### **Fuel System**

Fuel priming pump, fuel transfer pump, fuel filter, primary fuel filter, flexible fuel lines

#### **Generator and Attachments**

Brushless PM excited SR4 generator

#### Instruments

RH instrument panel with oil pressure, water temperature, and fuel pressure gauges; service meter

#### **Lube System**

Top-mounted crankcase breather, oil filter, LH oil level gauge

#### **Mounting System**

Supports, narrow base

#### **Starting System**

24 Volt electric starting motor

#### General

Caterpillar yellow paint, lifting eyes

## Marine Generator Set

3304B

**Radiator Cooled** 

85 ekW (106 kVA) 50 Hz @ 1500 rpm

#### **SPECIFICATIONS**

#### I-4, 4-Stroke-Cycle-Diesel

Emissions      IMO compliant         Displacement       7.0 L (425 cu. in.)         Bore       121 mm (4.75 in.)         Stroke       152 mm (6.0 in.)         Aspiration      Turbocharged
Governor Hydra-mechanical or PSG
Engine Weight, Net Dry (approx) 1406 kg (3100 lb)
Capacity for Liquids Cooling System
(engine & radiator)
Lube Oil System (refill) 22 L (5.75 U.S. gal)
Oil Change Interval
$Rotation \ (from \ flywheel \ end) Counterclockwise$

#### ACCESSORY EQUIPMENT

Air Starting Motor

Alarm Contactor — Oil Pressure, Water Temperature 24V 60 Amp Alternator

**Auxiliary Drive Pulley** 

**Digital Tachometer** 

Double Wall Fuel Lines and Drain

12V Electric Gauges — Oil Pressure, Water Temperature 24V or 32V Electric Gauges — Oil Pressure, Water Temp. Electric Shutoffs — Oil Pressure, Water Temp., Overspeed

12V Electric Starting Motor

**Ether Starting Aid** 

Exhaust Elbow, Pipe, Flexible Fittings

Extension Terminal Box

Fuel Ratio Control

High Capacity Radiator and Fan Drive

Hydraulic Pump Drive

Low Voltage Connections

Magnetic Pickup

Manual Shutoff Lever

Manual Voltage Control

Mechanical Overspeed Contactor

Mechanical Tachometer Drive

Paralleling Kit

**RFI Filter** 

RH Oil Level Gauge

Solenoid Shutoff — 12V or 24V, ETR or ETS

Spare Parts Kit

**Terminal Strip Connections** 

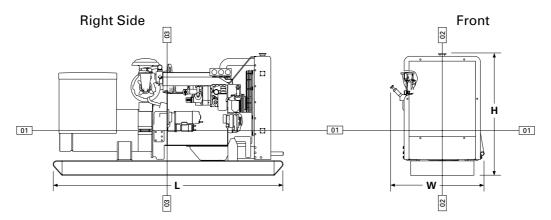
#### PERFORMANCE DATA

#### Turbocharged

#### DM4055-00

85 ekW (.8 pf) 106 kVA			
% load	ekW	Lph	gph
100	87	27.5	7.3
76	66	20.3	5.4
51	45	14.3	3.8
27	23	9.0	2.4

### **3304B** MARINE GENERATOR SET — 85 ekW (106 kVA)



#### **DIMENSIONS\***

	mm	in.
Overall Length	2400.0	94.5
Length from front to rear face of block	1080.8	42.6
Length from rear face of block to back of generator	1131.9	44.6
Overall Height	1273.5	50.1
Height from crankshaft centerline to top of engine	803.5	31.6
Height from crankshaft centerline to bottom of rails	470.0	18.5
Overall Width	979.4	38.6
Width from crankshaft centerline to port side (left side)	436.6	17.2
Width from crankshaft centerline to starboard side	542.8	21.4
(right side)		

	mm	in.	mm	in.
Customer mounting hole diameter			20.5	8.0
Width from crankshaft centerline to side			302.3	11.9
Length from rear face of block to mounting hole	678.5	26.7	445.5	17.5

<sup>\*</sup>Illustrations and dimensions from drawing: 128-3807.

#### **CATERPILLAR SR4 GENERATOR**

Type Brushless, revolving field, permanent magnet excited
Construction Single bearing, close coupled
Three-phase 12 wire, wye or delta connected
Insulation Class F with tropicalization and anti-abrasion
Voltage Regulator Generator mounted, volts-per-hertz
Voltage Regulation±1/2%
Voltage Gain Adjustable
Generator Weight, Net (approx)
368 frame 511 kg (1127 lb)
Space Heater
Voltages Available (adjustable +10%, -5%) 50 Hz — 190-380 volts
Meets or exceeds Marine Society requirements

#### RATING CONDITIONS

**Front** 

Engine Performance Parameters	
Power	±3%
Specific Fuel Consumption	±3%
Fuel Rate	±5%

Rear

Ratings are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in. Hg), 25°C (77°F), and 30% relative humidity. These ratings also apply at ISO3046/1, DIN6271/3, and BS5514 conditions of 100 kPa (29.61 in. Hg), 27°C (81°F), and 60% relative humidity.

**Fuel rates** are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/L (7.001 lb/U.S. gal).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for additional information.

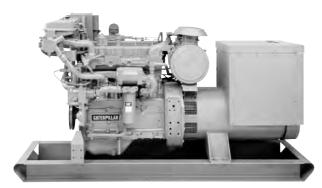
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TMI Reference No.: DM4055-00 (6-15-01)

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#### STANDARD EQUIPMENT

#### Air Inlet System

Regular duty single stage air cleaner, rain cap

#### **Charging System**

24V 35 Amp alternator

#### **Cooling System**

Engine mounted radiator, blower fan, fan drive, fan guard, oil cooler, thermostat and housing, gear driven centrifugal jacket water pump

#### **Exhaust System**

Watercooled manifold and turbocharger; dry elbow and flange, 102 mm (4 in.)

#### Flywheel and Flywheel Housing

SAE No. 1 (156 teeth)

#### **Fuel System**

Fuel priming pump, fuel transfer pump, fuel filter, primary fuel filter, flexible fuel lines

#### **Generator and Attachments**

Brushless PM excited SR4 generator

#### Instruments

RH instrument panel with oil pressure, water temperature, and fuel pressure gauges; service meter

#### **Lube System**

Top-mounted crankcase breather, oil filter, LH oil level gauge

#### **Mounting System**

Supports, narrow base

#### Starting System

24 Volt electric starting motor

#### Genera

Caterpillar yellow paint, lifting eyes

## Marine Generator Set

3304B

Radiator Cooled

105 ekW (131 kVA) 60 Hz @ 1800 rpm

#### **SPECIFICATIONS**

#### I-4, 4-Stroke-Cycle-Diesel

Emissions IMO compliant Displacement 7.0 L (425 cu. in.)
Bore
Stroke 152 mm (6.0 in.)
AspirationTurbocharged
Governor Hydra-mechanical or PSG
Engine Weight, Net Dry (approx) 1406 kg (3100 lb)
Capacity for Liquids
Cooling System
(engine & radiator)
Lube Oil System (refill) 22 L (5.75 U.S. gal)
Oil Change Interval
Caterpillar DEO 10W30 or 15W40
Rotation (from flywheel end) Counterclockwise

#### **ACCESSORY EQUIPMENT**

Air Starting Motor

Alarm Contactor — Oil Pressure, Water Temperature 24V 60 Amp Alternator

Auxiliary Drive Pulley

**Digital Tachometer** 

Double Wall Fuel Lines and Drain

12V Electric Gauges — Oil Pressure, Water Temperature 24V or 32V Electric Gauges — Oil Pressure, Water Temp. Electric Shutoff — Oil Pressure, Water Temp., Overspeed

12V Electric Starting Motor

**Ether Starting Aid** 

Exhaust Elbow, Pipe, Flexible Fittings

**Extension Terminal Box** 

**Fuel Ratio Control** 

High Capacity Radiator and Fan Drive

Hydraulic Pump Drive

Low Voltage Connections

Magnetic Pickup

Manual Shutoff Lever

Manual Voltage Control

Mechanical Overspeed Contactor

Mechanical Tachometer Drive

Paralleling Kit

RFI Filter

RH Oil Level Gauge

Solenoid Shutoff — 12V or 24V, ETR or ETS

Spare Parts Kit

**Terminal Strip Connections** 

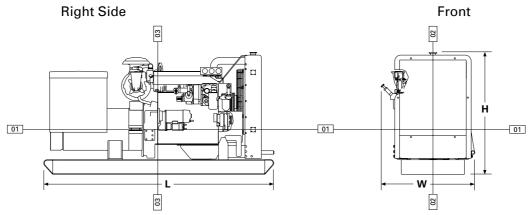
#### PERFORMANCE DATA

#### Turbocharged

#### DM4056-00

105 ekW (.8 pf) 131 kVA			
% load	ekW	Lph	gph
94	102	35.8	9.5
74	80	25.0	6.6
53	58	19.0	5.0
23	25	10.8	2.9

### **3304B** MARINE GENERATOR SET — 105 ekW (131 kVA)



#### **DIMENSIONS\***

	mm	in.
Overall Length	2400.0	94.5
Length from front to rear face of block	1080.8	42.6
Length from rear face of block to back of generator	1131.9	44.6
Overall Height	1273.5	50.1
Height from crankshaft centerline to top of engine	803.5	31.6
Height from crankshaft centerline to bottom of rails	470.0	18.5
Overall Width	979.4	38.6
Width from crankshaft centerline to port side (left side)	436.6	17.2
Width from crankshaft centerline to starboard side	542.8	21.3
(right side)		

ın.
8.0
11.9
17.5

<sup>\*</sup>Illustrations and dimensions from drawing: 128-3807.

#### **CATERPILLAR SR4 GENERATOR**

Type Brushless, revolving field, permanent magnet excited
Construction Single bearing, close coupled
Three-phase 12 wire, wye or delta connected
Insulation Class F with tropicalization and anti-abrasion
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Voltage Regulation±1/2%
Voltage Gain Adjustable
Generator Weight, Net (approx)
368 frame 511 kg (1127 lb)
Space Heater
Voltages Available (adjustable +10%, -5%) 60 Hz — 220-440 volts
Meets or exceeds Marine Society requirements

#### RATING CONDITIONS

**Front** 

Engine Performance Parameters	
Power	±3%
Specific Fuel Consumption	±3%
Fuel Rate	±5%

Rear

Ratings are based on SAE J1228/ISO8665 standard conditions of 100 kPa (29.61 in. Hg), 25°C (77°F), and 30% relative humidity. These ratings also apply at ISO3046/1, DIN6271/3, and BS5514 conditions of 100 kPa (29.61 in. Hg), 27°C (81°F), and 60% relative humidity.

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