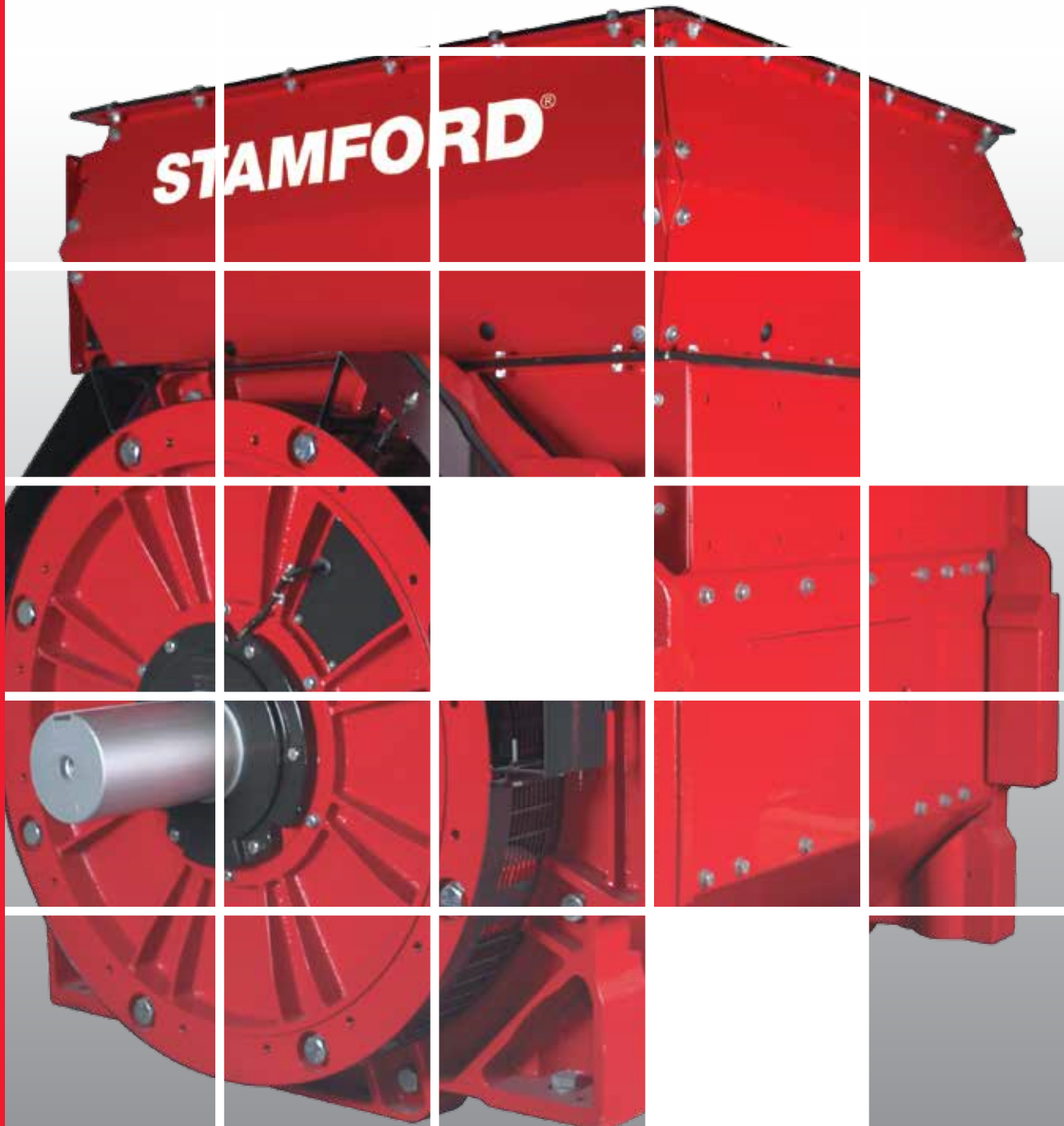




**Generator
Technologies**

STAMFORD® P80 Range Low, Medium and High Voltage Alternators



High Quality Build

We have been providing long term value for our customers for over 100 years. Our alternators are renowned for superior build quality, longevity and electrical safety. The **STAMFORD** P80 range of industrial alternators, embody these features. This range of 4-pole, single or double bearing, AVR controlled alternators encompasses 2,000kVA to 5,000kVA in low, medium and high voltages (up to 690V, 4,160V and 13,800V respectively). The **STAMFORD** P80 design features an innovative light-weight modular construction providing a highly optimised power to weight ratio.

Low Voltage Continuous Ratings			50Hz	60Hz
P80 LVSI804	4 pole	kVA	2200 - 3900	2600 - 4400
		kW	1800 - 3100	2000 - 3500
Medium Voltage Continuous Ratings				
P80 MVSII804	4 pole	kVA	2600 - 4200	3150 - 5100
		kW	2100 - 3400	2500 - 4100
High Voltage Continuous Ratings				
P80 HVSII804	4 pole	kVA	2100 - 3800	2400 - 4700
		kW	1700 - 3100	1900 - 3800

The **STAMFORD** P80 complies with numerous industrial standards, some of which include:

- UL
- BS5000
- VDE 0530
- CSA C22.2-100
- AS1359
- IEC60034

Product Features	Benefits
STAMFORD I AvK DM110 AVR	High specification digital AVR giving powerful excitation capability. Includes many features for different applications and alternator protection
PMG Excitation System	Isolated "clean" power supply for AVR also offering excellent sustained short circuit capability
VPI Insulation System	Strengthened winding outhangs which provide very robust and durable winding
Re-greasable deep groove ball bearings	Designed for durability and good life expectancy
Robust and flexible terminal box design	Flexible to allow multiple different customer connections and designed to minimise vibrations

Product Options	Benefits
Resistance Temperature Detector (RTD) sensors are fitted in the stator, 2 per phase	Advance warning of winding over-heating to help prevent catastrophic failure
Engine adaptors to SAE 0,00 and coupling discs to SAE 18, 21 & 24	Suits most standard diesel and gas engine arrangements
Bearing RTDs	Offers early warning of potential bearing failure
Grid Code Compatible	Designed to meet global grid code regulations for grid compliant generator sets
Vibration Monitor Positions	Provides platform for fitting vibration sensors for predictive maintenance. Helps to identify a significant change which is indicative of a developing fault
Customer Witness Tests	Customers may wish to witness the "Routine Tests" or any additional machine tests
Air Inlet Filters	To protect the machine against ingress of dust
Current Transformers	Provides output signal for metering and differential protection
Paint Finish	Top coat of paint in any RAL colour eliminating need for customer painting
Excitation Loss Module	Monitors the excitation to the alternator. On loss of excitation, an output relay is energised which can be used to initiate an alarm or protective device
Excitation Circuit Breaker	Provides a method of disconnecting excitation under fault conditions
RFI Suppressor Kit	Limits radio frequency interference levels in susceptible applications
Anti-Condensation Heater	Keeps the windings dry in applications of high humidity
Diode Failure Detector	Protects alternator from damage caused by failure of the rotating rectifier diodes

Built for Your Requirements

Through best-in-class design and manufacturing, the **STAMFORD** P80 is suitable for multiple different modes of operation, specifically in a standby, prime power and critical protection applications.

Prime Power

- Peak Shaving/Lopping
- Island Mode
- Mining

Critical Standby

- Hospitals
- Data Centres

Standby

- Shopping Centres
- Large Manufacturing Facilities



Production Facility Upgrade

Following a multi-million dollar investment in the Stamford, UK manufacturing site, a new purpose built, world class production facility has been opened, dedicated to production of **STAMFORD** P80 alternators. The new facility is located on the existing Barnack Road site, at the home of **STAMFORD** in the UK.

The new factory will not only be able to meet increased demand, but also offers advanced

manufacturing and test facilities ensuring all P80 alternators are of the highest quality to meet the rigorous demands of our customer's applications.

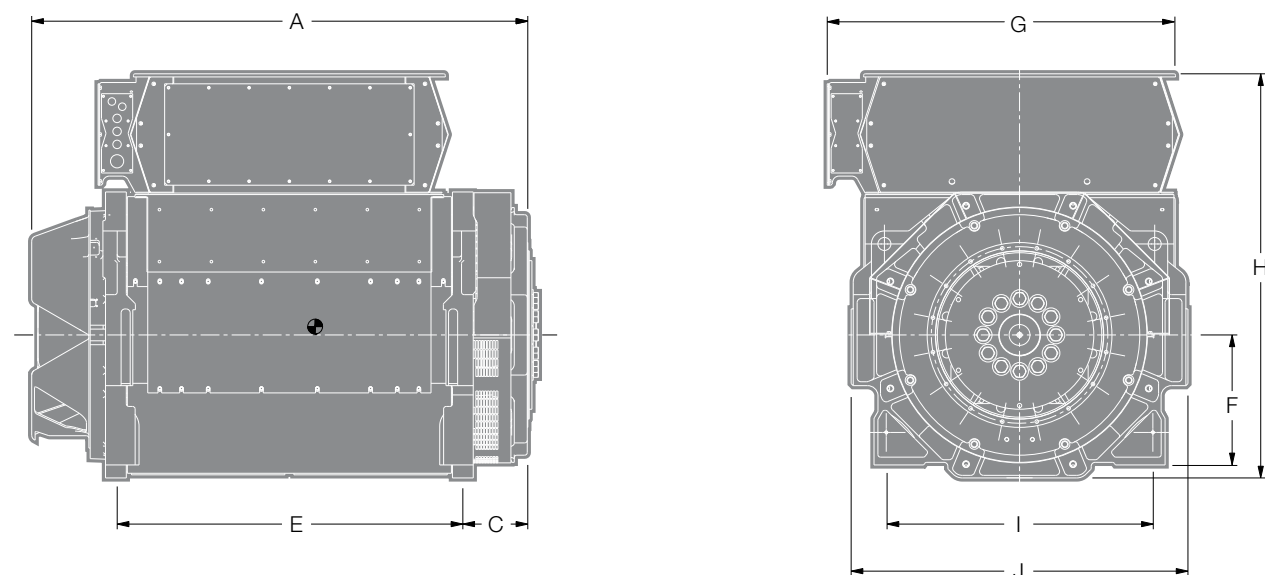
Other benefits realised from the upgrade include:

- World class safety for our employees
- Purpose built flow line
- Reduced lead-times
- Engineered material flow
- Fully integrated test process
- Fully integrated paint process

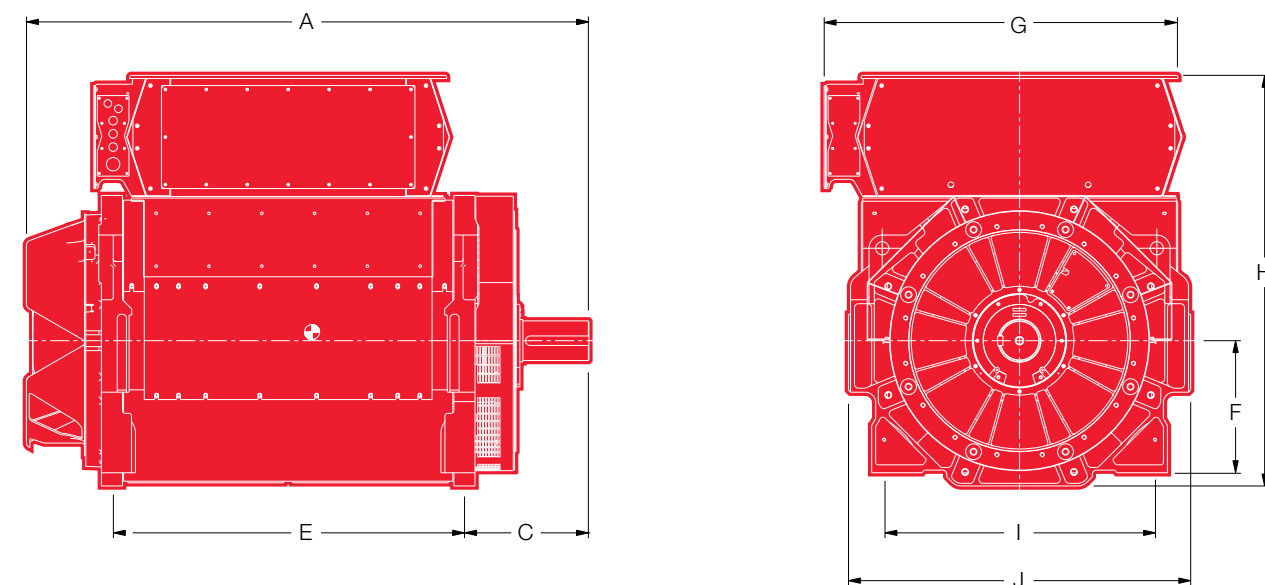


Critical Dimension Drawings

Reference only - Dimensions not for construction



1 BEARING									
Core	A	C	E	F	G	H	I	J	Net M/C Weight
R	1909	269	1297	500	1356	1555	910	1296	5561
S	1909	269	1297	500	1356	1555	910	1296	5837
T	1909	269	1297	500	1356	1555	910	1296	6248



2 BEARING									
Core	A	C	E	F	G	H	I	J	Net M/C Weight
R	2130	490	1297	500	1356	1555	910	1296	5721
S	2130	490	1297	500	1356	1555	910	1296	5998
T	2130	490	1297	500	1356	1555	910	1296	6409
W	2528	573	1612	500	1356	1555	910	1296	8085
X	2528	573	1612	500	1356	1555	910	1296	8144
Y	2528	573	1612	500	1356	1555	910	1296	8435

Diagrams for illustration purposes only, dimensions are subject to change without notification. All dimensions in mm and weight in kg.

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 **STAMFORD** P80 alternator, 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/productselector



P80 Nominal Ratings

Low Voltage 50 Hz (1500rpm)

Power Factor		0.8									
Connection		Star (3 Phase, 6 wire)									
Temp Rise/Ambient		Class H 150/40°C					Class H 125/40°C				
Rating		Standby					Continuous				
Voltage		380V	400V	415V	440V	660-690V	380V	400V	415V	440V	660-690V
Winding No.		12	12	12	12	65	12	12	12	12	65
LVSI 804R	kVA	2445	2575	2575	2420	-	2290	2410	2410	2265	-
	kW	1956	2060	2060	1936	-	1832	1928	1928	1812	-
LVSI 804S	kVA	2835	2985	2985	2805	-	2650	2790	2790	2620	-
	kW	2268	2388	2388	2244	-	2120	2232	2232	2096	-
LVSI 804T	kVA	3095	3260	3260	3065	3025	2895	3050	3050	2865	2830
	kW	2476	2608	2608	2452	2420	2316	2440	2440	2292	2264
LVSI 804W	kVA	3610	3800	3800	3570	3550	3375	3555	3555	3340	3320
	kW	2888	3040	3040	2856	2840	2700	2844	2844	2672	2656
LVSI 804X	kVA	3970	4180	4180	3970	-	3715	3911	3911	3675	-
	kW	3176	3344	3344	3176	-	2972	3129	3129	2940	-
LVSI 804Y	kVA	-	-	-	-	4065	-	-	-	-	3800
	kW	-	-	-	-	3252	-	-	-	-	3040

Power Factor		0.8									
Connection		Star (3 Phase, 6 wire)									
Temp Rise/Ambient		Class F 105/40°C					Class B 80/40°C				
Rating		Continuous					Continuous				
Voltage		380V	400V	415V	440V	660-690V	380V	400V	415V	440V	660-690V
Winding No.		12	12	12	12	65	12	12	12	12	65
LVSI 804R	kVA	2100	2210	2210	2075	-	1830	1930	1930	1815	-
	kW	1680	1768	1768	1660	-	1464	1544	1544	1452	-
LVSI 804S	kVA	2430	2560	2560	2405	-	2125	2240	2240	2105	-
	kW	1944	2048	2048	1924	-	1700	1792	1792	1684	-
LVSI 804T	kVA	2660	2800	2800	2630	2560	2325	2450	2450	2300	2170
	kW	2128	2240	2240	2104	2048	1860	1960	1960	1840	1736
LVSI 804W	kVA	3155	3322	3322	3122	3020	2740	2887	2887	2715	2560
	kW	2524	2658	2658	2498	2416	2192	2310	2310	2172	2048
LVSI 804X	kVA	3470	3655	3655	3435	-	3015	3177	3177	2980	-
	kW	2776	2924	2924	2748	-	2412	2542	2542	2384	-
LVSI 804Y	kVA	-	-	-	-	3535	-	-	-	-	3080
	kW	-	-	-	-	2828	-	-	-	-	2464

P80 Nominal Ratings

Low Voltage 60 Hz (1800rpm)

Power Factor		0.8											
Connection		Star (3 Phase, 6 wire)											
Temp Rise/Ambient		Class H 150/40°C						Class H 125/40°C					
Rating		Standby						Continuous					
Voltage		380V	416V	440V	460V	480V	600V	380V	416V	440V	460V	480V	600V
Winding No.		13	12	12	12	12	07	13	12	12	12	12	07
LVSI 804R	kVA	3015	2780	2940	3066	3200	-	2825	2600	2750	2875	3000	-
	kW	2412	2224	2352	2453	2560	-	2260	2080	2200	2300	2400	-
LVSI 804S	kVA	3470	3105	3285	3436	3585	3325	3250	2900	3070	3210	3350	3110
	kW	2776	2484	2628	2749	2868	2660	2600	2320	2456	2568	2680	2488
LVSI 804T	kVA	3630	3390	3590	3753	3915	-	3400	3170	3355	3508	3660	-
	kW	2904	2712	2872	3002	3132	-	2720	2536	2684	2806	2928	-
LVSI 804W	kVA	4000	3841	4060	4245	4430	4430	3750	3590	3800	3969	4142	4142
	kW	3200	3072	3248	3396	3544	3544	3000	2872	3040	3175	3314	3314
LVSI 804X	kVA	-	4130	4370	4571	4770	4770	-	3870	4090	4278	4464	4464
	kW	-	3304	3496	3657	3816	3816	-	3096	3272	3422	3571	3571

Power Factor		0.8											
Connection		Star (3 Phase, 6 wire)											
Temp Rise/Ambient		Class F 105/40°C						Class B 80/40°C					
Rating		Continuous						Continuous					
Voltage		380V	416V	440V	460V	480V	600V	380V	416V	440V	460V	480V	600V
Winding No.		13	12	12	12	12	07	13	12	12	12	12	07
LVSI 804R	kVA	2590	2385	2520	2635	2750	-	2260	2080	2200	2300	2400	-
	kW	2072	1908	2016	2108	2200	-	1808	1664	1760	1840	1920	-
LVSI 804S	kVA	2975	2665	2820	2948	3075	2820	2630	2325	2455	2569	2680	2370
	kW	2380	2132	2256	2358	2460	2256	2104	1860	1964	2055	2144	1896
LVSI 804T	kVA	3130	2910	3080	3220	3360	-	2750	2600	2750	2875	3000	-
	kW	2504	2328	2464	2576	2688	-	2200	2080	2200	2300	2400	-
LVSI 804W	kVA	3450	3350	3550	3710	3871	3871	3030	2915	3085	3224	3364	3364
	kW	2760	2680	2840	2968	3097	3097	2424	2332	2468	2579	2691	2691
LVSI 804X	kVA	-	3615	3820	3998	4172	4172	-	3140	3300	3474	3625	3625
	kW	-	2892	3056	3198	3338	3338	-	2512	2624	2779	2900	2900

P80 Nominal Ratings

Medium Voltage 50 Hz (1500rpm)

Power Factor		0.8			
Connection		Star (3 Phase, 6 wire)			
Temp. Rise/Ambient		Class H 150/40°C	Class H 125/40°C	Class F 105/40°C	Class B 80/40°C
Rating		Standby	Continuous	Continuous	Countinuous
Voltage		3300V	3300V	3300V	3300V
Winding No.		51	51	51	51
MVS1 804R	kVA	2835	2650	2400	2100
	kW	2268	2120	1920	1680
MVS1 804S	kVA	3100	2900	2660	2330
	kW	2480	2320	2128	1864
MVS1 804T	kVA	3370	3160	2940	2590
	kW	2696	2528	2352	2072
MVS1 804W	kVA	3960	3718	3475	3114
	kW	3168	2974	2780	2491
MVS1 804X	kVA	4520	4253	3975	3562
	kW	3616	3402	3180	2850

Medium Voltage 60 Hz (1800rpm)

Power Factor		0.8			
Connection		Star (3 Phase, 6 wire)			
Temp Rise/Ambient		Class H 150/40°C	Class H 125/40°C	Class F 105/40°C	Class B 80/40°C
Rating		Standby	Continuous	Continuous	Countinuous
Voltage		4160V	4160V	4160V	4160V
Winding No.		51	51	51	51
MVS1 804R	kVA	3370	3150	2880	2520
	kW	2696	2520	2304	2016
MVS1 804S	kVA	3775	3530	3250	2820
	kW	3020	2824	2600	2256
MVS1 804T	kVA	4160	3900	3630	3180
	kW	3328	3120	2904	2544
MVS1 804W	kVA	4780	4494	4200	3650
	kW	3824	3595	3360	2920
MVS1 804X	kVA	5520	5190	4850	4215
	kW	4416	4152	3880	3372

P80 Nominal Ratings

High Voltage 50 Hz (1500rpm)

Power Factor		0.8								
Connection		Star (3 Phase, 6 wire)								
Temp Rise/Ambient		Class F 125/40°C			Class F 105/40°C			Class B 80/40°C		
Rating		Standby			Continuous			Continuous		
Voltage		6000V	6300V	6600V	6000V	6300V	6600V	6000V	6300V	6600V
Winding No.		71	61	61	71	61	61	71	61	61
HVS1 804R	kVA	2400	2291	2400	2250	2148	2250	1950	1861	1950
	kW	1920	1833	1920	1800	1718	1800	1560	1489	1560
HVS1 804S	kVA	2695	2573	2695	2520	2405	2520	2200	2100	2200
	kW	2156	2058	2156	2016	1924	2016	1760	1680	1760
HVS1 804T	kVA	3075	2935	3075	2875	2744	2875	2480	2368	2480
	kW	2460	2348	2460	2300	2195	2300	1984	1894	1984
HVS1 804W	kVA	3640	3475	3640	3410	3255	3410	2970	2835	2970
	kW	2912	2780	2912	2728	2604	2728	2376	2268	2376
HVS1 804X	kVA	4140	3952	4140	3875	3699	3875	3370	3226	3380
	kW	3312	3162	3312	3100	2959	3100	2696	2581	2704

Power Factor		0.8								
Connection		Star (3 Phase, 6 wire)								
Temp Rise/Ambient		Class F 125/40°C			Class F 105/40°C			Class B 80/40°C		
Rating		Standby			Continuous			Continuous		
Voltage		10000V	10500V	11000V	10000V	10500V	11000V	10000V	10500V	11000V
Winding No.		81	83	83	81	83	83	81	83	83
HVS1 804R	kVA	2430	2320	2430	2270	2168	2270	2000	1909	2000
	kW	1944	1856	1944	1816	1734	1816	1600	1527	1600
HVS1 804S	kVA	2690	2568	2690	2515	2401	2515	2200	2100	2200
	kW	2152	2054	2152	2012	1921	2012	1760	1680	1760
HVS1 804T	kVA	3035	2897	3035	2840	2711	2840	2500	2386	2500
	kW	2428	2318	2428	2272	2169	2272	2000	1909	2000
HVS1 804W	kVA	3470	3312	3470	3259	3111	3259	2830	2701	2830
	kW	2776	2650	2776	2607	2489	2607	2264	2161	2264
HVS1 804X	kVA	3960	3780	3960	3724	3555	3724	3240	3093	3240
	kW	3168	3024	3168	2980	2844	2980	2592	2474	2592

P80 Nominal Ratings

High Voltage 60 Hz (1800rpm)

Power Factor		0.8								
Connection		Star (3 Phase, 6 wire)								
Temp Rise/Ambient		Class F 125/40°C			Class F 105/40°C			Class B 80/40°C		
Rating		Standby			Continuous			Continuous		
Voltage		7200V	11400V	12470V	7200V	11400V	12470V	7200V	11400V	12470V
Winding No.		71	81	87	71	81	87	71	81	87
HVS1 804R	kVA	3075	2770	2840	2875	2588	2650	2510	2280	2312
	kW	2460	2216	2272	2300	2070	2120	2008	1824	1850
HVS1 804S	kVA	3360	3065	3090	3140	2868	2900	2750	2505	2535
	kW	2688	2452	2472	2512	2294	2320	2200	2004	2028
HVS1 804T	kVA	3775	3460	-	3530	3238	-	3080	2850	-
	kW	3020	2768	-	2824	2590	-	2464	2280	-
HVS1 804W	kVA	4490	3950	-	4200	3715	-	3660	3226	-
	kW	3592	3160	-	3360	2970	-	2928	2581	-
HVS1 804X	kVA	5080	4510	-	4750	4245	-	4130	3694	-
	kW	4064	3608	-	3800	3396	-	3304	2955	-

Power Factor		0.8								
Connection		Star (3 Phase, 6 wire)								
Temp Rise/Ambient		Class F 125/40°C			Class F 105/40°C			Class B 80/40°C		
Rating		Standby			Continuous			Continuous		
Voltage: Star		12470V	13200V	13800V	12470V	13200V	13800V	12470V	13200V	13800V
Winding No.		91	91	91	91	91	91	91	91	91
HVS1 804R	kVA	2570	2720	2840	2400	2535	2650	2080	2200	2312
	kW	2056	2176	2272	1920	2030	2120	1664	1760	1850
HVS1 804S	kVA	2900	3070	3200	2710	2870	3000	2355	2490	2625
	kW	2320	2456	2560	2168	2296	2400	1884	1992	2100
HVS1 804T	kVA	3185	3375	3530	2980	3155	3300	2590	2740	2880
	kW	2548	2700	2824	2384	2524	2640	2072	2192	2304
HVS1 804W	kVA	3580	3790	3960	3365	3560	3724	2930	3100	3240
	kW	2864	3032	3168	2692	2848	2979	2344	2488	2592
HVS1 804X	kVA	4050	4295	4490	3810	4030	4214	3300	3500	3660
	kW	3240	3436	3592	3048	3224	3371	2640	2800	2928

Guaranteed **STAMFORD**

We guarantee that every product we produce matches the quality, robustness and proven performance you expect from the **STAMFORD** range. Built to our quality assured standards, **STAMFORD** products benefit from a global support network, extensive research and development, and world-leading expertise.

Where people need power, businesses rely on genuine **STAMFORD** alternators. Proven expertise in design, development, manufacturing, customer support and servicing, ensures quality in every aspect of our business. Visit genuine-stamford.com to find out

how we are protecting our customers and their businesses against the dangers of illegal, counterfeit and imitation products and taking action.



The Power of More™

Selecting the right alternator for the right application in today's complex world is our goal - making your life simpler. We understand the performance requirements that each application and operating environment demands. Our knowledgeable and experienced Customer Engineers align individual customers' power needs with the most suitable alternator specification.

We take pride in our global reputation for Technical Support and After Sales Service, continually adding new, trained engineers in locations near to our customers, worldwide.

Cummins engineers are experienced professionals trained in electrical, electronic and mechanical engineering and are ready to help at any point in the **STAMFORD** P80 alternator lifecycle, minimising risk of unexpected downtime.

- What this means to you:
- 24 hour response to service emergencies, 7 days a week
 - Trained engineers available locally, speaking the local language
 - Commissioning of alternators onsite
 - Onsite bearing maintenance and bearing condition monitoring
 - Onsite insulation integrity checks
 - AVR and accessories set up onsite
 - Extensive aftermarket distribution for genuine **STAMFORD** P80 parts

Applications Support Email:
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Customer Service Help Desk:
Phone: **+44 (0)1780 484732** (24 hours)

Email: **service-engineers@cumminsgeneratortechnologies.com**



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Part No. PG_P80_S_EN_TS Rev. 01

