

# Big Blue® 500 X and 600 X

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**Engine-Driven  
Welder/Generator**



## Quick Specs



### Heavy Industrial Applications

Heavy Construction  
Structural Steel  
Maintenance and Repair Rigs  
Mining Maintenance  
Process Piping  
Sheet Metal

### Processes

Stick (SMAW)  
MIG (GMAW)  
Flux Cored (FCAW)  
DC TIG (GTAW)  
Submerged Arc (SAW)  
Stud Welding  
Air Carbon Arc (CAC-A)  
**500 X:**  
(Rated) 5/16 in (8 mm) Carbons  
(Capable) 3/8 in (9.5 mm) Carbons  
**600 X:**  
(Rated) 3/8 in (9.5 mm) Carbons

### Output Range

**500 X CC:** DC Stick 55–500 A DC/TIG 55–500 A  
**500 X CC/CV:** DC Stick 40–550 A DC/TIG 20–350 A  
MIG/FCAW 14–40 V  
**600 X CC:** DC Stick 65–600 A DC/TIG 65–600 A  
**600 X CC/CV:** DC Stick 40–600 A DC/TIG 20–425 A  
MIG/FCAW 14–40 V

### Generator Output Rated at 104°F (40°C)

5500 Watts Peak—4000 Watts Continuous

**Accu-Rated™—Not Inflated  
Generator Power**

## The Power of Blue.®

Prior Big Blue 452 owners now have a choice between the Big Blue 500 X or the Big Blue 600 X.

**Designed for fleet owners** that demand the ultimate in reliability and performance.

**Three-phase rotating field generator** efficiently produces smooth DC weld output using 20–30% less fuel than a rotating armature-type DC generator.

**Enclosed robust case design** protects internal components from impact and allows air flow to cool and prolong the life of the engine. Also reduces sound levels.

**Quick and easy maintenance** with single-side access to oil level check, oil fill, oil filter, fuel filter and air cleaner.

**Remote toolless oil drain** allows oil to be drained without getting under the engine and reduces the chance of oil spillage.



**CC/CV Models: The Vault—ultimate control board reliability.** See page 3.

# BUILT TOUGH



Perkins

**Heavy duty industrial engine choices** designed, built and proven to operate over 10,000 hours before the first basic overhaul.



**Maintenance Displays!**

### NEW! Meter maintenance displays.

- Hour meter function
- Oil change interval
- High coolant temperature and low oil pressure shutdowns
- Low fuel shutdown — engine shuts down before system runs out of fuel, making restarts easy.

**Arc-Drive** makes welding easy. Automatically enhances Stick welding, especially on pipe, by focusing the arc and preventing the electrode from going out.

**Hot Start™** provides positive Stick electrode starts making it easy to start all types of electrodes and it also works great for bead tie-ins.

**Weatherproof Lexan® nameplate** resists cracking and fading, and is color-coded for ease of operation.

**Standard GFCI receptacle** as required on most job sites to protect operators from electrical hazards.

**CSA, IEC and NEMA compliant for welders.** Degree of protection provided by enclosure IP23.



Big Blue 600 X CC shown.

MADE IN **USA**  
APPLETON, WI



## Big Blue 500 X and 600 X CC Specifications (Subject to change without notice.)



Model	Welding Mode	Weld Output Range	Weld Output Rated at 104°F (40°C)	Max. Open-Circuit Voltage	Generator Output Rated at 104°F (40°C)	Dimensions**	Weight (without fuel)***
Big Blue 500 X CC	CC/DC	55–500 A	400 A at 36 V (14.4 kW),* 100% Duty Cycle 450 A at 38 V (17.1 kW),* 60% Duty Cycle 500 A at 30 V (15 kW), 40% Duty Cycle	95	<b>Peak:</b> 5500 watts <b>Continuous:</b> 4000 watts, 34/17 A, 120/240 VAC, 50/60 Hz while welding	H: 43 in (1092 mm) W: 28-1/2 in (724 mm) D: 64-7/16 in (1637 mm)	<b>Perkins 404D.22:</b> 1545 lb (701 kg) <b>Deutz D2011L03i:</b> 1655 lb (751 kg)
Big Blue 600 X CC		65–600 A	500 A at 40 V (20 kW),* 100% Duty Cycle 550 A at 34 V (18.7 kW), 60% Duty Cycle 600 A at 30 V (18 kW), 40% Duty Cycle				<b>Perkins 404D.22T:</b> 1565 lb (710 kg) <b>Deutz D2011L04i:</b> 1695 lb (769 kg) <b>Deutz D912L03:</b> 1785 lb (810 kg)

\*NEMA EW1 (ANSI C87.1) Class (1) output ratings. \*\*Additional 7 in (178 mm) to top of exhaust. \*\*\*Additional 190 lb (86 kg) when fuel tank is full.

## Big Blue 500 X and 600 X CC/CV Specifications (Subject to change without notice.)



Model	Welding Mode	Weld Output Range	Weld Output Rated at 104°F (40°C)	Max. Open-Circuit Voltage	Generator Output Rated at 104°F (40°C)	Dimensions**	Weight (without fuel)***
Big Blue 500 X CC/CV	CC/DC CV/DC	20–550 A 14–40 V	400 A at 36 V (14.4 kW),* 100% Duty Cycle 450 A at 38 V (17.1 kW),* 60% Duty Cycle 500 A at 34 V (17 kW), 40% Duty Cycle	95	<b>Peak:</b> 5500 watts <b>Continuous:</b> 4000 watts, 34/17 A, 120/240 VAC, 50/60 Hz while welding	H: 43 in (1092 mm) W: 28-1/2 in (724 mm) D: 64-7/16 in (1637 mm)	<b>Perkins 404D.22:</b> 1545 lb (701 kg) <b>Deutz D2011L03i:</b> 1655 lb (751 kg)
Big Blue 600 X CC/CV		20–600 A 14–40 V	500 A at 40 V (20 kW),* 100% Duty Cycle 550 A at 42 V (23.1 kW), 60% Duty Cycle 600 A at 34 V (20.4 kW), 40% Duty Cycle				<b>Perkins 404D.22T:</b> 1565 lb (710 kg) <b>Deutz D2011L04i:</b> 1695 lb (769 kg) <b>Deutz D912L03:</b> 1785 lb (810 kg)

\*NEMA EW1 (ANSI C87.1) Class (1) output ratings. \*\*Additional 7 in (178 mm) to top of exhaust. \*\*\*Additional 190 lb (86 kg) when fuel tank is full.

## Engine Specifications (Subject to change without notice.)

Model	Engine Brand	Features	HP	Type	Engine Speeds (RPM)	Capacities	Automatic Engine Shutdowns
Big Blue 500 X	Perkins 404D.22	Tier IVi, EPA-certified, indirect-injected, liquid-cooled engine with full load <b>sound levels of 73.2 dB @ 7 m</b> (98 Lwa). Right-side service access with service intervals of <b>500 hours for oil and filters.</b>	32.6	4-cylinder, industrial, liquid-cooled diesel	Weld: 1800 Idle: 1235	Fuel: 25 gal (95 L) Oil: 9 qt (8.5 L) Coolant: 9 qt (8.5 L)	Low Oil Pressure, High Coolant Temperature, Low Fuel Level
	Deutz D2011L03i	Tier IVi, EPA-certified, direct-injected, air/oil-cooled engine with full load <b>sound levels of 76.8 dB @ 7 m</b> (101.7 Lwa). Right-side service access with service intervals of <b>1000 hours for oil and filters.</b> Approved <b>underground</b> operation with the purchase of a <b>MSHA</b> (30 CFR part 7) certificate.	32.0	3-cylinder, industrial, air/oil-cooled diesel	Weld: 1800 Idle: 1235	Fuel: 25 gal (95 L) Oil: 6.2 qt (5.9 L) Coolant: Integrated oil and water	Low Oil Pressure, High Coolant Temperature, Low Fuel Level
Big Blue 600 X	Perkins 404D.22T	Tier IVi, EPA-certified, turbo-charged, direct-injected, liquid-cooled engine with full load <b>sound levels of 73.2 dB @ 7 m</b> (98 Lwa). Right-side service access with service intervals of <b>500 hours for oil and filters.</b>	44.3	4-cylinder, industrial, liquid-cooled diesel	Weld: 1800 Idle: 1235	Fuel: 25 gal (95 L) Oil: 6.5 qt (6.2 L) Coolant: 9 qt (8.5 L)	Low Oil Pressure, High Coolant Temperature, Low Fuel Level
	Deutz D2011L04i	Tier IVi, EPA-certified, direct-injected, air/oil-cooled engine with full load <b>sound levels of 76 dB @ 7 m</b> (101 Lwa). Right-side service access with service intervals of <b>1000 hours for oil and filters.</b> Approved <b>underground</b> operation with the purchase of a <b>MSHA</b> (30 CFR part 7) certificate.	48.6	4-cylinder, industrial, air/oil-cooled diesel	Weld: 1800 Idle: 1235	Fuel: 25 gal (95 L) Oil: 9 qt (8.5 L) Coolant: Integrated oil and water	Low Oil Pressure, High Coolant Temperature, Low Fuel Level
	Deutz D912L03	The legendary Tier I, EPA-certified, direct-injected, air-cooled engine with full load <b>sound levels of 81 dB @ 7 m</b> (106 Lwa). Right-side service access with service intervals of <b>500 hours for oil and filters.</b>	41.5	3-cylinder, industrial, air-cooled diesel	Weld: 1800 Idle: N/A	Fuel: 25 gal (95 L) Oil: 9 qt (8.5 L) Coolant: Air	Low Oil Pressure, High Coolant Temperature, Low Fuel Level