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# The Driving Force Behind Power Generation

Cummins G-Drive Engines Fully Integrated For Generator Applications







# Our energy makes the world go round

Throughout the globe, ever-increasing numbers of markets are making the connection between world-class power generation and Cummins Generator-Drive (G-Drive) Engines. But there's more to recommend us than our universal popularity.

For almost a century, Cummins G-Drive Engines, a division of Cummins Inc., has been recognised as a world-leader in integrated diesel engine design and manufacture. Travel the globe today and you'll find generator sets powered by our engines operating within almost every business sector, from industrial, commercial and financial, to construction, healthcare and telecommunications. And, as testament to the quality and durability of our products, not to mention the extensive coverage of our warrantees, we have forged and maintained long-term relationships with renowned Generator Original Equipment Manufacturers (GOEMs) internationally.

Thanks to our continuous investment in research and development, the high performance and low-emissions standards of our products remain unbeatable, setting the benchmark in our industry across a range with over 50 models at both 50 Hz and 60 Hz, to deliver diesel engines from 1.3 to 78 litres.

As for access to our world-class products, whether you want prime, standby or continuous power, you'll find the uncompromising level of technical support and service of our extensive distributor network is truly global. In fact, it's our presence in 190 countries that makes the process of matching the right generator, transfer and control technologies to your power needs, as smooth and efficient as our engines themselves.



Bashneft Power Plant, Central Siberia

- For typical generator set applications, we've developed an advanced 'all in one' power system that makes G-Drive products even more cost-effective. We call it CoolPac. You'll call it invaluable.
- A choice of 1.3 to 78 litre engines with advanced engine controls that allow for consistent interfaces across the range, isn't all you get with G-Drive CoolPac. The systems are preassembled to include both air cleaner kits and, in units up to 220 kVA (X1.3 to QSB7) fitted radiators. In units over 220 kVA (QSL9 and above), radiator kits are provided for chassis mounting.
- Supplied as a complete package, CoolPac offers a cost effective, fully warranted, high ambient-capable power solution, capable of meeting the most diverse requirements of our worldwide customers, with many models compliant with European Union (EU) and U.S. Environmental Protection Agency (EPA) emissions regulations.

# Our world-class service and support meets the toughest standards



#### **Dedicated global service**

Cummins' power comes from more than our engines. It comes from thousands of experienced service technicians, equipped with the latest diagnostic and repair tools. From the dedicated teams running our distribution centres, and the vehicles used to deliver millions of the highest-quality parts. It comes from instant online access to information on everything from parts to warrantees. And from a service network that covers the world.

#### **Rapid response support**

With 550 distributors, 5,000 sales and service locations and 20 parts distribution centres worldwide, our commitment to meet the needs of our customers means you can always expect a face-to-face, trustworthy relationship. And from engine expertise to parts supply, rely on us to provide rapid response support via:

- Factory trained technicians equipped with the latest diagnostic and repair tools
- Mobile QuickServe<sup>®</sup> and 24/7 backup providing an action plan within 30 minutes and dispatching a technician within four hours
- QuickServe Online offering an internet-based reference for parts and service information
- Smart Tools such as INSITE<sup>™</sup> software for rapid diagnostics and troubleshooting
- The most comprehensive warranty in the business

#### **Genuine Cummins Parts**

There's a world of difference between Genuine Cummins New Parts and others. Not just in their design, but in the materials and tolerances. Because to guarantee improved performance and longer life between overhauls, Genuine Cummins Parts all:

- meet exacting Cummins specifications;
- are made from advanced materials;
- incorporate state-of-the-art Cummins design technology;
- are continuously improved;
- include an industry-leading warranty;
- have the backing of a worldwide service organisation, where our distributors are prepared to offer extended maintenance and repair plans beyond the standard warrantv.

#### **Genuine ReCon Parts**

In addition to Genuine Cummins New Parts, we offer a range of fully warranted Genuine Cummins ReCon Parts parts that aren't just repaired or rebuilt, but completely remanufactured to Cummins' specifications.

For an extensive inventory of Genuine Cummins New and ReCon Parts simply contact your local authorised Cummins service facility.

Those standards are yours. Behind every product we design and manufacture comes the reassurance of our verified technicians, dedicated distribution teams and one of the most comprehensive parts and service networks in the world.

**Our electronic management** is a step ahead

#### **Power Generation Interface**

Available on QSB5/7, QSL9, QSK19, QSK38/50/60, and new generation QSX15 and QST30 engines, our Power Generation Interface (PGI) Electronic Control Modules (ECM) are amongst the best in the world. As well as easily meeting European emissions regulations, and providing advanced engine protection, they ensure faster connectivity along with a superior fault finding capability. Giving you a more flexible and economical way of controlling your power generation solution.

#### **INSITE™** electronic service tool

Installing our INSITE application on your PC will reduce troubleshooting time, errors or incorrect procedures, to quickly get your engine running again. Along with immediate access to trip information (which can be stored on a database or as Programming Templates), and to adjust

parameters and review/clear fault information, both Lite and Pro versions provide easy-to-follow assistance, wiring and sensor location diagrams. For more information, visit insite.cummins.com



### CM570 and CM850 **Engine Control Modules**

We offer two advanced engine control systems designed specifically to work with our G-Drive engines:

- 1. On engine integrated fuel and engine feature controls, providing
- a simplified OEM interface with hardwired and electronic multiplexing capability
- an integrated engine sensor suite and harness
- certified operation with most genset controllers

#### 2. Robust engine control software, incorporating

- three G-Drive control features for i, fixed speed operation at 50, 60 or 400 Hz: ii. adjustable speed bias, frequency offset, droop and engine response gains;
- iii. idle/rated and alternate frequency controls ■ high speed serial data communications for engine control, engine operational data and diagnostic messages
- OEM adaptability with service tool trims
- Engine torque and speed management with highpressure common rail fuel injection
- Engine protection features including overspeed, low oil pressure and high engine temperatures
- Extensive diagnostics and fault management system including fault reporting, duty cycle mapping, trend logs and fault snapshot logs
- Service tool support with Cummins INSITE and InPower

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# Our low-emissions technology is creating a cleaner world



As a recognised leader in developing innovative low-emission technologies, our fresh approach to power generation is as important in today's world as it will be in tomorrow's.

#### Meeting and exceeding global air quality standards

Regardless of country or continent, assuring end-users of the best power generation solution for their application, whilst protecting public health and conserving of our planet's natural resources, has long been a fundamental part of our engine design strategy.

In fact, for over a decade, by developing diesel engines that reduce pollutants such as nitrogen oxides (NOx), hydrocarbons (HC) and particulate matter (PM), we have been at the forefront of the move to meet, or in many cases exceed, the world's most stringent emissions requirements those of the European Union (EU) and U.S. Environmental Protection Agency (EPA). And in doing so we are proud to have become:

- the first manufacturer to introduce EPA Tier 2 and Tier 3 generator-drive engines to the market - ahead of the regulatory deadline;
- the first manufacturer to introduce EU Stage IIIA-compliant generator-drive engines to Europe;
- the only manufacturer to offer dual-speed generator-drive engines in the 63-330 kVA 50 Hz / 55-300 kWe 60 Hz range that are both EPA Tier 3 and EU Stage IIIA compliant at **both** speeds;
- the leader in innovative emissions solutions that focus predominantly on in-cylinder design improvements to eliminate most of the NOx, HC and PM before they are formed.

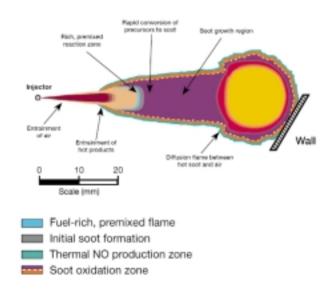
For the most significant leaps forward in our world-leading low-emissions technology you need only look to our innovative Quantum system, which is designed to reduce emissions without sacrificing engine performance and reliability, or complicating maintenance.

#### **Quantum technology**

Using Cummins' innovative Quantum technology, G-Drive engines are designed to work with a common set of application and diagnostic software tools. This not only simplifies engineering installation and servicing for GOEMs and operators, but also allows performance to be easily monitored and analysed to ensure emissions requirements are always met and power is enhanced. Which after all, is what our G-Drive engines are famous for.

#### Advanced electronic engine controls

With new electronic sensors and microprocessor-based engine controls to compensate for load, temperature, fuel energy content, barometric pressure and even engine wear, fuel efficiency and power output are improved while production of both NOx and PM are decreased.



#### Improved combustion chamber geometry

Using computer simulation of the combustion event, Cummins' engineers have altered the combustion chamber geometry to improve the compression ratio and fuel and air mixing. As a result, the production of emissions is significantly reduced, as is mechanical stress through the lowering of piston temperatures and cylinder pressures.

#### Enhanced 'FCD' cast iron pistons

With a new ferrous cast ductile (FCD) single-piece, cast iron piston in all our high-horsepower engines to permit expansion and contraction during thermal cycles, we've increased power cylinder durability by up to 15%. Our tier-compliant designs also include piston-cooling nozzles for a higher oil flow rate, a nitrided cylinder liner for reduced oil consumption and wear, and a simplified valve train to minimise loading on crankshafts and gear train.



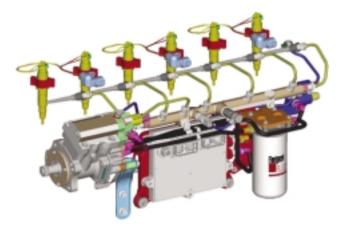
### **Optimised fuel injection systems**

Enhanced injection timing, injection pressure and nozzle design ensure greater control of both NOx and PM. In addition, the high-pressure common rail fuel system (used on engine platforms QSB5, QSB7 and QSL9) reduces engine noise and stress on engine parts for greater durability, whilst the modular common rail system (for QSK19, QSK38, QSK50 and QSK60) does much the same for the higherhorsepower engines.

#### **High-pressure common rail**

Higher injection pressures from new fuel injection systems improve fuel atomization, assist combustion chamber penetration (for better cold starting and response to transient loads), and enhance engine performance, effectively:

- Reducing noise and smoke
- Improving idle stability
- Improving low-end torque
- Producing cleaner combustion



The advantages of advanced in-cylinder combustion control Uses proven engine platforms with no displacement or

- base-engine changes
- Avoids complicated engineering such as exhaust gas recirculation (EGR) or major changes to turbocharging or coolina
- Tolerates high-sulphur fuel

Cummins is the only manufacturer to offer dual-speed diesel G-Drive engines from 4.5L - 9L. These not only boast the most advanced technology, but also represent compliance with the most stringent EPA Tier 3 and EU Stage IIIA norms at both speeds. The ability of our engines to meet these stringent emissions norms at both speeds (50 & 60 Hz) ensures our products represent a cost effective and versatile power solution for rental and mobile applications.

# Our new range powers every application



# X-Series 10-38 kVA 50 Hz / 9-35 kWe 60 Hz

#### **Quieter efficiency**

The X-Series has all the strength and reliability the genset industry has come to expect from the G-Drive range but in a smaller, lighter and more economical package. With direct fuel injection for a cleaner, guieter and more fuel efficient performance, a highly compact envelope and extremely low heat rejection, the engines in this series all offers a high degree of installation flexibility.

1500rpm (50Hz) Engine Model	Star kVA	ndby kWe	Pri kVA	me kWe	Emissions	1800rpm (60Hz) Engine Model	Star kWe	ndby kVA	Pri kWe	ime kVA	Emissions
X1.3-G1	11	8.8	10	8		X1.3-G2	10	12.5	9	11.3	
X2.5-G2	27.5	22	25	20		X2.5-G4	20	25	18	22.5	
X3.3-G1	38	30	35	28		X3.3-G2	35	44	33	41	

# **S-Series** 40-66 kVA 50 Hz



#### **Economic reliability**

The S-Series is efficient, economic, reliable and is the latest addition to our family of light gensets. This series combines outstanding value and flexibility with G-Drive performance. The engine features a 12V electrical system, with CoolPac engine, mounted heavy duty air filter and 50 degrees Celsius radiator as standard.

1500rpm (50Hz) Engine Model	Stan kVA	idby kWe	Prii kVA	me kWe	Emissions
S3.8-G4	44	35.2	40	32	
S3.8-G5	55	44	50	40	
S3.8-G7	66	52.8	60	48	

1.3/2.5/3.3 litre 2/3/4 cylinder

3.8 litre 4 cylinder

#### 51 73 4BT3.9-G4 70 56 64 4BTA3.9-G4 80 91 100 110 138 176 88 110 80 100 6BTA5.9-G5 100 6BTAA5.9-G3 125

Standby

kWe

44

141

kVΔ

55

# **QSB5/QSB7** 63-220 kVA 50 Hz / 55-200 kWe 60 Hz

industry standard.

Prime

kWe

40

128

kVA

50

160

litre, for first class reliability.

Emissions

EU Stage II



1500rpm (50Hz) Engine Model

4BT3.3-G3

6BTAA5.9-G5

## A powerful performer

With greater engine manipulation capabilities, the QSB-Series is one of the cleanest on the market, reaching EPA T3/EU Stage IIIA at both 1500rpm and 1800rpm. These new Quantum system engines, featuring a common rail fuel system, combine proven full-authority electronic controls with powerful performance even in the most demanding applications.

1500rpm (50Hz) Engine Model		ndby kWe	Pri kVA	me kWe	Emissions	1800rpm (60Hz) Engine Model	Star kWe	idby kVA	Pri kWe	me kVA	Emissions
QSB5-G1	70	56	63	50	EU SIIIA/EPA T3	QSB5-G1	60	75	55	69	EPA T3/EU SIIIA
QSB5-G2	80	64	72	58	EU SIIIA/EPA T3	QSB5-G2	70	88	65	81	EPA T3/EU SIIIA
QSB5-G3	90	72	82	66	EU SIIIA/EPA T3	QSB5-G3	80	100	72	90	EPA T3/EU SIIIA
QSB5-G4	100	80	91	73	EU SIIIA/EPA T3	QSB5-G4	90	113	82	103	EPA T3/EU SIIIA
QSB5-G5	110	88	100	80	EU SIIIA/EPA T3	QSB5-G5	100	125	90	113	EPA T3/EU SIIIA
QSB5-G6	150	120	136	109	EU SIIIA/EPA T3	QSB5-G6	125	156	113	141	EPA T3/EU SIIIA
QSB7-G1	110	88	100	80	EU SIIIA/EPA T3						
QSB7-G2	150	120	136	109	EU SIIIA/EPA T3						
QSB7-G3	175	140	150	120	EU SIIIA/EPA T3	QSB7-G3	150	188	136	170	EPA T3/EU SIIIA
QSB7-G4	200	160	180	144	EU SIIIA/EPA T3	QSB7-G4	175	220	160	200	EPA T3/EU SIIIA
QSB7-G5	220	176	200	160	EU SIIIA/EPA T3	QSB7-G5	200	250	180	225	EPA T3/EU SIIIA

### Whether you need standby/emergency, continuous or prime power, with our range of reliable, durable diesel engines, purpose-designed for high load factors and high usage, you can rest assured there's a G-Drive product to fit your application.

#### B-Series 50-176 kVA 50 Hz / 36-110 kWe 60 Hz 3.3/3.9/5.9 litre 4/4/6 cylinder

#### Small engines - big possibilities

Small, light and economical, our B-Series engines include a direct fuel injection for a cleaner, guieter, more fuel-efficient performance and offer outstanding value in terms of installation, simplicity and servicing, with valve clearance checks not required until 2,000 hours - twice the

All the engines in this series perform well under severe duty cycles and offer excellent fuel consumption, substantial cooling capability, low noise, low weight, and high power output per

1800rpm (60Hz) Engine Model		ndby		me	Emissions
	kWe	kVA kWe		kVA	
4BT3.3-G5	40	50	36	45	EPA Tier 4i
4BT3.3-G6	50	63	45	56	EPA Tier 2
4BT3.9-G4	60	75	55	69	
4BTA3.9-G4	90	113	82	103	
6BTA5.9-G6	110	138	100	125	

### 4.5/6.7 litre 4/6 cylinder

# QSL9 225-330 kVA 50 Hz / 210-300 kWe 60 Hz



#### **Power with intelligence**

Offering outstanding power performance, this series can handle the toughest work conditions, delivering better fuel economy, better cold starting capability and lower operational noise.

Features include a High-Pressure Common Rail (HPCR) fuel system for strong performance, full authority electronic control for precise engine manipulation and a low-maintenance filter assembly to minimise downtime.

Already meeting Tier 3/Stage IIIA emissions standards at both 1500rpm and 1800rpm, the advanced QSL engine platform will be carried forward to Tier 4i through 2015.

1500rpm (50Hz) Engine Model	Stai kVA	ndby kWe	Pri kVA	me kWe	Emissions	1800rpm (60Hz) Engine Model	Star kWe	ndby kVA	Pri kWe	me kVA	Emissions
QSL9-G2	250	200	225	180	EU SIIIA/EPA T3	QSL9-G2	230	288	210	263	EPA T3/EU SIIIA
QSL9-G3	275	220	250	200	EU SIIIA/EPA T3	QSL9-G3	250	313	227	284	EPA T3/EU SIIIA
QSL9-G4	300	240	275	220	EU SIIIA/EPA T3	QSL9-G4	275	344	250	313	EPA T3/EU SIIIA
QSL9-G5	330	264	300	240		QSL9-G5	300	375	275	344	
QSL9-G7	330	264	300	240	EU SIIIA/EPA T3	QSL9-G7	300	375	275	344	EPA T3/EU SIIIA

### NT855 320-400 kVA 50 Hz / 260-353 kWe 60 Hz



#### **Premium performance**

From a series that is service-proven through millions of hours of operation in some of the world's most demanding applications, the NT855 has been engineered to handle higher injection pressures, with redesigned overhead arrangement, pistons, crankshaft and camshaft. A gear train with high contact ratio spur gears also eliminates unwanted thrust loads and reduces noise.

In line with the rest of the NT family, wide-ranging benefits including fuel efficiency, low oil consumption, reliable long life, high power and durability.

1500rpm (50Hz) Engine Model	Star	ndby	Pri	me	Emissions	1800rpm (60Hz) Engine Model		ndby	Pri	me	Emissions
	kVA	kWe	kVA	kWe			kWe	kVA	kWe	kVA	
NT855-G6	350	280	320	256		NT855-G6	285	356	260	325	
NTA855-G4	400	320	365	292		NTA855-G3	353	441	319	398	

### QSX15 409-550 kVA 50 Hz / 356-500 kWe 60 Hz

**15 litre** 6 cylinder

**14 litre** 6 cylinder

**8.9 litre** 6 cylinder



#### A revolution in diesel power generation

Providing uncompromising power and efficiency in a compact package, the QSX15-Series is the first heavy-duty diesel engine with 24-valve dual overhead camshaft technology. Using 30% fewer parts than comparable diesels, it has been engineered to eliminate external lube, coolant and fuel lines for higher reliability at high power output.

Ideally suited to both open and enclosed applications in static or portable equipment, it can be matched to meet the specific duty cycle and operating conditions of any generator set.

1500rpm (50Hz) Engine Model	Star	ndby	Pri	me	Emissions	1800rpm (60Hz) Engine Model	Star	ndby	Pri	me	Emissions
	kVA	kWe	kVA	kWe			kWe	kVA	kWe	kVA	
QSX15-G4	457	366	409	327	EU Stage II	QSX15-G4	394	493	356	445	EPA Tier 2 TPEM
QSX15-G6	500	400	455	364	EU Stage II	QSX15-G6	400	500	360	450	EPA Tier 2 TPEM
					-	QSX15-G7	450	563	410	513	EPA Tier 2 TPEM
QSX15-G8	550	440	500	400	EU Stage II	QSX15-G8	400	500	360	450	EPA Tier 2 TPEM
						QSX15-G9	500	625	450	563	EPA Tier 2

### **KTA19** 500-550 kVA 50 Hz / 455-500 kWe 60 Hz



#### **Outstanding durability**

As one of the most durable, heavy-duty diesel engines on the market, the KTA19's six-cylinder, in-line configuration delivers excellent combustion efficiency and fuel economy, whilst its added insulation features provide more even coolant flow and better temperature control.

Using the highly reliable Step Timing Control (STC) to ensure optimum engine timing for all load and ambient temperature combinations, it offers improved cold starting and reduced fuel consumption.

1500rpm (50Hz) Engine Model	Star kVA	ndby kWe	Pri kVA	me kWe	Emissions	1800rpm (60Hz) Engine Model	Star kWe	ndby kVA	Pri kWe	me kVA	Emissions
KTA19-G4	550	440	500	400		KTA19-G4	500	625	455	569	

## QSK19 600-715 kVA 50 Hz / 500-600 kWe 60 Hz

## Power efficiency for every application



Our first diesel engine to be 650 kVA capable in only six cylinders, the QSK19 is one of the most efficient on the market, in terms of power per displacement.

Available with Cummins proven Quantum technology and dual frequency, it also meets both EPA T2 and 2gTAL emissions standards, making it a totally programmable, fuel-efficient and reliable power solution for most applications.

1500rpm (50Hz) Engine Model	Star kVA	ndby kWe	Pri kVA	me kWe	Emissions	1800rpm (60Hz) Engine Model	Star kWe	ndby kVA	Pri kWe	me kVA	Emissions
QSK19-G2	660	528	600	480	EPA Tier 2	QSK19-G2	550	688	500	625	EPA Tier 2
QSK19-G3	715	572	650	520	EPA Tier 2	QSK19-G3	600	750	545	681	EPA Tier 2
QSK19-G4	715	572	650	520	EPA Tier 2	QSK19-G4	568	710	503	629	EPA Tier 2
						QSK19-G5	600	750	550	688	EPA Tier 2

#### QSK23 660-900 kVA 50 Hz / 591-800 kWe 60 Hz

### High performance for tough applications

The QSK23-Series is designed to meet present and future competitive pressures and worldwide emissions regulations while delivering high fuel economy and high power density.

Its inline, six-cylinder configuration – unusual for this high power output – offers a narrower, shorter installation, easier access and the benefit of fewer parts, which makes it inherently more reliable and lengthens the expected life cycle to 20,000 hours before first overhaul.

1500rpm (50Hz) Engine Model	Star	ndby	Pri	me	Emissions	1800rpm (60Hz) Engine Model		ndby	Pri	me	Emissions
	kVA	kWe	kVA	kWe			kWe	kVA	kWe	kVA	
QSK23-G2	810	650	750	600		QSK23-G2	760	950	690	865	
QSK23-G3	900	720	810	648		QSK23-G3	800	1000	727	909	
QSK23-G5	725	580	660	525	EPA Tier 2	QSK23-G5	650	813	591	739	EPA Tier 2
QSK23-G8	825	660	750	600	EPA Tier 2	QSK23-G6	750	938	682	852	EPA Tier 2
QSK23-G9	900	720	810	648	EPA Tier 2	QSK23-G7	800	1000	727	909	EPA Tier 2

## **19 litre** 6 cylinder

# **19 litre** 6 cylinder

## 23 litre 6 cylinder

# VTA28 636-700 kVA 50 Hz / 545-600 kWe 60 Hz



#### **Cost effective power**

The product of years of technical development and improvement, the VTA28-Series is recognised globally for its performance under even the most severe climatic conditions, and widely acknowledged as the most robust and cost effective diesel engine in its power range.

Key design features include two large capacity aftercoolers for more efficient combustion, dual camshafts for precise control valve and injector timing, a cooling system boasting a more even flow of coolant around the cylinder liners, valves and injectors, and Cummins PT self-adjusting fuel system for overspeed protection independent of the main governor.

Note: VTA28-G5 engine specifications are unique for either 1500rpm (50Hz) or 1800rpm (60Hz) operation.

1500rpm (50Hz) Engine Model	Star kVA	ndby kWe	Pri kVA	me kWe	Emissions	1800rpm (60Hz) Engine Model		idby kVA	Pri kWe	me kVA	Emissions
VTA28-G5	700	560	636	509		VTA28-G5	600	750	545	681	

### QST30 910-1100 kVA 50 Hz / 823-1000 kWe 60 Hz

#### 30 litre V12 cylinder

28 litre V12 cylinder



#### Proven performance around the clock

Sophisticated electronics and premium engineering give the QST30 Quantum series outstanding performance levels, delivering more power and torgue in a smaller package than many of its competitors.

Setting the standard for rugged dependable power, the engine uses Ductile Iron pistons to provide the improved strength and durability to handle increased cylinder pressure, ensuring longer life cycles to overhaul.

1500rpm (50Hz) Engine Model	Star kVA	ndby kWe	Pri kVA	me kWe	Emissions	1800rpm (60Hz) Engine Model	Star kWe	idby kVA	Pri kWe	me kVA	Emissions
QST30-G3	1000	800	910	728		QST30-G3	900	1125	823	1029	
QST30-G4	1100	880	1000	800		QST30-G4	1000	1250	910	1138	
						QST30-G5 NR2	1000	1250	910	1138	EPA Tier 2

### KTA38/KTA50 910-1675 kVA 50 Hz / 1135-1500 kWe 60 Hz 38/50 litre V12/16 cylinder



#### Premium high performance power

Maintaining their outstanding reputation for high performance power even in the harshest conditions, the latest KTA range is jacket water aftercooled with a 2-pump, 2-loop cooling system design. Its inbuilt step timing control system ensures optimum engine timing at all combinations of load and ambient temperature, improving cold starting and reducing light load fuel consumption to greatly enhance engine efficiency.

1500rpm (50Hz) Engine Model	Star kVA	ndby kWe	Pri kVA	me kWe	Emissions	1800rpm (60Hz) Engine Model	Stan kWe	idby kVA	Pri kWe	me kVA	Emissions
KTA38-G7	1000	800	910	728							
KTA50-G3	1400	1120	1275	1020		KTA50-G3	1250	1610	1135	1418	
KTA50-G8	1675	1340	1400	1120		KTA50-G9	1500	1875	1295	1619	

# QSK38/QSK50 1000-1825 kVA 50 Hz / 965-1600 kWe 60 Hz 38/50 litre V12/16 cylinder



**Controlled high performance power** 

This new series uses our state-of-the-art Quantum system to provide advanced engine manipulation and an enhanced electronic feature set.

The configuration also includes new injectors, pistons, turbos, valve covers and a 2-pump, 2-loop Low Temperature Aftercooling (LTA) system to meet U.S. EPA Tier 2 mobile off-highway emission levels, and make the QSK50 one of the cleanest engines in its class.

1500rpm (50Hz) Engine Model	Standby		Standby kVA kWe				-		1800rpm (60Hz) Emissions Engine Model		Standby kWe kVA		Prime kWe kVA		Emissions
	KVA	KWe	KVA	Kwe			KWE	KVA	Kwe	KVA					
QSK38-G1	1100	880	1000	800	EPA Tier 2										
QSK38-G2	1250	1000	1135	908	EPA Tier 2										
QSK38-G3	1400	1120	1275	1020	EPA Tier 2	QSK38-G4	1250	1563	1125	1406	EPA Tier 2				
QSK38-G5	1400	1120	1275	1020	EPA Tier 2	QSK38-G5	1160	1450	965	1206	EPA Tier 2				
QSK50-G2	1400	1120	1275	1020	EPA Tier 2	QSK50-G2	1250	1563	1135	1419	EPA Tier 2				
QSK50-G3	1540	1232	1400	1120	EPA Tier 2	QSK50-G3	1400	1750	1275	1594	EPA Tier 2				
QSK50-G4	1700	1360	1540	1232	EPA Tier 2	QSK50-G4	1500	1875	1365	1706	EPA Tier 2				
QSK50-G7	1825	1460	1650	1320	EPA Tier 2	QSK50-G5	1500	1875	1365	1706	EPA Tier 2				
				•		QSK50-G6	1600	2000	1455	1819	EPA Tier 2				

#### QSK60 1700-2500 kVA 50 Hz / 1700-2200 kWe 60 Hz 60 litre V16 cylinder

# Superior performance and durability

Combining sophisticated electronics with advanced engineering, this new series takes power generation to the next level. The product of extensive research and development, its advanced combustion techniques ensure stringent European and EPA-MOH emissions requirements are met and operation is virtually smoke-free.

Specifically designed for extended life, achieving over 20,000 hours operation before overhaul, the new component configuration also sets a new benchmark for low cost operation.

1500rpm (50Hz) Engine Model	Stan kVA	idby kWe	Pri kVA	me kWe	Emissions	1800rpm (60Hz) Engine Model		ndby kVA	Pri kWe	me kVA	Emissions
QSK60-G10	1875	1500	1700	1360	EPA Tier 2	QSK60-G10	1875	2344	1700	2125	EPA Tier 2
QSK60-G11	2250	1800	2000	1600	EPA Tier 2						
QSK60-G12	2000	1600	1825	1460	EPA Tier 2	QSK60-G12	2000	2500	1825	2281	EPA Tier 2
QSK60-G13	2500	2000	2000	1600		QSK60-G14	2200	2750	1800	2250	EPA Tier 2
QSK60-G3	2000	1600	1875	1500		QSK60-G6	2000	2500	1825	2281	
QSK60-G4	2250	1800	2045	1636		QSK60-G6 NR2	2000	2500	1825	2281	EPA Tier 2
QSK60-G7	2000	1600	1875	1500		QSK60-G7	2000	2500	1825	2281	

# QSK78 2750-3000 kVA 50 Hz / 2275-2750 kWe 60 Hz

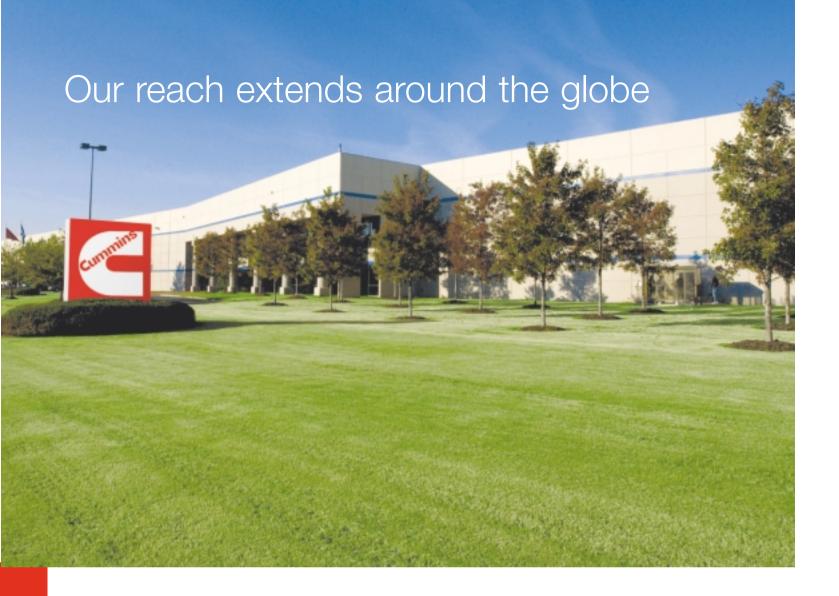
### **Ultimate power and performance**

The QSK78 provides the optimal combination of productivity and performance, and incorporates the best features of our QSK Series engines, including advanced combustion technology and robust base engine components, providing the highest power density in its class.

Extended Service options of Eliminator™ and Centinel™ can provide extended oil and filter change intervals and reduce downtime and service costs.

1500rpm (50Hz) Engine Model	Stan kVA	ndby kWe	Pri kVA	me kWe	Emissions	1800rpm (60Hz) Engine Model		ndby kVA	Pri kWe	me kVA	Emissions
QSK78-G9	3000	2400	2750	2200	EPA Tier 1	QSK78-G7	2500	3125	2275	2844	EPA Tier 1
						QSK78-G8	2750	3438	2500	3125	EPA Tier 1

# 78 litre V18 cylinder



Delivering vital prime, standby or continuous power solutions to help keep the world on the move is what Cummins G-Drive Engines are all about. By designing fuel-efficient, high performance diesel engines and related technologies for every generator set application in use today, our brand is one of the best known and most widely used throughout the globe.

To meet the international demand for our products, our manufacturing centres are currently sited in 14 key cities, across the UK, the USA, Brazil, Turkey, India, China, South Korea, Japan and Singapore. Which means wherever you need us, we'll be there.







- 9 Jamshedpur, India10 Pune, India11 Chongqing, China
- 12 Xiangfen, China13 Oyama, Japan14 Singapore
- 14 Singapore