

# ZPP NA 690

6 Cylinder Inline | Naturally-Aspirated |  
8.8L - Natural Gas, Propane, Dual Fuel |

26502 Newbanks Road, Abingdon VA 24210  
PH: 276.525.4760 | FAX: 276.645.8681



## Specifications

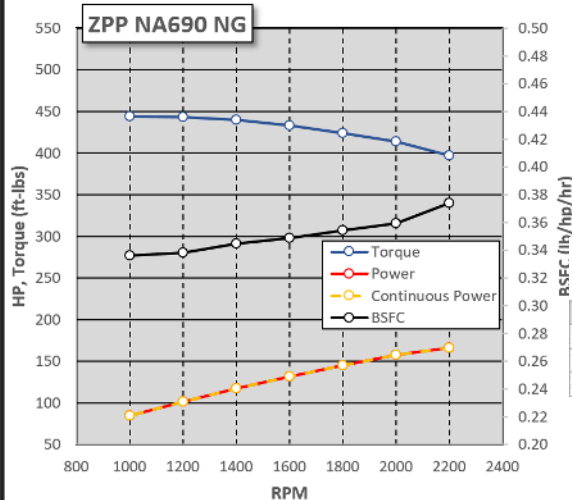
# of Cylinders	6 Inline
Operation	4-stroke
Ignition	Spark-Ignited
# of Valves	2/cylinder
Firing Order	1-5-3-6-2-4
Bore x Stroke	114 X 144 mm 4.488" x 5.669"
Displacement	8.83 L / 538.8 ci
Compression Ratio	10.5 : 1
Dry Weight	800 kg / 1760 lbs
Piston Speed @ 2300 rpm	2079 fpm
Piston Speed @ 1800 rpm	1701 fpm
Oil Capacity	20.8 L / 22.0 qts
Electrical System	Combined 12/24 Volt

## Standard Features

☆	US EPA Certified
☆	CAN bus controlled—J1939
☆	Full Built-in Engine Protection
☆	SAE #2 Housing
☆	SAE 11.5" Flywheel
☆	Replaceable Dry Liners

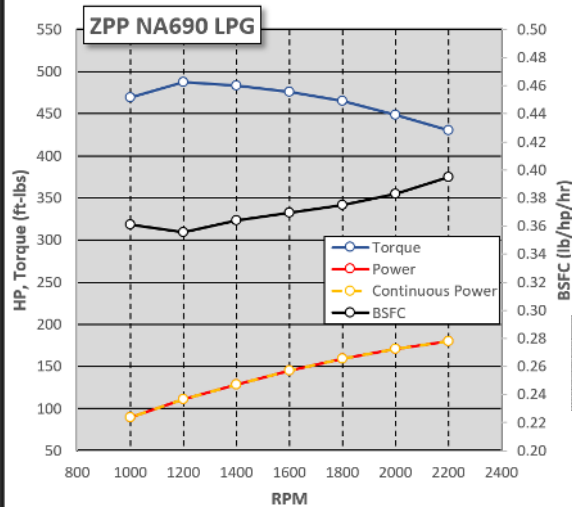
## Optional Features

☆	Customer Specific Packaging
☆	Turn-Key Enclosures



Rating	Industrial Rating (bHP)		Genset Rating (kWe)
	2200 rpm	1800 rpm	60 Hz
Intermittent	166	145	100
Prime	166	145	100
Continuous	166	145	100

\*All data is corrected per SAE J1349  
\*Performance is NET including losses from auxiliaries (alternator, fan, water pump)  
\*NG is pipeline grade gas  
\*LPG is Commercial grade  
\*Electrical kW is calculated using 92% generator efficiency

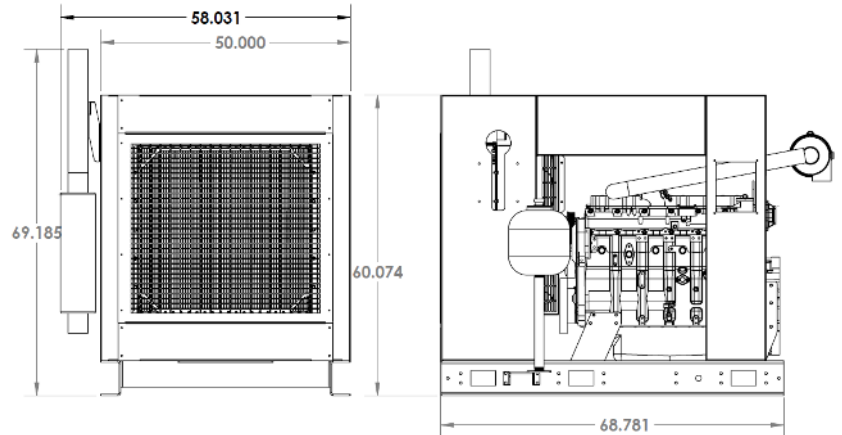


Rating	Industrial Rating (bHP)		Genset Rating (kWe)
	2200 rpm	1800 rpm	60 Hz
Intermittent	180	159	109
Prime	180	159	109
Continuous	180	159	109



## Fuel System Features

- ☆ Natural Gas, LPG, or Dual Fuel
- ☆ Air-valve Mixer based fueling
- ☆ Electronic, closed-loop control
- ☆ EPA certified to pipeline quality fuels
- ☆ Electronic Throttle body
- ☆ Inline catalyst provided with engine



*\*All data is corrected per SAE J1349*

Pipeline NG

RPM	Torque ft-lbs (Nm)	Power bHP (kW)	BMEP (psi)	Fuel Flow (lb/hr)	Air Flow (lb/hr)	BSFC (lb/hp/hr)	Exhaust Outlet (°F)
<b>2200</b>	<b>397 (538)</b>	<b>166 (124)</b>	<b>102</b>	<b>58.0</b>	<b>951</b>	<b>0.374</b>	<b>1,424</b>
2000	414 (562)	158 (118)	106	52.8	866	0.359	1,380
<b>1800</b>	<b>424 (575)</b>	<b>145 (108)</b>	<b>108</b>	<b>48.0</b>	<b>787</b>	<b>0.355</b>	<b>1,367</b>
1600	433 (588)	132 (98)	111	42.9	704	0.349	1,331
1400	440 (596)	117 (87)	113	37.7	618	0.345	1,293
1200	443 (601)	101 (76)	113	31.9	523	0.338	1,261
1000	444 (602)	85 (63)	114	26.5	435	0.336	1,205

Commercial LPG

RPM	Torque ft-lbs (Nm)	Power bHP (kW)	BMEP (psi)	Fuel Flow (lb/hr)	Air Flow (lb/hr)	BSFC (lb/hp/hr)	Exhaust Outlet (°F)
<b>2200</b>	<b>430 (583)</b>	<b>180 (134)</b>	<b>109</b>	<b>65.5</b>	<b>1074</b>	<b>0.395</b>	<b>1,463</b>
2000	449 (608)	171 (127)	113	60.2	987	0.383	1,445
<b>1800</b>	<b>465 (630)</b>	<b>159 (119)</b>	<b>118</b>	<b>55.0</b>	<b>902</b>	<b>0.375</b>	<b>1,419</b>
1600	476 (645)	145 (108)	120	49.3	809	0.369	1,386
1400	483 (655)	129 (96)	122	43.2	708	0.364	1,356
1200	488 (661)	111 (83)	123	36.5	599	0.356	1,313
1000	469 (636)	89 (67)	119	29.7	487	0.361	1,244