

KTA38-G3

Fuel Optimized



Description

The KTA38-Series benefits from years of technical development and improvement to bring customers an innovative and future proof diesel engine that keeps pace with ever changing generator set requirements.

Recognized globally for its performance under even the most severe climatic conditions, the KTA38-Series is widely acknowledged as the most robust and cost-effective diesel engine in its power range for the generator set market.

Features

Aftercooler – Large capacity after cooler results in cooler, denser intake air for more efficient combustion and reduced internal stresses for longer life.

Fuel System – Cummins exclusive low-pressure PT™ system with wear compensating pump and integral dual flyweight governor. Camshaft actuated fuel injectors give accurate metering and timing. Fuel lines are internal drilled passages in cylinder heads. Spin-on fuel filter.

Cooling System – Gear driven centrifugal water pump. Large volume water passages provide even flow of coolant around cylinder liners, valves and injectors. Bypass thermostats regulate coolant temperature. Spin-on corrosion resistors check rust and corrosion, control acidity and remove Impurities.

Cylinder Block – Alloy cast iron with removable wet liners. Cross bolt support to main bearing cap provides extra strength and stability.

Service and Support - G-Drive products are backed by an uncompromising level of technical support and after sales service, delivered through a world class service network.

Turbocharger – Cummins Turbo Technologies (CTT) exhaust gas driven turbocharger mounted at top of engine provides more power, improved fuel economy, altitude compensation, and lower smoke and noise levels.



This engine has been designed in facilities certified to ISO9001 and manufactured in facilities certified to ISO9001 or ISO9002.

1500 rpm (50 Hz ratings)

Gross engine output			Net engine output			Typical generator set output					
Standby	Prime	Base	Standby	Prime	Base	Standby (ESP)		Prime (PRP)		Base (COP)	
kWm/BHP			kWm/BHP			kWe	kVA	kWe	kVA	kWe	kVA
895/1200	806/1080	656/880	863/1157	783/1050	633/849	800	1000	728	910	600	750

1800 rpm (60 Hz ratings)

Gross engine output			Net engine output			Typical generator set output					
Standby	Prime	Base	Standby	Prime	Base	Standby (ESP)		Prime (PRP)		Base (COP)	
kWm/BHP			kWm/BHP			kWe	kVA	kWe	kVA	kWe	kVA
1000/1340	910/1220	776/1041	952/1276	872/1169	738/989	900	1125	820	1025	700	875

General engine data

Type	4 cycle, 60 degree Vee, turbocharged, aftercooled
Bore mm	159 mm (6.25 in.)
Stroke mm	159 mm (6.25 in.)
Displacement litre	37.8 litre (2300 in. ³)
Cylinder block	Cast iron, 12 cylinder
Battery charging alternator	35 amps
Starting voltage	24 volt, negative ground
Fuel system	Direct injection, EFC (Electronic Fuel Control) governor
Fuel filter	Dual spin-on paper element fuel filters with water separator
Lube oil filter type(s)	Spin-on full flow filter
Lube oil capacity (l)	140
Flywheel dimensions	SAE 0

Coolpac performance data

Cooling system design	JWAC
Coolant ratio	50% ethylene glycol; 50% water
Coolant capacity (l)	218.5
Limiting ambient temp.** (°C)	50 (50Hz); 56 (60Hz)
Fan power (kWm)	20 (50Hz); 35 (60Hz)
Cooling system air flow (m ³ /s)**	18.7 (50Hz); 24.4 (60Hz)
Air cleaner type	Dry replaceable element with restriction indicator

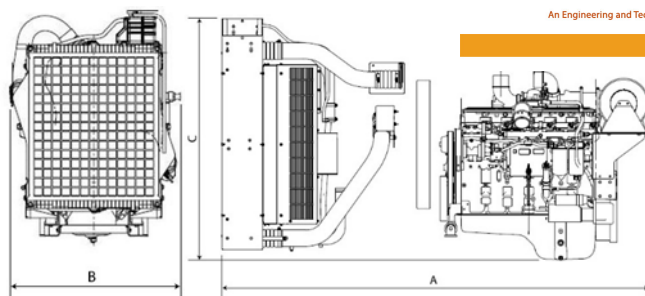
** @ 13 mm H₂O

Fuel consumption 1500 (50 Hz)

%	kWm	BHP	L/ph	g/kWh
Standby Power				
100	895	1200	221	58.3
Prime Power				
100	806	1080	198	52.3
75	604	810	151	39.9
50	403	540	104	27.3
25	201	270	54	14.3
Continuous Power				
100	656	880	164	43.3

Fuel consumption 1800 (60 Hz)

%	kWm	BHP	L/ph	g/kWh
Standby Power				
100	1000	1340	238	62.9
Prime Power				
100	910	1220	217	57.2
75	683	915	168	44.3
50	455	610	119	31.4
25	228	305	73	19.4
Continuous Power				
100	776	1040	190	50.1



Weights and dimensions

Length mm	Width mm	Height mm	Weight (dry) kg
3172	1752	2004	4990

Ratings definitions

Emergency Standby Power (ESP):	Limited-Time Running Power (LTP):	Prime Power (PRP):	Base Load (Continuous) Power (COP):
Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power to a constant electrical load for limited hours. Limited-Time Running Power (LTP) is in accordance with ISO 8528.	Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) in accordance with ISO 8528, ISO 3046, AS 2789, DIN6271 and BS 5514.

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