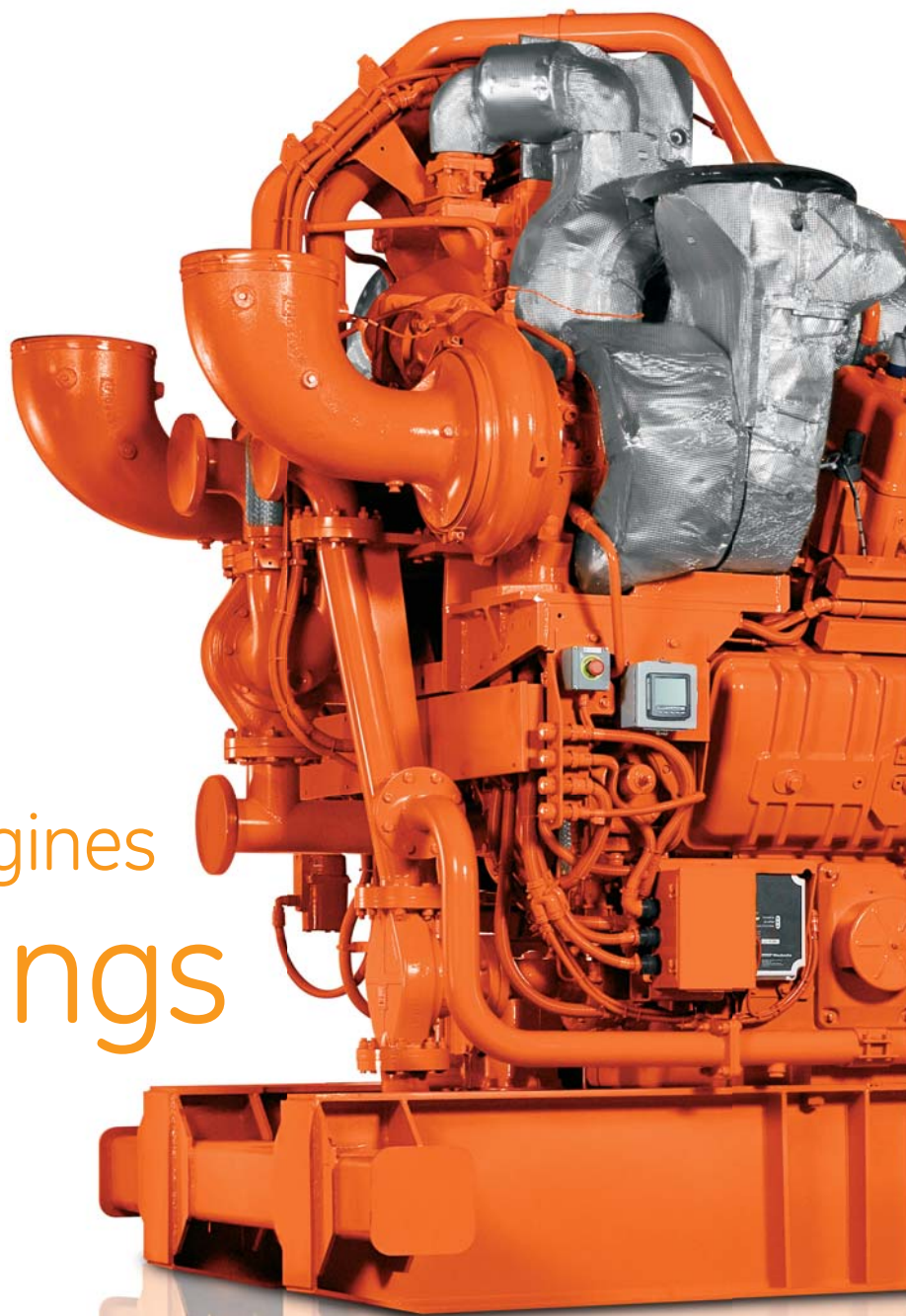


GE Power & Water  
Gas Engines



# Waukesha\* gas engines power ratings



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# Gas Compression & Mechanical Drives

## Natural Gas Fueled Engines

### Continuous Duty

#### 275GL\*

Model	Disp.	I.C. Water Temp. (Tcra)	C.R.	750 rpm		800 rpm		900 rpm		1000 rpm	
				bhp	kWb	bhp	kWb	bhp	kWb	bhp	kWb
16V 275GL+	17,398 in <sup>3</sup> (285 L)	130°F 54°C	9:1	3625	2703	3870	2886	4350	3244	4835	3605
12V 275GL+	13,048 in <sup>3</sup> (214 L)		9:1	2720	2028	2900	2163	3265	2435	3625	2703

#### VHP\*

Model	Disp.	I.C. Water Temp. (Tcra)	C.R.	800 rpm		900 rpm		1000 rpm		1200 rpm	
				bhp	kWb	bhp	kWb	bhp	kWb	bhp	kWb
P9390GSI	9388 in <sup>3</sup> (154 L)	9.375 x 8.5" (238 x 216 mm)	8:1	1320	984	1485	1107	1650	1230	1980	1476
P9390GL			10.5:1	1320 <sup>2</sup>	984 <sup>2</sup>	1485 <sup>2</sup>	1107 <sup>2</sup>	1650 <sup>2</sup>	1230 <sup>2</sup>	1980 <sup>2</sup>	1476 <sup>2</sup>
L7044GSI			8:1	1120 <sup>1</sup>	835 <sup>1</sup>	1260 <sup>1</sup>	940 <sup>1</sup>	1400 <sup>1</sup>	1044 <sup>1</sup>	1680 <sup>1</sup>	1253 <sup>1</sup>
L7042GSI	7040 in <sup>3</sup> (116 L)	9.375 x 8.5" (238 x 216 mm)	8:1	987 <sup>1</sup>	736 <sup>1</sup>	1110 <sup>1</sup>	828 <sup>1</sup>	1233 <sup>1</sup>	920 <sup>1</sup>	1480 <sup>1</sup>	1104 <sup>1</sup>
L7042GL			10.5:1	987 <sup>2</sup>	736 <sup>2</sup>	1110 <sup>2</sup>	830 <sup>2</sup>	1233 <sup>2</sup>	920 <sup>2</sup>	1480 <sup>2</sup>	1104 <sup>2</sup>
L7042G			10:1	732	546	818	610	896	668	1025	764
L5794GSI			8.2:1	920 <sup>1</sup>	686 <sup>1</sup>	1035 <sup>1</sup>	772 <sup>1</sup>	1150 <sup>1</sup>	858 <sup>1</sup>	1380 <sup>1</sup>	1029 <sup>1</sup>
L5794LT	5788 in <sup>3</sup> (95 L)	8.5 x 8.5" (216 x 216 mm)	10.2:1	625	466	1005	749	1208 <sup>1</sup>	901 <sup>1</sup>	1450 <sup>1</sup>	1081 <sup>1</sup>
L5774LT			10.2:1	625	466	934	696	1067	795	1280	954
L5790G			10:1	604	450	672	501	738	550	845	630
F3524GSI			8:1	560 <sup>1</sup>	418 <sup>1</sup>	630 <sup>1</sup>	470 <sup>1</sup>	700 <sup>1</sup>	522 <sup>1</sup>	840 <sup>1</sup>	626 <sup>1</sup>
F3514GSI	3520 in <sup>3</sup> (58 L)	9.375 x 8.5" (238 x 216 mm)	8:1	493 <sup>1</sup>	368 <sup>1</sup>	555 <sup>1</sup>	414 <sup>1</sup>	617 <sup>1</sup>	460 <sup>1</sup>	740 <sup>1</sup>	552 <sup>1</sup>
F3521GL			10.5:1	492	367	554	413	615	459	738	550
F3521G			10:1	366	273	409	305	448	334	515	384

#### VGf\*

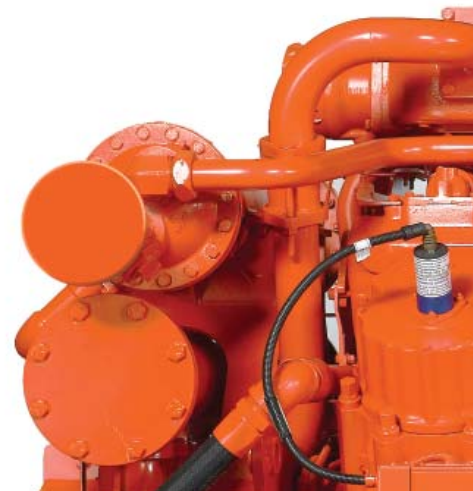
Model	Disp.	I.C. Water Temp. (Tcra)	C.R.	1200 rpm		1400 rpm		1500 rpm		1600 rpm		1800 rpm	
				bhp	kWb	bhp	kWb	bhp	kWb	bhp	kWb	bhp	kWb
P48GSI/GSID	2924 in <sup>3</sup> (48 L)	5.98 x 6.5" (152 x 165 mm)	8.6:1	—	—	830	620	885	660	945	705	1065	800
P48GL/GLD			11:1	710 <sup>4</sup>	530 <sup>4</sup>	830 <sup>4</sup>	620 <sup>4</sup>	885 <sup>4</sup>	660 <sup>4</sup>	945 <sup>4</sup>	705 <sup>4</sup>	1065 <sup>4</sup>	800 <sup>4</sup>
P48GL/GLD			11:1	—	—	910 <sup>3</sup>	680 <sup>3</sup>	975 <sup>3</sup>	730 <sup>3</sup>	1040 <sup>3</sup>	775 <sup>3</sup>	1175 <sup>3</sup>	880 <sup>3</sup>
L36GSI/GSID			8.6:1	—	—	620	460	670	500	710	530	800	600
L36GL/GLD	2193 in <sup>3</sup> (36 L)	5.98 x 6.5" (152 x 165 mm)	11:1	—	—	620	460	670	500	710	530	800	600
L36GL			8.7:1	—	—	620	460	670	500	710	530	800	600
L36GL/GLD			11:1	—	—	685 <sup>3</sup>	510 <sup>3</sup>	735 <sup>3</sup>	550 <sup>3</sup>	780 <sup>3</sup>	580 <sup>3</sup>	880 <sup>3</sup>	660 <sup>3</sup>
H24GSI/GSID			8.6:1	—	—	415	310	445	330	475	355	530	400
H24GL/GLD	1462 in <sup>3</sup> (24 L)	5.98 x 6.5" (152 x 165 mm)	11:1	355 <sup>4</sup>	265 <sup>4</sup>	415 <sup>4</sup>	310 <sup>4</sup>	445 <sup>4</sup>	330 <sup>4</sup>	475 <sup>4</sup>	355 <sup>4</sup>	530 <sup>4</sup>	400 <sup>4</sup>
H24GL			8.7:1	—	—	415	310	445	330	475	355	530	400
H24GL/GLD			11:1	—	—	455 <sup>3</sup>	340 <sup>3</sup>	490 <sup>3</sup>	365 <sup>3</sup>	520 <sup>3</sup>	390 <sup>3</sup>	585 <sup>3</sup>	440 <sup>3</sup>
H24G			11:1	215	160	250	186	265	198	285	213	320	239
F18GSI/GSID			8.6:1	—	—	310	230	335	250	355	265	400	300
F18GL/GLD	1096 in <sup>3</sup> (18 L)	5.98 x 6.5" (152 x 165 mm)	11:1	—	—	310	230	335	250	355	265	400	300
F18GL			8.7:1	—	—	310	230	335	250	355	265	400	300
F18GL/GLD			11:1	—	—	340 <sup>3</sup>	255 <sup>3</sup>	365 <sup>3</sup>	275 <sup>3</sup>	390 <sup>3</sup>	290 <sup>3</sup>	440 <sup>3</sup>	330 <sup>3</sup>
F18G			11:1	160	119	185	138	200	149	215	160	240	179

- 1 Engine available with Low Fuel Pressure System (LFPS) with the same ratings. Refer to Technical Data for LFPS ambient and altitude adjustments.
- 2 Engine ratings are 700-1000 rpm for low speed turbocharger operation and 1000-1200 rpm for high speed turbocharger operation.
- 3 These power ratings require pricebook option Code 1100 (176 BMEP) and DSM. They are available continuously when applied per WKI® Power and Timing Curve S7079-19. It is permissible to operate at up to 5% overload for two hours in each 24 hour period.
- 4 Inline engine ratings are 1200 - 1400 rpm for low speed turbocharger operation and 1400 - 1800 rpm for high speed turbocharger operation. Vee engine ratings are 1100 - 1600 rpm for low speed turbocharger operation and 1400 - 1800 rpm for high speed turbocharger operation.

#### Notes:

- 10% overload allowed for two hours in every 24 hour period for L7044GSI, L5794GSI, F3524GSI and F3514GSI engine models.
- Ratings for lower intercooler water temperature available upon request—contact Application Engineering.

ISO Standard Power (Continuous Power Rating): The highest load and speed which can be applied 24 hours per day, seven days per week, 365 days per year except for normal maintenance. It is permissible to operate the engine at up to 10% overload or the maximum load indicated by the intermittent rating, whichever is lower, for two hours in every 24 hour period.



# Mechanical Drives

## Natural Gas Fueled Engines

### Intermittent Duty

#### 275GL\*

Model	Disp.	I.C. Water Temp. (T <sub>cra</sub> ) 130°F 54°C	Bore & Stroke	C.R.	750 rpm		800 rpm		900 rpm		1000 rpm	
					bhp	kWb	bhp	kWb	bhp	kWb	bhp	kWb
16V 275GL+	17,398 in <sup>3</sup> (285 L)		10.83 x 11.81" (275 x 300 mm)	9:1	3625	2703	3870	2886	4350	3244	4835	3605
12V 275GL+	13,048 in <sup>3</sup> (214 L)		10.83 x 11.81" (275 x 300 mm)	9:1	2720	2028	2900	2163	3265	2435	3625	2703

#### VHP\*

Model	Disp.	Bore & Stroke	C.R.	800 rpm		900 rpm		1000 rpm		1200 rpm	
				bhp	kWb	bhp	kWb	bhp	kWb	bhp	kWb
P9390GSI	9388 in <sup>3</sup> (154 L)	9.375 x 8.5" (238 x 216 mm)	8:1	1631	1216	1835	1368	2039	1520	2447	1825
P9390GL			10.5:1	1445 <sup>2</sup>	1078 <sup>2</sup>	1626 <sup>2</sup>	1213 <sup>2</sup>	1806 <sup>2</sup>	1347 <sup>2</sup>	2167 <sup>2</sup>	1616 <sup>2</sup>
L7044GSI			8:1	1120	836	1260	940	1400	1044	1680	1253
L7042GSI	7040 in <sup>3</sup> (116 L)	9.375 x 8.5" (238 x 216 mm)	8:1	1223 <sup>1</sup>	912 <sup>1</sup>	1376 <sup>1</sup>	1026 <sup>1</sup>	1528 <sup>1</sup>	1139 <sup>1</sup>	1834 <sup>1</sup>	1368 <sup>1</sup>
L7042GL			10.5:1	1084 <sup>2</sup>	808 <sup>2</sup>	1219 <sup>2</sup>	909 <sup>2</sup>	1355 <sup>2</sup>	1010 <sup>2</sup>	1626 <sup>2</sup>	1213 <sup>2</sup>
L7042G			10:1	824	614	920	686	1008	752	1152	859
L5794GSI	5788 in <sup>3</sup> (95 L)	8.5 x 8.5" (216 x 216 mm)	8.2:1	920 <sup>1</sup>	686 <sup>1</sup>	1035 <sup>1</sup>	772 <sup>1</sup>	1150 <sup>1</sup>	858 <sup>1</sup>	1380 <sup>1</sup>	1029 <sup>1</sup>
L5794LT			10.2:1	—	—	—	—	1315 <sup>1</sup>	981 <sup>1</sup>	1580 <sup>1</sup>	1178 <sup>1</sup>
L5790G			10:1	678	506	756	564	830	619	946	705
F3524GSI	3520 in <sup>3</sup> (58 L)	9.375 x 8.5" (238 x 216 mm)	8:1	560 <sup>1</sup>	418 <sup>1</sup>	630 <sup>1</sup>	470 <sup>1</sup>	700 <sup>1</sup>	522 <sup>1</sup>	840 <sup>1</sup>	627 <sup>1</sup>
F3514GSI			8:1	495 <sup>1</sup>	367 <sup>1</sup>	555 <sup>1</sup>	413 <sup>1</sup>	615 <sup>1</sup>	459 <sup>1</sup>	740 <sup>1</sup>	550 <sup>1</sup>
F3521G			10:1	412	307	460	343	504	376	576	430

#### VGF\*

Model	Disp.	Bore & Stroke	C.R.	1200 rpm		1400 rpm		1500 rpm		1600 rpm		1800 rpm	
				bhp	kWb	bhp	kWb	bhp	kWb	bhp	kWb	bhp	kWb
P48GSI/GSID	2924 in <sup>3</sup> (48 L)	5.98 x 6.5" (152 x 165 mm)	8.6:1	—	—	910	680	975	730	1040	775	1175	880
P48GL/GLD			11:1	785 <sup>4</sup>	585 <sup>4</sup>	910 <sup>4</sup>	680 <sup>4</sup>	975 <sup>4</sup>	730 <sup>4</sup>	1040 <sup>4</sup>	775 <sup>4</sup>	1175 <sup>4</sup>	880 <sup>4</sup>
L36GSI/GSID			8.6:1	—	—	685	510	735	550	780	580	880	660
L36GL/GLD	2193 in <sup>3</sup> (36 L)	5.98 x 6.5" (152 x 165 mm)	11:1	—	—	685	510	735	550	780	580	880	660
L36GL			8.7:1	—	—	685	510	735	550	780	580	880	660
H24GSI/GSID			8.6:1	—	—	455	340	490	365	520	390	585	440
H24GL/GLD	1462 in <sup>3</sup> (24 L)	5.98 x 6.5" (152 x 165 mm)	11:1	395 <sup>4</sup>	290 <sup>4</sup>	455 <sup>4</sup>	340 <sup>4</sup>	490 <sup>4</sup>	365 <sup>4</sup>	520 <sup>4</sup>	390 <sup>4</sup>	585 <sup>4</sup>	440 <sup>4</sup>
H24GL			8.7:1	—	—	455	340	490	365	520	390	585	440
H24G			11:1	240	180	275	205	295	220	315	235	355	265
F18GSI/GSID			8.6:1	—	—	340	255	365	275	390	290	440	330
F18GL/GLD	1096 in <sup>3</sup> (18 L)	5.98 x 6.5" (152 x 165 mm)	11:1	—	—	340	255	365	275	390	290	440	330
F18GL			8.7:1	—	—	340	255	365	275	390	290	440	330
F18G			11:1	180	130	205	155	220	165	240	180	265	195

1 Engine available with Low Fuel Pressure System (LFPS) with the same ratings. Refer to Technical Data for LFPS ambient and altitude adjustments.

2 Engine ratings are 700-1000 rpm for low speed turbocharger operation and 1000-1200 rpm for high speed turbocharger operation.

4 Inline engine ratings are 1200 - 1400 rpm for low speed turbocharger operation and 1400 - 1800 rpm for high speed turbocharger operation. Vee engine ratings are 1100 - 1600 rpm for low speed turbocharger operation and 1400 - 1800 rpm for high speed turbocharger operation.

Note: Ratings for lower intercooler water temperature available upon request—contact Application Engineering.

Intermittent Power Rating: The highest load and speed that can be applied in variable speed mechanical system applications only. Operation at this rating is limited to a maximum of 3500 hours per year.



# Power Generation

## Natural Gas Fueled Engine & Enginotor\*

I.C. Water Temp. (Tcra) 130°F 54°C	Remote Radiator Cooling (kW <sub>e</sub> )				Engines Only (kW <sub>b</sub> )		
	60Hz		50Hz		60Hz	50Hz	
	Continuous	Standby	Continuous	Standby	Continuous	Continuous	
<b>275GL*</b>	900 rpm	900 rpm	1000 rpm	1000 rpm	Model	900 rpm	1000 rpm
16V 275GL+	3110 <sup>7</sup>	3110	3480 <sup>7</sup>	3480	16V 275GL+	3244 <sup>7</sup>	3605 <sup>7</sup>
12V 275GL+	2330 <sup>7</sup>	2330	2600 <sup>7</sup>	2600	12V 275GL+	2435 <sup>7</sup>	2703 <sup>7</sup>

I.C. Water Temp. (Tcra) 130°F 54°C

<b>APG*</b>	1800 rpm	—	1500 rpm	—	Model	1800 rpm	1500 rpm
APG1000	1100 <sup>7</sup>	—	1000 <sup>7</sup>	—	16V150LTD	1142 <sup>7</sup>	1038 <sup>7</sup>

I.C. Water Temp. (Tcra) 130°F 54°C

<b>VHP*</b>	1200 rpm	1200 rpm	1000 rpm	1000 rpm	Model	1200 rpm	1000 rpm
VHP9500GSI	1400	1750	1175	1450	P9390GSI	1469	1224
VHP9500GL	1400	1540	1175	1295	P9390GL	1469	1224
VHP7104GSI	1200	1200	1100 <sup>7</sup>	1100	L7044GSI	1253	1153 <sup>7</sup>
VHP7104GSID	1200 <sup>1</sup>	1200 <sup>1</sup>	1100 <sup>1,7</sup>	1100 <sup>1</sup>	L7044GSI	1253 <sup>1</sup>	1153 <sup>1,7</sup>
VHP7100GSI	1050	1300	875	1075	L7042GSI	1102	919
VHP7100GSID	1050 <sup>1</sup>	1300 <sup>1</sup>	875 <sup>1</sup>	1075 <sup>1</sup>	L7042GSI	1102 <sup>1</sup>	919 <sup>1</sup>
VHP7100GL	1050	1155	875	965	L7042GL	1102	919
VHP7100G	725	810	635	710	L7042G	764	668
VHP5904LT	1025	1025	900 <sup>7</sup>	900	L5794LT	1078	947 <sup>7</sup>
VHP5904LTD	1025 <sup>1</sup>	1025 <sup>1</sup>	900 <sup>1,7</sup>	900 <sup>1</sup>	L5794LT	1078 <sup>1</sup>	947 <sup>1,7</sup>
VHP5904GSI	980	980	900 <sup>7</sup>	900	L5794GSI	1029	947 <sup>7</sup>
VHP5904GSID	980 <sup>1</sup>	980 <sup>1</sup>	900 <sup>1,7</sup>	900 <sup>1</sup>	L5794GSI	1029 <sup>1</sup>	947 <sup>1,7</sup>
VHP5900G	595	665	520	575	L5790G	628	550
VHP3604GSI	600	600	540 <sup>7</sup>	540	F3524GSI	627	573 <sup>7</sup>
VHP3604GSID	600 <sup>1</sup>	600 <sup>1</sup>	540 <sup>1,7</sup>	540 <sup>1</sup>	F3524GSI	627 <sup>1</sup>	573 <sup>1,7</sup>
VHP3600G	360	400	315	350	F3521G	382	340

I.C. Water Temp. (Tcra) 130°F 54°C

<b>VGf*</b>	1800 rpm	1800 rpm	1500 rpm	1500 rpm	Model	1800 rpm	1500 rpm
VGf48GL	830 <sup>3</sup>	860	685 <sup>3</sup>	715	P48GL	880 <sup>3</sup>	730 <sup>3</sup>
VGf48GLD	830 <sup>3</sup>	860	685 <sup>3</sup>	715	P48GLD	880 <sup>3</sup>	730 <sup>3</sup>
VGf48GSI/GSID	750	825	625	685	P48GSI/GSID	800	660
VGf36GL	620 <sup>3,9</sup>	645 <sup>9</sup>	515 <sup>3,9</sup>	535 <sup>9</sup>	L36GL	660 <sup>3,9</sup>	550 <sup>3,9</sup>
VGf36GLD	620 <sup>3</sup>	645	515 <sup>3</sup>	535	L36GLD	660 <sup>3</sup>	550 <sup>3</sup>
VGf36GSI/GSID	560	620	475	515	L36GSI/GSID	600	500
VGf24GL	415 <sup>3,9</sup>	425 <sup>9</sup>	340 <sup>3,9</sup>	355 <sup>9</sup>	H24GL	440 <sup>3,9</sup>	365 <sup>3,9</sup>
VGf24GLD	415 <sup>3</sup>	425	340 <sup>3</sup>	355	H24GLD	440 <sup>3</sup>	365 <sup>3</sup>
VGf24GSI/GSID	375	410	310	340	H24GSI/GSID	400	330
VGf18GL	310 <sup>3,9</sup>	315 <sup>9</sup>	250 <sup>3,9</sup>	260 <sup>9</sup>	F18GL	330 <sup>3,9</sup>	275 <sup>3,9</sup>
VGf18GLD	310 <sup>3</sup>	315	250 <sup>3</sup>	260	F18GLD	330 <sup>3</sup>	275 <sup>3</sup>
VGf18GSI/GSID	280	310	230	255	F18GSI/GSID	300	250



## Radiator Cooling Unit Mounted

I.C. Water Temp. (Tcra) 130°F 54°C	60Hz		50Hz	
	Continuous (kWe)	Standby (kWe)	Continuous (kWe)	Standby (kWe)
	1200 rpm	1200 rpm	1000 rpm	1000 rpm
<b>VHP*</b>				
VHP7104GSI/GSID	1150 <sup>1</sup>	1150 <sup>1</sup>	1050 <sup>1,7</sup>	1050 <sup>1</sup>
VHP7100GSI/GSID	1000 <sup>1</sup>	1260 <sup>1</sup>	840 <sup>1,7</sup>	1050 <sup>1</sup>
VHP7100GL	1025	1130	845	930
VHP5904LT	990	990	860 <sup>7</sup>	860
VHP5904LTD	990	990	860 <sup>1,7</sup>	860 <sup>1</sup>
VHP5904GSI/GSID	940 <sup>1</sup>	940 <sup>1</sup>	860 <sup>1,7</sup>	860 <sup>1</sup>
VHP7100G	700	785	610	685
VHP3604GSI/GSID	560 <sup>1</sup>	560 <sup>1</sup>	500 <sup>1,7</sup>	500 <sup>1</sup>
VHP5900G	575	645	500	560
VHP3600G	345	385	300	335
<b>VGf*</b>	<b>1800 rpm</b>	<b>1800 rpm</b>	<b>1500 rpm</b>	<b>1500 rpm</b>
VGf48GL/GLD	810 <sup>3</sup>	825	670 <sup>3</sup>	700
VGf48GSID	730	800	610	650
VGf36GL/GLD	590 <sup>3,9</sup>	625 <sup>9</sup>	500 <sup>3,9</sup>	525 <sup>9</sup>
VGf36GSID	530	600	450	490
VGf24GL/GLD	390 <sup>3,9</sup>	405 <sup>9</sup>	325 <sup>3,9</sup>	350 <sup>9</sup>
VGf24GSID	350	395	295	325
VGf18GL/GLD	295 <sup>3,9</sup>	300 <sup>9</sup>	240 <sup>3,9</sup>	250 <sup>9</sup>
VGf18GSID	265	300	220	240

For Power Unit ratings, please contact GE Energy Application Engineering or refer to the Waukesha gas engine's Price Book.

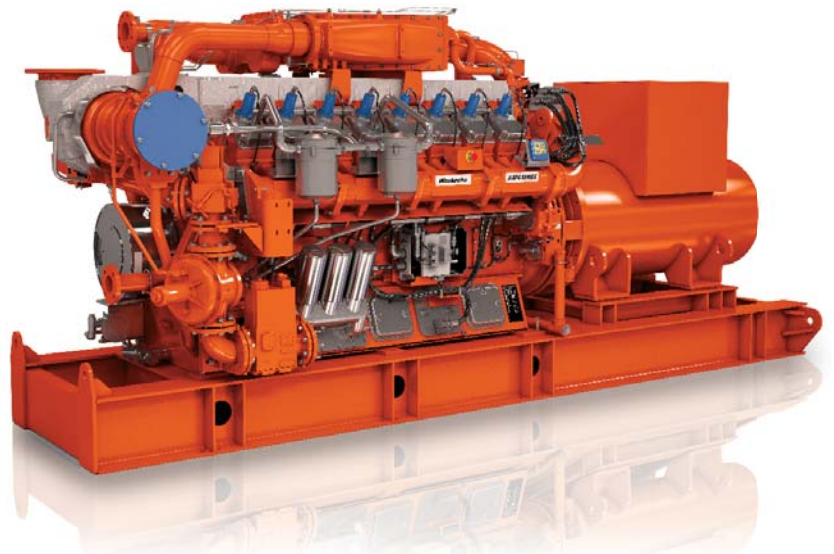
- 1 Engine available with Low Fuel Pressure System (LFPS) with the same ratings. Refer to technical data for LFPS ambient and altitude adjustments.
- 3 These power ratings require pricebook option Code 1100 (176 BMEP). They are available continuously when applied per WKI® Power and Timing Curve S7079-19. It is permissible to operate at up to 5% overload for two hours in each 24 hour period.
- 7 No overload allowed.
- 8 130°F (54°C) I.C. Water Temp. (Tcra)
- 9 Rating is for high compression ratio pistons only.

Generator Standby Power Rating (kWe): This rating applies to those systems use source of electrical power. This rating is the output the system will produce con 24 hours per day for the duration of the prime power source outage.

NOTE: kWe output is based on 0.8 Power Factor Enginator® efficiency.

## Heat Exchanger Cooling

I.C. Water Temp. (Tcra) 130°F 54°C	60Hz		50Hz	
	Continuous (kWe)	Standby (kWe)	Continuous (kWe)	Standby (kWe)
	1800 rpm	1800 rpm	1500 rpm	1500 rpm
<b>APG*</b>				
APG1000	1100 <sup>7</sup>	—	1000 <sup>7</sup>	—
I.C. Water Temp. (Tcra) 85°F 29°C				
<b>VHP*</b>	<b>1200 rpm</b>	<b>1200 rpm</b>	<b>1000 rpm</b>	<b>1000 rpm</b>
VHP9500GSI	1475	1825	1225	1520
VHP9500GL	1475	1625	1225	1350
VHP7104GSI/GSID	1200 <sup>1,8</sup>	1200 <sup>1,8</sup>	1100 <sup>1,7,8</sup>	1100 <sup>1,8</sup>
VHP7100GSI/GSID	1100 <sup>1</sup>	1350 <sup>1</sup>	920 <sup>1</sup>	1125 <sup>1</sup>
VHP7100GL	1100	1210	920	1015
VHP5904LT	1025 <sup>8</sup>	1025 <sup>8</sup>	900 <sup>7,8</sup>	900 <sup>8</sup>
VHP5904LTD	1025 <sup>1,7,8</sup>	1025 <sup>1,8</sup>	900 <sup>1,7,8</sup>	900 <sup>1,8</sup>
VHP5904GSI/GSID	980 <sup>1,8</sup>	980 <sup>1,8</sup>	900 <sup>1,7,8</sup>	900 <sup>1,8</sup>
VHP7100G	725	810	635	710
VHP3604GSI/GSID	600 <sup>1,8</sup>	600 <sup>1,8</sup>	540 <sup>1,7,8</sup>	540 <sup>1,8</sup>
VHP5900G	595	665	520	575
VHP3600G	360	400	315	350
I.C. Water Temp. (Tcra) 130°F 54°C				
<b>VGf*</b>	<b>1800 rpm</b>	<b>1800 rpm</b>	<b>1500 rpm</b>	<b>1500 rpm</b>
VGf48GL/GLD	830 <sup>3</sup>	860	685 <sup>3</sup>	720
VGf48GSID	750	825	625	685
VGf36GL/GLD	615 <sup>3,9</sup>	645 <sup>9</sup>	515 <sup>3,9</sup>	535 <sup>9</sup>
VGf36GSID	560	620	475	515
VGf24GL/GLD	415 <sup>3,9</sup>	425 <sup>9</sup>	340 <sup>3,9</sup>	360 <sup>9</sup>
VGf24GSID	375	410	310	345
VGf18GL/GLD	310 <sup>3,9</sup>	315 <sup>9</sup>	250 <sup>3,9</sup>	260 <sup>9</sup>
VGf18GSID	280	310	230	255



# Alternative Fuels

## Continuous Duty

Bio-Gas • Landfill • Digester

APG*		I.C. Water Temp. (T <sub>cra</sub> ) 130°F 54°C			1500 rpm			1800 rpm		
Model	Disp.	Bore & Stroke	C.R.	bhp	kWb	kWe*	bhp	kWb	kWe*	
APG1000	2924 in <sup>3</sup> (48 L)	5.98 × 6.5" (152 × 165 mm)	10/14:1 <sup>†</sup>	1390	1038	1000	1530	1142	1100	
VHP*					1000 rpm			1200 rpm		
L5794LT	5788 in <sup>3</sup> (95 L)	8.5 × 8.5" (216 × 216 mm)	10.2:1	1270 <sup>1,7</sup>	947 <sup>1,7</sup>	900 <sup>1,7</sup>	1445 <sup>1</sup>	1078 <sup>1</sup>	1025 <sup>1</sup>	
VGF*					1500 rpm			1800 rpm		
P48GLD	2924 in <sup>3</sup> (48 L)	5.98 × 6.5" (152 × 165 mm)	11:1	885 <sup>11</sup>	660 <sup>11</sup>	625 <sup>11</sup>	1060 <sup>11</sup>	800 <sup>11</sup>	750 <sup>11</sup>	
L36GLD	2193 in <sup>3</sup> (36 L)	5.98 × 6.5" (152 × 165 mm)	11:1	670 <sup>11</sup>	500 <sup>11</sup>	475 <sup>11</sup>	800 <sup>11</sup>	600 <sup>11</sup>	560 <sup>11</sup>	
H24GLD	1462 in <sup>3</sup> (24 L)	5.98 × 6.5" (152 × 165 mm)	11:1	445 <sup>11</sup>	330 <sup>11</sup>	310 <sup>11</sup>	530 <sup>11</sup>	400 <sup>11</sup>	375 <sup>11</sup>	
F18GLD	1096 in <sup>3</sup> (18 L)	5.98 × 6.5" (152 × 165 mm)	11:1	335 <sup>11</sup>	250 <sup>11</sup>	230 <sup>11</sup>	400 <sup>11</sup>	300 <sup>11</sup>	280 <sup>11</sup>	

1 Engine available with Low Fuel Pressure System (LFPS) with the same ratings. Refer to technical data for LFPS ambient and altitude adjustments.

6 5% overload allowed.

7 No overload allowed.

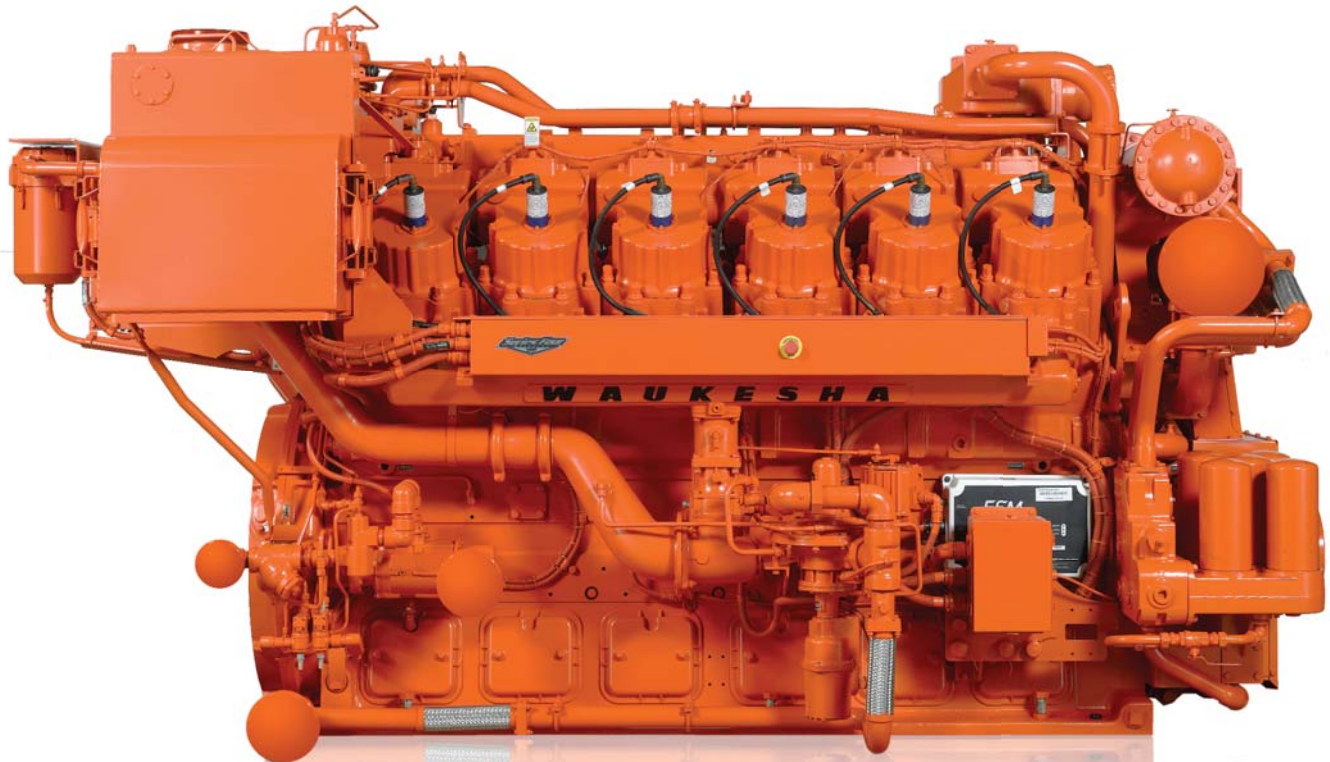
11 Engine operation using 400 - 500 Btu/ft<sup>3</sup> (15.7 - 19.7 MJ/m<sup>3</sup>). Landfill fuel requires 175°F (80°C) ICW. Option code 1100 is not available.

#### NOTES:

- Low Btu (caloric value) fueled engines operate on fuel with 400 Btu/ft<sup>3</sup> (15.7 MJ/m<sup>3</sup>) or greater saturated low heat (net calorific value) and are equipped with special low Btu (caloric value) fuel system.
- VGF GLD - Gas lean combustion with draw-thru carburetion. Minimum regulated gas supply pressure is 8" H<sub>2</sub>O (12.44 mbar)
- Generator efficiencies are typical values. Please consult with your packager.

\* kWe ratings are based on Waukesha Power Systems generator efficiencies.

<sup>†</sup> 10:1 Compression and 14:1 Expansion utilizing Miller Cycle Technology



# HD-5 Propane Fueled Engines

## Continuous Duty

### 275GL\*

I.C. Water Temp. (T<sub>cr</sub>) 130°F 54°C

Model	Disp.	Bore & Stroke	C.R.	900 rpm		1000 rpm	
				bhp	kWb	bhp	kWb
16V 275GL+	17,398 in <sup>3</sup> (285 L)	10.83 x 11.81" (275 x 300 mm)	9:1	2966	2212	3295	2457
12V 275GL+	13,048 in <sup>3</sup> (214 L)	10.83 x 11.81" (275 x 300 mm)	9:1	2224	1658	2471	1843

### VHP\*

Model	Disp.	Bore & Stroke	C.R.	900 rpm		1000 rpm		1200 rpm	
				bhp	kWb	bhp	kWb	bhp	kWb
P9390GSI	9388 in <sup>3</sup> (154 L)	9.375 x 8.5" (238 x 216 mm)	8:1	1162	867	1244	928	1379	1029
P9390GL			10.5:1	1184	883	1315	981	1578	1177
L7044GSI	7040 in <sup>3</sup> (116 L)	9.375 x 8.5" (238 x 216 mm)	8:1	864	644	960	716	1152	859
L7042GSI			8:1	871	650	933	696	1035	772
L7042GL			10.5:1	888	662	987	736	1184	883
L5794GSI			8.2:1	789	588	877	654	1052	785
F3524GSI	3520 in <sup>3</sup> (58 L)	9.375 x 8.5" (238 x 216 mm)	8:1	472	352	524	391	629	469

### VGf\*

Model	Disp.	Bore & Stroke	C.R.	1500 rpm		1800 rpm	
				bhp	kWb	bhp	kWb
P48GSID	2924 in <sup>3</sup> (48 L)	5.98 x 6.5" (152 x 165 mm)	8.7:1	609	454	731	545
P48GL/GLD			11:1	496	370	604	450
L36GSID	2193 in <sup>3</sup> (36 L)	5.98 x 6.5" (152 x 165 mm)	8.7:1	457	341	548	409
L36GL/GLD			11:1	376	280	442	330
L36GL			8.7:1	670 <sup>19</sup>	500 <sup>19</sup>	800 <sup>19</sup>	600 <sup>19</sup>
H24GSID			8.7:1	305	227	366	273
H24GL/GLD	1462 in <sup>3</sup> (24 L)	5.98 x 6.5" (152 x 165 mm)	11:1	248	185	302	225
H24GL			8.7:1	445 <sup>19</sup>	330 <sup>19</sup>	530 <sup>19</sup>	400 <sup>19</sup>
F18GSID	1096 in <sup>3</sup> (18 L)	5.98 x 6.5" (152 x 165 mm)	8.7:1	228	170	274	204
F18GL/GLD			11:1	188	140	221	165
F18GL			8.7:1	335 <sup>19</sup>	250 <sup>19</sup>	400 <sup>19</sup>	300 <sup>19</sup>

19 Contact Application Engineering regarding stability in Power Generation applications

#### NOTES:

- These engines have HD-5 propane as a secondary fuel option: VHP-GL Series, VHP-GSI Series.
- No overload allowed on all HD-5 propane ratings.
- Requires a minimum of 34 WKI fuel.
- Engine may require optional fuel system.

#### NOTES:

Rating Standard: All models: Ratings conform to ISO 3046/1 (latest version) with a mechanical efficiency of 90% and auxiliary water temperature, T<sub>cr</sub>, as specified in the Power Rating Chart, Bulletin 1079 (latest version) limited to ±10° F (±5.5° C). Ratings are also valid for SAE J1349, BS 5514, DIN 6271 and API 7B-11C standard atmospheric reference conditions.

Fuel Standard: All natural gas engine ratings are based on 900 BTU/ft<sup>3</sup> (35.38 MJ/m<sup>3</sup> [25, VI0; 101.325]) SLHV, 91 WKI® minimum, commercial quality natural gas. Refer to S-7884-7 (latest version) for full gaseous fuel specifications.

ISO Standard Power (Continuous Power Rating): The highest load and speed that can be applied 24 hours per day, seven days per week, 365 days per year except for normal maintenance at ISO standard ambient reference conditions. Unless otherwise stated, at ISO standard ambient reference conditions, it is permissible to operate the engine at up to 110% of the ISO Standard Power or the maximum power indicated by the intermittent rating, whichever is lower, for two hours in every 24 hour period.

ISO Service Power (Site Continuous Power Rating): The highest load and speed that can be applied 24 hours per day, seven days per week, 365 days per year except for normal maintenance at the operating and ambient conditions of the site application. Unless otherwise stated, it is permissible to operate the engine at up to 110% of the ISO Service Power (see the Overload Power definition) or the intermittent power rating available at the site operating and ambient conditions, whichever is lower, for two hours in every 24 hour period.

Overload Power: The power that an engine is permitted to supply, with a duration and frequency of use depending upon the service application, at stated ambient conditions, immediately after operating at its ISO Service Power rating. Unless otherwise stated, it is permissible to operate the engine at up to 110% of the ISO Service Power or the intermittent power rating available at the site operating and ambient conditions, whichever is lower, for two hours in every 24 hour period. For situations without a defined intermittent power, the allowable 10% overload power is reduced from ISO standard ambient reference conditions by the applicable rating adjustments listed in the Intermittent/Standby Power column.

Intermittent Power Rating: The highest load and speed that can be applied in variable speed mechanical system applications only. Operation at this rating is limited to a maximum of 3500 hours per year.

Generator Continuous Power Rating (kW<sub>e</sub>): The highest load and speed which can be applied 24 hours per day, seven days per week, 365 days per year except for normal maintenance. Unless otherwise stated, it is permissible to operate the engine at up to 110% of the generator continuous power rating for two hours in every 24 hour period.

Generator Standby Power Rating (kW<sub>e</sub>): This rating applies to those systems used as a secondary source of electrical power. This rating is the output the system will produce continuously 24 hours per day for the duration of the prime power source outage. No overload is allowed. This rating may reduce the lifecycle intervals.

Generator Peak Shaving Application Rating (kW<sub>e</sub>) For VHP Models Only: This rating is based on the number of horsepower-hours available per year in a constant speed application at site conditions. This rating allows for limited engine operation above the published ISO Standard Power rating for VHP models only. This rating class requires a Special Application Approval. Contact GE Energy's Sales Engineering Department. This rating may reduce the lifecycle intervals.

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### Waukesha Engine Model Prefix Designations

Number of cylinders except 275GL\* and APG\*  
which states actual number of cylinders.

P = 16    H = 8    L = 12    F = 6

### Suffix Designations

G = Naturally aspirated  
GSI = Turbocharged intercooled  
GSID = Turbocharged intercooled draw-thru  
GL = Turbocharged intercooled lean burn  
LT = Lean combustion turbulence  
GLD = Turbocharged intercooled lean burn

## GE's Gas Engines

GE Power & Water's Gas Engines division is a manufacturer of gas-fueled engines, generator sets, CHP modules, ORC systems and auxiliaries. With a legacy of technological innovation across three product lines, including Jenbacher engines, Waukesha engines and Heat Recovery solutions, GE's gas engines set the industry standard for flexible fuel capability, low emissions and efficiency. Engines can operate not only on natural gas, but on a broad range of alternative gases such as biogas, landfill gas, coal mine gas, flare gas and sewage gas featuring impressive fuel flexibility. Solutions include Combined Heat and Power (CHP), gas compression, and waste heat to electricity generation in industries ranging from Oil & Gas to agriculture and are deployed in over 80 countries. With this ability to provide diverse power output, ranging from 0.12 – 9.5 MW, and 7 products and solutions approved through the GE ecomagination program, GE's Gas Engines offer specialized local power solutions to deliver cleaner, more efficient, affordable on-site energy around the world.

GE's Gas Engines has its headquarters, main production facilities, and more than 1,400 of its 2,600 worldwide employees located in Jenbach, Austria. GE's Jenbacher gas engines also operate two regional gas engine assembly facilities in Hangzhou, China, and in Veresegyház, Hungary. The Waukesha gas engines are located in Waukesha, Wisconsin and the Heat Recovery Solutions facility in Stuart, Florida.



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