

# OUR DIFFERENCE? THE DETAIL.

NOW WITH  
**3 YEARS**  
WARRANTY



S4

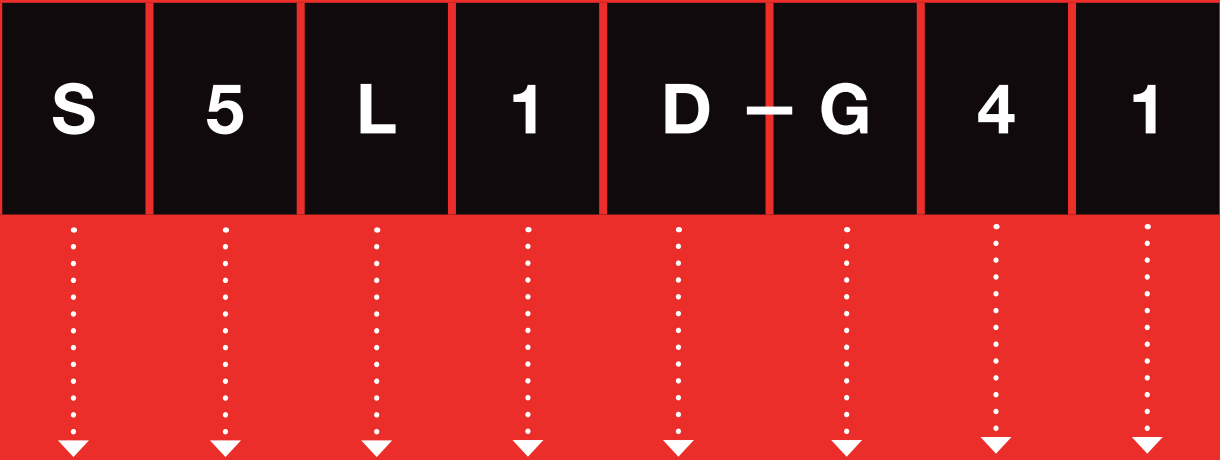
S6



**STAMFORD® S5**

Fitted with  
**CoreCooling™**  
technology

# The S5 Nomenclature



Character	Brand	Family Series	Voltage	Revision	Descriptor	Core Length	Pole	Bearing
Examples	STAMFORD	1/2/3/4/5 etc	L = Low M = Medium H = High	1	D = Dedicated S = Special M = Marine	C/D/E/F/G/H	4	1/2

# The New **STAMFORD**® S5 Dedicated



Product evolution through technological revolution.  
Our new **CoreCooling™ technology** results in improved thermal performance  
and increased power density... it's in the detail.

# S5 Dedicated Ratings

50Hz

Class H 125/40						
Winding Number	311					
Volts	380		400		415	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1D-C4	364	455	400	500	364	455
S5L1D-D4	400	500	440	550	400	500
S5L1D-E4	480	600	488	610	480	600
S5L1D-F4	536	670	536	670	536	670
S5L1D-G4	544	680	560	700	560	700
S5L1D-H4	568	710	600	750	600	750

Standby 150/40						
Winding Number	311					
Volts	380		400		415	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1D-C4	382	478	410	512	382	478
S5L1D-D4	412	515	460	575	412	515
S5L1D-E4	509	636	512	640	509	636
S5L1D-F4	568	710	568	710	568	710
S5L1D-G4	576	720	592	740	592	740
S5L1D-H4	604	755	640	800	640	800

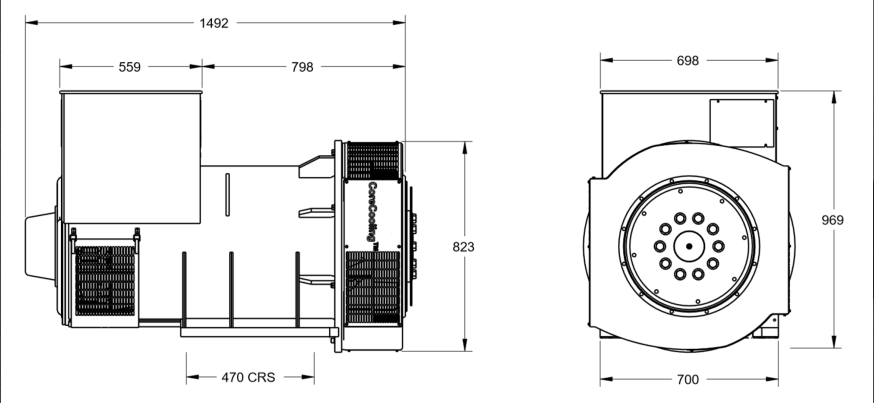
Standby 163/27						
Winding Number	311					
Volts	380		400		415	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1D-C4	400	500	416	520	400	500
S5L1D-D4	440	550	472	590	440	550
S5L1D-E4	548	660	532	665	528	660
S5L1D-F4	590	738	590	738	590	738
S5L1D-G4	600	750	616	770	616	770
S5L1D-H4	624	780	660	825	660	825

60Hz

Class H 125/40						
Winding Number	311					
Volts	416		440		480	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1D-C4	420	525	440	550	475	594
S5L1D-D4	460	575	475	594	515	644
S5L1D-E4	545	681	570	713	600	750
S5L1D-F4	590	738	620	775	660	825
S5L1D-G4	600	750	635	794	700	875
S5L1D-H4	640	800	675	844	750	937

Standby 150/40						
Winding Number	311					
Volts	416		440		480	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1D-C4	440	550	465	581	500	625
S5L1D-D4	470	588	500	625	540	675
S5L1D-E4	575	719	600	750	640	800
S5L1D-F4	625	781	655	819	700	875
S5L1D-G4	635	794	670	837	730	913
S5L1D-H4	680	850	715	894	785	981

Standby 163/27						
Winding Number	311					
Volts	416		440		480	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1D-C4	455	569	480	600	515	644
S5L1D-D4	485	606	515	644	555	694
S5L1D-E4	590	738	615	869	655	819
S5L1D-F4	645	806	675	844	725	906
S5L1D-G4	660	825	695	869	755	944
S5L1D-H4	705	881	745	931	810	1013





## Specification

MODEL	S5-Dedicated
Ratings at 50Hz (kVA) Class H	450-750
Ratings at 60Hz (kVA) Class H	525-937
Specifications	
Voltage Range	380-480
Poles	4
Technology	Wire Wound
AVR	Analogue
Voltage Sensing	2 Phase
Bearing Arrangement	Single
SAE Adaptors	SAE 1
Terminals	12
Material Insulation Class	H
Excitation System	AS440/Self-Exciting
Ingress Protection	IP23
Connection with other machines	Paralleling capability
Optional Features	
Bearing Arrangement	—
SAE Adaptors	0.5, 0
Excitation System	PMG
Ingress Protection	IP23 Air Filters
Output Configurations	3 Phase Reconnectable
Voltage sensing	3 Phase sensing
Temperature Monitoring	Winding RTDs
Temperature Monitoring	Thermistors
Environmental Protection	Anti-Condensation Heater
Adaptor Feet	✓
Flexible Feet	✓
Prime Movers	
Diesel Engine	✓
Gas Engine	✓

## Accessories

Factory Build Options
Anti-Condensation Heater (with Terminal Box)
Quadrature Droop kit
Bearing RTD
Air Inlet Filter
Remote Voltage Trimmer
Radio frequency interference (RFI) Suppressor Kit
Excitation Loss Module
Diode Failure Detector
CSA Approval

Available With	MX321	MX341	AS440
Current Sensing Kit	✓	✓	✓
Controlled Short Circuit	✓	✗	✗
Manual Voltage Regulator	✓	✓	✗
Frequency Detection Module	✓	✓	✗
Power Factor Controller - PFC3	✓	✓	✓
Remote Control Interface	✓	✓	✓
Excitation Circuit Breaker	✓	✓	✓
Dual AVR	✓	✓	✗

Voltage Regulator Options
MX341 with PMG
MX321 AVR with PMG
UL AS440 AVR
UL MX341 with PMG
No AVR with or without PMG

\*GA Drawings are indicative of S5-H dimensions

\*\*Please contact our applications department for additional voltages that are available

\*\*\*Ratings are preliminary and are subject to change throughout 2018

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# S5 Special Ratings

## 50Hz

Class H 125/40						
Winding Number 311						
Volts	380		400		415	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1S-C4	364	455	400	500	364	455
S5L1S-D4	400	500	440	550	400	500
S5L1S-E4	480	600	488	610	480	600
S5L1S-F4	536	670	536	670	536	670

Standby 150/40						
Winding Number 311						
Volts	380		400		415	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1S-C4	382	478	410	512	382	478
S5L1S-D4	412	515	460	575	412	515
S5L1S-E4	509	636	512	640	509	636
S5L1S-F4	568	710	568	710	568	710

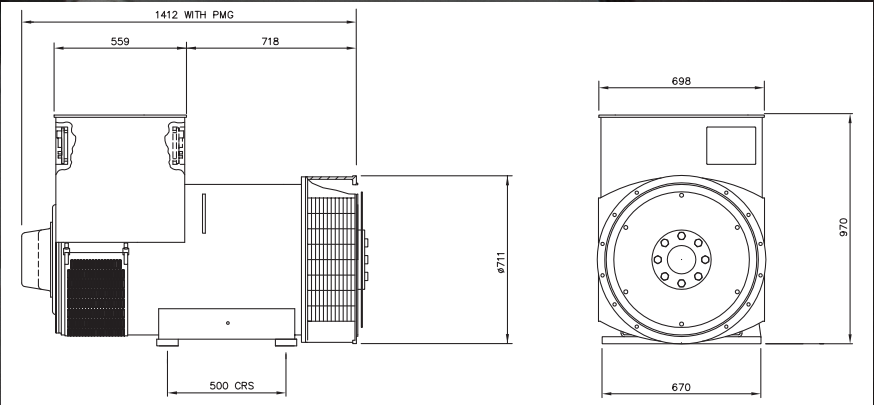
Standby 163/27						
Winding Number 311						
Volts	380		400		415	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1S-C4	400	500	416	520	400	500
S5L1S-D4	440	550	472	590	440	550
S5L1S-E4	528	660	532	665	528	660
S5L1S-F4	590	738	590	738	590	738

## 60Hz

Class H 125/40						
Winding Number 311						
Volts	416		440		480	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1S-C4	420	525	440	550	475	594
S5L1S-D4	460	575	475	594	515	644
S5L1S-E4	545	681	570	713	600	750
S5L1S-F4	590	738	620	775	660	825

Standby 150/40						
Winding Number 311						
Volts	416		440		480	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1S-C4	440	550	465	581	500	625
S5L1S-D4	470	588	500	625	540	675
S5L1S-E4	575	719	600	750	640	800
S5L1S-F4	625	781	655	819	700	875

Standby 163/27						
Winding Number 311						
Volts	416		440		480	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1S-C4	455	569	480	600	515	644
S5L1S-D4	485	606	515	644	555	694
S5L1S-E4	590	738	615	769	655	819
S5L1S-F4	645	806	675	844	725	906





# Specification

MODEL	S5-Special
Ratings at 50Hz (kVA) Class H	455-670
Ratings at 60Hz (kVA) Class H	525-825
Specifications	
Voltage Range	380-690
Poles	4
Technology	Wire Wound
AVR	Analogue
Voltage Sensing	2 Phase
Bearing Arrangement	Single
SAE Adaptors	SAE 1
Terminals	12
Material Insulation Class	H
Excitation System	AS440/Self-Exciting
Ingress Protection	IP23
Connection with other machines	Paralleling capability
Optional Features	
Bearing Arrangement	Double
SAE Adaptors	0.5, 0, 00
Excitation System	PMG
Ingress Protection	IP23 Air Filters
Output Configurations	3 Phase Reconnectable
Voltage sensing	3 Phase sensing
Temperature Monitoring	Winding RTDs
Temperature Monitoring	Thermistors
Environmental Protection	Anti-Condensation Heater
Adaptor Feet	X
Flexible Feet	X
Prime Movers	
Diesel Engine	✓
Gas Engine	✓

# Accessories

Factory Build Options
Anti-Condensation Heater (with Terminal Box)
Quadrature Droop kit
Bearing RTD (Each Bearing)
Air Inlet Filter
Drip Proof Louvres
Remote Voltage Trimmer
Radio frequency interference (RFI) Suppressor Kit
Excitation Loss Module
Diode Failure Detector
CSA Approval

Available With	MX321	MX341	AS440
Current Sensing Kit	✓	✓	✓
Controlled Short Circuit	✓	X	X
Manual Voltage Regulator	✓	✓	X
Frequency Detection Module	✓	✓	X
Power Factor Controller - PFC3	✓	✓	✓
Remote Control Interface	✓	✓	✓
Excitation Circuit Breaker	✓	✓	✓
Dual AVR	✓	✓	X

Voltage Regulator Options
MX341 with PMG
MX321 AVR with PMG
UL AS440 AVR
UL MX341 with PMG
No AVR with or without PMG

\*GA Drawings are indicative of S5-F dimensions  
\*\*Please contact our applications department for additional voltages that are available  
\*\*\*Ratings are preliminary and are subject to change throughout 2018

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# S5 Marine Ratings

## 50Hz

Class B (70°C) Temperature Rise, Continuous, 50°C Ambient						
Winding Number	311					
Volts	380		400		415	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1M-C4	256	320	260	325	264	330
S5L1M-D4	284	355	292	365	300	375
S5L1M-E4	332	415	344	430	352	440
S5L1M-F4	352	440	368	460	380	475

Class F (90°C) Temperature Rise, Continuous, 50°C Ambient						
Winding Number	311					
Volts	380		400		415	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1M-C4	292	365	296	370	304	380
S5L1M-D4	324	405	332	415	344	430
S5L1M-E4	380	475	392	490	404	505
S5L1M-F4	404	505	420	525	432	540

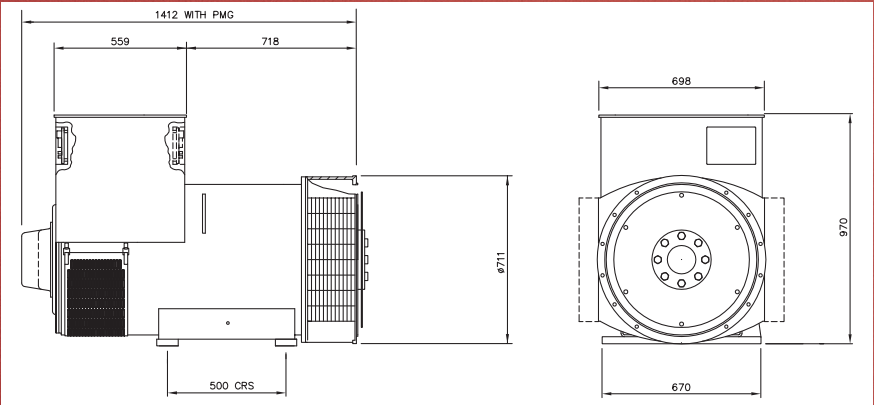
Class H (110°C) Temperature Rise, Continuous, 50°C Ambient						
Winding Number	311					
Volts	380		400		415	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1M-C4	312	390	312	390	312	390
S5L1M-D4	348	435	348	435	348	435
S5L1M-E4	424	530	424	530	424	530
S5L1M-F4	452	565	468	585	480	600

## 60Hz

Class B (70°C) Temperature Rise, Continuous, 50°C Ambient						
Winding Number	311					
Volts	440		460		480	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1M-C4	316	395	332	415	336	420
S5L1M-D4	340	425	356	445	372	465
S5L1M-E4	412	515	416	520	424	530
S5L1M-F4	452	565	463	578	466	582

Class F (90°C) Temperature Rise, Continuous, 50°C Ambient						
Winding Number	311					
Volts	440		460		480	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1M-C4	360	450	380	475	385	481
S5L1M-D4	390	488	405	506	425	531
S5L1M-E4	470	588	475	594	485	606
S5L1M-F4	515	644	525	656	530	663

Class H (110°C) Temperature Rise, Continuous, 50°C Ambient						
Winding Number	311					
Volts	440		460		480	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1M-C4	388	485	412	515	416	520
S5L1M-D4	416	520	436	545	456	570
S5L1M-E4	500	625	510	638	520	650
S5L1M-F4	555	694	565	706	580	725





## Specification

MODEL	S5-Marine
Ratings at 50Hz (kVA) Class H	390-600
Ratings at 60Hz (kVA) Class H	485-725
Specifications	
Voltage Range	380-690
Poles	4
Technology	Wire Wound
AVR	Analogue
Voltage Sensing	2 Phase
Bearing Arrangement	Single
SAE Adaptors	SAE 1
Terminals	12
Material Insulation Class	H
Excitation System	MX341/PMG
Ingress Protection	IP23
Connection with other machines	Paralleling capability
Optional Features	
Bearing Arrangement	Double
SAE Adaptors	0.5, 0, 00
Excitation System	PMG
Ingress Protection	IP23 Air Filters
Output Configurations	3 Phase Reconnectable
Voltage sensing	3 Phase sensing
Temperature Monitoring	Winding RTDs
Temperature Monitoring	Thermistors
Environmental Protection	Anti-Condensation Heater
Adaptor Feet	X
Flexible Feet	X
Prime Movers	
Diesel Engine	✓
Gas Engine	✓

## Accessories

Factory Build Options
Anti-Condensation Heater (with Terminal Box)
Quadrature Droop kit
Bearing RTD (Each Bearing)
Air Inlet Filter
Remote Voltage Trimmer
Radio frequency interference (RFI) Suppressor Kit
Excitation Loss Module
Diode Failure Detector
CSA Approval

Available With	MX321	MX341
Current Sensing Kit	✓	✓
Controlled Short Circuit	✓	X
Manual Voltage Regulator	✓	✓
Frequency Detection Module	✓	✓
Power Factor Controller - PFC3	✓	✓
Remote Control Interface	✓	✓
Excitation Circuit Breaker	✓	✓
Dual AVR	✓	✓

Voltage Regulator Options
MX321 AVR with PMG
UL MX341 with PMG
No AVR with PMG

\*GA Drawings are indicative of S5-F dimensions

\*\*Please contact our applications department for additional voltages that are available

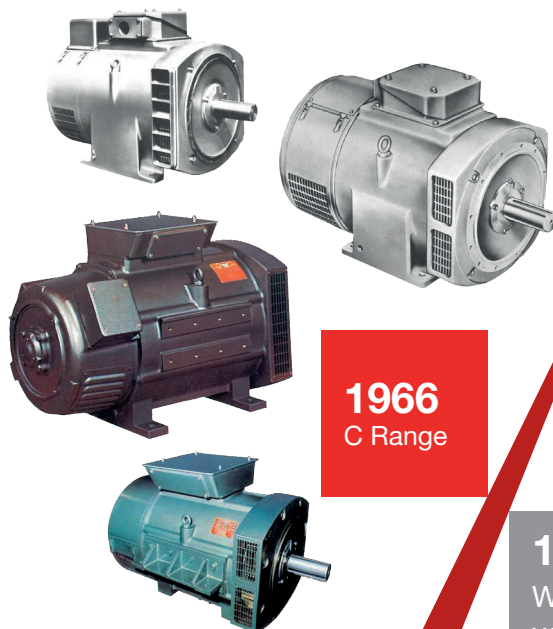
\*\*\*Ratings are preliminary and are subject to change throughout 2018

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## PRODUCT HERITAGE

**1950**  
World's First regulating alternator produced



**1966**  
C Range

**1966**  
World's First volume produced brushless alternator

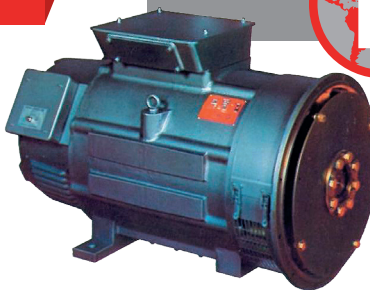


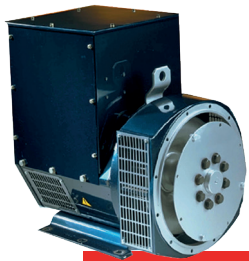
**1973**  
World's First alternator to utilise a PMG for AVR excitation



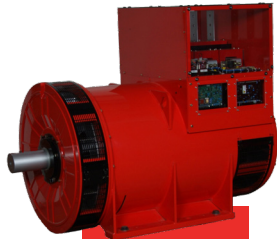
**1973**  
AC Range

**1958**  
World's First rotating field alternator produced





**1988**  
UC Range



**2004**  
P7 Range



**2007**  
P0/P1  
Range



**2016**  
S Range



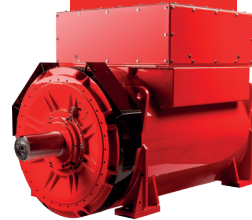
**2019**  
S7 Range



**2016**  
S0/S1  
Range



**2017**  
S6 Range



**2019**  
S9 Range



**1985**  
HC Range



**1992**  
BC Range



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Part No. PB\_S5\_EN/AF\_Rev.4



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