

# OUR DIFFERENCE? THE DETAIL.

**3 YEAR  
WARRANTY**



S4

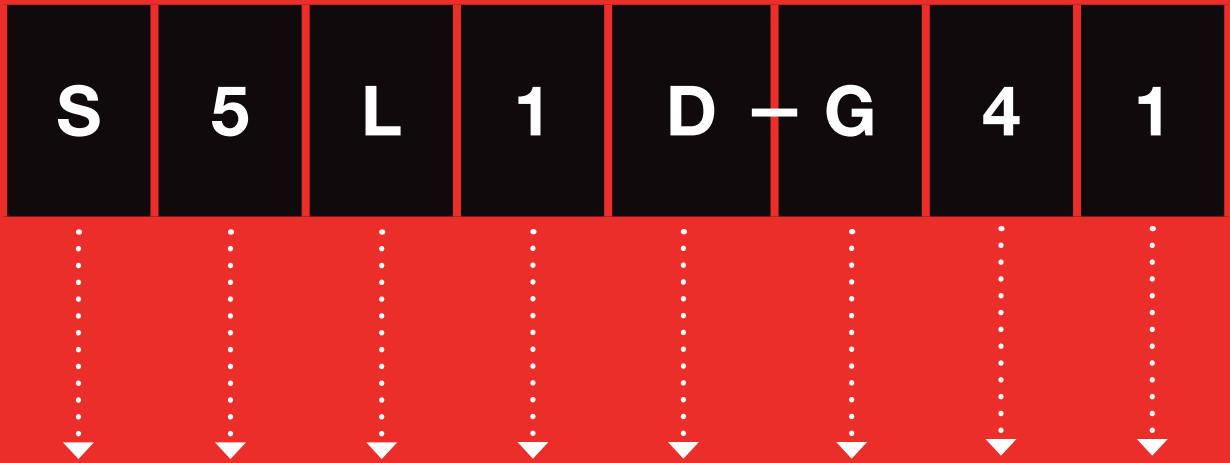
S6



**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

# 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	<b>455</b>	400	<b>500</b>	364	<b>455</b>
S5L1D-D4	400	<b>500</b>	440	<b>550</b>	400	<b>500</b>
S5L1D-E4	480	<b>600</b>	488	<b>610</b>	480	<b>600</b>
S5L1D-F4	536	<b>670</b>	536	<b>670</b>	536	<b>670</b>
S5L1D-G4	544	<b>680</b>	560	<b>700</b>	560	<b>700</b>
S5L1D-H4	568	<b>710</b>	600	<b>750</b>	600	<b>750</b>

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

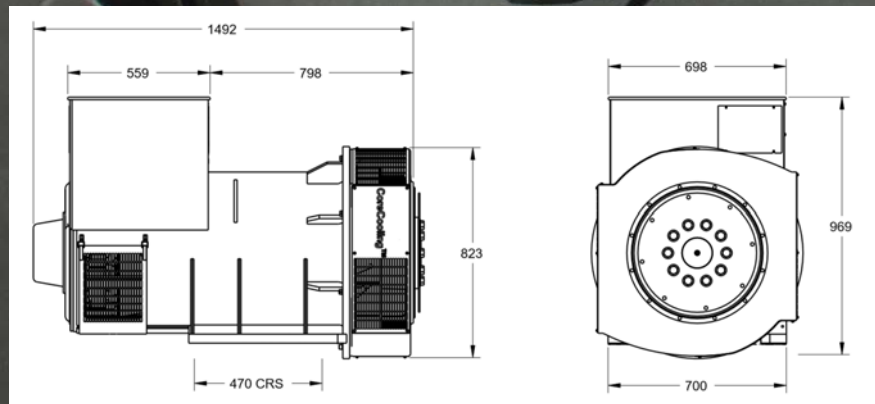
Standby 163/27						
Winding Number	311					
Volts	380		400		415	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1D-C4	400	<b>500</b>	416	<b>520</b>	400	<b>500</b>
S5L1D-D4	440	<b>550</b>	472	<b>590</b>	440	<b>550</b>
S5L1D-E4	548	<b>660</b>	532	<b>665</b>	528	<b>660</b>
S5L1D-F4	590	<b>738</b>	590	<b>738</b>	590	<b>738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

## 60Hz

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

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

Standby 163/27						
Winding Number	311					
Volts	416		440		480	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1D-C4	<b>455</b>	569	<b>480</b>	600	<b>515</b>	644
S5L1D-D4	<b>485</b>	606	<b>515</b>	644	<b>555</b>	694
S5L1D-E4	<b>590</b>	738	<b>615</b>	869	<b>655</b>	819
S5L1D-F4	<b>645</b>	806	<b>675</b>	844	<b>725</b>	906
S5L1D-G4	<b>660</b>	825	<b>695</b>	869	<b>755</b>	944
S5L1D-H4	<b>705</b>	881	<b>745</b>	931	<b>810</b>	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	✓	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-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	<b>455</b>	400	<b>500</b>	364	<b>455</b>
S5L1S-D4	400	<b>500</b>	440	<b>550</b>	400	<b>500</b>
S5L1S-E4	480	<b>600</b>	488	<b>610</b>	480	<b>600</b>
S5L1S-F4	536	<b>670</b>	536	<b>670</b>	536	<b>670</b>

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

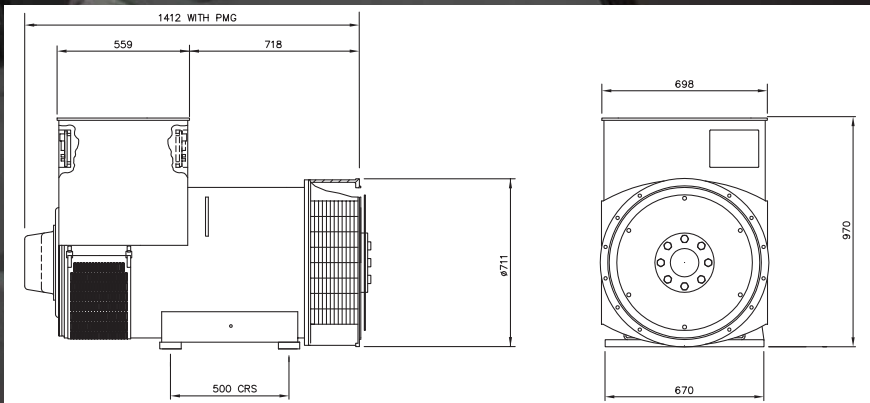
Standby 163/27						
Winding Number	311					
Volts	380		400		415	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1S-C4	400	<b>500</b>	416	<b>520</b>	400	<b>500</b>
S5L1S-D4	440	<b>550</b>	472	<b>590</b>	440	<b>550</b>
S5L1S-E4	528	<b>660</b>	532	<b>665</b>	528	<b>660</b>
S5L1S-F4	590	<b>738</b>	590	<b>738</b>	590	<b>738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

## 60Hz

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

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

Standby 163/27						
Winding Number	311					
Volts	416		440		480	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1S-C4	<b>455</b>	569	<b>480</b>	600	<b>515</b>	644
S5L1S-D4	<b>485</b>	606	<b>515</b>	644	<b>555</b>	694
S5L1S-E4	<b>590</b>	738	<b>615</b>	769	<b>655</b>	819
S5L1S-F4	<b>645</b>	806	<b>675</b>	844	<b>725</b>	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	<b>320</b>	260	<b>325</b>	264	<b>330</b>
S5L1M-D4	284	<b>355</b>	292	<b>365</b>	300	<b>375</b>
S5L1M-E4	332	<b>415</b>	344	<b>430</b>	352	<b>440</b>
S5L1M-F4	352	<b>440</b>	368	<b>460</b>	380	<b>475</b>

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	<b>365</b>	296	<b>370</b>	304	<b>380</b>
S5L1M-D4	324	<b>405</b>	332	<b>415</b>	344	<b>430</b>
S5L1M-E4	380	<b>475</b>	392	<b>490</b>	404	<b>505</b>
S5L1M-F4	404	<b>505</b>	420	<b>525</b>	432	<b>540</b>

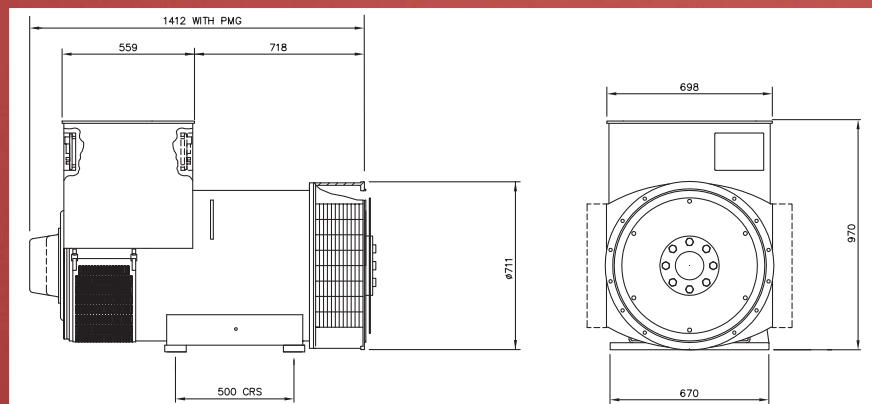
Class H (110°C) Temperature Rise, Continuous, 50°C Ambient						
Winding Number	311					
Volts	380		400		415	
Model	kW	kVA	kW	kVA	kW	kVA
S5L1M-C4	312	<b>390</b>	312	<b>390</b>	312	<b>390</b>
S5L1M-D4	348	<b>435</b>	348	<b>435</b>	348	<b>435</b>
S5L1M-E4	424	<b>530</b>	424	<b>530</b>	424	<b>530</b>
S5L1M-F4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

## 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	<b>316</b>	395	<b>332</b>	415	<b>336</b>	420
S5L1M-D4	<b>340</b>	425	<b>356</b>	445	<b>372</b>	465
S5L1M-E4	<b>412</b>	515	<b>416</b>	520	<b>424</b>	530
S5L1M-F4	<b>452</b>	565	<b>463</b>	578	<b>466</b>	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	<b>360</b>	450	<b>380</b>	475	<b>385</b>	481
S5L1M-D4	<b>390</b>	488	<b>405</b>	506	<b>425</b>	531
S5L1M-E4	<b>470</b>	588	<b>475</b>	594	<b>485</b>	606
S5L1M-F4	<b>515</b>	644	<b>525</b>	656	<b>530</b>	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	<b>388</b>	485	<b>412</b>	515	<b>416</b>	520
S5L1M-D4	<b>416</b>	520	<b>436</b>	545	<b>456</b>	570
S5L1M-E4	<b>500</b>	625	<b>510</b>	638	<b>520</b>	650
S5L1M-F4	<b>555</b>	694	<b>565</b>	706	<b>580</b>	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

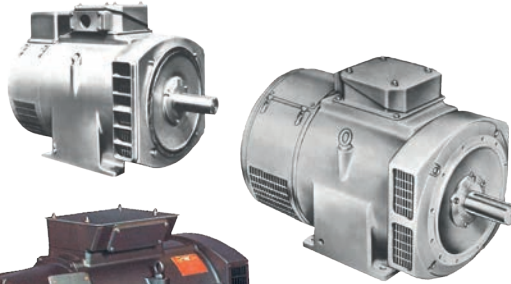
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## PRODUCT HERITAGE



**1973**

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



**1950**

World's  
First regulating  
alternator  
produced



**1966**  
C Range



**1966**

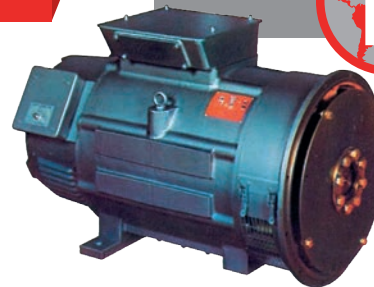
World's First  
volume produced  
brushless  
alternator



**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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