

# STAMFORD® & AvK® POWER PORTFOLIO

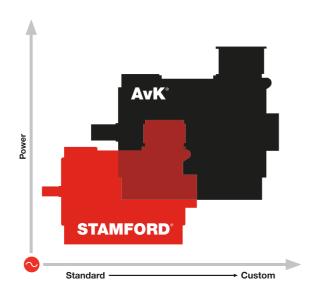




STAMFORD | AvK

POWERING TOMORROW, TOGETHER

## THE **ULTIMATE RANGE**





We are here to support your future decarbonisation goals, through our end-to-end expertise in versatile solutions. Backed by the reassurance of our world-renowned brands recognised for reliability and complete peace of mind, we are with you on your journey towards sustainability.











Genuine STAMFORD alternators are engineered for superior efficiency. Utilizing wire-wound technology, they deliver outputs ranging from 7.5 to 5,600 kVA.

STAMFORD alternators come with SAE adaptors, enabling easy coupling with a wide range of prime movers.

STAMFORD S-Range models feature CoreCooling™

#### **Prime Movers**

Diesel and Gas, Steam and Gas Turbine and are future ready for Hydrogen and Battery Hybrid systems and other decarbonised technologies.

Engine compatibility: All brands and nodes.

Prime Power, Standby, Marine, Oil and Gas Auxiliary, Mining, Critical Protection and UPS, Combined Heat and Power, Telecoms, Mobile Construction.

#### **Marine Classifications**

STAMFORD alternators meet the classification requirements of major marine societies. Information on societies and international marine safety standards can be obtained from our sales offices.

#### Classifications

Compatible with Industrial Standards:

- CE
- EN
- CSA • UL
- VDE • IEC
- NEMA • UKCA

**AvK**® **A-RANGE** 





AvK A-Range alternators utilize both wire-wound technology and robust bar-wound configurations, delivering outputs ranging from 830 to 2,000 kVA.

Designed for superior efficiency, the range meets the demands of even the most challenging applications and

AvK A-Range alternators are available in a 6-pole configuration and come equipped with CoreCooling™ Technology as standard.

Diesel and Gas, Steam and Gas Turbine and are future ready for Hydrogen and Battery Hybrid systems and other decarbonised technologies.

Engine compatibility: All brands and nodes

Marine, Oil and Gas Auxiliary, Mining, Critical Protection and UPS, Combined Heat and Power

#### **Marine Classifications**

AvK alternators meet the classification requirements of major marine societies. Information on societies and international marine safety standards can be obtained from our sales offices.

#### Classifications

Compatible with Industrial Standards:

- CE
- NEMA
- EN • VDE
  - IEC UKCA

#### **Classifications**

Compatible with Industrial Standards:

- CE
- CSA
- UL
- VDE • IEC
  - - UKCA

• EN

Designed to couple with: Diesel Engine, Gas Engine, Steam Turbine, Gas Turbine **Engine compatibility:** All brands and nodes

#### **Designed for**

Prime Power, Power Plants, Marine, Oil and Gas, Mining

#### **Marine Classifications**

Information on societies and international marine safety standards can be obtained

# AvK<sup>®</sup> **D-RANGE**

With a robust bar-wound configuration, AvK D-Range alternators are engineered specifically to meet the challenges of the most demanding applications and environments.

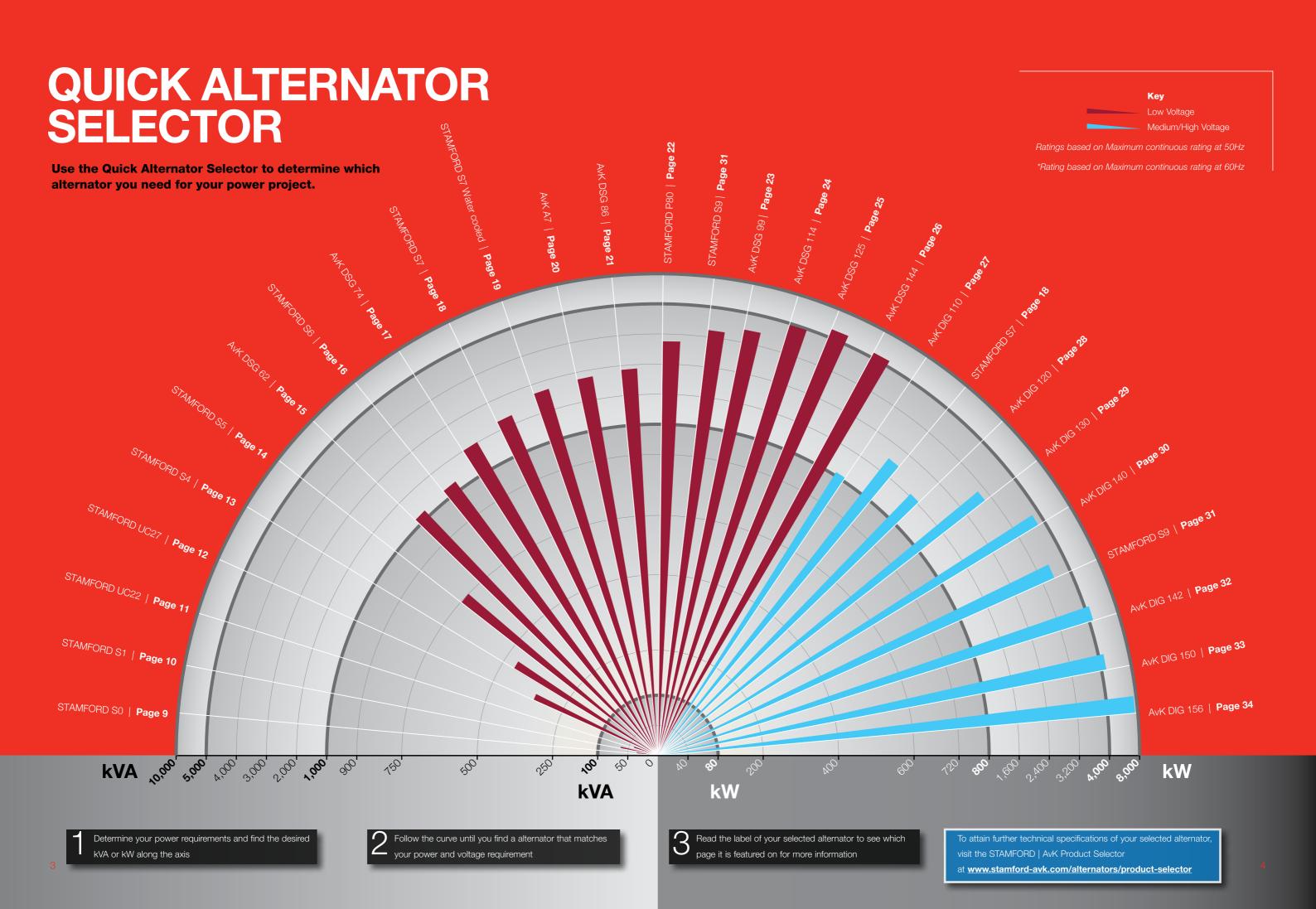
Our extensive experience and knowledge, gained from a wide

range of alternator installations worldwide, enable us to offer

integrated design solutions that help our customers compete

AvK alternators meet the classification requirements of major marine societies. from our sales offices.

more successfully on a global scale.



# GLOBAL PEACE OF MIND

# INDUSTRY LEADING TECHNICAL SUPPORT

#### It's what we do

From pre-sales application support all the way through to engineers servicing your STAMFORD® or AvK® alternators, we're there for you. For over 120 years and counting, we provide ourself on the proven support we've delivered for our customers, globally.

### Selecting the right alternator for the right application

In today's complex world our goal is to make your lifesimpler - by using our unrivaled experience to provide solutions to your challenges. With a rich, proven history of helping our customers become efficient, we understand the performance requirements that each application and operating environment demands. Our knowledgeable, experienced applications engineers align individual customers' power needs with the most suitable alternator specification.

#### **Application Engineering Training**

We offer a wide range of alternator application training courses to help our customers in the design and operation of our products.

Our training packages can be fully customised to meet your training requirements. We are completely flexible and can adapt any of our training courses to ensure we deliver material that suits your business objectives. From the very basics of electrical fundamentals to complex alternator sizing we will aim to deliver training to meet the specified requirements of the delegates.

Our training courses can be conducted in-house or locally at customer premises.







#### One Global Service Network

Our professional engineers are widely recognised in the industry as experts in electrical, electronic and mechanical engineering. They in turn are supported by a common worldwide spares and service network for all STAMFORD® and AvK® alternators.

#### What that means to you

- Experienced "Factory" engineers and trained local Dealer network to respond immediately to rectify customer onsite problems
- Quotations for inspection, commissioning and refurbishment of alternators at the customer site
- AVR & accessory set-up on site
- STAMFORD and AvK parts identification
- Extensive Aftermarket network distribution for genuine STAMFORD and AvK parts
- Extensive aftermarket distribution for genuine STAMFORD and AvK parts
- Quotations for extended warranty
- Quotations for Genset installation and coupling alignment checks

#### **Service Training**

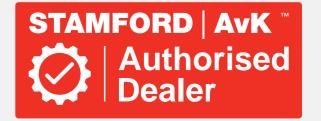
Product familiarity will ensure maximum productivity and optimum use of the alternator. Our Service Training teams offer service training courses for engineers, operators and service and support staff. Each course is individually tailored to suit the needs of the customer, the generator set builder or the enduser. Product familiarisation courses, with a choice of training modules - including alternator control systems, applications, trouble-shooting, maintenance or other specific requirements - are also available.

For further information on service training contact **stamford-avkservicetraining@cummins.com** 

#### **Aftermarket Parts**

STAMFORD and AvK alternators are supported around the world by global authorised parts dealers who can supply genuine parts for STAMFORD or AvK alternators.

Always source parts from our Authorised Dealers: **stamford-avk.com/parts** 



### **ACCESSORIES**

#### **GLOSSARY**

#### **Current Sensing Kit**

Assists the AVR to achieve accurate voltage regulation when supplying loads at the end of long cable runs.

#### **Separate Voltage Trimmer**

Provides remote fine adjustment of the alternator output voltage.

#### **Paralleling Kit**

Quadrature Droop provides a drooping characteristic, when paralleling alternators, ensuring the load is shared in proportion to the alternator outputs.

#### **RFI Suppressor Kit**

Reduces the radiated RFI signal from the alternator to enable compliance with various high level EMC standards.

#### **Excitation Loss Module**

Detects loss of excitation, not easily detectable by other means, when alternators are running in parallel. This unit switches a single pole change over contact which can be incorporated into an external protection system.

#### Manual Voltage Regulator

Controls the alternator output voltage manually under emergency conditions. This must be in conjunction with the PMG type control system.

#### **Frequency Detection Module**

Senses frequency, and hence rotational speed, can be used to disengage the starter when engine fires, and to shut down the engine in event of overspeed.

#### **Power Factor Controller**

Controls and maintains a required power factor condition whilst running in parallel with a mains supply. This unit also incorporates a voltage matching facility for use with basic automatic synchronising equipment.

#### **Alternator Protection Module**

Detects overload conditions by measuring voltage discrepancies in the alternator phase voltages. On fault detection, the unit switches a change over contact; this could be incorporated to trip a circuit breaker, stop the engine, or de-excite the alternator.

#### **Diode Failure Detector**

On detection of a failed rotating diode this module switches a change over contact. This could either trigger an alarm or automatically shut down the set.

#### **Excitation Circuit Breaker**

Circuit breaker which is tripped by a signal from the MX322™ AVR overvoltage detection circuit.

#### **Dual AVR System**

Used for manual switching between two AVRs where the specification calls for the provision of a backup AVR.

#### **AVR**s

We offer a wide selection of AVR's (Automatic Voltage Regulator) which are suitable for use with many of the products within the alternator range. The AVR is the heart of the alternator and maintains the steady state output voltage within close limits during operation. The AVR's include the latest technology to provide the highest level of performance during all operating conditions.

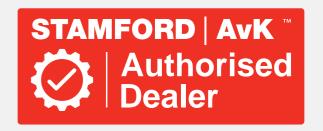
All AVR's are encapsulated to provide protection against moisture, salt and sand in the atmosphere and mounted on anti-vibration mounts for mechanical protection from engine vibration.

#### The importance of genuine parts

STAMFORD | AvK<sup>™</sup> offer a complete range of analogue and digital AVRs, and all other parts designed to match your application.

Only genuine STAMFORD® and AvK® parts should be used to avoid expensive repair costs and under-performance of your STAMFORD or AvK alternator. Always source parts from our Authorised Parts and Service Dealers:

#### stamford-avk.com/parts



AVR	Туре	<b>Excitation Method</b>	Voltage Regulation
AS440	Analogue	Self-Excited	+/-1.0%
AS540	Analogue	Self-Excited/Aux Winding	+/-1.0%
AS480	Analogue	Self-Excited + EBS	+/-1.0%
MX341	Analogue	PMG	+/-1.0%
MX322 <sup>TM</sup>	Analogue	PMG	+/-0.5%
DM110	Digital	PMG/Aux. Winding	+/-0.25%
DECS 100	Digital	PMG/Aux. Winding	+/-0.25%
DECS 250	Digital	PMG/Aux. Winding	+/-0.25%
UNITROL 1010	Digital	PMG/Aux. Winding	+/-0.2%
UNITROL 1020	Digital	PMG/Aux. Winding	+/-0.2%
DM710	Digital	Self-Excited	+/-1.0%
STAMFORD VITA™ 01	Digital	Self-Excited/Aux Winding	+/-0.5%

PMG - Permanent Magnet Generator



### STAMFORD SO



Specifications	
Voltage Range	380-600
Poles	4
Technology	Wire Wound
AVR	Digital
Voltage sensing	2 Phase
Bearing Arrangement	Single
SAE Adaptors	3, 4, 5
Terminals	12
Material Insulation Class	Н
Excitation System	Self Exciting
Ingress Protection	IP23

Optional Features	
Excitation System	Auxiliary Winding on S0L2 Models
Output configurations	1 phase re-connectable
Environmental protection	Anti-condensation Heaters
	Epoxy Gel Coat
Bearing Arrangement	Double

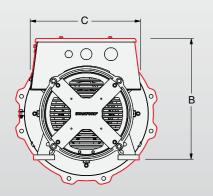


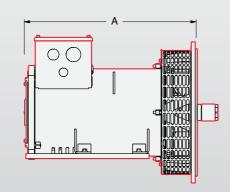
Designed For	
Oil & Gas Auxiliary	•
Telecommunications	•
Mobile Construction	•
Combined Heat & Power	•
Marine Auxiliary	•
Critical Protection & UPS	•
Continuous Power & Standby	•

Prime Movers	
Diesel Engine	•
Gas Engine	

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C (4 Pole)

#### **DIMENSIONS**





Model	A	В	С
S0L1	405-485	350	314
S0L2	495-545	405	345

Drawings represent standard design - All dimensions in millimetres (mm)

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### STAMFORD S1

Model	S1
Maximum continuous rating at 50Hz (kVA)*	63
Maximum continuous rating at 60Hz (kVA)**	75
Specifications	

Specifications	
Voltage Range	380-600
Poles	4
Technology	Wire Wound
AVR	Digital
Voltage sensing	2 Phase
Bearing Arrangement	Single
SAE Adaptors	3, 4
Terminals	12
Material Insulation Class	Н
Excitation System	Self Exciting
Ingress Protection	IP23

Optional Features	
Excitation System	Auxiliary Winding
Output configurations	1 phase re-connectable
Environmental protection	Anti-condensation Heaters
	Epoxy Gel Coat
Bearing Arrangement	Double



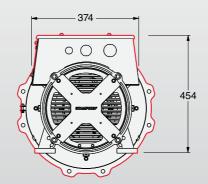
Designed For	
Oil & Gas Auxiliary	•
Telecommunications	•
Mobile Construction	•
Combined Heat & Power	•
Marine Auxiliary	•
Critical Protection & UPS	•
Continuous Power & Standby	•

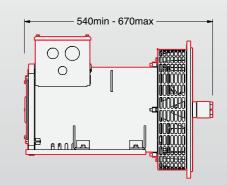
Prime Movers	
Diesel Engine	•
Gas Engine	

Auxiliary Winding on S1L2 models

ls Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C (4 Pole)

#### **DIMENSIONS**









Drawings represent standard design - All dimensions in millimetres (mm)

### STAMFORD UC22

Model	UC22
Maximum continuous rating at 50Hz (kVA)*	85
Maximum continuous rating at 60Hz (kVA)**	103

Specifications	
Voltage Range	380-690
Poles	4
Technology	Wire Wound
AVR	Analogue
Voltage sensing	2-Phase
Bearing Arrangement	Single
SAE Adaptors	1, 2, 3, 4
Terminals	12
Material Insulation Class	Н
Excitation System	Self exciting
Ingress Protection	IP23
Connection with other machines	Paralleling capability

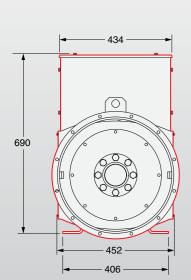
Optional Features	
Excitation System	PMG
Bearing Arrangement	Double
Ingress Protection	IP23 Air Filters
Output configurations	1 phase re-connectable
Voltage sensing	3-Phase sensing
Temperature monitoring	Thermistors
Environmental protection	Anti-condensation Heaters



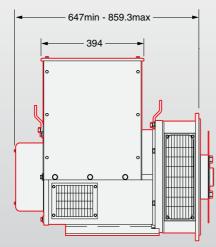
Designed For	
Grid Code Compatible	•
Marine Auxiliary	•
Oil & Gas Auxiliary	•
Telecommunications	•
Combined Heat & Power	•
Critical Protection & UPS	•
Continuous Power & Standby	•

Prime Movers	
Diesel Engine	•
Gas Engine	•

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C (4 Pole)



**DIMENSIONS** 



Drawings represent standard design - All dimensions in millimetres (mm)



### STAMFORD UC27

Maximum continuous rating at 50Hz (kVA)*	250
Maximum continuous rating at 60Hz (kVA)**	312
Specifications	
Voltage Range	380-690
Poles	4
Technology	Wire Wound
AVR	Analogue
Voltage sensing	2-Phase
Bearing Arrangement	Single
SAE Adaptors	1, 2, 3
Terminals	12
Material Insulation Class	Н
Excitation System	Self exciting
Ingress Protection	IP23
Connection with other machines	Paralleling capability
Optional Features	
Excitation System	PMG
Bearing Arrangement	Double
Ingress Protection	IP23 Air Filters
Output configurations	1 phase re-connectable
Voltage sensing	3-Phase sensing

Thermistors

Anti-condensation Heaters



Designed For	
Grid Code Compatible	•
Marine Auxiliary	•
Oil & Gas Auxiliary	•
Telecommunications	•
Combined Heat & Power	•
Critical Protection & UPS	•
Continuous Power & Standby	•

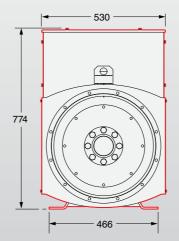
Prime Movers	
Diesel Engine	•
Gas Engine	•

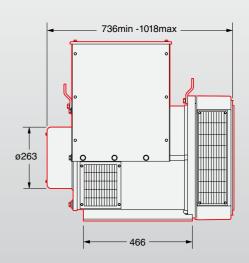
#### **DIMENSIONS**

Temperature monitoring

Environmental protection

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C (4 Pole)







Drawings represent standard design - All dimensions in millimetres (mm)

### STAMFORD S4

Model	<b>S4</b>
Maximum continuous rating at 50Hz (kVA)*	450
Maximum continuous rating at 60Hz (kVA)**	560

Specifications	
Voltage Range	380-690
Poles	4
Technology	Wire Wound
AVR	Analogue
Voltage sensing	2-Phase
Bearing Arrangement	Single
SAE Adaptors	0, 0.5, 1, 2, 3
Terminals	12
Material Insulation Class	Н
Excitation System	Self exciting
Ingress Protection	IP23
Connection with other machines	Paralleling capability

Optional Features	
Excitation System	PMG
Bearing Arrangement	Double
Ingress Protection	IP23 Air Filters
Output configurations	1 phase re-connectable
Voltage sensing	3-Phase sensing
AVR	Digital



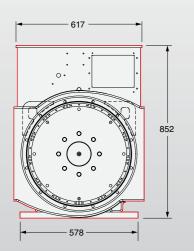
Optional Features - continued	
Temperature monitoring	Winding RTDs
Temperature monitoring	Thermistors
Environmental protection	Anti-condensation Heaters
Foot options	Adaptor Foot Flexible Foot

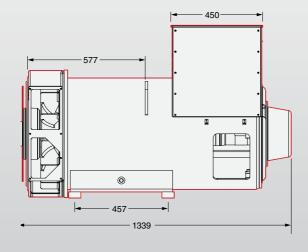
Designed For	
Grid Code Compatible	•
Marine Auxiliary	•
Oil & Gas Auxiliary	•
Combined Heat & Power	•
Critical Protection & UPS	•
Continuous Power & Standby	•

Prime Movers	
Diesel Engine	•
Gas Engine	•

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C (4 Pole)

#### **DIMENSIONS**









Drawings represent standard design - All dimensions in millimetres (mm)

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### STAMFORD° \$5

Maximum continuous rating at 50Hz (kVA)*	750
Maximum continuous rating at 60Hz (kVA)**	937
Specifications	
Voltage Range	380-690
Poles	4
Technology	Wire Wound
AVR	Analogue
Voltage sensing	2-Phase
Bearing Arrangement	Single
SAE Adaptors	00, 0, 0.5, 1
Terminals	12
Material Insulation Class	Н
Excitation System	Self exciting
Ingress Protection	IP23
Connection with other machines	Paralleling capability
Optional Features	
Excitation System	PMG
Bearing Arrangement	Double
Ingress Protection	IP23 Air Filters
Output configurations	3 phase re-connectable
Voltage sensing	3-Phase sensing
- *	

Digital

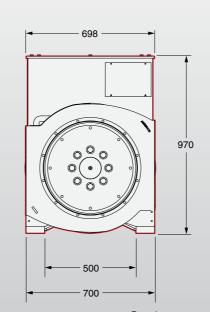


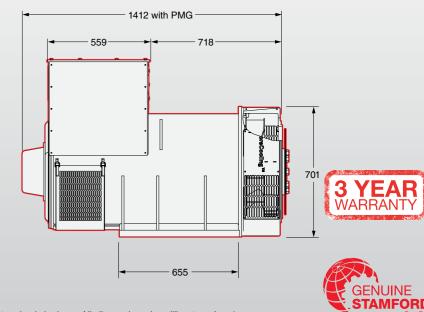
Optional i catules - continued	
AVR	Digital
Temperature monitoring	Winding RTDs
Temperature monitoring	Thermistors
Environmental protection	Anti-condensation Heaters
	_
Designed For	
Grid Code Compatible	•
Marine Auxiliary	•
Oil & Gas Auxiliary	•
Combined Heat & Power	•
Critical Protection & UPS	•
Continuous Power & Standby	•
Prime Movers	
Diesel Engine	•
Gas Engine	•

Ratings are subject to change
\*50Hz 400V Continuous 125/40°C
\*\*60Hz 480V Continuous 125/40°C

#### **DIMENSIONS**

AVR





Drawings represent standard design - All dimensions in millimetres (mm)

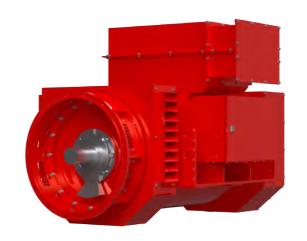
### **AvK**<sup>®</sup>

### **DSG 62**

Model	DSG 62
Maximum continuous rating at 50Hz (kVA)*	1,100
Maximum continuous rating at 60Hz (kVA)**	1,320

Specifications	
Voltage Range	400-690
Poles	4
Technology	Bar Wound
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Double
SAE Adaptors	1, 0, 00
Terminals	6
Material Insulation Class	Н
Excitation System	Auxiliary Winding
Ingress Protection	IP23
Temperature monitoring	Winding RTDs
Connection with other machines	Paralleling capability

Optional Features	
Ingress Protection	IP23 Air Filters
Ingress Protection	IP44/54/55 Totally enclosed
Cooling options	CACA/CACW
Environmental protection	Anti-condensation Heaters

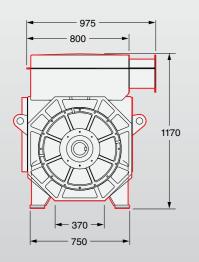


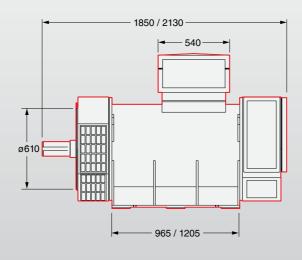
<b>Designed For</b>	
Grid Code Compatible	
Marine Auxiliary	•
Oil & Gas	•
Oil & Gas Auxiliary	•
Combined Heat & Power	•
Critical Protection & UPS	•
Continuous Power & Standby	•

Prime Movers	
Diesel Engine	•
Gas Engine	•

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C (4 Pole)

#### **DIMENSIONS**





Drawings represent standard design - All dimensions in millimetres (mm)



### STAMFORD S6

Maximum continuous rating at 50Hz (kVA)*	1,400
Maximum continuous rating at 60Hz (kVA)**	1,695
Specifications	
Voltage Range	380-690
Poles	4
Technology	Wire Wound
AVR	Analogue
Voltage sensing	3-Phase
Bearing Arrangement	Single
SAE Adaptors	0, 00, 1
Terminals	6
Material Insulation Class	Н
Excitation System	PMG
Ingress Protection	IP23
Connection with other machines	Paralleling capability
Optional Features	5
Bearing Arrangement	Double
Ingress Protection	IP23 Air Filters
Ingress Protection	IP44 Air Filters
AVR	Digital
Temperature monitoring	Winding RTDs

Thermistors

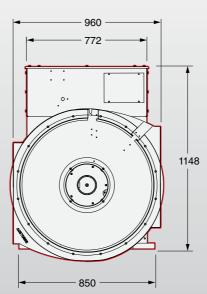


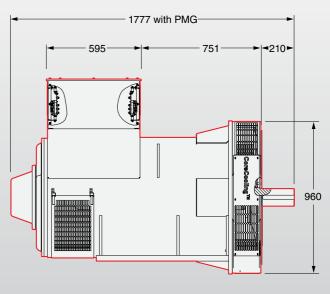
Optional Features - continued	
Temperature monitoring	Thermistors
Environmental protection	Anti-condensation Heaters
Ingress Protection	IP44
	_
Designed For	
Grid Code Compatible	•
Marine Auxiliary	•
Oil & Gas	•
Oil & Gas Auxiliary	•
Combined Heat & Power	•
Critical Protection & UPS	•
Continuous Power & Standby	•
Prime Movers	
Diesel Engine	•
Gas Engine	

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C (4 Pole)

#### **DIMENSIONS**

Temperature monitoring





3 YEAR WARRANTY



Drawings represent standard design - All dimensions in millimetres (mm)

Low voltage **Power Portfolio** Power Portfolio High voltage Low voltage

### **AvK**®

### **DSG 74**

Model	DSG 74
Maximum continuous rating at 50Hz (kVA)*	2,000
Maximum continuous rating at 60Hz (kVA)**	2,400

Specifications	
Voltage Range	400-690
Poles	4, 6, 8
Technology	Bar Wound
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Double
SAE Adaptors	1, 0, 00
Terminals	6
Material Insulation Class	Н
Excitation System	Auxiliary Winding
Ingress Protection	IP23
Temperature monitoring	Winding RTDs
Connection with other machines	Paralleling capability

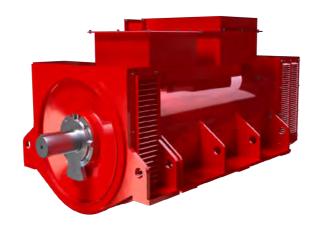
Optional Features	1.
Bearing Arrangement	Sleeve Bearings
Ingress Protection	IP23 Air Filters
Ingress Protection	IP44/54/55 Totally enclosed
Cooling options	CACA/CACW
Environmental protection	Anti-condensation Heaters

1150-

- 600 —

**450** →

- 880 -920



Designed For	
Power Plant	
Grid Code Compatible	
Marine Auxiliary	•
Oil & Gas	•
Oil & Gas Auxiliary	•
Combined Heat & Power	•
Critical Protection & UPS	•
Continuous Power & Standby	•

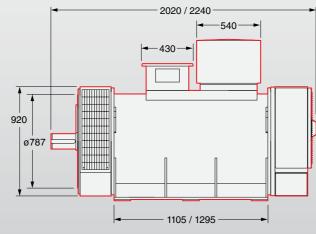
Prime Movers	
Diesel Engine	•
Gas Engine	•

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C (4 Pole)

# **DIMENSIONS**

1360





Drawings represent standard design - All dimensions in millimetres (mm)

### STAMFORD S7

Model	S7 LV	S7 HV
Maximum continuous rating at 50Hz (kVA)*	2,800	1625
Maximum continuous rating at 60Hz (kVA)**	3,356	-

Specifications		
Voltage Range	380-690	10,500 - 11,000
Poles	4/6	4
Technology	Wire Wound	Bar Wound
AVR	Analogue	Digital
Voltage sensing	2 Phase	3 Phase
Bearing Arrangement	Single	Double
SAE Adaptors	SAE 0	None
Terminals	6	4
Temperature Monitoring	-	Winding RTDs 2/phase
Material Insulation Class	Н	Н
Excitation System	MX341/ PMG (C-H core only) MX322 TM/ PMG (J-K core only)	DECS100/PMG
Ingress Protection	IP23	IP23
Connection with other machines	Paralleling capability	Paralleling capability

Optional Features		
Bearing Arrangement	Double	Single
SAE Adaptors	SAE 00	SAE0, SAE 00
Ingress Protection	IP44 (C & H cores only)	-
Voltage Sensing	3 Phase sensing	-
AVR	DECS150	-

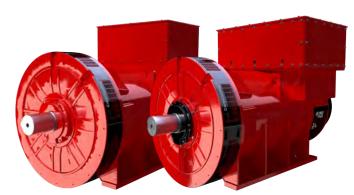
1391 H\

1330 LV

1200 HV

864 LV

890 -



S7 LV

S7 HV

Optional Features - continued	S7 LV	S7 HV
Temperature Monitoring	Winding RTDs	Dooring DTD
	Thermistors	Bearing RTD
Terminals	-	6 terminals, open starpoint
Environmental Protection	Anti- Condensation Heater	Anti- Condensation Heater
Foot options	Flexible Foot	-

Designed For
Power Plant
Grid Code Compatible
Marine Propulsion
Marine Auxiliary
Oil & Gas
Oil & Gas Auxiliary
Combined Heat & Power
Critical Protection & UPS
Continuous Power & Standby

Prime Movers		
Diesel Engine	•	•
Gas Engine	•	•

2088

►|**-** 853 HV

939 HV-

– 639 LV —

\*50 Hz = LV - 400V - 10500V \*\*60 Hz = LV - 480V - 13800V (4 Pole) The standard S7 air-cooled marine product is also

Ratings are subject to change

available with sleeve bearings (2 bearings only)

WARRANTY 1050





Drawings represent standard design - All dimensions in millimetres (mm)

**Power Portfolio** Power Portfolio Low voltage Low voltage

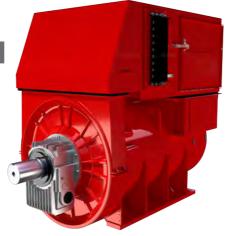
### **STAMFORD® S7 Water Cooled**



Specifications	
Voltage Range	380-690
Poles	4
Technology	Wire Wound
AVR	MX322™
Voltage sensing	3-Phase
Bearing Design	Anti-friction
Bearing Arrangement	Double
Material Insulation Class	Н
Excitation System	MX322™/PMG
Ingress Protection	IP23, IP54
Connection with other machines	Paralleling capability
Cooling Method	Water cooled (IC81W)

ŭ	, ,
Optional Features	
Bearing Arrangement	Sleeve Bearings
SAE Adaptors	SAE 0, 00, None
Flexible Feet	•
Designed For	
Marine Auxiliary	•
Marine Propulsion ( PTI, PTO Excludes PTH)	•
Combined Heat & Power	•

**DIMENSIONS** 

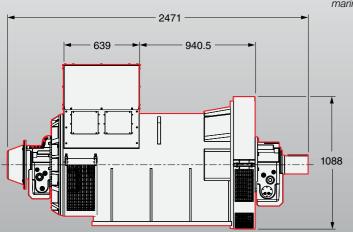


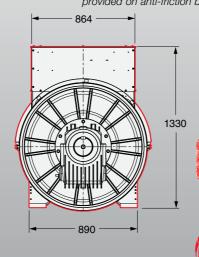
Factory Build Options	
Anti-Condensation Heater	
Quadrature Droop Kit	
Bearing RTD (Each Bearing)	
Remote Voltage Trimmer	
Radio Frequency Interference (RFI) Suppressor Kit	
Excitation Loss Module	
Diode Failure Detector	
Winding RTDs and Thermistors (in another level)	
Protection CTs	

Prime Movers	
Diesel Engine	•
Gas Engine	•

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C

STAMFORD® alternators meet the classification requirements of all major marine societies. Certifications can be considered on request Adaptors to be provided on anti-friction bearing machines only.





Drawings represent standard design - All dimensions in millimetres (mm)





Model	A7 LV
Maximum continuous rating at 50Hz (kVA)*	1625
Maximum continuous rating at 60Hz (kVA)**	2,000
Specifications	
Voltage Range	380-480
Poles	6
Technology	Wire Wound
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Single
SAE Adaptors	SAE 0
Terminals	6
Temperature monitoring	Winding RTDs 2/phase
Material Insulation Class	Н
Excitation System	DM110
Ingress Protection	IP23
Connection with other machines	Paralleling capability
Optional Features	
Bearing Arrangement	Double/sleeve
SAE Adaptors	SAE 00
Ingress Protection	IP54 Water-Cooler
AVR	DECS 100 DECS 150



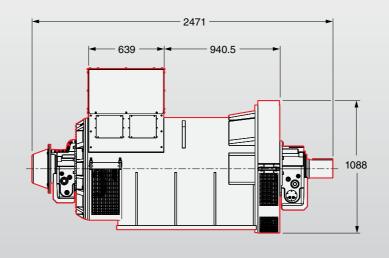
Sleeve bearing and water-cooler options available

Optional Features - continued	A7 LV
Temperature Monitoring	Winding RTDs
Environmental Protection	Anti-Condensation Heater
Foot options	Flexible Foot

Designed For	
Marine Propulsion	•
Marine Auxiliary	•
Oil & Gas	•
Oil & Gas Auxiliary	•

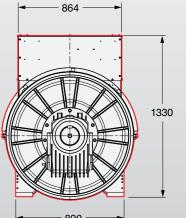
Prime Movers	
Diesel Engine	•
Gas Engine	•

#### **DIMENSIONS**



(6Pole) The standard A7 air-cooled (2 bearings only)

Ratings are subject to change marine product is also available with \*50 Hz = LV - 400V Class F 90/50sleeve bearings \*\*60 Hz = LV - 480V Class F 90/50







Drawings represent standard design - All dimensions in millimetres (mm)

Power Portfolio Low voltage Power Portfolio Low voltage Medium/High voltage

### **AvK**<sup>®</sup>

### **DSG** 86

Model	DSG 86
Maximum continuous rating at 50Hz (kVA)*	2,990
Maximum continuous rating at 60Hz (kVA)**	3,408

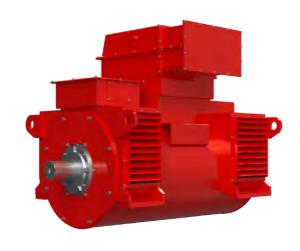
Specifications	
Voltage Range	400-690
Poles	4, 6, 8, 10
Technology	Bar Wound
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Double
SAE Adaptors	1, 0, 00
Terminals	6
Material Insulation Class	Н
Excitation System	Auxiliary Winding
Ingress Protection	IP23
Temperature monitoring	Winding RTDs
Connection with other machines	Paralleling capability

Optional Features	
Bearing Arrangement	Sleeve Bearings
Ingress Protection	IP23 Air Filters
Ingress Protection	IP44/54/55 Totally enclosed
Cooling options	CACA/CACW
Environmental protection	Anti-condensation Heaters

1500+100

**DIMENSIONS** 

1060-



Designed For	
Power Plant	
Grid Code Compatible	•
Marine Propulsion	•
Marine Auxiliary	•
Oil & Gas	•
Combined Heat & Power	•
Critical Protection & UPS	•
Continuous Power & Standby	•

Prime Movers	
Diesel Engine	•
Gas Engine	•
Gas Turbine	
Steam Turbine	

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C

### STAMFORD P80

Model	P80 LV
Maximum continuous rating at 50Hz (kVA)*	3,910
Maximum continuous rating at 60Hz (kVA)**	4,460

Specifications	
Voltage Range	380-690
Poles	4
Technology	Wire Wound
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Double
SAE Adaptors	0, 00
Terminals	6
Material Insulation Class	Н
Excitation System	PMG
Ingress Protection	IP23
Temperature monitoring	Winding RTDs
Connection with other machines	Paralleling capability

Optional Features	
Bearing Arrangement	Single***
Ingress Protection	IP23 Air Filters

\*\*\* Not for cores W, X, Y

Optional Features - continued	
Temperature monitoring	Thermistors
Environmental protection	Anti-condensation Heaters

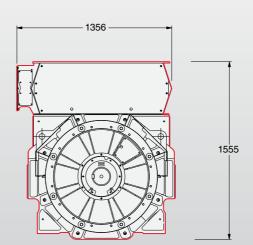
Designed For	
Power Plant	•
Grid Code Compatible	•
Marine Propulsion	•
Marine Auxiliary	•
Oil & Gas Auxliary	•
Combined Heat & Power	•
Critical Protection & UPS	•
Continuous Power & Standby	•

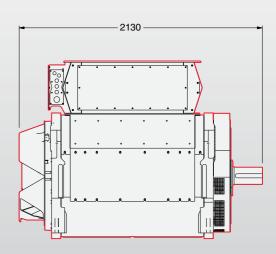
Prime Movers	
Diesel Engine	•
Gas Engine	•
Gas Turbine	•
Steam Turbine	•

Ratings are subject to change \*50 Hz = LV - 400V

\*\*60 Hz = LV - 480V

#### **DIMENSIONS**





Drawings represent standard design - All dimensions in millimetres (mm)

21

2135- 2375



Drawings represent standard design - All dimensions in millimetres (mm)



### **AvK**<sup>®</sup>

### **DSG** 99

Model	DSG 99
Maximum continuous rating at 50Hz (kVA)*	4,700
Maximum continuous rating at 60Hz (kVA)**	5,300
Specifications	
Voltage Range	400-690
Poles	4, 6, 8, 10
Technology	Bar Wound
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Double
SAE Adaptors	0, 00
Terminals	6
Material Insulation Class	Н
Excitation System	Auxiliary Winding
Ingress Protection	IP23
Temperature monitoring	Winding RTDs
Connection with other machines	Paralleling capability
Optional Features	
Bearing Arrangement	Sleeve Bearings
Ingress Protection	IP23 Air Filters
Ingress Protection	IP44/54/55 Totally enclosed
Cooling options	CACA/CACW
Environmental protection	Anti-condensation Heaters

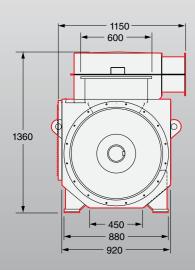


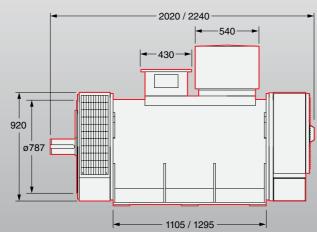
Designed For	
Power Plant	
Grid Code Compatible	•
Marine Propulsion	•
Marine Auxiliary	•
Oil & Gas	•
Combined Heat & Power	•
Critical Protection & UPS	•
Continuous Power & Standby	•

Prime Movers	
Diesel Engine	•
Gas Engine	•
Gas Turbine	
Steam Turbine	

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C (4 Pole)

### **DIMENSIONS**

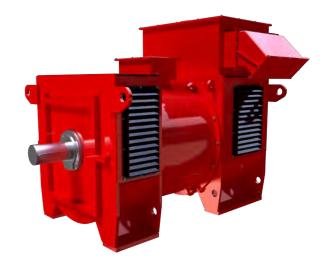




GENUINE STAMFORD AVK **AvK**<sup>®</sup>

### **DSG 114**

Model	DSG 114
Maximum continuous rating at 50Hz (kVA)*	5,000
Maximum continuous rating at 60Hz (kVA)**	5,940
Specifications	
Voltage Range	400-690
Poles	6, 8, 10
Technology	Bar Wound
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Double
SAE Adaptors	0, 00
Terminals	6
Material Insulation Class	Н
Excitation System	Auxiliary Winding
Ingress Protection	IP23
Temperature monitoring	Winding RTDs
Connection with other machines	Paralleling capability
Optional Features	
Bearing Arrangement	Sleeve Bearings
Ingress Protection	IP23 Air Filters
Ingress Protection	IP44/54/55 Totally enclosed
Cooling options	CACA/CACW
Environmental protection	Anti-condensation Heaters

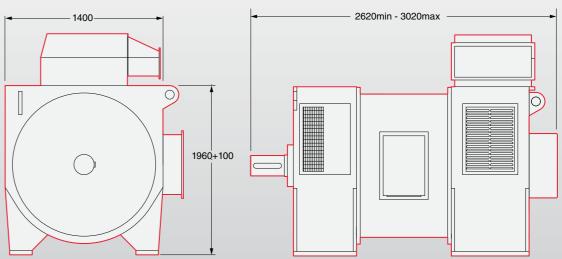


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Prime Movers	
Diesel Engine	•
Gas Engine	•
Gas Turbine	
Steam Turbine	

#### **DIMENSIONS**

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C)



Drawings represent standard design - All dimensions in millimetres (mm)

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Drawings represent standard design - All dimensions in millimetres (mm)

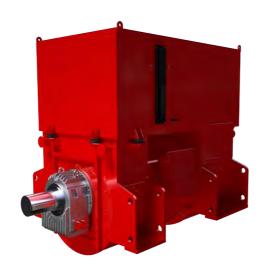
### AvK®

### **DSG 125**

DSG 125

Maximum continuous rating at 50Hz (kVA)*	7,000
Maximum continuous rating at 60Hz (kVA)**	8,500
Specifications	
Voltage Range	690
Poles	8, 10
Technology	Bar Wound
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Double (Sleeve Bearings)
SAE Adaptors	0, 00
Terminals	6
Material Insulation Class	Н
Excitation System	Auxiliary Winding
Ingress Protection	IP44
Temperature monitoring	Winding RTDs
Connection with other machines	Paralleling capability

Optional Features	
Ingress Protection	IP54/55 Totally enclosed
Cooling options	CACW
Environmental protection	Anti-condensation Heaters



Designed For	
Power Plant	
Grid Code Compatible	
Marine Propulsion	•
Marine Auxiliary	•
Oil & Gas	•
Combined Heat & Power	
Critical Protection & UPS	
Continuous Power & Standby	•

Prime Movers	
Diesel Engine	•
Gas Engine	•
Gas Turbine	
Steam Turbine	

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C

### **AvK**®

### **DSG 144**

Totally enclosed

CACW

Anti-condensation Heaters

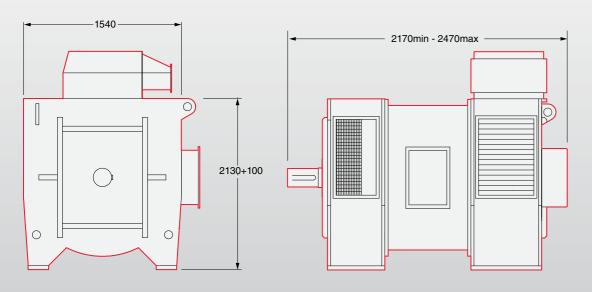
Model	DSG 144
Maximum continuous rating at 60Hz (kVA)**	6,600
Considirations	
Specifications Voltage Range	690
Poles	10
Technology	Bar Wound
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Double (Sleeve Bearings)
SAE Adaptors	0, 00
Terminals	6
Material Insulation Class	Н
Excitation System	Auxiliary Winding
Ingress Protection	IP44
Temperature monitoring	Winding RTDs
Connection with other machines	Paralleling capability
Optional Features	
Ingress Protection	IP54/55

Designed For	
Power Plant	
Grid Code Compatible	
Marine Propulsion	•
Marine Auxiliary	•
Oil & Gas	•
Combined Heat & Power	
Critical Protection & UPS	
Continuous Power & Standby	•

Prime Movers	
Diesel Engine	•
Gas Engine	•
Gas Turbine	
Steam Turbine	

Ratings are subject to change \*\*60Hz 480V Continuous 125/40°C

#### **DIMENSIONS**



Drawings represent standard design - All dimensions in millimetres (mm)

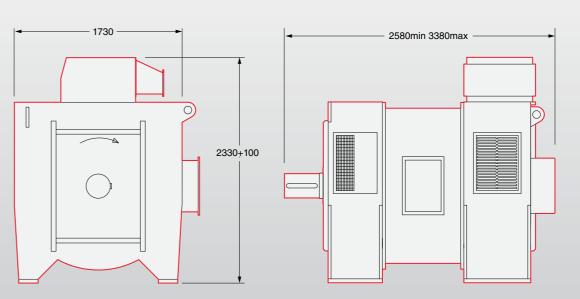
25



#### **DIMENSIONS**

Cooling options

Environmental protection



Drawings represent standard design - All dimensions in millimetres (mm)

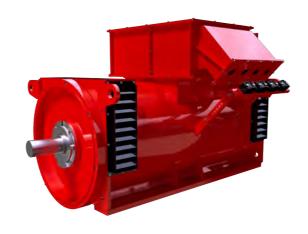


Power Portfolio Power Portfolio Power Portfolio High voltage Power Portfolio High voltage

### **AvK**<sup>®</sup>

### **DIG 110**

Model	DIG 110
Maximum continuous rating at 50Hz (kVA)*	1,080
Maximum continuous rating at 60Hz (kVA)**	1,300
0 10 11	
Specifications Voltage Range	3,300-11,000
Poles	3,300-11,000
	Bar Wound
Technology	Bai Trouna
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Double
SAE Adaptors	1, 0, 00
Terminals	6
Material Insulation Class	F
Excitation System	Auxiliary Winding
Ingress Protection	IP23
Temperature monitoring	Winding RTDs
Connection with other machines	Paralleling capability
Optional Features	
Bearing Arrangement	Sleeve Bearings
Ingress Protection	IP23 Air Filters
Ingress Protection	IP44/54/55 Totally enclosed
Cooling options	CACA/CACW



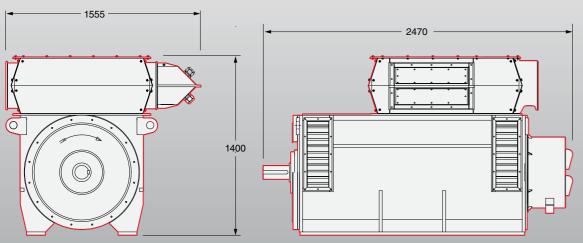
Designed For	
Power Plant	•
Grid Code Compatible	•
Marine Propulsion	
Oil & Gas	•
Combined Heat & Power	•
Continuous Power & Standby	•

Prime Movers	
Diesel Engine	•
Gas Engine	•
Gas Turbine	•
Steam Turbine	•

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C

#### **DIMENSIONS**

Environmental protection



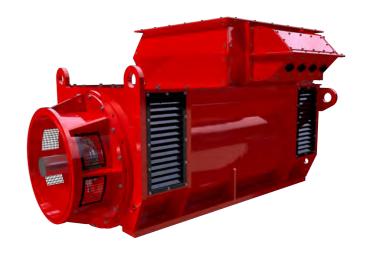
Anti-condensation Heaters

> GENUINE STAMFORD AVK

AvK®

### **DIG 120**

Model	DIG 120
Maximum continuous rating at 50Hz (kVA)*	2,050
Maximum continuous rating at 60Hz (kVA)**	2,600
Specifications	
Voltage Range	3,300-11,000
Poles	4
Technology	Bar Wound
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Double
SAE Adaptors	1, 0, 00
Terminals	6
Material Insulation Class	F
Excitation System	Auxiliary Winding
Ingress Protection	IP23
Temperature monitoring	Winding RTDs
Connection with other machines	Paralleling capability
Optional Features	
Bearing Arrangement	Sleeve Bearings
Ingress Protection	IP23 Air Filters
Ingress Protection	IP44/54/55 Totally enclosed
Cooling options	CACA/CACW
Environmental protection	Anti-condensation Heaters

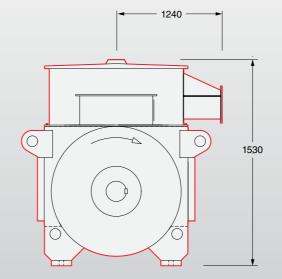


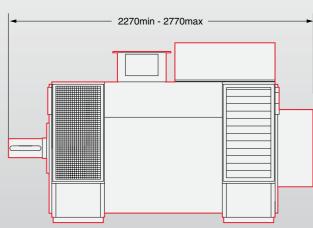
Designed For	
Power Plant	•
Grid Code Compatible	•
Marine Propulsion	
Oil & Gas	•
Combined Heat & Power	•
Continuous Power & Standby	•

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•

#### **DIMENSIONS**

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C (4 Pole)





Drawings represent standard design - All dimensions in millimetres (mm)



Drawings represent standard design - All dimensions in millimetres (mm)

Power Portfolio High voltage Power Portfolio High voltage

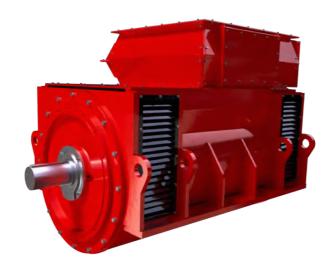
### **AvK**<sup>®</sup>

### **DIG 130**

Model	DIG 130
Maximum continuous rating at 50Hz (kVA)*	3,850
Maximum continuous rating at 60Hz (kVA)**	4,000
Specifications	
Voltage Range	3,300-13,800
Poles	4, 6
Technology	Bar Wound
AVR	Digital
Voltage sensing	3-Phase

Voltage Range	3,300-13,800	
Poles	4, 6	
Technology	Bar Wound	
AVR	Digital	
Voltage sensing	3-Phase	
Bearing Arrangement	Double	
SAE Adaptors	1, 0, 00	
Terminals	6	
Material Insulation Class	F	
Excitation System	Auxiliary Winding	
Ingress Protection	IP23	
Temperature monitoring	Winding RTDs	
Connection with other machines	Paralleling capability	

Optional Features	
Bearing Arrangement	Sleeve Bearings
Ingress Protection	IP23 Air Filters
Ingress Protection	IP44/54/55 Totally enclosed
Cooling options	CACA/CACW
Environmental protection	Anti-condensation Heaters

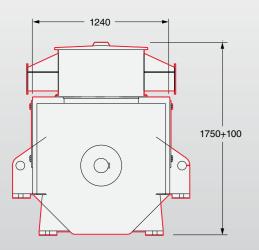


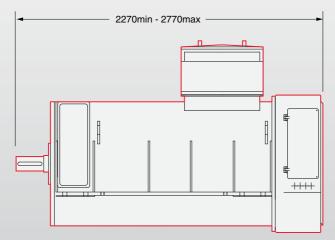
Designed For	
Power Plant	
Grid Code Compatible	
Marine Propulsion	
Oil & Gas	
Combined Heat & Power	
Continuous Power & Standby	

Prime Movers	
Diesel Engine	•
Gas Engine	•
Gas Turbine	•
Steam Turbine	•

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C (4 Pole)

#### **DIMENSIONS**





Drawings represent standard design - All dimensions in millimetres (mm)





### **DIG 140**

Model	DIG 140	
Maximum continuous rating at 50Hz (kVA)*	4,600	
Maximum continuous rating at 60Hz (kVA)**	5,300	
Specifications		
Voltage Range	3,300-13,800	
Poles	4, 6	
Technology	Bar Wound	
AVR	Digital	
Voltage sensing	3-Phase	
Bearing Arrangement	Double	
SAE Adaptors	0, 00	
Terminals	6	
Material Insulation Class	F	
Excitation System	Auxiliary Winding	
Ingress Protection	IP23	
Temperature monitoring	Winding RTDs	
Connection with other machines	Paralleling capability	
Optional Features		
Bearing Arrangement	Sleeve Bearings	
Ingress Protection	IP23 Air Filters	
Ingress Protection	IP44/54 Totally enclosed	
Cooling options	CACA/CACW	
Environmental protection	Anti-condensation Heaters	

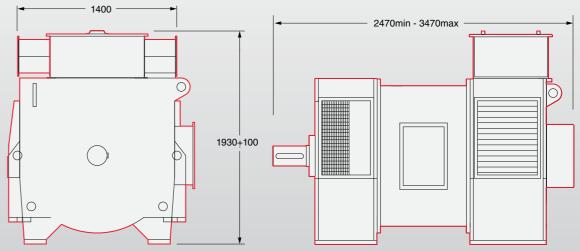


Designed For	
Power Plant	•
Grid Code Compatible	
Marine Propulsion	•
Oil & Gas	•
Combined Heat & Power	•
Continuous Power & Standby	•

Prime Movers	
Diesel Engine	•
Gas Engine	•
Gas Turbine	•
Steam Turbine	•

#### **DIMENSIONS**

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C (4 Pole)



Drawings represent standard design - All dimensions in millimetres (mm)



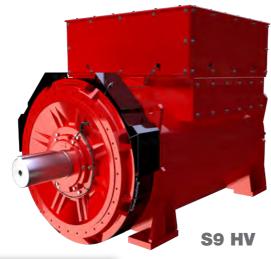
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**Power Portfolio** Low voltage High voltage Power Portfolio High voltage

### **STAMFORD**°

Model	S9 LV	S9 MV	S9 HV
Maximum continuous rating at 50Hz (kVA)*	4,250	4,310	4,500
Maximum continuous rating at 60Hz (kVA)**	5,100	5,250	5,000

Specifications			
Voltage Range	380-690	3,300-4,160	5500-13,800
Poles	4	4	4
Technology	Wire Wound	Bar Wound	Bar Wound
AVR	Digital	Digital	Digital
Voltage sensing	3-Phase	2-Phase	2-Phase
Bearing Arrangement	Single\Double	Single\Double	Single\Double
SAE Adaptors	SAE 0 /00	SAE 0 / 00	SAE 0 / 00
Centre height	500	500	500
Terminals	6	6	6
Material Insulation Class	Н	Н	Н
Excitation System	DM110/PMG STD	PMG	PMG
Ingress Protection	IP23	IP23 IP54 Terminal Box	IP23 IP54 Terminal Box
Connection with other machines	Paralleling capability	Paralleling capability	Paralleling capability
Temperature monitoring	Winding RTDs	Winding RTDs	Winding RTDs

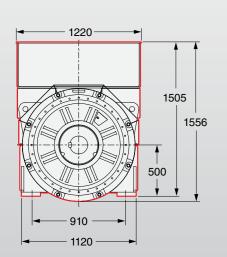


Optional Features			
Voltage Sensing	3 Phase	3 Phase	3 Phase
Centre height	450	265, 349, 450	265, 349, 450
Current transformers	1, 2, 3 per phase	1, 2, 3 per phase	1, 2, 3 per phase
Earth fault protection	Current Transformer	Current Transformer	Current Transformer

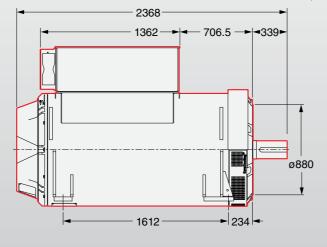
Designed For			
Power Plant	•	•	•
Grid Code Compatible	•	•	•
Marine Propulsion			
Marine Auxiliary		•	•
Oil & Gas	•		
Oil & Gas Auxiliary	•	•	•
Combined Heat & Power	•	•	•
Critical Protection & UPS	•	•	•
Continuous Power & Standby	•	•	•

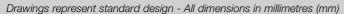
Prime Movers			
Diesel Engine	•	•	•
Gas Engine	•	•	•

Ratings are subject to change \*50 Hz = LV - 400V, MV - 3300V or HV - 10500V \*\* $60 \ Hz = LV - 480 \ , \ MV - 4160V \ , \ HV - 13800V$ (4 Pole)



**DIMENSIONS** 



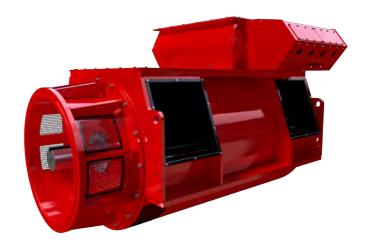




### **DIG 142**

DIG 142

Maximum continuous rating at 50Hz (kVA)*	5,800
Maximum continuous rating at 60Hz (kVA)**	6,700
0	
Specifications Voltage Range	3,300-13,800
Poles	4
Technology	Bar Wound
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Double
SAE Adaptors	0, 00
Terminals	6
Material Insulation Class	F
Excitation System	Auxiliary Winding
Ingress Protection	IP23
Temperature monitoring	Winding RTDs
Connection with other machines	Paralleling capability
Optional Features	
Ingress Protection	IP23 Air Filters
Environmental protection	Anti-condensation

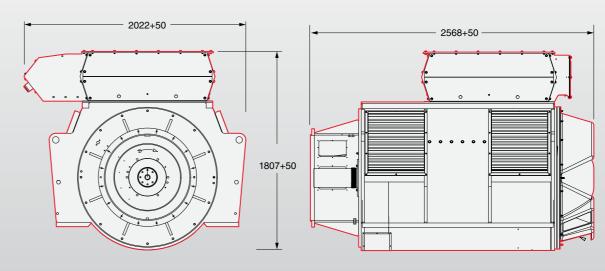


Designed For	
Power Plant	•
Grid Code Compatible	•
Marine Propulsion	
Oil & Gas	•
Combined Heat & Power	•
Continuous Power & Standby	•

Prime Movers	
Diesel Engine	•
Gas Engine	•
Gas Turbine	•
Steam Turbine	•

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C (4 Pole)

#### **DIMENSIONS**



Heaters



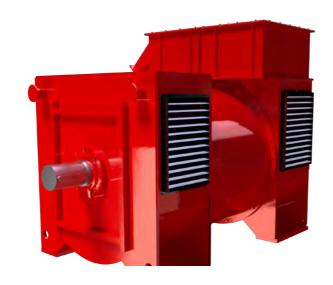


Power Portfolio Power Portfolio Power Portfolio High voltage High voltage

### **AvK**<sup>®</sup>

### **DIG 150**

Model	DIG 150
Maximum continuous rating at 50Hz (kVA)*	7,400
Maximum continuous rating at 60Hz (kVA)**	8,500
Specifications	
Voltage Range	3,300-13,800
Poles	4, 6, 8
Technology	Bar Wound
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Double
SAE Adaptors	0, 00
Terminals	6
Material Insulation Class	F
Excitation System	Auxiliary Winding
Ingress Protection	IP23
Temperature monitoring	Winding RTDs
Connection with other machines	Paralleling capability
Optional Features	
Bearing Arrangement	Sleeve Bearings
Ingress Protection	IP23 Air Filters
Ingress Protection	IP44/54 Totally enclosed
Cooling options	CACA/CACW
Environmental protection	Anti-condensation Heaters

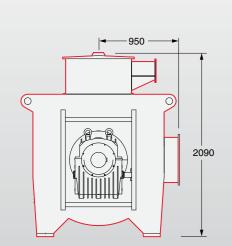


Designed For	
Power Plant	•
Grid Code Compatible	•
Marine Propulsion	•
Oil & Gas	•
Combined Heat & Power	•
Continuous Power & Standby	•

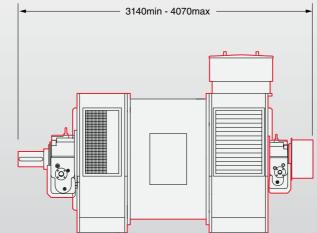
Prime Movers	
Diesel Engine	•
Gas Engine	•
Gas Turbine	•
Steam Turbine	•

Ratings are subject to change
\*50Hz 400V Continuous 125/40°C
\*\*60Hz 480V Continuous 125/40°

(4 Pole)



**DIMENSIONS** 



GENUINE STAMFORD AVK



#### **DIG 156**

DIG 156

IP23 Air Filters

Totally enclosed CACA/CACW

Anti-condensation Heaters

Maximum continuous rating at 50Hz (kVA)*	10,000
Maximum continuous rating at 60Hz (kVA)**	11,000
Specifications	
Voltage Range	3,300-13,800
Poles	6, 8, 10
Technology	Bar Wound
AVR	Digital
Voltage sensing	3-Phase
Bearing Arrangement	Double (Sleeve Bearings)
Terminals	6
Material Insulation Class	F
Excitation System	Auxiliary Winding
Ingress Protection	IP23
Temperature monitoring	Winding RTDs
Connection with other machines	Paralleling capability

0.0	

Designed For	
Power Plant	•
Grid Code Compatible	•
Marine Propulsion	•
Oil & Gas	•
Combined Heat & Power	•
Continuous Power & Standby	•
	_

Prime Movers	
Diesel Engine	•
Gas Engine	•
Gas Turbine	•
Steam Turbine	•

Ratings are subject to change \*50Hz 400V Continuous 125/40°C \*\*60Hz 480V Continuous 125/40°C

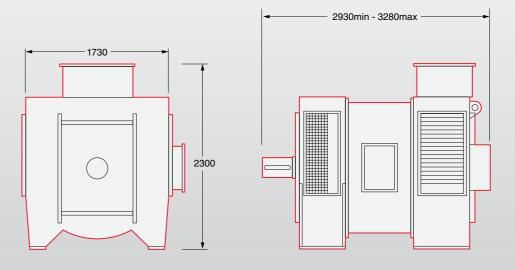
#### **DIMENSIONS**

Ingress Protection

Ingress Protection

Cooling options

Environmental protection



GENUINE STAMFORD AVK

Drawings represent standard design - All dimensions in millimetres (mm)

Drawings represent standard design - All dimensions in millimetres (mm)

#### YOUR PARTNER FOR MAXIMUM UPTIME THROUGH WORLD CLASS ALTERNATORS AND A 24/7 GLOBAL SERVICE NETWORK





#### Reliable Performance

with best-in-class insulation protection. 3 year warranty as standard on STAMFORD<sup>®</sup> S-Range and AvK<sup>®</sup> A-Range



### Responsive Service

within 24hrs and regional inventory



### Personal Support

for service and parts wherever you are



#### Service Support

a large service network to support you wherever you are



### **Superior Protection**

Winding insulation resistance tested to a level multitude of times higher than its normal operational level



### Technical Expertise

delivering the right solution to your needs

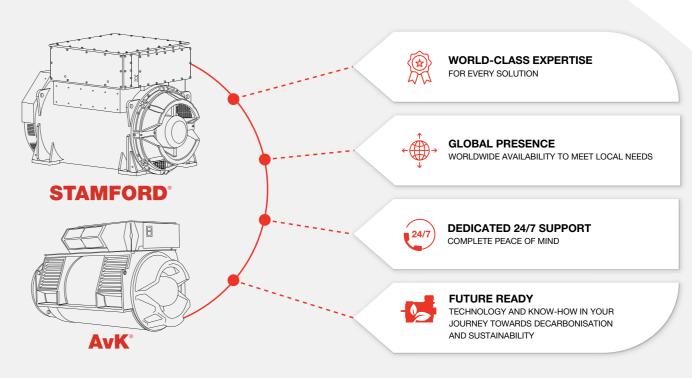


#### Customisation

to meet all your requirements



#### **OUR POWER PROMISE**





#### stamford-avk@cummins.com www.stamford-avk.com











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P@WERING TOMORROW, TOGETHER