

AvK[®] DSG and DIG Range
of Low, Medium and
High Voltage Alternators



Supporting AvK Customers Since 1919

AvK Synergy:

Long-established engineering pedigree, global support and investment-driven innovation

AvK Centre of Excellence:

Operational since 1999, Cummins Generator Technologies Craiova Facility has been fully upgraded and modernised for focused AvK design and production

AvK Global Network:

Part of Cummins Generator Technologies STAMFORD I AvK infrastructure, a global network that has been strengthened with greater pre and post-sales support capabilities

AvK Range of Rugged, Reliable and Tailored Three Phase Alternators

Cummins Generator Technologies' product offering features two powerful brand names – STAMFORD and AvK. While sharing a common development background and uncompromised levels of design and manufacturing quality, each brand delivers features equipping it ideally for its own target applications. AvK's highly-reputed ruggedness, reliability and tailorability are benefiting customers better than ever before through Cummins Generator Technologies recently expanded and modernised centre of excellence at Craiova, Romania.

AvK Alternator availability: 4 - 10 pole, low, medium and high voltage alternators available at industry leading lead times.

AvK Range in Summary

- Rated power: 600 kVA to 11,000 kVA
- Rated voltage: 380V – 13.8 kV
- Rated frequency: 50 and 60 Hz
- Speed: 600, 720, 900, 1000, 1200, 1500, 1800 rpm
- Protection: IP23, IP23 with filters, IP44, IP54, IP55
- Cooling: IC01, IC611, IC616, IC81W
- Design: IM 1001, IM 1101, IM 1005, IM 1105, IM 1205, IM 1305, IM 2401, IM 2001, IM2101

AvK Nominal Ratings

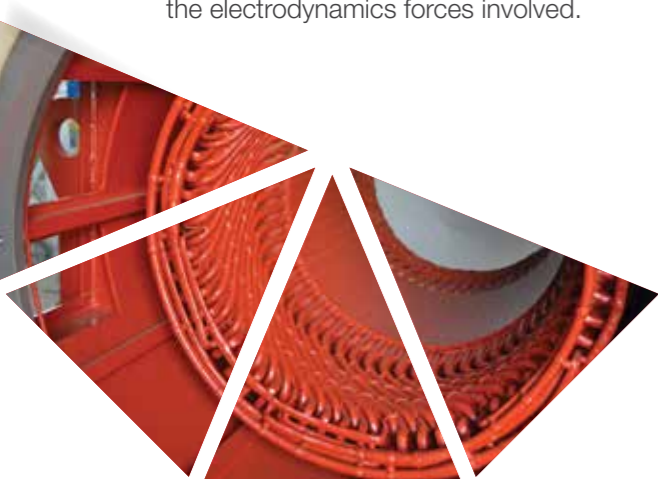
DSG - LV											
Model	Pole	Rating (kVA)									
		50Hz					60Hz				
		400V		690V		480V		600V		690V	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
DSG62	4	660	1,100	650	1,100	790	1,320	NA	NA	780	1,300
	4	1,400	2,000	1,320	1,900	1,680	2,400	NA	NA	1,500	2,310
DSG74	6	740	1,220	710	1,050	890	1,465	NA	NA	900	1,270
	8	620	930	600	860	745	1,115	NA	NA	690	1,050
DSG86	4	2,060	2,840	2,020	2,990	2,472	3,408	2,017	2,696	2,320	3,100
	6	1,500	1,910	1,240	1,910	1,800	2,292	1,348	2,000	1,550	2,300
	8	900	1,350	900	1,430	1,242	1,780	939	939	1,080	1,650
DSG99	10	670	1,110	720	1,110	804	1,332	NA	NA	820	1,300
	4	3,450	3,450	3,510	4,700	4,140	4,140	3,052	4,609	3,510	5,300
	6	2,240	3,050	2,050	3,200	2,688	3,660	1,913	2,826	2,200	3,250
DSG114	8	1,650	2,530	1,650	2,530	2,080	3,190	2,591	2,591	1,980	2,980
	10	1,220	1,830	1,220	2,000	1,464	2,196	NA	NA	1,420	2,000
	4	4,000	4,000	NA	NA	4,800	4,800	NA	NA	NA	NA
DSG125	6	3,400	4,950	3,500	5,000	4,080	5,940	3,174	5,130	3,650	5,900
	8	2,900	4,030	2,400	3,800	3,480	4,836	3,130	4,296	3,600	4,940
	10	2,150	3,120	2,080	3,250	2,580	3,744	NA	NA	2,400	3,600
DSG144	8	NA	NA	4,500	7,000	NA	NA	NA	NA	5,350	8,500
	10	NA	NA	NA	NA	NA	NA	NA	NA	4,200	5,750
DSG144	10	NA	NA	NA	NA	NA	NA	NA	NA	6,600	6,600

DIG - HV																	
Model	Pole	Rating (kVA)															
		50Hz										60Hz					
		3.3kV		6.3kV		6.6kV		10.5kV		11kV		4.16kV		6.6kV		13.8kV	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
DIG110	4	750	1,080	750	1,080	750	1,080	900	1,080	900	1,080	900	1,300	900	1,250	NA	NA
	6	580	750	560	720	560	720	NA	NA	NA	NA	720	940	720	940	NA	NA
DIG120	4	1,300	2,050	1,300	1,750	1,300	1,750	1,150	1,650	1,150	1,650	1,630	2,600	1,500	2,200	NA	NA
	6	900	1,520	920	1,140	880	1,200	NA	NA	NA	NA	1,130	1,900	1,000	1,350	NA	NA
DIG130	4	2,250	3,850	1,900	3,000	1,900	3,000	1,800	2,800	1,800	2,800	2,850	4,000	2,200	3,450	2,050	3,250
	6	1,730	2,650	1,450	2,200	1,450	2,250	1,350	2,100	1,350	2,100	2,000	3,300	1,650	2,600	1,600	2,550
DIG140	8	1,180	1,950	1,140	1,650	1,140	1,650	1,300	1,600	1,300	1,600	1,470	2,450	1,260	1,680	1,700	1,900
	4	3,000	4,600	3,000	4,600	3,000	4,600	3,000	4,400	3,000	4,400	3,800	5,250	3,400	5,300	3,000	4,500
DIG142	6	2,500	4,050	2,400	3,800	2,400	3,800	2,200	3,500	2,200	3,500	NA	NA	NA	NA	NA	NA
	4	3,760	5,800	3,760	5,800	3,760	5,800	3,760	5,800	3,760	5,800	4,324	6,700	4,250	6,600	4,150	5,850
DIG150	4	5,100	6,500	5,100	7,000	5,100	6,300	5,000	6,500	4,900	6,500	5,700	8,500	5,700	8,000	5,000	6,300
	6	3,900	5,500	3,750	5,250	3,900	7,000	3,450	4,700	3,650	4,950	4,450	5,250	4,450	5,250	4,150	4,900
DIG156	8	2,900	4,800	2,900	4,600	2,800	4,800	2,850	4,300	2,850	4,500	3,800	5,400	3,150	5,400	3,300	4,600
	4	6,400	8,400	6,200	9,400	6,200	9,400	6,000	9,300	6,000	9,300	7,700	10,200	7,200	9,100	6,400	8,500
	6	5,600	8,000	5,600	8,500	5,600	8,500	5,500	8,500	5,500	8,500	NA	NA	NA	NA	NA	NA
DIG156	8	4,200	6,800	4,200	6,600	4,200	6,600	4,200	6,700	4,200	6,700	4,900	7,150	5,000	7,500	4,700	7,000
	10	3,450	6,850	3,550	5,900	3,550	5,900	3,100	5,500	3,100	5,700	4,600	7,650	4,100	7,000	2,690	4,550

Alternators Built to the Highest Specification

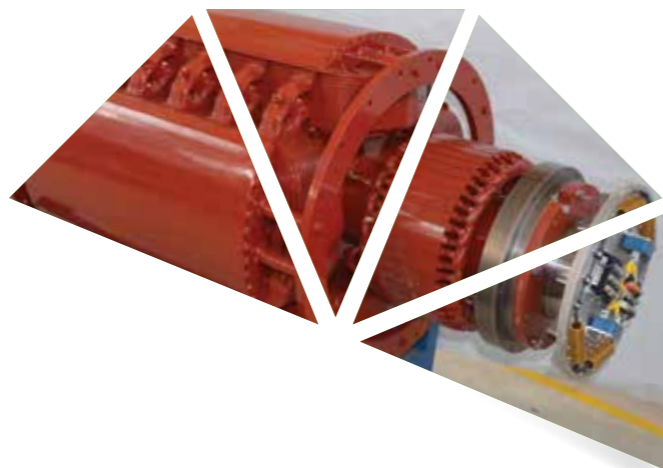
Stator

The stator cores are built from high grade lamination steel. The frame is mechanically designed to withstand tough applications and ensure that there is ample airflow to cool the windings. The windings are form wound for higher reliability and braced and supported to withstand the dynamic stresses generated by the electrodynamic forces involved.



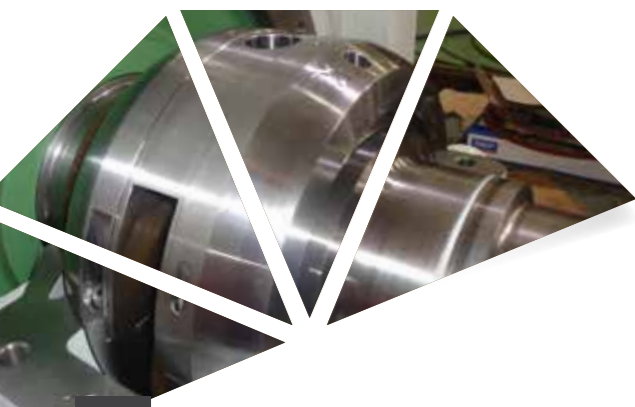
Rotor

The salient pole rotors have windings secured with wedges and end winding supports to withstand centrifugal forces. Damper windings are provided to reduce alternator harmonics and absorb the impacts caused by unbalanced load conditions. The dampers also reduce the system oscillations caused during parallel operation.



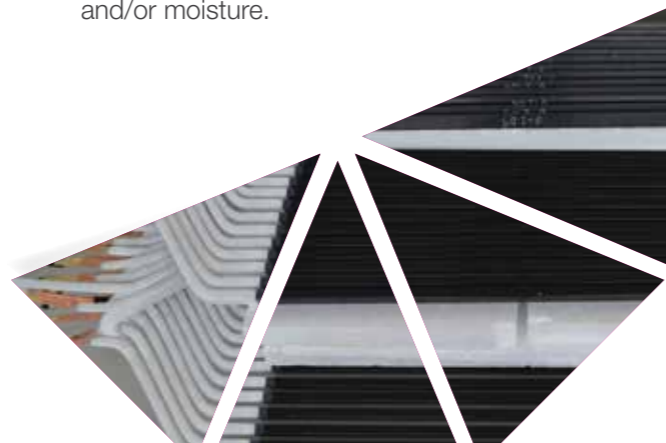
Bearings

- Anti-friction or sleeve bearings subject to load, speed and application.
- Sleeve bearings provided are split type to permit easy access for maintenance. Subject to frame size, speed and inclination they may be self-lubricated or force lubricated.



Insulation

All windings are bar-wound type and conform to class H thermal insulation for LV and class F thermal insulation for MV & HV. Increased machine life and reliability is ensured through AvK's advanced insulation system and Vacuum Pressure Impregnation (VPI), ensuring excellent dielectric properties, enhanced dimensional and mechanical stability as well as superior resistance against chemicals and/or moisture.



AVR and Excitation System

The alternators are equipped with brushless excitation; the auxiliary winding supplies the Automatic Voltage Regulator (AVR) with sufficient power to ensure short-circuit levels of $>3 \times$ rated current.

A range of digital AVRs are available to meet varying applications requirements. Typical AVR features include:

- Voltage regulation in island mode ($\pm 0.5\%$)
- Reactive load sharing by static droop or cross current compensation
- U/f characteristic for applications with floating frequency
- Under/over excitation voltage protection
- Excitation fault monitoring
- Fast PID response for high-class regulation characteristic.

Short Circuit

Industrial machines will withstand a maximum short circuit of 300% of rated current, under a 3 phase (L-L-L) short circuit condition. The initial value of the short circuit current will be higher than 300% (details can be obtained from the factory). The AVR will support the sustained short circuit conditions for up to 10 seconds, at which the AVR over-excitation protection system will de-excite the machine. This feature should not, however, replace the switchgear protection provided by the customer. Sustained current levels under 2 phase L-L or 1 phase L-N short circuit levels are much higher than the above L-L-L levels, and must be removed from the alternator by breakers within 4 seconds for L-L faults, and within 2 seconds for L-N faults.

Parallel Operation

All AvK alternators are well suited for parallel operation with the mains utility or other alternators. All AVRs have power factor control or reactive power control. For site conditions where the grid is weak and unstable, please refer to the factory.



Protection and Cooling

A range of cooling systems and protection options are available across the AvK range, allowing for an optimum choice for operating and environmental conditions.

Our standard is open drip-proof IP23 enclosures, suitable for clean air environments.

For higher levels of protection we offer, IP23 with filters, IP44, IP54, and IP55 can be supplied on request.

Cooling options include top-mounted air-to-air (IC611 & IC616) or air-to-water (IC81W) heat exchangers.

Totally enclosed air to air cooled (IC611, IC616)

Air-to-air coolers are suitable for dusty, environmental conditions, as found in mining, textile plants, oil & gas production and quarries. There are one or two internal fans that direct the enclosed air up and through an array of tubes,

which are mounted on top of the alternator. In the outer circuit, an external fan motor drives air through an outer sheet metal enclosure to cool the tubes. The air is then exhausted on the drive-end side of the alternator.

Totally enclosed air to water cooled (IC81W)

Air-to-water coolers are generally used when the volume of the ambient air available is restricted, as aboard a ship, or for other applications like steam turbine and CHP power plants where there is an abundance of water available for cooling.

There are one or two internal fans. Air is forced up and through air to water radiators within the alternator enclosure. The heated air is cooled by

the water in the tubes and recirculated through the alternator to cool the windings. The radiator consists of an inner tube, and it may have an optional outer tube (recommended by AvK) to better protect against water leakage. A separate system to pump a continuous supply of cooling water through the radiator must be supplied on site, and is not in the scope of AvK.

Selecting the Correct Product

A new Product Selector tool to enable our alternators to be matched against customer power requirements has been developed and launched on the Cummins Generator Technologies website.

Use the tool to retrieve further information on the **AvK** range of alternators, along with our extensive suite of other **STAMFORD | AvK** products. Once registered you will be able to download:

- Overviews of product features and options
- Installation and Maintenance manuals
- Technical data sheets
- General arrangement drawings
- Rotor torsional drawings

To access the Product Selector, visit:
www.stamford-avk.com



DSG Low Voltage Alternator Features

**Standard or Bespoke...
The choice is yours**

Since 1919, the company has supported customers by providing bespoke solutions for their power generation requirements. The diversity of options and features available to meet specific customers needs are indicated in the table below.

In addition, where lead time and cost effectiveness can be key to their customers winning business, AvK alternators are offered as a more standardised

product range that support these requirements. Please contact your sales representative for more details of our standard offering package.

CUMMINS GENERATOR TECHNOLOGIES AvK Product Options Availability																		
AvK DSG (LOW VOLTAGE) PRODUCT RANGE																		
Alternator Model	DSG 62		DSG 74		DSG 86				DSG 99				DSG 114			DSG 125		DSG 144
Pole Variant	4	4	6	8	4	6	8	10	4	6	8	10	6	8	10	8	10	10
KVA Rating @ 50Hz (Min/Max)	650/1100	1320/2000	710/1220	600/930	2020/2990	1240/1910	900/1430	670/1110	3450/4700	2240/3200	1650/2530	1220/2000	3400/5000	2400/4030	2080/3250	4500/7000	N/A	N/A
kVA Rating @ 60Hz (Min/Max)	780/1320	1500/2400	890/1465	690/1115	2017/3408	1348/2300	939/1780	804/1332	3052/5300	1913/3660	1980/3190	1420/2196	3174/5940	3130/4940	2400/3744	5350/8500	4200/5750	6600
Control Systems																		
Digital AVR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Bearings																		
Single Bearing (Anti Friction Only)	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ			
2 Bearing	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Anti Friction	•	•	•	•	•	•	•	•	•	•	•	•	Δ	Δ	Δ			
Insulated	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	•	•	•	•	•	•
Split Sleeve Bearings (2 Brg Only)	Available for certain core lengths				Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	•	•	•	•	•	•
Adaptors & Couplings																		
SAE Adaptors	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ						
Shaft Extensions			Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	*	*	*
Keyway	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Excitation System																		
Stator Aux. Winding	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PMG - only with Anti Friction BRG	Δ	Δ	Δ		Δ	Δ			Δ	Δ			Δ					
Winding Technology																		
Bar Wound	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Ingress Protection																		
IP23	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	*	*	*
IP44	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	•	•	•
IP54	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	*	*	*
IP55	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	*	*	*
Cooling																		
IC01	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CACA (TEAAC) IC611	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CACA (TEAAC) IC616	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
CACW TEWAC) IC81W	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	*	*	*
Terminal Box Options																		
Terminals - 3 Phase/4 Wire	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Instrumentation Accessories																		
Current Transformers	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Winding RTD's	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Bearing RTD's	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Key	•	Standard
	Δ	Option
	*	Engineer to Order

DIG Medium and High Voltage Alternator Features

**Standard or Bespoke...
The choice is yours**

Since 1919, the company has supported customers by providing bespoke solutions for their power generation requirements. The diversity of options and features available to meet specific customers needs are indicated in the table below.

In addition, where lead time and cost effectiveness can be key to their customers winning business, AvK alternators are offered as a more standardised

product range that support these requirements. Please contact your sales representative for more details of our standard offering package.

CUMMINS GENERATOR TECHNOLOGIES AvK Product Options Availability														
Alternator Model	AvK DIG (MEDIUM / HIGH VOLTAGE) PRODUCT RANGE													
	DIG 110	DIG 120	DIG 130		DIG 140		DIG 142	DIG 150			DIG 156			
Pole Variant	4	4	4	6	4	6	4	4	6	8	4	6	8	10
kVA Rating @ 50Hz (Min/Max)	750/1080	1150/2050	1800/3850	1350/2650	3000/4600	2200/4050	3760/5800	4900/7400	3450/5500	2800/4800	4300/10800	5500/8500	4200/6800	3450/6850
kVA Rating @ 60Hz (Min/Max)	900/1300	1630/2200	1350/2650	1600/3300	3000/5250	N/A	4150/6700	5000/8500	4150/5250	3150/5400	5000/11200	6400/8160	4700/7500	2690/7650
Control Systems														
Digital AVR	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Bearings														
Single Bearing (Anti Friction Only)	Δ	Δ	Δ	Δ	*	*		*	*	*	*	*	*	*
2 Bearing	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Anti Friction	•	•	•	•	*	*	*	*	*	*	*	*	*	*
Insulated	Δ	Δ	Δ	Δ	•	•	•	•	•	•	•	•	•	•
Split Sleeve Bearings (2 Brg Only)		Δ	Δ	Δ	*	*		*	*	•	*	•	•	•
Adaptors & Couplings														
SAE Adaptors	Δ	Δ	Δ	Δ	*	*	Δ	*	*	*	*	*	*	*
Shaft Extensions	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Keyway	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Excitation System														
Stator Aux. Winding	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PMG - only with Anti Friction BRG	Δ	Δ	Δ	Δ										
Winding Technology														
Bar Wound	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Ingress Protection														
IP23	•	•	•	•	•	•	•	•	•	•	*	•	•	•
IP44	Δ	Δ	Δ	Δ	*	*		*	*	*	*	*	*	*
IP54	Δ	Δ	Δ	Δ	*	*		*	*	*	*	*	*	*
IP55	Δ	Δ	Δ	Δ	*	*		*	*	*	*	*	*	*
Cooling														
IC01	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CACA (TEAAC) IC611														
CACA (TEAAC) IC616	*	*	*	*	*	*		*	*	*	*	*	*	*
CACW TEWAC) IC81W	*	*	*	*	*	*		*	*	*	*	*	*	*
Terminal Box Options														
Terminals - 3 Phase/4 Wire	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Instrumentation Accessories														
Current Transformers	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Winding RTD's	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Bearing RTD's	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Key	•	Standard
	Δ	Option
	*	Engineer to Order

Certifications

Quality performance depends on quality design, components and assembly supported by robust quality processes and systems.

With AvK alternators, quality is designed into every step of the process.

- All alternators are compatible with all Industrial Standards and Marine Classifications
- The Craiova manufacturing plant operates to One Global Standard supported by the 10 practices of the Cummins Operating System
- All alternators are manufactured in an ISO 9001, ISO 14001 and OSH 18001 environment.



UL 1004-1 Safety Standard Approval

AvK alternators are the first in the world to achieve UL 1004 approval for low, medium and high voltages, confirming AvK and STAMFORD products in a world-leading position.

The entire AvK range of alternators, manufactured only at Craiova, has achieved certification from UL (Underwriters Laboratories Inc.), a safety certification company well known in the US and influential globally. UL is approved to perform safety testing by the US federal Occupational Safety and Health Administration (OSHA) agency and operates globally through offices in 46 countries around the world.

Safety certification for the AvK range means low, medium and high voltage UL approved alternators are available from Cummins Generator Technologies throughout virtually all of its STAMFORD and AvK ranges, to the benefit of customers and markets around the world.



A UL safety certification mark on an alternator model enables OEMs to integrate them pre-approved into their generator sets.

The certification applies to the AvK DIG and DSG series, from 4 through to 10 pole configuration.

"With this approval, we are the first alternator manufacturer to achieve UL 1004 approval on the full range of low, medium and high voltage synchronous products. UL compliance demonstrates that our products and the facility where they are manufactured are safe and meet the highest standards. It is an endorsement of our Craiova plant and its world class engineering team,"

Prasant Panigrahy, Engineering Manager.

AvK alternators produced at Craiova are already coming on-stream with their new UL certification markings in place, highlighting the quality and reliability of the product and helping to build further on Cummins' reputation for manufacturing excellence around the world. Thanks to an investment in the latest manufacturing technologies of €12 million euros in under three years, Cummins Generator Technologies' AvK brand alternators are making an agile and cost-effective contribution to the sub 11,000 kVA market.

CSA Safety Standard Approval

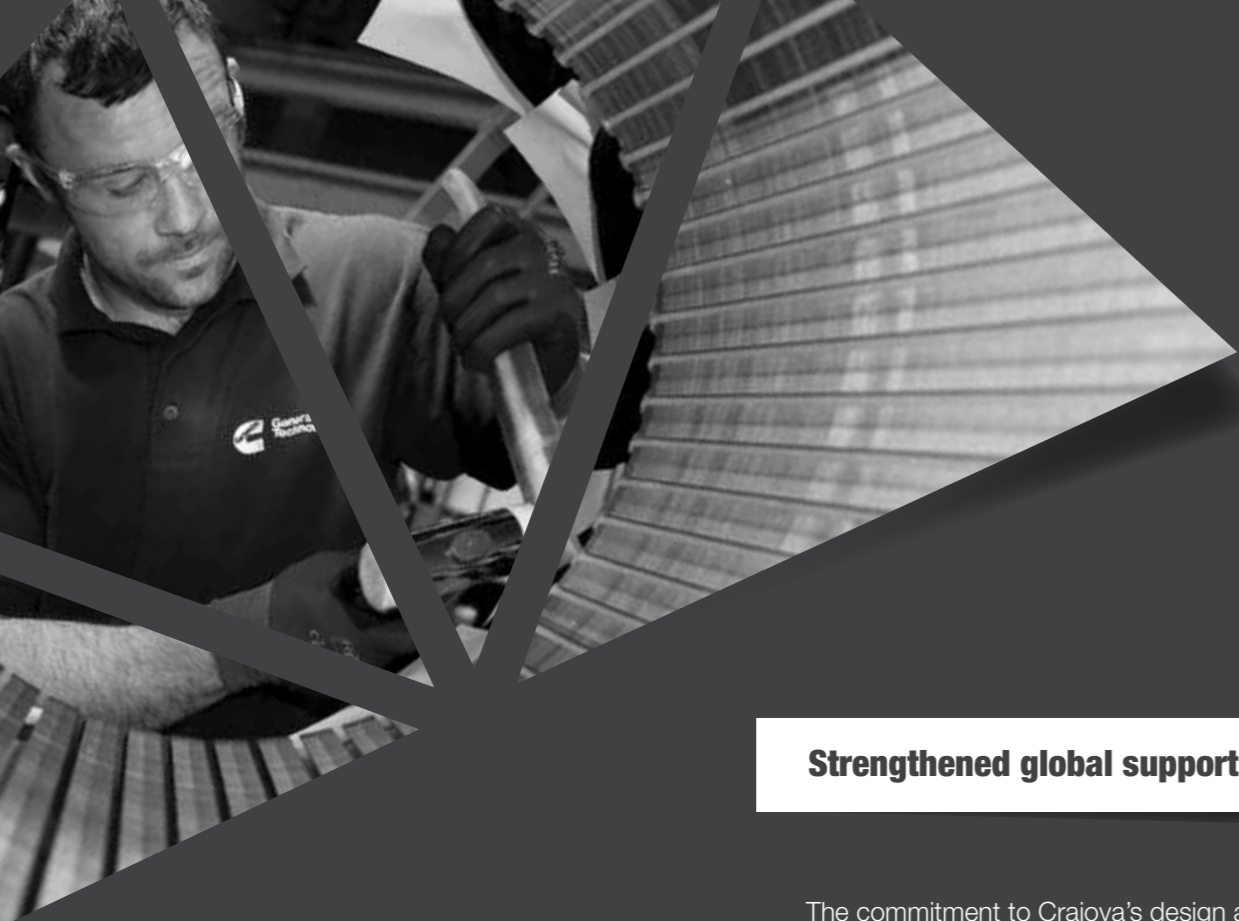
Cummins Generator Technologies have achieved compliance to CSA standards for its entire range of **AvK** alternators and can now display the CSA mark as a standard feature on all **AvK** alternators in low, medium and high voltages. Cummins customers can now benefit from having **AvK** alternators pre-certified by CSA, helping to streamline generator set CSA approval process and win in markets which require CSA approval.

The certification covers all **AvK** alternators, ranging from 600 to 11,000 kVA (480 to 8,800kW), which are manufactured at the Cummins large alternator manufacturing facility in Craiova, Romania.

Marine Certification Capability

Cummins Generator Technologies have the capability to provide alternators in compliance with marine societies included in the International Association of Classification Societies, which is a collaboration between 12 major classification societies.

Cummins Generator Technologies have Test Cell facilities in all of their manufacturing plants to carry out marine type test approval testing which can also be witnessed if required. Although, Cummins have type approval for certain marine societies which avoids the need for marine inspectors to inspect every marine alternator that is manufactured. This helps reduce lead time and inspection charges.



Global Customer Service

One Global Standard

Although STAMFORD and AvK products are used in a variety of applications, the common factor is that Cummins Generator Technologies work to a single standard for both products and services no matter where you are in the world.

Working as One Global Standard, each of their manufacturing plants build products to the same exacting quality that has come to distinguish STAMFORD and AvK alternators in the industry.

All plants utilise the same sophisticated manufacturing technologies, advanced systems, common practices and rigorous testing techniques to ensure your STAMFORD and AvK alternators are built to last.

Strengthened global support network

The commitment to Craiova's design and manufacturing excellence is complemented by a stronger global network with improved capabilities and infrastructure for handling both pre and post-sales support. This network is an integral part of Cummins Generator Technologies' shared resource for AvK and STAMFORD alternators, guaranteeing that users throughout the world will benefit from regional knowledge, strong local backup and agile response wherever they are located.

Technical support and after sales service

Cummins Generator Technologies' engineers are available to provide technical information to assist in selecting the correct alternator specifications that your job demands, with continued support through commissioning and into after-sales service and support. Their engineers are experienced professionals trained in electrical, electronic and mechanical skills. They in turn are supported by a worldwide aftermarket spares and service network.

What this means to you:

- 24 hour response to service emergencies 7 days a week
- On-site commissioning
- Onsite bearing maintenance and bearing condition monitoring
- Onsite insulation integrity checks
- AVR and accessories set up on site
- Trained engineers available locally, speaking local language
- Extensive aftermarket distribution for STAMFORD and AvK genuine parts.

Marine classification society approval testing

All manufacturing plants have witness test facilities, enabling marine classification society inspection and test.

On certain marine societies we have type approval - which avoids the need for marine inspectors to inspect every marine alternator that we manufacture, thus reducing marine inspection costs and witness testing charges for our customers. Type approval means that all lead times can be reduced.

Commissioning support

Technicians and engineers are available to attend vessel commissioning in support of our OEM customers. Their vast experience in generator set-up can help with setting up of control system parameters and on site problem solving.

Focused AvK Centre of Excellence and Upgraded Support Network

Craiova: Investment in a world-class production facility

This new initiative brings all AvK design and manufacturing into Craiova's single, world class alternator production facility; a resource with a long-established history dating back to 1999 updated with advanced processes, new quality procedures, testing facilities and development of staff, all within a highly automated modern environment. Since 2013, €12 of the investment has been dedicated to capacity expansion. The site has shipped 8,000 alternators over the past 10 years.

Craiova is now responsible for designing and building the entire AvK alternator range, with products rated from 600 kVA to 11,000 kVA. These include all the standard items covered in this brochure, as well as variations built to individual customer requirements.

To maximise responsiveness, minimise lead times and facilitate machine construction to exact customer specifications, all engineering control and design as well as manufacturing is centralised on the one site.



Regional advantages

With competitiveness improved by the region's attractive labour costs, the Craiova facility also benefits from a well-developed talent pool and local infrastructure. Craiova is an important educational centre, with 32,000 students attending the city's university. This has an excellent Faculty of Automation, Computers and Electronics and a large Faculty of Economics and Business

Administration. Good air, rail, road and bus links provide connections in and around the city, with a further major highway being planned. Local employers include the Ford Motor Company and other high-technology companies.

The Facility is under full ownership of Cummins Generator Technologies and conforms to the Cummins Operating System; a set of 10 practises followed by Cummins staff around the world, ensuring that customers everywhere enjoy the same consistently high level of service and product quality.



Products and Services Designed to Meet the Needs of the Power Industry

Long-term commitment to excellence

This new initiative for Craiova and its associated global support stands behind the AvK alternators presented in this brochure as well as any custom designs and future variations for specific customer requirements. With a long-term commitment to developing cost-effective, rugged alternator systems backed by the industry's best technical support, fastest response times and most flexible approach. Overall this creates ever-improving solutions for GOEMs and engineering procurement contractors within the marine, oil & gas, prime power, power plant, mining and other similarly demanding applications.



Vibration analysis

Alternators coupled to diesel and gas engines are exposed to engine induced vibrations. Design tools are used to analyse the impact of linear and torsional vibrations and work with the engine or generator set builders to validate the design of the generator set, as well as to solve end-user vibration issues. This technology is key in enabling customers to improve the innovation and reliability of new and current product designs.

Product training

Product familiarity will ensure maximum productivity and optimum use of the alternator. The Customer Service teams offer product training courses for engineers, operators and service and support staff. Each course is individually tailored to suit the needs of the customer, the generator set builder or the end-user.

Product familiarisation courses, with a choice of training modules - including alternator control systems, applications, trouble-shooting, maintenance or other specific requirements - are also available.



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STAMFORD I AvK Alternators



youtube.com/stamfordavk

For Applications Support:
applications@cummins.com

For Customer Service:
service-engineers@cumminsgeneratortechnologies.com

For general enquiries:
info@cumminsgeneratortechnologies.com

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