

Image shown may not reflect actual package.

PRIME 365 ekW 456 kVA 60 Hz 1800 rpm 480 Volts

Caterpillar® is leading the power generation marketplace with Power Solutions engineered to deliver unmatched flexibility, expandability, reliability, and cost-effectiveness.

FEATURES

COMPLETE, READY-TO-RUN SYSTEM

- Full-featured system includes, integral fuel tank base, exhaust silencer and flex, charging alternator, batteries, rack and cables, and main line circuit breaker
- Fully operable upon delivery, just add fuel and power cables

ENCLOSURES (optional)

· Weather protective and sound attenuated

SINGLE-SOURCE SUPPLIER

- Complete systems designed and built at Caterpillar ISO certified facilities.
- Fully prototype tested with certified torsional vibration analysis available

WORLDWIDE PRODUCT SUPPORT

- Worldwide parts availability through the Caterpillar dealer network
- With over 1844 dealer branch stores operating in 166 countries, you're never far from the Caterpillar part you need
- 99.7% of parts orders filled within 24 hours. The best product support record in the industry
- Caterpillar dealer service technicians are trained to service every aspect of your electric power generation system
- Preventive maintenance agreements
- The Cat Scheduled Oil Sampling (S•O•SSM) program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion byproducts

CAT® 3406C TA DIESEL ENGINE

- Reliable, rugged, durable design
- Field-proven in thousands of applications worldwide
- Four-stroke-cycle diesel engine combines consistent performance and excellent fuel economy with minimum weight
- UL 2200 Listed packages are available. Certain restrictions may apply. Consult with you Caterpillar dealer



CAT® SR4B GENERATOR

- Designed to match performance and output characteristics of Caterpillar diesel engines
- · Optimum winding pitch for minimum total harmonic distortion and maximum efficiency
- Segregated low voltage, AC/DC accessory box provides single point access to accessory connections
- UL 1446 Recognized Class H insulation system

CAT CONTROL PANELS

- · Four levels of controls, designed to meet individual customer needs:
- Electromechanical panel provides analog monitoring and metering with basic protection
- EMCP II provides digital monitoring, metering, and protection
- EMCP II+ provides EMCP II features along with full-featured power metering and protective
- Switchgear conversion provides easy interface for remote switchgear
- UL 508A Listed

19 February 2002

4:00 PM



FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

System	Standard	Optional	
Air Inlet	Single element canister type air cleaner Service indicator	Dual element air cleaner Heavy-duty air cleaner Air inlet shutoff	
Cooling	 Radiator with guard Coolant drain line with valve Fan and belt guards Caterpillar Extended Life Coolant 	Radiator duct flange Jacket water heater with shutoff valves Low coolant level alarm or shutdown Heat exchanger and expansion tank	
Exhaust	Stainless steel exhaust flex and ANSI outlet flange 10 dBA muffler	25 dBA muffler 35 dBA muffler Elbow kit and through-wall installation kit Manifold and turbocharger guards	
Fuel	 Primary and secondary fuel filters Fuel priming pump Flexible fuel lines Fuel pressure gauge 	Water separator Manual transfer pump (3) Automatic transfer systems to choose from Low fuel level alarm	
Generator	 Self excited Class H insulation Class F temperature rise (105°C prime/130°C standby) VR3 Voltage Regulator, 3-phase sensing Circuit breaker, IEC compliant, 3-pole with shunt trip 	Permanet magnet excited 2:1 Volts/Hz AVR Digital Voltage Regulator Digital Voltage Regulator with KVAR/PF control Anti-condensation space heater Reactive droop Oversize and premium generators (except 365 ekW Prime/400 ekW Standby) Circuit breaker, IEC Compliant, 4-pole with shunt trip	
Governor	Hydra-mechanical	Woodward 1724 Electronic isochronous Electronic load sharing Governor control motor	
Control Panels	• EMCP II	Electromechanical auto start/stop panel EMCP II+ Switchgear conversion Customer Communication Module Local alarm and remote annunciator modules	
Lube	Lubricating oil and filter Oil drain line with valves Fumes disposal	Manual sump pump	
Mounting	 Formed steel base with integral fuel tank, 8 hour capacity minimum Linear vibration isolators between base and enginegenerator 	Wide base with integral fuel tank Extended capacity fuel tank base Skid base	
Starting/Charging	 45 amp charging alternator Energized to Run (ETR) fuel shutoff solenoid 24 volt starting motor Batteries with rack and cables 	5 amp battery chargerOversize batteriesEther starting aidBattery disconnect switch	
General		Enclosures - sound attenuated, weather protective Automatic transfer switches (ATS) EU Certificate of Conformance (CE)	

PRIME 365 ekW 456 kVA 1800 rpm 480 Volts 60 Hz



SPECIFICATIONS



CAT SR4B GENERATOR

Frame Size	
Excitation	Self Excited
Pitch	
Number of poles	
Number of bearings	Single Bearing
Insulation .UL 1446 Recognized Class	H with tropicalization and
	antiabrasion
IP Rating	Drip Proof IP22
Alignment	Pilot Shaft
Overspeed capability - % of rated	
Wave form	Less than 5% deviation
Paralleling kit/Droop transformer	Optional
Voltage regulator	nase sensing with volts/Hz
Voltage regulation Less tl	nan +/- 1/2% (steady state)
Less than +	/- 1% (no load to full load)
Telephone Influence Factor	Less than 50
Harmania diatartian	L +l F0/



CAT DIESEL ENGINE

3406C T, I-6, 4-Stroke-Cycle Watercooled Diesel
Bore - mm
Stroke - mm165.10
Displacement - L
Compression ratio14.5 TO 1
AspirationTA
Fuel System
Governor type

CAT CONTROL PANELS

- EMCP II
- 24 Volt DC Control
- NEMA 1, IP22 enclosure
- · Electronically dead front
- Lockable hinged door
- Generator instruments meet ANSI C-39-1
- Terminal box mounted
- Single location customer connection point
- EU compliant segregated AC/DC connections
- Panel illuminating lights
- Auto start/stop control
- · Voltage adjust potentiometer
- True RMS AC metering
- · Digital indications for:
- rpm
- Operating hours
- Oil pressure
- Coolant temperature
- System DC volts
- AC volts, phase amps, Hz
- Shutdowns with indicating lights for:
- Low oil pressure
- High coolant temperature
- Overspeed
- Emergency stop
- Failure to start (overcrank)

PRIME 365 ekW 456 kVA 60 Hz 1800 rpm 480 Volts





TECHNICAL DATA

Open Generator Set - — 1800 rpm/60 Hz/480 Volts	PRIM	PRIME DM2274	
Package Performance			
Power rating	365 ekW		
Power rating @ 0.8 pf	456.25 kVA		
Fuel Consumption			
100% load with fan	98.4 L/hr	26.0 Gal/hr	
75% load with fan	72.5 L/hr	19.2 Gal/hr	
50% load with fan	50.6 L/hr	13.4 Gal/hr	
Cooling System*			
Air flow restriction (system)	.12 kPa	0.48 in. water	
Engine coolant capacity	20.8 L	5.5 Gal	
Radiator coolant capacity	40.0 L	10.6 Gal	
Engine coolant capacity with radiator	60.8 L	16.1 Gal	
Exhaust System			
Combustion air inlet flow rate	30.2 m3/min	1,066.5 cfm	
Exhaust stack gas temperature	540.1 Deg C	1,004 Deg F	
Exhaust gas flow rate	86.9 m3/min	3,068.8 cfm	
Exhaust flange size (internal diameter)	152.4 mm	6.0 in	
Exhaust system backpressure (maximum allowable)	6.7 kPa	26.9 in. water	
Heat rejection			
Heat rejection to coolant (total)	225 kW	12,796 Btu/min	
Heat rejection to exhaust (total)	346 kW	19,677 Btu/min	
Heat rejection to atmosphere from engine	81 kW	4,606 Btu/min	
Heat rejection to atmosphere from generator	22.2 kW	1,262.5 Btu/min	
Alternator**			
Motor starting capability @ 30% voltage dip	931 skVA		
Frame	450		
Temperature Rise	105 Deg C		
Lube System			
Lube oil refill volume with filter change for	38.0 L	10.0 Gal	
standard sump			
Standard sump			

^{*}Ambient capability at 200 m (660 ft) above sea level. For ambient capability at other altitudes consult your Caterpillar

^{**}Generator temperature rise is based on a 40 degree C ambient per NEMA MG1-32.



RATING DEFINITIONS AND CONDITIONS

Meets or Exceeds International Specifications: · ABGSM TM3, AS1359, AS2789, BS4999, BS5000, BS5514, DIN6271, DIN6280, EGSA101P, IEC34/1, ISO3046/1, ISO8528, JEM1359, NEMA MG 1-22, VDE0530, 89/392/EEC, 89/336/EEC

Prime - Output available with varying load for an unlimited time. Prime power in accordance with ISO8528. 10% overload power in accordance with ISO3046/1, AS2789, DIN6271, and BS5514 available on request. Prime power ambients shown indicate ambient at 100 percent load which results in a coolant top tank temperature just below the alarm temperature.

Ratings are based on SAE J1995 standard conditions. These ratings also apply at ISO3046/1, DIN6271, and BS5514 standard conditions.

Fuel Rates are based on fuel oil of 35° API (16° C or 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/liter (7.001 lbs/U.S. gal.).

Additional Ratings may be available for specific customer requirements. Consult your Caterpillar representative for details.



Package Dimensions				
Length	3800.0 mm	149.61 in		
Width	1105.0 mm	43.5 in		
Height	2091.2 mm	82.33 in		
Weight	4181 kg	9,218 lb		

Note: Do not use for installation design. See general dimension drawings for detail (Drawing #1440255).



TMI Reference No.: DM2274

PL Reference No.: 406DE72

European Sourced

LEHE2332 19 February 2002

www.CAT-ElectricPower.com

©2002 Caterpillar All rights reserved.

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