OUR DIFFERENCE? THE DETAIL.





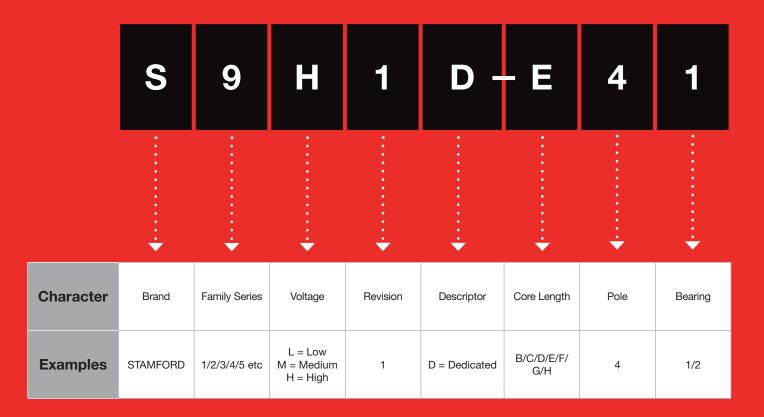


DESIGN

STAMFORD° S9

Fitted with CoreCooling™ technology

The S9 Nomenclature



STAMFORD S9 - True Class H



STAMFORD S9 Class H insulation technology delivers high resistance to mechanical and thermal stresses through the use of the latest insulation system technologies.



Developed based on over 30 years of high voltage STAMFORD®|AvK® product knowledge, and in partnership with leading industry supplier, VonRoll.



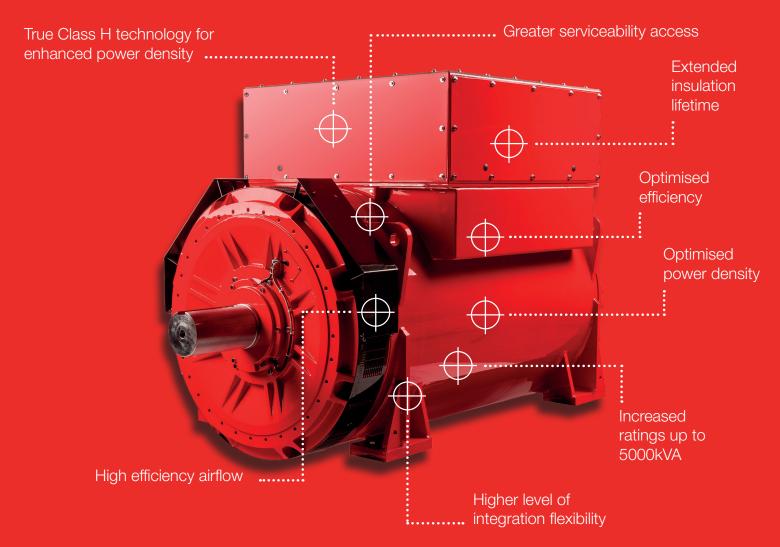
Extensive validation combined with the renowned S-Range 3 Year Warranty assures confidence in this true Class H insulation system.

The benefits of True Class H insulation system:

- ✓ Enhanced power density smaller in weight and length
- ✓ Increased insulation lifetime
- Proven robust and durable design
- ✓ Validated for continuous operation at Class H insulation temperatures

The New **STAMFORD** S9 Dedicated





Product evolution through technological revolution.

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

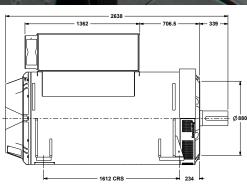
S9 Dedicated Ratings

50Hz

| | | A9985558 | | | | | |
|-----------------|------|----------|------|------|--|--|--|
| Class H 125/140 | | | | | | | |
| Winding Number | | 83* | | | | | |
| Volts | 10 | 500 | 110 | 000 | | | |
| Model | kW | kVA | kW | kVA | | | |
| S9H1D-B4 | 1840 | 2300 | 1840 | 2300 | | | |
| S9H1D-C4 | 2012 | 2515 | 2012 | 2515 | | | |
| S9H1D-D4 | 2272 | 2840 | 2272 | 2840 | | | |
| S9H1D-E4 | 2608 | 3260 | 2608 | 3260 | | | |
| S9H1D-F4 | 2980 | 3725 | 2980 | 3725 | | | |
| S9H1D-G4 | 3248 | 4060 | 3248 | 4060 | | | |
| S9H1D-H4 | 3600 | 4500 | 3600 | 4500 | | | |

| Standby 150/40 | | | | | |
|----------------|------|------|-------|------|--|
| Winding Number | 83 | | | | |
| Volts | 105 | 500 | 11000 | | |
| Model | kW | kVA | kW | kVA | |
| S9H1D-B4 | 1969 | 2461 | 1969 | 2461 | |
| S9H1D-C4 | 2153 | 2691 | 2153 | 2691 | |
| S9H1D-D4 | 2431 | 3039 | 2431 | 3039 | |
| S9H1D-E4 | 2790 | 3488 | 2790 | 3488 | |
| S9H1D-F4 | 3189 | 3986 | 3189 | 3986 | |
| S9H1D-G4 | 3475 | 4344 | 3475 | 4344 | |
| S9H1D-H4 | 3852 | 4815 | 3852 | 4815 | |

| Standby 163/27 | | T | | | |
|----------------|-------------|------|------|------|--|
| Winding Number | 83 | | | | |
| Volts | 10500 11000 | | | | |
| Model | kW | kVA | kW | kVA | |
| S9H1D-B4 | 2024 | 2530 | 2024 | 2530 | |
| S9H1D-C4 | 2214 | 2767 | 2214 | 2767 | |
| S9H1D-D4 | 2499 | 3124 | 2499 | 3124 | |
| S9H1D-E4 | 2869 | 3586 | 2869 | 3586 | |
| S9H1D-F4 | 3278 | 4098 | 3278 | 4098 | |
| S9H1D-G4 | 3573 | 4466 | 3573 | 4466 | |
| S9H1D-H4 | 3960 | 4950 | 3960 | 4950 | |



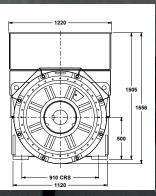
60Hz

| Class H 125/140 | | | | | | | |
|-----------------|------|-------------|------|------|------|------|--|
| Winding Number | | 91 | | | | | |
| Volts | 124 | 12470 13200 | | | 138 | 300 | |
| Model | kW | kVA | kW | kVA | kW | kVA | |
| S9H1D-B4 | 1920 | 2400 | 2028 | 2535 | 2120 | 2650 | |
| S9H1D-C4 | 2168 | 2710 | 2296 | 2870 | 2400 | 3000 | |
| S9H1D-D4 | 2384 | 2980 | 2524 | 3155 | 2640 | 3300 | |
| S9H1D-E4 | 2692 | 3365 | 2848 | 3560 | 2980 | 3725 | |
| S9H1D-F4 | 3048 | 3810 | 3224 | 4030 | 3372 | 4215 | |
| S9H1D-G4 | 3324 | 4155 | 3520 | 4400 | 3680 | 4600 | |
| S9H1D-H4 | 3612 | 4515 | 3824 | 4780 | 4000 | 5000 | |

| Standby 150/40 | | | | | | |
|----------------|------|------|------|------|------|------|
| Winding Number | | 91 | | | | |
| Volts | 12- | 470 | 132 | 200 | 138 | 300 |
| Model | kW | kVA | kW | kVA | kW | kVA |
| S9H1D-B4 | 2054 | 2568 | 2170 | 2712 | 2269 | 2836 |
| S9H1D-C4 | 2320 | 2900 | 2457 | 3071 | 2568 | 3210 |
| S9H1D-D4 | 2551 | 3189 | 2701 | 3376 | 2825 | 3531 |
| S9H1D-E4 | 2881 | 3601 | 3047 | 3809 | 3189 | 3986 |
| S9H1D-F4 | 3262 | 4077 | 3450 | 4312 | 3608 | 4510 |
| S9H1D-G4 | 3557 | 4446 | 3766 | 4708 | 3938 | 4922 |
| S9H1D-H4 | 3865 | 4831 | 4092 | 5115 | 4280 | 5350 |

| Standby 163/27 | | | | | | |
|----------------|------|------|------|------|------|--------|
| Winding Number | | 91 | | | | |
| Volts | 124 | 470 | 132 | 200 | 138 | 300 |
| Model | kW | kVA | kW | kVA | kW | kVA |
| S9H1D-B4 | 2112 | 2640 | 2231 | 2789 | 2332 | 2915 |
| S9H1D-C4 | 2385 | 2981 | 2526 | 3157 | 2640 | 3300 |
| S9H1D-D4 | 2622 | 3278 | 2777 | 3471 | 2904 | 3630 |
| S9H1D-E4 | 2962 | 3702 | 3133 | 3916 | 3278 | 4097.5 |
| S9H1D-F4 | 3353 | 4191 | 3546 | 4433 | 3709 | 4636.5 |
| S9H1D-G4 | 3657 | 4571 | 3872 | 4840 | 4048 | 5060 |
| S9H1D-H4 | 3974 | 4967 | 4206 | 5258 | 4400 | 5500 |

*Other windings are available



Specification

| 15 15 1 5 1 5 1 5 1 5 1 5 1 | |
|--------------------------------|-----------------------------|
| MODEL | S9-Dedicated |
| Ratings at 50Hz (kVA) Class H | 2150-4500 |
| Ratings at 60Hz (kVA) Class H | 2400-5000 |
| Specifications | |
| Voltage Range | 3300-13800 |
| Poles | 4 |
| Technology | Bar Wound |
| Application | Prime Power/Standby |
| AVR | DM110 |
| Voltage Sensing | 2 Phase |
| Bearing Arrangement | Single/Double |
| SAE Adaptors | SAE 0 / 00 |
| Centre Height | 500 |
| Terminals | 6 |
| Material Insulation Class | Н |
| Excitation System | PMG |
| Ingress Protection | IP23 |
| ingress Protection | IP54 Terminal Box |
| Connection with other machines | Paralleling capability |
| Bearings re-grease interval | Up to 3000 hours |
| Temperature Monitoring | Winding RTDs |
| Environmental Protection | Anti-Condensation Heater |
| Optional Features | |
| Voltage Sensing | 3 Phase sensing |
| Application | Grid |
| Centre Height | 265, 349, 450 |
| Current Transformers | 1, 2, 3 per phase |
| Earth Fault Protection | Current Transformer |
| Prime Movers | |
| Diesel Engine | ✓ |
| On a Francisco | , |

Accessories

| 2 | Factory Build Options |
|---|----------------------------|
| | Anti-Condensation Heater |
| | Quadrature Droop Kit |
| | Bearing RTD (Each Bearing) |
| | Air Inlet Filter |
| | Excitation Loss Module |
| 1 | Diode Failure Detector |
| 1 | Air Inlet Cover |

| Available With | DM110 | DECS150 | Unitrol |
|----------------------------|-------|---------|---------|
| Current Sensing Kit | 1 | 1 | ✓ |
| Controlled Short Circuit | 1 | 1 | ✓ |
| Manual Voltage Regulator | 1 | 1 | ✓ |
| Frequency Detection Module | 1 | 1 | ✓ |
| Power Factor Controller | 1 | 1 | 1 |
| Remote Control Interface | 1 | 1 | ✓ |
| Dual AVR | 1 | 1 | ✓ |

| Voltage Regulator Options | With PMG |
|---------------------------|-------------|
| no AVR | 1 |
| DM110 | 1 |
| DECS100 | 1 |
| DECS 150 | 1 |
| Unitrol 1010 | 1 |
| Deif DVC310 | 1 |
| DVR2 | 1 |

Gas Engine

^{*}GA Drawings are indicative of S9D-G/H core dimensions

^{**}Please contact our applications department for additional voltages that are available

^{***}Ratings are preliminary and are subject to change



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

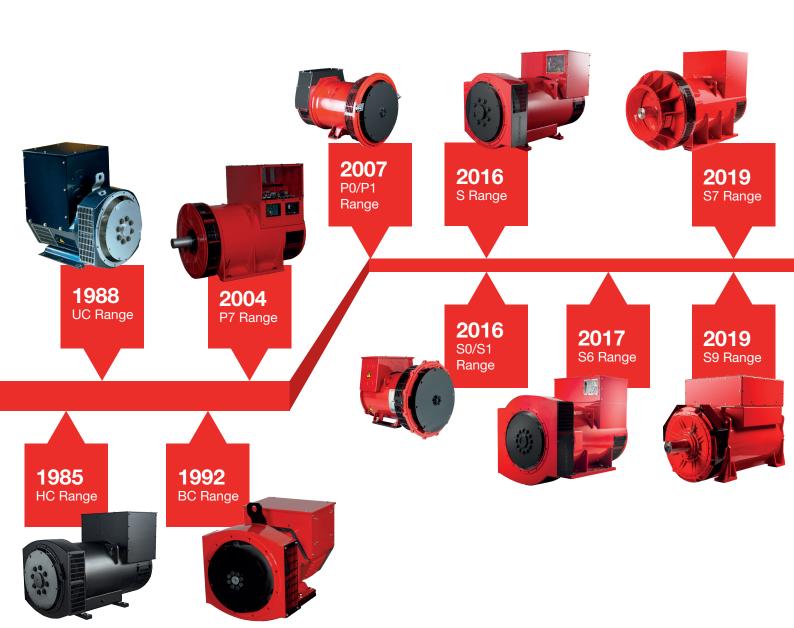
World's First volume produced brushless alternator

1973 AC Range

1958

World's First rotating field alternator produced





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