



# Generators



**Industrial Portable Generators**  
3kW - 18kW



**Consumer Portable Generators**  
3kW - 6kW  
**Tri-Fuel Portable Generators**  
6kW - 12kW



**Mobile Diesel Power Systems**  
25kVA - 80kVA



**PSS Packaged Standby Systems**  
8kW - 75kW



**Two Bearing Generators**  
2kW - 8kW



**Vehicle Mount Generators**  
20kW - 75kW



**PTO Generators**  
15kW - 150kW

For All Your Power Needs  
[www.wincogen.com](http://www.wincogen.com)

**RP55**  
**REDI POWER**



**WINCO**®  
INCORPORATED

Powered by

**IVECO**  
**MOTORS**



**NEF45 AM1**

**4.5 Liter/Normally Aspirated**

**Electrical Output 45kW/56kVa**

<u>Voltage</u>	<u>Amperes</u>	<u>Cycles</u>	<u>Phase</u>	<u>kW</u>	<u>kVa</u>	<u>pf</u>
120/240	150	60	1	45	45	1.0
120/208	150	60	3	45	56	0.8
120/240	135	60	3	45	56	0.8
277/480	68	60	3	45	56	0.8

**STANDARD FEATURES**

- **IVECO 4.5 Liter 1800 RPM Engine** (Division of FIAT Motors)
  - Meets EPA / CARB Tier 2 Emissions
  - Mechanical Governor
  - Fuel/Water Separator
  - Oil Drain Extension with Valve
- **BASLER DGC-2020 Digital Controller** with Automatic Safety Shutdowns and Digital Readouts for Low Oil Pressure, High Water Temp, Engine Overcrank and Engine Overspeed, Low Fuel Level Shutdown, Battery Disconnect Switch
- **Brushless Alternator / Class H Insulation**
  - Standby Output: 45kW (56kVA)
  - Prime Output: 40.5kW (50.6kVA)
  - Motor Starting Capability: 20 h.p. Code F
  - Voltage Regulation: 1.5% / < 5% Total Harmonic Distortion
- **SWITCHABLE 4-Position Voltage Selector Switch** with Automatic Safety Shutdown and Safety Lock Out
  - AC Voltages - 3 Phase: 208, 220, 240, 416, 440, 460, 480V
  - AC Voltages - 1 Phase: 120, 139, 208, 220, 240V
  - Amps:
    - Single Phase 240V: 150A (at terminal block)
    - Three Phase 208V: 150A
    - Three Phase 240V: 135A
    - Three Phase 480V: 68A
- **Illuminated Instrumentation Panel and Connection Box**
- **Receptacle Package:**
  - 2-50amp 120/240V Twistlock Receptacles
  - 2-20amp 120V GFCI Duplex Receptacles
  - 1-Terminal Block for Full Connection with Safety Shut Off
- **Shore Power Inlet** for Easy Connection to Block Heater and Battery Charger
- **Pre-wired for Remote Emergency Stop** (Optional Button Available)
- **Two Wire Remote Start Capability**
- **Selectable High or Low Voltage Mainline Circuit Breakers** for Main Power Connection
- **Circuit Breakers for Single Phase Receptacles**
- **14-gauge Galvanneal Steel Sound Attenuated Enclosure** with Critical Muffler
- **Sound Level: 68 dB(A) 7 Meters, Full Load**
- **Durable Powder Coat Paint Finish / Stainless Steel Fasteners**
- **Large Lockable Doors for Maintenance Access**
- **Single Point Lifting Eye**
- **Full Fluid Containment System with Drains**
- **Lockable Fuel Access Door**
- **Six Bolts to Remove Generator Assembly from Trailer**
- **DOT Approved Trailer & Tank, 7,000 lb. Capacity,** Electric Brakes with Break-Away Kit, Single Axle, Torsion Bar Suspension, Front Leveling Jack, Rear Stabilization Jacks, Running Lights, Lighted License Plate Bracket
- **110-gallon, 7-gauge Steel Fuel Tank**
- **Fuel Consumption:**
  - Full Load.....2.80 gal/hr
  - 75% Load.....2.11 gal/hr
  - 50% Load.....1.41 gal/hr
- **Run Time:**
  - Full Load.....39 hours
  - 75% Load.....52 hours
  - 50% Load.....78 hours
- **Removable and Adjustable Hitch**
- **3" Pintle Hitch and 2 5/16" Ball Hitch** both come Standard
- **Large Front Lockable Storage Compartment**
- **Dimensions: Generator with Trailer - 150" x 66" x 83"**
- **Weight: Generator with Dry Fuel Tank and Trailer - 4760 lbs**
- **Warranty: Complete Unit - 1 Year; Engine - 2 Year Limited**

**WINCO INC**®  
A Division of **DTE Dyna Technology Inc**  
225 South Cordova Ave  
Le Center MN 56057 USA

FL 0609

**Telephone: (507) 357-6821**  
**Fax: (507) 357-4857**  
**East Coast: (800) 733-2112**  
**West Coast & Canada: (800) 324-8174**  
**E-Mail: wincosales@wincogen.com**  
**Web Site: www.wincogen.com**

# Why Winco Industrial Portables?

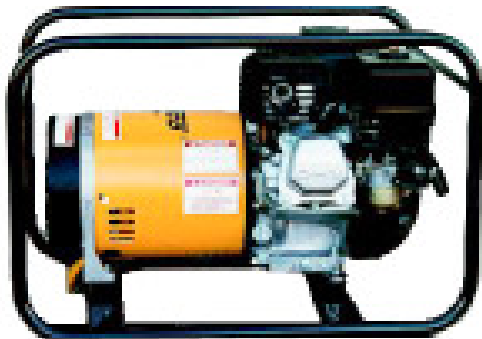
- ◆ **Winco Generators** - Quality & Innovations since 1927
- ◆ WC Series comes standard with:
  - Conserv-R automatic idle controls save on fuel and reduce noise
  - Switchless Full Power allows the full rated output from a single 120 volt or 240 volt outlet, or combination of both at the same time without switching voltage settings (applicable on the WC5000H and WC6000H/HE)
  - Hourmeter
- ◆ High quality generator ends, built to last
- ◆ 100% copper windings assure longer life expectancy
- ◆ Clean low harmonic power, won't burn up sensitive equipment
- ◆ High motor starting capabilities that are able to start larger motors
- ◆ Brushless generator ends (except for WC6000H/HE)
- ◆ WC6000H/HE has a Rotating Field Brush design for superior motor starting
- ◆ Equipped with name brand industrial engines such as Honda and Briggs & Stratton Vanguard
  - Service and parts distributors available nationwide
- ◆ CARB & EPA certified premium engines
- ◆ Industrial grade mufflers
- ◆ Rubber isolation mounts on engine and generator
- ◆ Large fuel tanks for long run times on 4kW and larger
- ◆ Heavy duty tubular steel cradles to handle and protect the everyday use of your generator. Std 1" and 1 1/4" 13-gauge tubular steel
- ◆ Industrial powder coated paint baked onto the cradle and other key components
- ◆ Wide variety of receptacles, all have circuit breaker protection
- ◆ Compact size for easier transportation and handling
- ◆ Four wheel dolly kit and lifting eye are standard on both
- ◆ 100% of generators are load tested, not statistical as many manufacturers do



# **WINCO INC**<sup>®</sup>

*A Division of DTE Dyna Technology Inc*

## **INDUSTRIAL PORTABLE GENERATORS**



WINCO's broad industrial portable line offers just the right generator for the job at hand. All generator models include the following features: Powder paint finish on rugged wrap-around welded tubular cradles; CARB / EPA approved premium engines with low oil protection; sizes ranging from 3,000 watts to 18,000 watts; large fuel tanks and GFCI's standard on models 4,000 watts and larger. All WC models also include: Switchless Full Power™ which allows the full rated output from a single 120 volt or 240 volt outlet, or combination of both, without switching voltage settings; Conserv-R® automatic idle control; hour meter and fuel cap with gauge; full receptacle panel with circuit breakers.

*A Tradition Since 1927*



\* ENGINES: Premium Honda and Briggs & Stratton Vanguard CARB and EPA certified engines equipped with low oil protection and industrial grade mufflers \* FRAMES: Heavy duty tubular steel cradles protect the generator; rubber isolation mounts on engine and generator, compact size for easy transportation and handling \* FUEL TANKS: Large 4.5, 7.0 and 15.0 gallon fuel tanks for longer run times on 4kW and larger \* CONTROL PANELS: Easy-access; wide variety of receptacles; circuit breaker protection \* SUPERIOR GENERATOR END: 100% copper windings; high motor starting capabilities; self-regulating output voltage; built to last \* FEATURES/STANDARDS: All units are 100% load tested; USFS-approved spark arrestors; WC models have Conserv-R<sup>®</sup> automatic idle control and hour meter.



WT3000H



WC5000H



WC6000H/  
WC6000HE

MODEL NUMBER	WT3000H	WC5000H	WC6000H	WC6000HE
<b>Electrical Specifications</b>				
Maximum Power Rating	3000 watts	5000 watts	6000 watts	6000 watts
Continuous Power Rating	2500 watts	4500 watts	5500 watts	5500 watts
A.C. Output Voltage	120 volts	120/240 volts	120/240 volts	120/240 volts
Continuous Current Rating	20.8 amps	37.5/18.8 amps	45.8/22.9 amps	45.8/22.9 amps
Motor Starting Ability (1)	1.0 hp	1.5 hp	3.0 hp	3.0 hp
120 Volt Full Power™ (3)	N/A	37.5 amps	45.8 amps	45.8 amps
Generator Type (4)	R.F.L.	R.F.L.	R.F.B.	R.F.B.
<b>Engine Data</b>				
Make/Model	Honda GX160	Honda GX270	Honda GX340	Honda GX340
Displacement/Type	160 cc/OHV	270 cc/OHV	337 cc/OHV	337 cc/OHV
Conserv-R <sup>®</sup> Automatic Idle Control	N/A	Standard	Standard	Standard
Low Oil Protection	Standard	Standard	Standard	Standard
Starting System (5)	Recoil	Recoil	Recoil	Recoil/Electric
Fuel Tank Capacity	1.0 Gallon	4.5 Gallons	4.5 Gallons	4.5 Gallons
Running Time-Full Load	2.2 hours	6.6 hours	5.2 hours	5.2 hours
Running Time-Half Load	3.1 hours	10.3 hours	9.8 hours	9.8 hours
Hour Meter	N/A	Standard	Standard	Standard
<b>120 Volt Receptacles</b>				
Straight Blade (NEMA 5-20R)	4-20 amp	4-20 amp GFCI	4-20 amp GFCI	4-20 amp GFCI
Twist Lock (NEMA L5-20R) GFCI Protected		2-20 amp	2-20 amp	2-20 amp
Straight Blade (NEMA 5-30R)				
Straight Blade (NEMA 5-50R)		1-50 amp	1-50 amp	1-50 amp
<b>240 Volt Receptacles</b>				
Twist Lock (NEMA L6-20R)		1-20 amp	1-20 amp	1-20 amp
Twist Lock (NEMA L6-30R)				
Straight Blade (NEMA 6-50R)				
<b>120/240 Volt Receptacles</b>				
Twist-Lock (NEMA L14-30R)	N/A	1-30 amp	1-30 amp	1-30 amp
Straight Blade (NEMA 14-60R)				
<b>Size &amp; Weight</b>				
Dimensions (LxWxH)	24x16x18 in.	32x22x22 in.	32x22x22 in.	32x22x22 in.
Shipping Weight	102 lbs.	226 lbs.	251 lbs.	262 lbs.
<b>Warranty Information (8)</b>				
Generator/Engine	2 yrs/3 yrs	2 yrs/3 yrs	2 yrs/3 yrs	2 yrs/3 yrs
CSA Approved	Yes	Yes	Yes	Yes

Notes: (1) Code G capacitor start motor (2) Consult factory or authorized dealer for complete details. (3) Available 120 volts at the 50 amp Full Power plug. (4) R.F.B. is a Rotating Field Brush design, R.F.L. is a Rotating Field Brushless design (capacitor excitation) and R.A.B. is a Rotating Armature Brush type generator. (5) Electric start models include battery rack and cables; battery not included. (6) Model WC6000H is recoil start only; model WC6000HE has both recoil and electric start. (7) On 240 volts only. NOTE: Models WC12000HE and WL18000VE come with wheel kit and lifting eye standard. (8) Engine warranty applies to retail purchases made after January 1, 2009.

WINCO Inc. continually improves its products and reserves the right to change designs, materials and/or specifications without notice and without incurring any obligations to make such changes or improvements on products previously purchased.



MODEL NUMBER	W9500HE	WC12000HE	WL18000VE	<b>Diesel</b> W6010DEX
<b>Electrical Specifications</b>				
Maximum Power Rating	9500 watts	12000 watts	18000 watts	6000 watts
Continuous Power Rating	8500 watts	10800 watts	15000 watts	5500 watts
A.C. Output Voltage	120/240 volts	120/240 volts	120/240 volts	120/240 volts
Continuous Current Rating	70.8/35.4 amps	90/45 amps	125/62.5 amps	45.8/22.9 amps
Motor Starting Ability (1)	5 hp (7)	6 hp	7.5 hp	3.0 hp
120 Volt Full Power™ (3)	45.8 amps	N/A	N/A	45.8 amps
Generator Type (4)	R.F.L.	R.F.L.	R.F.L.	R.F.L.
<b>Engine Data</b>				
Make/Model	Honda GX610	Honda GX620	B&S Vanguard	Hatz 1B40
Displacement/Type	610 cc/OHV	620 cc/OHV	895 cc/OHV	462 cc
Conserv-R® Automatic Idle Control	N/A	Standard	N/A	N/A
Low Oil Protection	Standard	Standard	Standard	Standard
Starting System (5)	Electric	Electric	Electric	Electric
Fuel Tank Capacity	4.5 Gallon	15 Gallons	15 Gallons	7.0 Gallons
Running Time-Full Load	3.2 hours	9.0 hours	6.8 hours	10.0 hours
Running Time-Half Load	5.3 hours	14.5 hours	10.5 hours	20.0 hours
Hour Meter	N/A	Standard	Standard	Standard
<b>120 Volt Receptacles</b>				
Straight Blade (NEMA 5-20R)	4-20 amp GFCI	4-20 amp GFCI	4-20 amp GFCI	2-20 amp GFCI
Twist Lock (NEMA L5-20R) GFCI Protected	2-20 amp	1-20 amp	2-20 amp	
Straight Blade (NEMA 5-30R)				
Straight Blade (NEMA 5-50R)	1-50 amp		1-50 amp	1-50 amp
<b>240 Volt Receptacles</b>				
Twist Lock (NEMA L6-20R)	1-20 amp			
Twist Lock (NEMA L6-30R)		1-30 amp	1-30 amp	1-30 amp
Straight Blade (NEMA 6-50R)	1-50 amp			
<b>120/240 Volt Receptacles</b>				
Twist-Lock (NEMA L14-30R)	1-30 amp			1-30 amp
Straight Blade (NEMA 14-60R)		1-60 amp	1-60 amp	
<b>Size &amp; Weight</b>				
Dimensions (LxWxH)	32x22x22 in.	39.5x26.5x26 in.	42x27x29 in.	32x22x22 in.
Shipping Weight	306 lbs.	440 lbs.	550 lbs.	300 lbs.
<b>Warranty Information (8)</b>				
Generator/Engine	2 yrs/3 yrs	2 yrs/3 yrs	2 yrs/2 yrs	2 yrs/2 yrs or 2000 hrs
CSA Approved	No	No	No	No

Notes: (1) Code G capacitor start motor (2) Consult factory or authorized dealer for complete details. (3) Available 120 volts at the 50 amp Full Power plug. (4) R.F.B. is a Rotating Field Brush design, R.F.L. is a Rotating Field Brushless design (capacitor excitation) and R.A.B. is a Rotating Armature Brush type generator. (5) Electric start models include battery rack and cables; battery not included. (6) Model WC6000H is recoil start only; model WC6000HE has both recoil and electric start. (7) On 240 volts only. NOTE: Models WC12000HE and WL18000VE come with wheel kit and lifting eye standard. (8) Engine warranty applies to retail purchases made after January 1, 2009.

WINCO Inc. continually improves its products and reserves the right to change designs, materials and/or specifications without notice and without incurring any obligations to make such changes or improvements on products previously purchased.

## WINCO offers a complete line of accessories to enhance the performance, versatility and safety of your WINCO Industrial Generator.

**All-Terrain 2-Wheel Dolly Kit** - The ultimate in portability is provided in this accessory. The 10" diameter pneumatic tires get you through mud, snow, sand and soggy lawns. Durable grip handles assure easy maneuverability. Available for all models 4000 watts and larger. (Note: 4-Wheel kit is standard on models WC12000HE and WL18000VE)



**All-Terrain 4-Wheel Dolly Kit** - This accessory has the same rugged durability as our 2-wheel kit, but with the easy mobility of 4 wheels. Available for all models 6000 through 9500 watts. (Note: 4-Wheel kit is standard on models WC12000HE and WL18000VE)



**Single Point Lifting Bar** - With this accessory, your WINCO portable generator can be moved by crane from floor to floor on multi-story construction sites or suspended for overnight security. The Single Point Lifting Bar is easily attached to the frame. Available on all models 4000 watts and larger. (Note: Single Point Lifting Bar is standard on models WC12000HE and WL18000VE)



**Generator Cover** - This durable tailored cover is made of heavy canvas to protect your WINCO portable generator in all weather conditions. During storage or transportation, the custom generator cover protects your portable generator from moisture, dust, nicks and scratches. A built-in band keeps the cover in place in high winds.



**Line Voltage Monitor** - This compact voltmeter can be plugged into the 120-volt receptacle on any WINCO generator to assure you that your generator is functioning properly. Available for all models.



**Emergency Transfer/Service System** - The ET/S System allows 120/240 volt rated WINCO portable generators to be quickly and safely connected to building wiring for emergency/standby service during a power outage. A wall-mount enclosure with hinged cover and padlock to prevent unauthorized access contains a 12 foot cord with a special connecting plug. The enclosure is mounted on the outside of the building and stores the cordset when not in use. A quality Square D circuit breaker load center installs next to the building electrical service panel. The load center has interlocked generator and utility main breakers to prevent feedback to the utility. Four 120 volt (or 8 tandem) or two 240 volt branch circuits, or a combination of the two, can be connected for emergency service. Can be used on all models with the L14-30R or 14-60R receptacle (please specify when ordering).



**GenTran** Manual Transfer Switches also available - contact WINCO for details.

Tel: (507) 357-6821 Fax: (507) 357-4857  
East Coast Sales: (800) 733-2112  
West Coast Sales & Canada: (800) 324-8174  
E-Mail: [wincosales@wincogen.com](mailto:wincosales@wincogen.com)  
Web Site: [www.wincogen.com](http://www.wincogen.com)

W/WC 10/09

**WINCO INC**  
A Division of **DT** Dyna Technology Inc  
225 South Cordova Avenue  
Le Center, MN 56057 USA



# *Why Winco Consumer Portables?*

- ◆ **Winco Generators**-Quality & Innovation since 1927
- ◆ Premium CARB & EPA certified Honda or Briggs and Stratton engines
- ◆ Service and parts distributors available nationwide
- ◆ 100% copper windings assure longer life expectancy
- ◆ Light, compact design for convenient storage and transport
- ◆ Large fuel tanks for longer run times on 5kW and larger
- ◆ Wide variety of receptacles, all have circuit breaker protection
- ◆ WC Series comes standard with:
  - Low oil protection
  - Industrial grade mufflers
- ◆ High quality generator ends, built to last
- ◆ Clean low harmonic power, won't burn up sensitive equipment
- ◆ High motor starting capabilities that are able to start larger motors
- ◆ Rubber isolation mounts on engine and generator
- ◆ Heavy duty tubular steel cradles to handle and protect the everyday use of your generator. Std 1" and 1 ¼" 13- gauge tubular steel
- ◆ Industrial powder coated paint baked onto the cradle and other key components
- ◆ 100% of generators are load tested, not statistically sampled as some manufacturers do
- ◆ 5000 and up come with full power 4-wire receptacle for home standby.





# DYNA

Portable Generators by **WINCO**<sup>®</sup>



**D3000H**



**DL6000I**

## DYNA FEATURES

- PREMIUM CARB/EPA APPROVED HONDA OR BRIGGS & STRATTON ENGINES
- ALL COPPER WINDINGS AND CIRCUIT BREAKERS FOR OPERATOR SAFETY AND PROTECTION AGAINST DAMAGING OVERLOADS
- STURDY WRAP-AROUND WELDED TUBULAR CRADLES
- DURABLE, LONG LASTING POWDER PAINT FINISH
- LIGHT, COMPACT DESIGN FOR CONVENIENT STORAGE AND TRANSPORT
- LARGE FUEL TANKS FOR LONGER RUN TIMES (5kW AND LARGER)
- SIZES RANGING FROM 3kW TO 6kW

**WINCO INC**<sup>®</sup>

A Division of **DTE** Dyna Technology Inc

225 South Cordova Ave  
Le Center MN 56057 USA

Telephone: (507) 357-6821  
Fax: (507) 357-4857  
East Coast: (800) 733-2112  
West Coast & Canada: (800) 324-8174  
E-Mail: [wincosales@wincogen.com](mailto:wincosales@wincogen.com)  
Web Site: [www.wincogen.com](http://www.wincogen.com)



D3000H



DL5000H



DL6000I



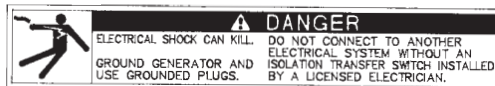
DL6000H

**PERFORMANCE & TECHNICAL DATA**

Model Number	D3000H	DL5000H	DL6000I/ DL6000IE	DL6000H/ DL6000HE
<b>Electrical Specifications</b>				
Maximum Power Rating	3000 watts	5000 watts	6000 watts	6000 watts
Continuous Power Rating**	2300 watts	4500 watts	5500 watts	5500 watts
A.C. Output Voltage	120 volts	120/240 volts	120/240 volts	120/240 volts
Continuous Current Rating	19.1 amps	37.4/18.7 amps	45.8/22.9 amps	45.8/22.9 amps
Motor Starting Ability (1)	.75 hp	1.5 hp	2 hp	2 hp
<b>Engine Data</b>				
Make/Model	Honda GC160	Honda GX270	B&S/Intek	Honda GX340
Displacement/Type	160 cc/OHC	270 cc/OHV	342 cc/OHV	337 cc/OHV
Starting System (2)	Recoil	Recoil	(3)	(3)
Fuel Tank Capacity	2 Qt.	4.5 Gallons	4.5 Gallons	4.5 Gallons
Low Oil Protection	Standard	Standard	Standard	Standard
Running Time-Full Load	1.1 hours	6.6 hours	5.3 hours	4.5 hours
Running Time-Half Load	1.5 hours	10.3 hours	8.5 hours	6.4 hours
<b>Receptacles</b>				
Straight Blade (NEMA 5-20R)	2-20 amp	2-20 amp	4-20 amp	4-20 amp
<b>120/240 Volt Receptacles</b>				
Twist-Lock (NEMA L14-30R)	N/A	1-30 amp	1-30 amp	1-30 amp
<b>Size &amp; Weight</b>				
Dimensions (LxWxH)	20.75x15x16 in.	30x19x22 in.	26.25x18x21.4 in.	30x22x22 in.
Shipping Weight	92 lbs.	150 lbs.	158/168 lbs.	202/210 lbs.
<b>Warranty Information - Consumer Application (4)(5)</b>				
Generator/Engine	2 yrs/2 yrs	2 yrs/3 yrs	2 yrs/2 yrs	2 yrs/3 yrs
CSA Approved	Yes	No	Yes	No

NOTES: (1) Code G Capacitor Start Motor. (2) Electric start models include battery rack and cables. Battery not included. (3) Models DL6000I and DL6000H are recoil start only. Models DL6000IE and DL6000HE have both recoil and electric start. (4) Engine warranty applies to retail purchases made after January 1, 2009. (5) Commercial or Prime Power (Off-Grid) Warranty - 90 Days; International Warranty - Contact WINCO for details.

\*\* Power Output +/- 5%



A Division of DTT Dyna Technology Inc

TEL: (507) 357-6821 FAX: (507) 357-4857

East Coast: (800) 733-2112

West Coast & Canada: (800) 324-8174

E-Mail: [wincosales@wincogen.com](mailto:wincosales@wincogen.com)

Web Site: [www.wincogen.com](http://www.wincogen.com)



## DL6000I & DL6000IE PORTABLE GENERATORS FOR HOME AND LIGHT INDUSTRIAL USE



- ▣ Compact, convenient, low-profile design
- ▣ Powerful Briggs & Stratton industrial OHV engine
- ▣ Electric or recoil start models
- ▣ Heavy duty generator with clean sine wave
- ▣ Large 4-1/2 gallon fuel tank
- ▣ CSA (Canadian Standards Association) approved

Building on nearly 80 years of experience, WINCO proudly introduces the new DL6000I and DL6000IE. Powered by the industrial Briggs & Stratton 11HP OHV Intek engine, these units are built with industrial components at a consumer-friendly price. A newly designed receptacle package features four 20-amp 120-volt receptacles and a full power 30-amp receptacle, all with circuit breaker protection. The heavy duty brushless alternator design minimizes maintenance by eliminating carbon brushes and slip rings common on competitive models, while simultaneously delivering voltage stability and clean power. The new Advance Power Series by DYNA is the perfect solution for reliable, industrial strength power for home back-up.

### TYPICAL POWER LOADS

### POWER REQUIRED\*

<u>TYPICAL POWER LOADS</u>	<u>POWER REQUIRED*</u>
Lights	As listed on light bulbs
TV, VCR/DVD Player, Stereo	150-300 watts
Computer, Monitor, Printer	800-1200 watts
Microwave Oven	600-1500 watts
Dishwasher	900-1200 watts
Toaster, Electric Fry Pan	1200 watts
Hair Dryer	800-1200 watts
Space Heater	1200-1500 watts
Portable Fan	200-300 watts
Furnace Fan	500-800 watts
Sump Pump	500-1200 watts
Refrigerator, Freezer	800-1500 watts
Drill (hand-held)	600-900 watts
Electric Hand Saw	1200-1500 watts
Portable Air Compressor	1200-1500 watts
Air Conditioner (window-mount)	1200-1500 watts
Air Conditioner (central air)	4000-6000 watts

\* Approximate power required for each item

**WINCO INC**  
A Division of **DTI** Dyna Technology Inc  
225 South Cordova Ave  
Le Center MN 56057

East Coast: (800) 733-2112  
West Coast & Canada: (800) 324-8174  
Web Site: [www.wincogen.com](http://www.wincogen.com)  
E-Mail: [wincosales@wincogen.com](mailto:wincosales@wincogen.com)





# DL6000I & DL6000IE

## PORTABLE GENERATORS



“BUILDING ON EXPERIENCE”

### PERFORMANCE & TECHNICAL DATA\*\*

<b>Electrical Specifications</b>	<b>DL6000I</b>	<b>DL6000IE</b>
Maximum Power Rating (1)	6000 watts	6000 watts
Continuous Power Rating (1)	5500 watts	5500 watts
A C Output Voltage	120/240 volts	120/240 volts
Continuous Current Rating	45.8/22.9 amps	45.8/22.9 amps
Motor Starting Ability (2)	1.5 hp	1.5 hp
<b>Engine Data</b>		
Make/Model	B&S/Intek	B&S/Intek
Displacement/Type	342 cc/OHV	342 cc/OHV
Rated Power (3600 rpm)	11 hp	11 hp
Starting System	Recoil	Recoil/Elec
Fuel Tank Capacity	4.5 gallon	4.5 gallon
Low Oil Protection	Standard	Standard
Running Time - Full Load	5.3 hours	5.3 hours
Running Time - Half Load	8.5 hours	8.5 hours
<b>Receptacles</b>		
120V Straight Blade (NEMA 5-20R)	4-20 amp	4-20 amp
120/240V Twistlock (NEMA L14-30R)	1-30 amp	1-30 amp
<b>Size &amp; Weight</b>		
Dimensions (LxWxH)	26.25x17.5x21.4”	26.25x17.5x21.4”
Shipping Weight	158 lbs.	168 lbs.
<b>Warranty Information-Consumer Application (3)</b>		
Generator/Engine	2 yrs/2 yrs	2 yrs/2 yrs

**NOTES:**

- (1) Power Output - +/- 5%.
- (2) Code G Capacitor Start Motor.
- (3) Commercial or Prime Power Use (off-grid) Warranty - 90 Days; International Warranty - Contact WINCO for details.

\*\* Unit is CSA (Canadian Standards Association) Approved



A Division of **DTI** Dyna Technology Inc

225 South Cordova Avenue

Le Center MN 56057

East Coast: (800) 733-2112

West Coast & Canada: (800) 324-8174

Web Site: [www.wincogen.com](http://www.wincogen.com)

E-Mail: [wincosales@wincogen.com](mailto:wincosales@wincogen.com)

# *Why Winco Tri-Fuel Portables?*

- ◆ **Winco Generators**-Quality & Innovation since 1927
- ◆ Proven, dependable, efficient design, since 1984
- ◆ Dual Carburetors allows the engine to operate on gasoline, LP gas, or natural gas with no adjustment.
- ◆ Premium Honda and Briggs & Stratton Vanguard OHV engines. High quality generator ends, built to last
- ◆ 100% copper windings assure longer life expectancy
- ◆ Clean low harmonic power, won't burn up sensitive equipment
- ◆ Service and parts distributors available nationwide
- ◆ Rubber isolation mounts on engine and generator
- ◆ Heavy duty tubular steel cradles to handle and protect the everyday use of your generator. Std 1" and 1 1/4" 13- gauge tubular steel
- ◆ Industrial powder coated paint baked onto the cradle and other key components
- ◆ Wide variety of receptacles, includes full power 4-wire for home standby, all have circuit breaker protection
- ◆ Compact size for easier transportation and handling
- ◆ Four wheel dolly are standard on HPS12000HE
- ◆ 100% of generators are load tested, not statistically sampled as some manufacturers do
- ◆ Home Power Series comes standard with:
  - Electric start with battery rack and cables
  - Maintenance-free electron ignition system
  - Dual element air filter reduces maintenance
  - Low oil protection helps prevent costly repairs and downtime.
- ◆ Optional Accessories:
  - All Terrain 2 Wheel Dolly Kit
  - Generator Cover
  - Line Voltage Monitor
  - Gen-Tran Manual Transfer Switches
  - Emergency Transfer/Service System
  - Low Pressure Fuel Solenoid



# HOME POWER®

TRI-FUEL PORTABLE GENERATORS by **WINCO®**



HPS6000HE



HPS12000HE



HPS9000VE

**HOME POWER® Tri-Fuel Portable Generators by WINCO** keep you out of the dark. The unit operates on gasoline, L.P. gas, or natural gas, and converting from one fuel source to another can be accomplished quickly and easily. **HOME POWER®** Tri-Fuel generators are powered by premium quality, long-life engines with low oil protection. The powerful, high-quality generator features inherent voltage regulation and protection for optimum reliability and safety. 120/240 volt A.C. single-phase, 60-cycle electric power is available through the receptacles provided in the output panel. The sturdy cradle design provides full protection and makes handling and storage easy.

## Features/Benefits

### Engine

- Premium Honda and Briggs & Stratton Vanguard OHV engines meet EPA emissions standards
- Special carburetor and secondary gas regulator allows the engine to operate on the most convenient fuel-gasoline, L.P. gas or natural gas
- Low oil protection helps prevent costly repairs and downtime
- Standard electric start with battery rack and cables (battery not included)
- Maintenance-free electronic ignition system
- Dual element air filter reduces maintenance

### Generator

- Proven, dependable, efficient design
- Inherent voltage regulation for precise, stable output and optimum reliability
- 100% copper windings, NEMA Class F insulation
- Capacitor excitation for brushless operation

### Power Output Panel

- Special 120/240 volt receptacle for connection to a temporary power distribution system or to a building electrical service with an approved manual transfer switch for emergency/standby use
- Standard straight blade, U-ground 120 volt duplex receptacles
- Circuit breaker overload protection on generator

### Protective Cradle

- Heavy-duty tubular steel cradle with distinctive wrap-around design for added strength and durability
- Vibration isolation for smooth operation
- Large capacity fuel tank allows for extended run time between refills when using gasoline fuel
- Easy to move, convenient to store



# HOME POWER<sup>®</sup> TRI-FUEL PORTABLE GENERATORS by WINCO<sup>®</sup>

MODEL NUMBER	HPS6000HE	HPS9000VE	HPS12000HE
<b>Electrical Specifications</b>			
Maximum Power Rating (1)	6000 watts	9000 watts	12,000 watts
Continuous Power Rating (1)	5500 watts	8000 watts	10,800 watts
AC Output Voltage	120/240 volts	120/240 volts	120/240 volts
Continuous Current Rating	45.8/22.9 amps	66.7/33.3 amps	90/45 amps
Motor Starting Ability (1)(2)	2 h.p.	4 h.p.	6 h.p.
<b>Engine Data</b>			
Make/Model	Honda GX340	B&S Vanguard	Honda GX620
Displacement/Type	337 cc/OHV	480 cc/OHV	620 cc/OHV
Starting System (3)	Electric/Recoil	Electric/Recoil	Electric
Fuel Tank Capacity (gasoline)	4.5 gallons	4.5 gallons	15.0 gallons
Low Oil Protection	Standard	Standard	Standard
<b>Fuel Consumption - Full Load</b>			
* Gasoline	1.0 gal/hr	1.3 gal/hr	1.67 gal/hr
* L.P.	1.1 gal/hr	1.5 gal/hr	2.2 gal/hr
* Natural Gas	77 cu ft/hr	121 cu ft/hr	195 cu ft/hr
DbA Rating (@ 7 meters)	72 DbA	77 DbA	78 DbA
<b>Receptacles</b>			
120 Volt Straight Blade (NEMA 5-20R)	2-20 amp	4-20 amp	4-20 amp
120/240 Volt Twist-Lock (NEMA L14-30R)	1-30 amp	1-30 amp	1-30 amp
120/240 Volt Straight Blade (NEMA 14-60R)	N/A	N/A	1-60 amp
<b>Size &amp; Weight</b>			
Dimensions (LxWxH)	30x22x22 in.	32x22x22 in.	39.5x26x26 in.
Shipping Weight	212 lbs.	274 lbs.	396 lbs.
<b>Warranty Information - Consumer Application (4)(5)</b>			
Generator/Engine	1 yr/3 yrs	2 yrs/2 yrs	1 yr/3 yrs

## ACCESSORIES

**All-Terrain 2-Wheel Dolly Kit** – The ultimate in portability, this wheel kit with 8" diameter pneumatic tires and durable grip handles gets you through mud, snow, sand and soggy terrain. NOTE: HPS12000HE comes with 4-Wheel Dolly Kit standard.

**Generator Cover** – This durable tailored cover is made of heavy canvas to protect your Home Power generator during storage or transportation. The custom cover protects against moisture, dust, nicks and scratches. A built-in band keeps the cover in place in high winds.

**Line Voltage Monitor** – This compact voltmeter can be plugged into the 120 volt receptacle on any Home Power generator to assure you that your generator is functioning properly or assist you in isolating continuity problems in extension cords.

**Gen-Tran Manual Transfer Switches** – 8 circuit, 30-amp or 12 circuit, 60-amp UL approved manual transfer switches allow generator connection to electrical service for emergency power backup. 30-amp system includes power inlet box and 25-foot connection cord in NEMA 1 enclosure. 60-amp system is flush-mount.

**Emergency Transfer/Service System** – The ET/S System allows your Home Power generator to be quickly and safely connected to a building electrical panel for backup service during a power outage. A weatherproof NEMA 3R hinged lockable enclosure contains a 12-foot cord with a special twist-lock plug and stores the cordset when not in use. A quality Square D circuit breaker load center with interlocked generator and utility main breakers to prevent feedback to the utility installs next to the building electrical service panel. Four 120-volt (or 8 tandem) or two 240-volt branch circuits or a combination of the two can be connected for emergency service.

**Low Pressure Fuel Solenoid (12-volt)** – Units that are intended to be run unattended or for long periods of time must have an electric fuel solenoid installed in the fuel line close to the generator. This solenoid is a positive flow shut-off valve which shuts off the fuel should the engine unexpectedly stop running, preventing costly and dangerous fuel leakage at the connection point.



All-Terrain 2-Wheel Dolly Kit



Line Voltage Monitor



Generator Cover



Emergency Transfer/Service Kit

NOTE: (1) Based on gasoline fuel. Derate 10% for L.P. gas, 20% for Natural Gas. (2) Code G capacitor start motor. (3) Electric start models include battery rack and cables. Battery not included. BCI Group U1, 12-volt, 235 CCA battery required. (4) Engine warranty applies to retail purchases made after January 1, 2009. (5) Commercial or Prime Power Warranty – 90 Days. International Warranty – Contact WINCO for details.

**WINCO INC**  
A Division of DTE-Dyna Technology Inc  
225 South Cordova Avenue  
Le Center, MN 56057 USA

Tel: (507) 357-6821 Fax: (507) 357-4857  
Sales (E of Mississippi River): (800) 733-2112  
Sales (W of Mississippi River & Canada): (800) 324-8174  
Warranty/Service: (507) 357-6821/6832  
E-Mail: wincosales@wincogen.com  
Web Site: www.wincogen.com

**RP25**  
**REDI POWER**

**WINCO**®  
INCORPORATED



Powered by  
**ISUZU**  
**4LE1**  
**2.2 Liter**  
**Naturally Aspirated**

**Electrical Output 20kW/25kVa**

<u>Voltage</u>	<u>Amperes</u>	<u>Cycles</u>	<u>Phase</u>	<u>kW</u>	<u>kVa</u>	<u>pf</u>
120/240	70*	60	1	20	20	1.0
120/208	69	60	3	20	25	0.8
120/240	60	60	3	20	25	0.8
277/480	30	60	3	20	25	0.8

\* Available amperage at terminal block connection - additional amperage available at receptacle panel for single phase output.

**STANDARD FEATURES**

- **ISUZU 2.2 Liter 1800 RPM Engine**
  - Meets EPA / CARB Tier 2 Emissions
  - Mechanical Governor
  - Fuel/Water Separator
  - Oil Drain Extension with Valve
- **BASLER DGC-2020 Digital Controller with Automatic Safety Shutdowns and Digital Readouts for Low Oil Pressure, High Water Temp, Engine Overcrank and Engine Overspeed, Low Fuel Level Shutdown, Battery Disconnect Switch**
- **Brushless Alternator / Class H Insulation**
  - Standby Output: 20kW (25kVA)
  - Prime Output: 18kW (22.5kVA)
  - Motor Starting Capability: 7.5 h.p. Code G
  - Voltage Regulation: 1.5% / < 5% Total Harmonic Distortion
- **SWITCHABLE 4-Position Voltage Selector Switch with Automatic Safety Shutdown and Safety Lock Out**
  - AC Voltages - 3 Phase: 208, 220, 240, 416, 440, 460, 480V
  - AC Voltages - 1 Phase: 120, 139, 208, 220, 240V
  - Amps:
    - Single Phase 240V: 70A (at terminal block)
    - Three Phase 208V: 69A
    - Three Phase 240V: 60A
    - Three Phase 480V: 30A
- **Illuminated Instrumentation Panel and Connection Box**
- **Receptacle Package:**
  - 2-50amp 120/240V Twistlock Receptacles
  - 2-20amp 120V GFCI Duplex Receptacles
  - 1-Terminal Block for Full Connection with Safety Shut Off
- **Shore Power Inlet for Easy Connection to Block Heater and Battery Charger**
- **Pre-wired for Remote Emergency Stop (Optional Button Available)**
- **Two Wire Remote Start Capability**
- **Selectable High or Low Voltage Mainline Circuit Breakers for Main Power Connection**
- **Circuit Breakers for Single Phase Receptacles**
- **14-gauge Galvanneal Steel Sound Attenuated Enclosure with Critical Muffler**
- **Sound Level: 65.9 dB(A) @ 7 Meters, Full Load**
- **Durable Powder Coat Paint Finish / Stainless Steel Fasteners**
- **Large Lockable Doors for Maintenance Access**
- **Single Point Lifting Eye**
- **Full Fluid Containment System with Drains**
- **Lockable Fuel Access Door**
- **Six Bolts to Remove Generator Assembly from Trailer**
- **DOT Approved Trailer & Tank, 3,500 lb. Capacity, Electric Brakes with Break-Away Kit, Single Axle, Torsion Bar Suspension, Front Leveling Jack, Rear Stabilization Jacks, Running Lights, Lighted License Plate Bracket**
- **45-gallon, 7-gauge Steel Fuel Tank**
- **Fuel Consumption:**
  - Full Load.....1.8 gal/hr
  - 75% Load.....1.4 gal/hr
  - 50% Load......9 gal/hr
- **Run Time:**
  - Full Load.....25 hours
  - 75% Load.....32 hours
  - 50% Load.....50 hours
- **Removable and Adjustable Hitch**
- **3" Pintle Hitch and 2 5/16" Ball Hitch both come Standard**
- **Large Front Lockable Storage Compartment**
- **Dimensions: Generator with Trailer - 135" x 58" x 73"**
- **Weight: Generator with Dry Fuel Tank and Trailer - 2820 lbs**
- **Warranty: Complete Unit - 1 Year; Engine - 2 Year Limited**

### EXPERIENCED DESIGN

- OVER 80 YEARS EXPERIENCE IN THE GENERATOR INDUSTRY
- DESIGNED FOR LONG LIFE TO MAXIMIZE RETURN ON INVESTMENT
- REACTIVE LOAD BANK TESTED / SINGLE STEP 100% LOAD TESTED
- "ORIGINATOR" OF THE MOBILE DIESEL GENERATOR



### ENGINE SPECIFICATIONS

- EPA CARB TIER 2 COMPLIANT ( TIER 4 READY )
- COMPLETE SERVICE NETWORK
- EFFICIENT LOW FUEL CONSUMPTION DESIGN

MAKE.....	ISUZU
MODEL.....	4LE1
TYPE.....	DIESEL
DIRECT INJECTION.....	MECHANICAL
SPEED GOVERNOR.....	MECHANICAL
CYLINDERS.....	4
TOTAL DISPLACEMENT.....	2.2L
BORE X STROKE.....	mm 85 X 95
COMPRESSION.....	2.5:1
ASPIRATION/COOLING.....	NATURAL/LIQUID
RADIATOR CAPACITY.....	2 GAL
TOTAL COOLING CAPACITY.....	2.75 GAL
HOUSING.....	SAE 4
FLYWHEEL (TEETH 125).....	10 in.
ROTATION.....	CCW
LUBE OIL SPEC.....	SAE TYPE, API CF-CH4
LUBE OIL CONSUMPTION.....	< 0.1% OF FUEL
OIL & FILTER REPLACEMENT.....	500 HRS
TOTAL OIL CAPACITY.....	8.69L
EXHAUST OUTLET SIZE @ MUFFLER.....	1.5"
ELECTRICAL SYSTEM (NEGATIVE GROUND).....	12 VDC
ALTERNATOR (BOSCH).....	35 AMPS
STARTER.....	DENSO
BATTERY (NOT INCLUDED BCI 24).....	650 CCA

### GENSET CONTROL

- BASLER DGC-2020 DIGITAL CONTROLLER
- GENERATOR PROTECTION AND METERING
- EVENT FAULT LOG RECORDING
- DEDICATED RELAYS FOR FUEL SOLENOIDS, GLOW PLUGS AND STARTER SOLENOID
- AUTOMATIC SAFETY SHUTDOWN
- DIGITAL READOUTS FOR LOW OIL PRESSURE, HIGH WATER TEMP, ENGINE OVERCRANK AND ENGINE OVERSPEED
- LOW FUEL LEVEL SHUTDOWN

### GENERATOR SPECIFICATIONS

- BRUSHLESS ROTATING FIELD FOR LONG LIFE AND LOW MAINTENANCE
  - MEETS BS EN 60034, BS5000, VDE 0530
  - NEMA MG1-32, ICE34, CSA C22.2-100, AS1359
  - INCLUDES: HIGH EFFICIENCY SEMICONDUCTORS, RECTIFIER SURGE PROTECTION
  - STANDARD OUTPUT: 20kW, 25kVA
  - PRIME OUTPUT: 18kW, 22.5kVA
  - AMPS: 1-PHASE 240V - 70A at terminal block, 83 amps total, including receptacle panel
  - 3-PHASE 208V - 69A
  - 3-PHASE 240V - 60A
  - 3-PHASE 480V - 30A
- |                                  |                               |
|----------------------------------|-------------------------------|
| RATING.....                      | (125/40°C) STANDBY            |
| TYPE.....                        | 4 POLE – REVOLVING FIELD      |
| SPEED/FREQUENCY.....             | 1800 RPM/60HZ                 |
| INSULATION SYSTEM.....           | CLASS H                       |
| STATOR WINDINGS.....             | DOUBLE LAYER CONCENTRIC       |
| PITCH.....                       | 2/3                           |
| WAVEFORM DISTORTION.....         | 1.5%                          |
| TELEPHONE INTERFERENCE.....      | <2.0%                         |
| EFFICIENCY PEAK.....             | ~92.5%                        |
| COUPLING.....                    | FLEXIBLE DISC                 |
| BEARINGS (MAINTENANCE FREE)..... | 1                             |
| CONTROL.....                     | (SX460 STANDARD) SELF EXCITED |
| REGULATION.....                  | +/- 1.5%                      |
| SINGLE PHASE RATING.....         | 1.0pf                         |
| THREE PHASE RATING.....          | 0.8pf                         |



**RP55**  
**REDI POWER**

**WINGO**®  
INCORPORATED



Powered by

**IVECO**  
**MOTORS**



**NEF45 AM1**

**4.5 Liter**

**Naturally Aspirated**

**Electrical Output 45kW/56kVa**

<u>Voltage</u>	<u>Amperes</u>	<u>Cycles</u>	<u>Phase</u>	<u>kW</u>	<u>kVa</u>	<u>pf</u>
120/240	150	60	1	45	45	1.0
120/208	150	60	3	45	56	0.8
120/240	135	60	3	45	56	0.8
277/480	68	60	3	45	56	0.8

**STANDARD FEATURES**

- **IVECO 4.5 Liter 1800 RPM Engine** (Division of FIAT Motors)
  - Meets EPA / CARB Tier 2 Emissions
  - Mechanical Governor
  - Fuel/Water Separator
  - Oil Drain Extension with Valve
- **BASLER DGC-2020 Digital Controller** with Automatic Safety Shutdowns and Digital Readouts for Low Oil Pressure, High Water Temp, Engine Overcrank and Engine Overspeed, Low Fuel Level Shutdown, Battery Disconnect Switch
- **Brushless Alternator / Class H Insulation**
  - Standby Output: 45kW (56kVA)
  - Prime Output: 40.5kW (50.6kVA)
  - Motor Starting Capability: 20 h.p. Code F
  - Voltage Regulation: 1.5% / < 5% Total Harmonic Distortion
- **SWITCHABLE 4-Position Voltage Selector Switch** with Automatic Safety Shutdown and Safety Lock Out
  - AC Voltages - 3 Phase: 208, 220, 240, 416, 440, 460, 480V
  - AC Voltages - 1 Phase: 120, 139, 208, 220, 240V
  - Amps:
    - Single Phase 240V: 150A (at terminal block)
    - Three Phase 208V: 150A
    - Three Phase 240V: 135A
    - Three Phase 480V: 68A
- **Illuminated Instrumentation Panel and Connection Box**
- **Receptacle Package:**
  - 2-50amp 120/240V Twistlock Receptacles
  - 2-20amp 120V GFCI Duplex Receptacles
  - 1-Terminal Block for Full Connection with Safety Shut Off
- **Shore Power Inlet** for Easy Connection to Block Heater and Battery Charger
- Pre-wired for Remote Emergency Stop (Optional Button Available)
- Two Wire Remote Start Capability
- Selectable High or Low Voltage Mainline Circuit Breakers for Main Power Connection
- Circuit Breakers for Single Phase Receptacles
- 14-gauge Galvanneal Steel Sound Attenuated Enclosure with Critical Muffler
- Sound Level: 68 dB(A) 7 Meters, Full Load
- Durable Powder Coat Paint Finish / Stainless Steel Fasteners
- Large Lockable Doors for Maintenance Access
- Single Point Lifting Eye
- Full Fluid Containment System with Drains
- Lockable Fuel Access Door
- Six Bolts to Remove Generator Assembly from Trailer
- DOT Approved Trailer & Tank, 7,000 lb. Capacity, Electric Brakes with Break-Away Kit, Single Axle, Torsion Bar Suspension, Front Leveling Jack, Rear Stabilization Jacks, Running Lights, Lighted License Plate Bracket
- 110-gallon, 7-gauge Steel Fuel Tank
- **Fuel Consumption:**
  - Full Load.....2.80 gal/hr
  - 75% Load.....2.11 gal/hr
  - 50% Load.....1.41 gal/hr
- **Run Time:**
  - Full Load.....39 hours
  - 75% Load.....52 hours
  - 50% Load.....78 hours
- Removable and Adjustable Hitch
- 3" Pintle Hitch and 2 5/16" Ball Hitch both come Standard
- Large Front Lockable Storage Compartment
- Dimensions: Generator with Trailer - 150" x 66" x 83"
- Weight: Generator with Dry Fuel Tank and Trailer - 4760 lbs
- Warranty: Complete Unit - 1 Year; Engine - 2 Year Limited

**EXPERIENCED DESIGN**

- OVER 80 YEARS EXPERIENCE IN THE GENERATOR INDUSTRY
- DESIGNED FOR LONG LIFE TO MAXIMIZE RETURN ON INVESTMENT
- REACTIVE LOAD BANK TESTED / SINGLE STEP 100% LOAD TESTED
- “ORIGINATOR” OF THE MOBILE DIESEL GENERATOR



**ENGINE SPECIFICATIONS**

- DIVISION OF FIAT MOTORS INC.
- EPA CARB TIER 2 COMPLIANT ( TIER 4 READY )
- COMPLETE SERVICE NETWORK
- EFFICIENT LOW FUEL CONSUMPTION DESIGN

MAKE.....	IVECO
MODEL.....	NEF45 AM1
TYPE.....	DIESEL
DIRECT INJECTION.....	MECHANICAL
SPEED GOVERNOR.....	MECHANICAL
CYLINDERS.....	4
MEAN PISTON SPEED.....	7.9 m/s
TOTAL DISPLACEMENT.....	4.5L
BORE X STROKE.....	mm 104 X 132
COMPRESSION.....	17.5:1
ASPIRATION/COOLING.....	NATURAL/LIQUID
RADIATOR CAPACITY.....	2.25 GAL
TOTAL COOLING CAPACITY.....	4.5 GAL
HOUSING.....	SAE 3
FLYWHEEL (TEETH 125).....	1 1/2 in.
ROTATION.....	CCW
LUBE OIL SPEC.....	SAE TYPE, API CF-CH4
LUBE OIL CONSUMPTION.....	< 0.1% OF FUEL
OIL & FILTER REPLACEMENT.....	600 HRS
TOTAL OIL CAPACITY.....	13.5 QUARTS
EXHAUST OUTLET SIZE @ MUFFLER.....	2.5"
ELECTRICAL SYSTEM (NEGATIVE GROUND).....	12 VDC
ALTERNATOR (BOSCH).....	90 AMPS
STARTER.....	BOSCH
BATTERY (NOT INCLUDED BCI 24).....	650 CCA

**GENSET CONTROL**

- BASLER DGC-2020 DIGITAL CONTROLLER
- GENERATOR PROTECTION AND METERING
- EVENT FAULT LOG RECORDING
- DEDICATED RELAYS FOR FUEL SOLENOIDS, GLOW PLUGS AND STARTER SOLENOID
- AUTOMATIC SAFETY SHUTDOWN
- DIGITAL READOUTS FOR LOW OIL PRESSURE, HIGH WATER TEMP, ENGINE OVERCRANK AND ENGINE OVERSPEED
- LOW FUEL LEVEL SHUTDOWN AND FUEL LEAK DETECTION ALARM

**GENERATOR SPECIFICATIONS**

- BRUSHLESS ROTATING FIELD FOR LONG LIFE AND LOW MAINTENANCE
- MEETS BS EN 60034, BS5000, VDE 0530
- NEMA MG1-32, ICE34, CSA C22.2-100, AS1359
- INCLUDES: HIGH EFFICIENCY SEMICONDUCTORS, RECTIFIER SURGE PROTECTION
- STANDARD OUTPUT: 45kW, 55kVA
- PRIME OUTPUT: 40.5kW, 50.6kVA
- AMPS: 1-PHASE 240V - 150A at terminal block, 188 amps total, including receptacle panel
- 3-PHASE 208V - 150A
- 3-PHASE 240V - 135A
- 3-PHASE 480V - 68A
- RATING.....(125/40°C) STANDBY
- TYPE.....4 POLE – REVOLVING FIELD
- SPEED/FREQUENCY.....1800 RPM/60HZ
- INSULATION SYSTEM.....CLASS H
- STATOR WINDINGS.....DOUBLE LAYER CONCENTRIC
- PITCH.....2/3
- WAVEFORM DISTORTION.....1.5%
- TELEPHONE INTERFERENCE.....<2.0%
- EFFICIENCY PEAK.....~92.5%
- COUPLING.....FLEXIBLE DISC
- BEARINGS (MAINTENANCE FREE).....1
- CONTROL.....(SX460 STANDARD) SELF EXCITED
- REGULATION.....+/- 1.5%
- SINGLE PHASE RATING.....1.0pf
- THREE PHASE RATING.....0.8pf

Telephone: (507) 357-6821  
 Fax: (507) 357-4857  
 East Coast: (800) 733-2112  
 West Coast & Canada: (800) 324-8174  
 E-Mail: [wincosales@wincogen.com](mailto:wincosales@wincogen.com)  
 Web Site: [www.wincogen.com](http://www.wincogen.com)

RP55-0807

**WINCO INC**  
 A Division of **DT** Dyna Technology Inc  
 225 South Cordova Ave  
 Le Center MN 56057 USA

**PP30**  
**REDI POWER**

**WINGCO**®  
INCORPORATED



Powered by

**IVECO**  
MOTORS



**NEF45 SM2**  
**4.5 Liter**  
**Turbocharged**

**Electrical Output 65kW/80kVa**

Voltage	Amperes	Cycles	Phase	kW	kVa	pf
120/240	225*	60	1	65	65	1.0
120/208	225	60	3	65	80	0.8
120/240	195	60	3	65	80	0.8
277/480	98	60	3	65	80	0.8

\* Available amperage at terminal block connection - additional amperage available at receptacle panel for single phase output.

**STANDARD FEATURES**

- **IVECO** 4.5 Liter 1800 RPM Engine (Division of FIAT Motors)
  - Meets EPA / CARB Tier 2 Emissions
  - Mechanical Governor
  - Fuel/Water Separator
  - Oil Drain Extension with Valve
- **BASLER DGC-2020** Digital Controller with Automatic Safety Shutdowns and Digital Readouts for Low Oil Pressure, High Water Temp, Engine Overcrank and Engine Overspeed, Low Fuel Level Shutdown, Battery Disconnect Switch
- **Brushless Alternator / Class H Insulation**
  - Standby Output: 65kW (80kVA)
  - Prime Output: 58.5kW (72kVA)
  - Motor Starting Capability: 25 h.p. Code G
  - Voltage Regulation: 1.5% / < 5% Total Harmonic Distortion
- **SWITCHABLE** 4-Position Voltage Selector Switch with Automatic Safety Shutdown and Safety Lock Out
  - AC Voltages - 3 Phase: 208, 220, 240, 416, 440, 460, 480V
  - AC Voltages - 1 Phase: 120, 139, 208, 220, 240V
  - Amps:
    - Single Phase 240V: 225A (at terminal block)
    - Three Phase 208V: 225A
    - Three Phase 240V: 195A
    - Three Phase 480V: 98A
- Illuminated Instrumentation Panel and Connection Box
- Receptacle Package:
  - 2-50amp 120/240V Twistlock Receptacles
  - 2-20amp 120V GFCI Duplex Receptacles
  - 1-Terminal Block for Full Connection with Safety Shut Off
- Shore Power Inlet for Easy Connection to Block Heater and Battery Charger
- Pre-wired for Remote Emergency Stop (Optional Button Available)
- Two Wire Remote Start Capability
- Selectable High or Low Voltage Mainline Circuit Breakers for Main Power Connection
- Circuit Breakers for Single Phase Receptacles
- 14-gauge Galvanneal Steel Sound Attenuated Enclosure with Critical Muffler
- Sound Level: 70 dB(A) @ 7 Meters, Full Load
- Durable Powder Coat Paint Finish / Stainless Steel Fasteners
- Large Lockable Doors for Maintenance Access
- Single Point Lifting Eye
- Full Fluid Containment System with Drains
- Lockable Fuel Access Door
- Six Bolts to Remove Generator Assembly from Trailer
- DOT Approved Trailer & Tank, 7,000 lb. Capacity, Electric Brakes with Break-Away Kit, Single Axle, Torsion Bar Suspension, Front Leveling Jack, Rear Stabilization Jacks, Running Lights, Lighted License Plate Bracket
- 110-gallon, 7-gauge Steel Fuel Tank
- Fuel Consumption:
  - Full Load.....4.64 gal/hr
  - 75% Load.....3.48 gal/hr
  - 50% Load.....2.41 gal/hr
- Run Time:
  - Full Load.....24 hours
  - 75% Load.....32 hours
  - 50% Load.....46 hours
- Removable and Adjustable Hitch
- 3" Pintle Hitch and 2 5/16" Ball Hitch both come Standard
- Large Front Lockable Storage Compartment
- Dimensions: Generator with Trailer - 150" x 66" x 83"
- Weight: Generator with Dry Fuel Tank and Trailer - 4950 lbs
- Warranty: Complete Unit - 1 Year; Engine - 2 Year Limited



### EXPERIENCED DESIGN

- OVER 80 YEARS EXPERIENCE IN THE GENERATOR INDUSTRY
- DESIGNED FOR LONG LIFE TO MAXIMIZE RETURN ON INVESTMENT
- REACTIVE LOAD BANK TESTED / SINGLE STEP 100% LOAD TESTED
- "ORIGINATOR" OF THE MOBILE DIESEL GENERATOR



### GENSET CONTROL

- BASLER DGC-2020 DIGITAL CONTROLLER
- GENERATOR PROTECTION AND METERING
- EVENT FAULT LOG RECORDING
- DEDICATED RELAYS FOR FUEL SOLENOIDS, GLOW PLUGS AND STARTER SOLENOID
- AUTOMATIC SAFETY SHUTDOWN
- DIGITAL READOUTS FOR LOW OIL PRESSURE, HIGH WATER TEMP, ENGINE OVERCRANK AND ENGINE OVERSPEED
- LOW FUEL LEVEL SHUTDOWN AND FUEL LEAK DETECTION ALARM

### ENGINE SPECIFICATIONS

- DIVISION OF FIAT MOTORS INC.
- EPA CARB TIER 2 COMPLIANT ( TIER 4 READY )
- COMPLETE SERVICE NETWORK
- EFFICIENT LOW FUEL CONSUMPTION DESIGN

MAKE.....	IVECO
MODEL.....	NEF45 SM2
TYPE.....	DIESEL
DIRECT INJECTION.....	MECHANICAL
SPEED GOVERNOR.....	MECHANICAL
CYLINDERS.....	4
TOTAL DISPLACEMENT.....	4.5L
BORE X STROKE.....	mm 104 X 132
ASPIRATION/COOLING.....	TURBOCHARGED/LIQUID
RADIATOR CAPACITY.....	2.25 GAL
TOTAL COOLING CAPACITY.....	5.0 GAL
HOUSING.....	SAE 3
FLYWHEEL (TEETH 125).....	11½ in.
ROTATION.....	CCW
LUBE OIL SPEC.....	SAE TYPE, API CF-CH4
LUBE OIL CONSUMPTION.....	< 0.1% OF FUEL
OIL & FILTER REPLACEMENT.....	600 HRS
TOTAL OIL CAPACITY.....	13.5 QUARTS
EXHAUST OUTLET SIZE @ MUFFLER.....	3.0"
ELECTRICAL SYSTEM (NEGATIVE GROUND).....	12 VDC
ALTERNATOR (BOSCH).....	90 AMPS
STARTER.....	BOSCH
BATTERY (NOT INCLUDED BCI 24).....	650 CCA

### GENERATOR SPECIFICATIONS

- BRUSHLESS ROTATING FIELD FOR LONG LIFE AND LOW MAINTENANCE
  - MEETS BS EN 60034, BS5000, VDE 0530
  - NEMA MG1-32, ICE34, CSA C22.2-100, AS1359
  - INCLUDES: HIGH EFFICIENCY SEMICONDUCTORS, RECTIFIER SURGE PROTECTION
  - STANDARD OUTPUT: 65kW, 80kVA
  - PRIME OUTPUT: 58.5kW, 72kVA
  - AMPS: 1-PHASE 240V - 225A at terminal block, 270 amps total, including receptacle panel
  - 3-PHASE 208V - 225A
  - 3-PHASE 240V - 195A
  - 3-PHASE 480V - 98A
- |                                  |                               |
|----------------------------------|-------------------------------|
| RATING.....                      | (125/40°C) STANDBY            |
| TYPE.....                        | 4 POLE – REVOLVING FIELD      |
| SPEED/FREQUENCY.....             | 1800 RPM/60HZ                 |
| INSULATION SYSTEM.....           | CLASS H                       |
| STATOR WINDINGS.....             | DOUBLE LAYER CONCENTRIC       |
| PITCH.....                       | 2/3                           |
| WAVEFORM DISTORTION.....         | 1.5%                          |
| TELEPHONE INTERFERENCE.....      | <2.0%                         |
| EFFICIENCY PEAK.....             | ~92.5%                        |
| COUPLING.....                    | FLEXIBLE DISC                 |
| BEARINGS (MAINTENANCE FREE)..... | 1                             |
| CONTROL.....                     | (SX460 STANDARD) SELF EXCITED |
| REGULATION.....                  | +/- 1.5%                      |
| SINGLE PHASE RATING.....         | 1.0pf                         |
| THREE PHASE RATING.....          | 0.8pf                         |

Telephone: (507) 357-6821

Fax: (507) 357-4857

East Coast: (800) 733-2112

West Coast & Canada: (800) 324-8174

E-Mail: [wincosales@wincogen.com](mailto:wincosales@wincogen.com)

Web Site: [www.wincogen.com](http://www.wincogen.com)

RP80-1007

**WINCO INC**  
A Division of **DT** Dyna Technology Inc

225 South Cordova Ave  
Le Center MN 56057 USA



## **Why Choose Winco Standbys?**

*Winco provides the best components and superior performance in every packaged standby system we manufacture.*

### **Generator**

All Winco Package Standby Systems produce clean electrical power with low harmonic distortion for sensitive equipment and computers.

- Meets all UL voltage and frequency regulation standards
- Total harmonic distortion < 5%
- Skewed rotor design
- Rotating field brushless
- Automatic voltage regulation
  - Liquid cooled model only
- Class H insulation
  - Class H is rated at 356°F vs. Class F which is only rated at 311°F
- Main line circuit breaker included

### **Housing**

- 14-gauge galvanized steel housing to reduce rusting
- 10-gauge steel base
- Lockable doors
- Aluminum hinges
- 1" sound absorbing foam
- Industrial DuPont powder coat paint
- Peaked roof on all liquid cooled models to prevent standing water
- Stainless steel and stall guard coated torx sheet metal screws with nylon washers
- Each individual piece of sheet metal is stamped, washed, painted, and tested before final assembly
- Rubber isolation mounts on engine and generator
- Compact design takes up less space
- Weather resistant enclosures
- Rodent proof

### **Engine**

All PSS systems come with industrial grade engines

- Briggs & Stratton Vanguard
  - V-Twin OHV & V-Twin Big Block OHV
  - Cast iron cylinders sleeves
  - Steel backed aluminum bearings
  - Spin on oil filter
  - Low oil consumption
- Honda OHV
  - V-Twin OHV
  - Oil alert
  - 12V electric start
  - Automotive style oil filter
  - Oil cooler
- Ford 1.6L 4-cylinder
  - 3600 rpm, liquid cooled
  - Electronic governor & ignition
  - Block heater std
  - Critical grade muffler
  - Battery tender (charger) std
- GM 3.0L, 4.3L, 5.7L, & 5.7L Turbo
  - 1800 rpm, liquid cooled
  - Electronic governor & ignition
  - Block heater std
  - Critical grade muffler
  - Battery tender (charger) std

#### Benefits

- Industrial grade quality that is built to last
- Nationwide distributor of engine parts

**WINCO**®  
INCORPORATED

225 South Cordova Ave.

LeCenter, MN 56057

PHONE: (507) 357-6821

FAX: (507) 357-4857

SALES (E of the Mississippi River): (800) 733-2112

SALES (W of the Mississippi River): (800) 324-8174

WARRANTY/SERVICE: (507) 357-6831/6832

WEBSITE: [www.wincogen.com](http://www.wincogen.com)



*Don't let the next  
power outage  
interrupt your life!*



*Stay comfortable and secure with a  
dependable back up power system from*

***WINCO***<sup>®</sup>



*Providing Power Solutions Since 1927,  
WINCO Is Your Only Choice  
For Back Up Power Convenience!*

**[www.wincogen.com](http://www.wincogen.com)**

# **WINCO** Automatic Packaged Standby Systems Designed For Homes, Businesses and Industrial Applications

## Why Buy An Automatic Standby System?

An automatic standby generator is a permanently installed, fully automatic emergency generator system that continuously monitors the incoming utility power supply. The system is designed to automatically furnish electrical power to pre-selected circuits in your home that supply your lighting, heating and cooling, appliances and water. There's no need for extension cords, gasoline cans for refueling, or manual start pull ropes because WINCO's Packaged Standby System supplies back up electric power **automatically**.

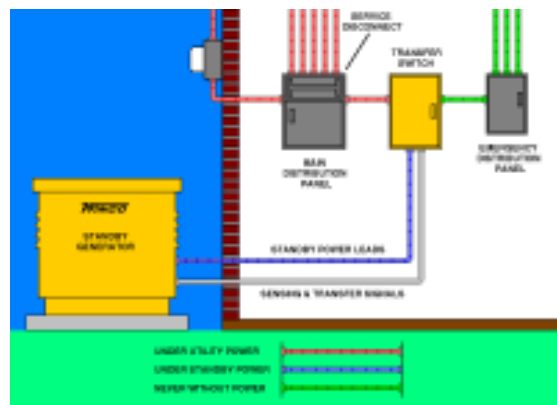
Powered by premium engines, WINCO packaged standby systems are perfect for back up power. Sound attenuated, weather protective enclosures are made using galvanized steel with a powder paint finish for long life durability. The solid state control system operates the generator automatically when signalled by the automatic transfer switch mounted next to your incoming service panel. Standard features include: cycle crank and overcrank limiting, engine start delay and engine cool down timing, hour meters and battery chargers.

## Features of **WINCO** Automatic Standby Generators

- Easily installed outside new or existing homes
- Direct natural gas or LP fuel systems
- Low maintenance
- Emissions compliant
- Critical grade silencer for quieter operation
- Hinged Doors
- Generator set and components are factory built and tested to NEMA standards
- Sound attenuated housings constructed of galvanized steel with durable baked powder paint finish keeps your generator attractive long into the future
- Standard mainline circuit breakers

## How Does The System Work?

- An automatic transfer switch (ATS) monitors your utility power and provides 100% isolation between your generator and the utility power. If the incoming power fails, the ATS will send a start signal to the generator set activating the automatic start system on the generator.
- After a short start delay the engine generator will start and begin supplying the ATS with emergency power. At this time, the ATS will transfer your connected distribution panel to the generator powering up your emergency circuits.
- Upon return of utility power, the ATS will transfer your connected distribution panel back to line power and discontinue the start signal to the generator. After a short cool down period the generator will stop and return to the standby mode awaiting the next power interruption.
- The WINCO Standby generator uses your own natural gas or LP fuel system. This provides you with a long continuous run time and unlimited run time in the case of natural gas.



**PSS12H**

## Home Standby Systems - 8kW to 15kW

### Power Rating – Continuous Standby (1)

Model	Power Output (60 Hz)	kW	kVA	L P Gas		Natural Gas		MLCB Amps
				MLCB Amps	kVA	kW	kVA	
PSS8B	120/240V, 1-Phase, 1.0 p.f.	8	8.0	30	7.2	7.2	30	30
PSS12H	120/240V, 1-Phase, 1.0 p.f.	12	12.0	50	10	10.0	42	42
PSS15B	120/240V, 1-Phase, 1.0 p.f.	15	15.0	60	12	12.0	50	50

PSS20 - NEW MODEL, CONTACT FACTORY FOR DETAILS

**NOTE: (1) Derate 3.5% per 1,000 feet elevation above sea level.**





# Portable Power In A Complete, Compact Package!

Nearly everyone has experienced the inconvenience that a power outage can cause. A standby generator can help you be prepared for those times.

**WINGO**'s PSS6H portable tri-fuel generator can provide you with power to run everyday equipment, such as lights, televisions, heating, air conditioning and refrigeration when utility service is temporarily down. This handy portable power system can keep you and your family comfortable during those untimely power interruptions.

The PSS6H offers the convenience of standby power along with the flexibility of operation on LP Vapor, Natural Gas or gasoline fuel, and meets EPA certification for emissions standards. Whether at the cabin for the weekend, or staying at home, backup power is readily available with the PSS6H portable home power generator (7).

## Features:

- Powerful Honda V-Twin engine
- Wheel kit for portability
- Fuel shut off solenoid
- Float type battery charger
- Canvas cover for storage
- Manual Service transfer kit, including 12-foot cord with plug

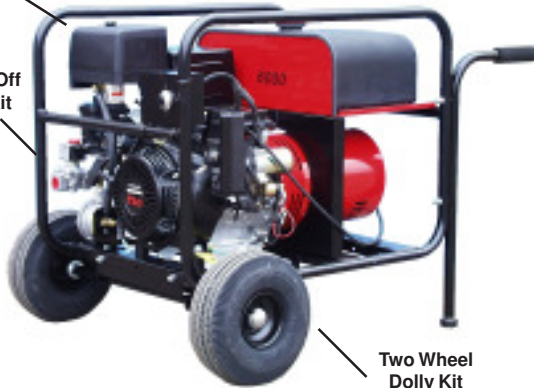
## Benefits:

- Easy starting, optimum running
- Move to different locations as the need occurs
- Tri-fuel operation allows various fuel options
- Battery stays fully charged and ready when needed
- Light, compact design allows easy handling
- Quick, easy connection to electrical loads

Tri-Fuel Generator with HONDA OHV engine operates on LP fuel, natural gas or gasoline (6)

PSS6H

Fuel Shut-Off Solenoid Kit (installed)



Two Wheel Dolly Kit for portability

## PSS6H ELECTRICAL SPECIFICATIONS

Max/Cont Power Rating (1)	6000/5500 watts
AC Output Voltage (60hz)	120/240V, 1-Ph
Continuous Amp Rating (1)	45.8 amps/22.9 amps
Motor Starting Ability (1, 2)	2 h.p.
Cooling System	Air
Fuel Tank Capacity (gasoline)	4.5 gallons
Low Oil Protection	Standard

## ENGINE SPECIFICATIONS

Make/Model	Honda GX340
Displacement/Type	337 cc/OHV
Battery Rack/Cables (3)	Standard
Starting System (4)	Electric/Recoil

## FUEL CONSUMPTION (FULL LOAD)

Gasoline Fuel	1.0 gal/hr
LP Gas Fuel (5)	1.1 gal/hr
Natural Gas Fuel	77 ft <sup>3</sup> /hr

## WARRANTY INFORMATION

Engine/Generator (6)(7)	3 yrs/1 yr
-------------------------	------------

## SIZE AND WEIGHT

L x W x H (generator only)	30" x 22" x 22"
Total Ship Weight	305 lbs.

## Included With PSS6H for a complete system:



Protective Canvas Cover for storage

Indoor load center for selected emergency circuits

12-foot cord with L14-30P plug for connection to generator

Manual Service Transfer Kit

Outdoor enclosure for cord storage

Battery Charger to keep start battery fully charged

## NOTES:

(1) Based on gasoline fuel. Derate 10% for LP gas, 20% for natural gas fuel. (2) Code G capacitor start motor. (3) Start battery not included. (4) Electric start must be used when starting on vapor fuel. (5) One gallon of L.P. gas equals 4.23 lbs. (6) Engine warranty applies to retail purchases made after January 1, 2009. (7) Standby use only - prime power or off grid use warranty is 90 Days. NOTE: Professional installation required - contact your local electrician for assistance in choosing the right generator for your needs.

**WINGO INC**<sup>®</sup>  
A Division of **DTI** Dyna Technology Inc  
225 South Cordova Ave  
Le Center MN 56057 USA

PSS 1/09

Telephone: (507) 357-6821  
Fax: (507) 357-4857  
East Coast: (800) 733-2112  
West Coast & Canada: (800) 324-8174  
E-Mail: [wincosales@wincogen.com](mailto:wincosales@wincogen.com)  
Web Site: [www.wincogen.com](http://www.wincogen.com)

# PSS8B

## Packaged Standby Generator

### FEATURES

- Easily installed outside new or existing homes
- Critical grade exhaust system for quieter operation
- Mainline circuit breaker included standard
- Sound attenuated housing constructed of galvanized steel with durable powder paint finish & hinged access doors
- Equipped for either Natural Gas or LP Vapor fuel
- CARB & EPA approved
- UL & CSA approved
- Low maintenance
- Requires purchase of a transfer switch for automatic operation (sold separately - see specs below)



MODEL NUMBER	POWER OUTPUT (60hz)	POWER RATING- CONTINUOUS STANDBY (1)					
		L.P. Gas			Natural Gas		
		KW	KVA	AMPS	KW	KVA	AMPS
PSS8B	120/240V, 1-Phase, 1.0 p.f.	8.0	8.0	30.0	7.2	7.2	30.0

### Starting System

#### PSS8B4W 4-Wire Start System

Requires purchase of an ASCO165 4-wire start transfer switch. All starting controls including start contacts and fuel solenoid contacts as well as all delays are located on the control board in the ASCO transfer switch. Cycle cranking is included standard. A Running Time Meter, Off/Normal & Auto/Run/Start Switches are provided on the generator control panel.

#### Engine Specifications

Make/Model	B&S Vanguard
Displacement/Type	480 c.c./OHV
Engine Speed	3600 rpm

#### Engine Features

Electronic Ignition	Standard
Cooling System	Air
NG or LP Vapor Fuel System	Standard
Critical Grade Exhaust System	Standard
DBA Rating @ 7 meters (23 ft)	68 N-L/70 F-L
Battery Rack/Cables (3)	Standard
Vibration Isolators	Standard
Low Oil Protection	Standard
Float Battery Charger	Standard

#### Fuel Consumption

Full Load - LP Gas (2)	1.60 gal/hr
Half Load - LP Gas (2)	1.00 gal/hr
Full Load - Natural Gas	132 ft <sup>3</sup> /hr
Half Load - Natural Gas	95 ft <sup>3</sup> /hr
Required Fuel Pressure	4-6 oz or 7-11" w.c.

#### PSS8B2W 2-Wire Start System

Requires purchase of the optional 2-wire start control which makes the unit compatible with any transfer switch using a dry contact closure upon power failure. Two wire start controls come standard with a 10 second start delay and 90 second cooldown delay. Cycle cranking is included standard. Running Time Meter & Auto/Off/Run Switch are provided on the generator control panel.

#### Generator Data

Generator Type (4)	RFL
Voltage Regulation	+/- 5%
Frequency Regulation	+/- 3%
Harmonic Distortion	< 5%
Motor Starting Ability (5)	4 hp

#### Size and Weight

L x W x H (in)	30.5 x 27.3 x 27.4
Ship Weight (lbs)	365

#### Warranty Information

Engine/Generator	2 Years/1 Year
------------------	----------------

#### Optional Accessories

- Engine Heater
- Vapor Fuel Filter

#### ULATS165 Auto Transfer Switch (sold separately)

Engine Start Delay	3 Seconds
Transfer Delay	15 Seconds
Retransfer Delay	5 Minutes
Engine Cooldown Delay	1 Minute
14-Day Exercise Circuit	Standard
Warranty	1 Year

### NOTES:

- (1) Derate 3.5% per 1,000 feet elevation above sea level
- (2) One gallon of L.P. gas equals 4.23 lbs
- (3) Battery not included. Requires 12-volt Group 26, 450 cca battery
- (4) Rotating Field Brushless design generator
- (5) Code G capacitor start motor

**FEATURES**

- Easily installed outside new or existing homes
- Critical grade exhaust system for quieter operation
- Mainline circuit breaker included standard
- Sound attenuated housing constructed of galvanized steel with durable powder paint finish & hinged access doors
- Equipped for either Natural Gas or LP Vapor fuel
- EPA approved
- Low maintenance
- CSA (Canadian Standards Association) approved
- Requires purchase of a transfer switch for automatic operation (sold separately - see specs below)



MODEL NUMBER	POWER OUTPUT (60hz)	POWER RATING- CONTINUOUS STANDBY (1)					
		L.P. Gas			Natural Gas		
		KW	KVA	AMPS	KW	KVA	AMPS
PSS12H4W	120/240V, 1-Phase, 1.0 p.f.	12	12.0	50.0	10	10.0	42.0

**Starting System**

**PSS12H4W 4-Wire Start System**

Requires purchase of an ASCO165 4-wire start transfer switch. All starting controls including start contacts and fuel solenoid contacts as well as all delays are located on the control board in the ASCO transfer switch. Cycle cranking is included standard. A Running Time Meter, Off/Normal & Auto/Run/Start Switches are provided on the generator control panel.

**Engine Specifications**

Make/Model	Honda GX670
Displacement/Type	670 c.c./OHV
Engine Speed	3600 rpm

**Engine Features**

Electronic Ignition	Standard
Cooling System	Air
NG or LP Vapor Fuel System	Standard
Critical Grade Exhaust System	Standard
DBA Rating @ 7 meters (23 ft)	66 N-L/69 F-L
Battery Rack/Cables (3)	Standard
Vibration Isolators	Standard
Low Oil Protection	Standard
Float Battery Charger	Standard

**Fuel Consumption**

Full Load - LP Gas (2)	2.2 gal/hr
Half Load - LP Gas (2)	1.39 gal/hr
Full Load - Natural Gas	195 ft <sup>3</sup> /hr
Half Load - Natural Gas	140 ft <sup>3</sup> /hr
Required Fuel Pressure	4-6 oz or 7-11" w.c.

**NOTES:**

- (1) Derate 3.5% per 1,000 feet elevation above sea level
- (2) One gallon of L.P. gas equals 4.23 lbs
- (3) Battery not included. Requires 12-volt Group 26, 450 cca battery
- (4) Rotating Field Brushless design generator
- (5) Code G capacitor start motor
- (6) Engine warranty applies to retail purchases made after January 1, 2009

**PSS12H2W 2-Wire Start System**

Requires purchase of the optional 2-wire start control which makes the unit compatible with any transfer switch using a dry contact closure upon power failure. Two wire start controls come standard with a 10 second start delay and 90 second cooldown delay. Cycle cranking is included standard. Running Time Meter & Auto/Off/Run Switch are provided on the generator control panel.

**Generator Data**

Generator Type (4)	RFL
Voltage Regulation	+/- 5%
Frequency Regulation	+/- 3%
Harmonic Distortion	< 5%
Motor Starting Ability (5)	6 hp

**Size and Weight**

L x W x H (in)	37.9 x 30.8 x 30.9
Ship Weight (lbs)	504

**Warranty Information (6)**

Engine/Generator	3 Years/1 Year
------------------	----------------

**Optional Accessories**

- Engine Heater
- Vapor Fuel Filter

**ULATS165 Auto Transfer Switch (sold separately)**

Engine Start Delay	3 Seconds
Transfer Delay	15 Seconds
Retransfer Delay	5 Minutes
Engine Cooldown Delay	1 Minute
14-Day Exercise Circuit	Standard
Warranty	1 Year



# PSS15B

## Packaged Standby Generator

### FEATURES

- Easily installed outside new or existing homes
- Critical grade exhaust system for quieter operation
- Mainline circuit breaker included standard
- Sound attenuated housing constructed of galvanized steel with durable powder paint finish & hinged access doors
- Equipped for either Natural Gas or LP Vapor fuel
- CARB & EPA approved
- UL & CSA approved
- Low maintenance
- Requires purchase of a transfer switch for automatic operation (sold separately - see specs below)



MODEL NUMBER	POWER OUTPUT (60hz)	POWER RATING- CONTINUOUS STANDBY (1)					
		L.P. Gas			Natural Gas		
		KW	KVA	AMPS	KW	KVA	AMPS
PSS15B	120/240V, 1-Phase, 1.0 p.f.	15	15.0	60.0	12	12.0	50.0

### Starting System

#### PSS15B4W 4-Wire Start System

Requires purchase of an ASCO165 4-wire start transfer switch. All starting controls including start contacts and fuel solenoid contacts as well as all delays are located on the control board in the ASCO transfer switch. Cycle cranking is included standard. A Running Time Meter, Off/Normal & Auto/Run/Start Switches are provided on the generator control panel.

#### Engine Specifications

Make/Model	B&S Vanguard
Displacement/Type	895 c.c./OHV
Engine Speed	3600 rpm

#### Engine Features

Electronic Ignition	Standard
Cooling System	Air
NG or LP Vapor Fuel System	Standard
Critical Grade Exhaust System	Standard
DBA Rating @ 7 meters (23 ft)	67 N-L/72.5 F-L
Battery Rack/Cables (3)	Standard
Vibration Isolators	Standard
Low Oil Protection	Standard
Float Battery Charger	Standard

#### Fuel Consumption (estimate)

Full Load - LP Gas (2)	2.96 gal/hr
Half Load - LP Gas (2)	1.75 gal/hr
Full Load - Natural Gas	260 ft <sup>3</sup> /hr
Half Load - Natural Gas	170 ft <sup>3</sup> /hr
Required Fuel Pressure	4-6 oz or 7-11" w.c.

#### PSS15B2W 2-Wire Start System

Requires purchase of the optional 2-wire start control which makes the unit compatible with any transfer switch using a dry contact closure upon power failure. Two wire start controls come standard with a 10 second start delay and 90 second cooldown delay. Cycle cranking is included standard. Running Time Meter & Auto/Off/Run Switch are provided on the generator control panel.

#### Generator Data

Generator Type (4)	RFL
Voltage Regulation	+/- 5%
Frequency Regulation	+/- 3%
Harmonic Distortion	< 5%
Motor Starting Ability (5)	7.5 hp

#### Size and Weight

L x W x H (in)	44.1 x 33.2 x 38.1
Ship Weight (lbs)	725 lbs.

#### Warranty Information

Engine/Generator	2 Years/1 Year
------------------	----------------

#### Optional Accessories

Engine Heater  
Vapor Fuel Filter

#### ULATS165 Auto Transfer Switch (sold separately)

Engine Start Delay	3 Seconds
Transfer Delay	15 Seconds
Retransfer Delay	5 Minutes
Engine Cooldown Delay	1 Minute
14-Day Exercise Circuit	Standard
Warranty	1 Year

### NOTES:

- (1) Derate 3.5% per 1,000 feet elevation above sea level
- (2) One gallon of L.P. gas equals 4.23 lbs
- (3) Battery not included. Requires 12-volt Group 26, 450 cca battery
- (4) Rotating Field Brushless design generator
- (5) Code G capacitor start motor



## PSS30LS PACKAGED STANDBY GENERATOR

<u>MODEL NUMBER</u>	<u>POWER OUTPUT (60hz)</u>	<u>KW</u>	<u>L.P. GAS</u>			<u>NATURAL GAS</u>		
			<u>KVA</u>	<u>AMPS</u>	<u>KW</u>	<u>KVA</u>	<u>AMPS</u>	
PSS30LS	120/240V, 1-Phase, 1.0 p.f.	30.0	30.0	125	30.0	30.0	125	
PSS30LS-4	120/208V, 3-Phase, .8 p.f.	30.0	38.0	104	30.0	38.0	104	
PSS30LS-17	120/240V, 3-Phase, .8 p.f.	30.0	38.0	90	30.0	38.0	90	
PSS30LS-18	277/480V, 3-Phase, .8 p.f.	30.0	38.0	45	30.0	38.0	45	

Power Rating – Continuous Standby; Derate 3.5% per 1,000 feet elevation above sea level.

### Engine Specifications and Features

The 4 cylinder, overhead valve GM 3.0 engine develops 48 hp at 1800 rpm with a displacement of 181 cu.in. The engine is controlled by an electronic governor, maintaining frequency at 60hz +/- .5%. DB rating is 74 dBA at standard 7 meters.

The engine features include electronic ignition, engine blockheater and a vapor fuel system as standard. A critical grade muffler is installed to reduce engine noise levels. Battery rack and cables, and a battery tender (charger) are also installed in the standard package. A BCI Group 24 650 CCA battery must be purchased separately.

Engine cooling is provided by a unit mount radiator. The engine is equipped with a belt driven pusher type fan.

<u>Fuel Consumption</u>	<u>Full Load</u>	<u>Half Load</u>
LP Gas	3.3 gal/hr	2.4 gal/hr
Natural Gas	320 ft <sup>3</sup> /hr	197 ft <sup>3</sup> /hr

### Generator

The generator is a single bearing rotating field generator mounted to the engine flywheel via dual flex drive discs. Three phase generators have 12 lead broad range reconnectable stators; single phase stators are 4 lead. An external voltage regulator maintains proper voltage output, accurate to +/- 1.5%. The generator features Class H insulation with harmonic distortion of less than 5% at full load.

Telephone interference; The THF (as defined by BS4999 Part 40) is better than 2%. The TIF (as defined by ASA C50.12) is better than 50.

The engine generator combination has the ability to start and operate motors up to 12 hp Code G. Mainline circuit breaker included for generator protection.

### Size and Weight

L x W x H (in.)	94 x 35 x 48.5
Ship Weight (lbs.)	1650 lbs.

### Engine/Generator Control System

- \* Solid state digital control with LCD display
- \* Run-Off-Auto function is controlled by three push buttons with indicator lights
- \* LCD Displays: Engine Oil Pressure, Coolant Temperature, Battery Voltage Level and Frequency continuously, with the ability to toggle the voltage and amperage on each phase.
- \* Three additional Indicator Lamps notify the user when the system is Not-In-Auto, in Alarm condition, or when the generator is supplying over 2% of its capacity to the loads.

### Digital Engine Control Standard Set Up:

* Start Delay	10 seconds
* Cool Down Delay	5 minutes
* Cycle Cranking	3 cycles
* Overcrank Protection	Standard
* Overspeed Protection	Standard
* Low Oil Pressure Protection	Standard
* High Water Temperature Protection	Standard

### Options:

- \* NFPA 99 and NFPA 110 compatible Digital Controls available with pre-alarms.
- \* Remote displays with 7 pre-alarms and 8 alarm indicators, switch off auto and unit supplying load lamps.
- \* Vapor fuel strainer.
- \* LPG liquid withdrawal fuel system.
- \* Optional automatic transfer switch sold separately. Contact factory for sizes and types available.

### Warranty Information

Generator	2 yrs or 1000 hrs
Engine	1 yr or 2000 hrs



## PSS40LS PACKAGED STANDBY GENERATOR

MODEL NUMBER	POWER OUTPUT (60hz)	KW	L.P.GAS		NATURAL GAS		
			KVA	AMPS	KW	KVA	AMPS
PSS40LS	120/240V, 1-Phase, 1.0 p.f.	40.0	40.0	167	38.0	38.0	158
PSS40LS-4	120/208V, 3-Phase, .8 p.f.	40.0	50.0	139	38.0	47.5	132
PSS40LS-17	120/240V, 3-Phase, .8 p.f.	40.0	50.0	120	38.0	47.5	114
PSS40LS-18	277/480V, 3-Phase, .8 p.f.	40.0	50.0	60	38.0	47.5	57

Power Rating – Continuous Standby; Derate 3.5% per 1,000 feet elevation above sea level.

### Engine Specifications and Features

The 6 cylinder, overhead valve GM 4.3 engine develops 68 hp at 1800 rpm with a displacement of 262 cu.in. The engine is controlled by an electronic governor, maintaining frequency at 60hz +/- .5%. DB rating is 74 dBA at standard 7 meters.

The engine features include electronic ignition, engine blockheater and a vapor fuel system as standard. A critical grade muffler is installed to reduce engine noise levels. Battery rack and cables, and a battery tender (charger) are also installed in the standard package. A BCI Group 24 650 CCA battery must be purchased separately.

Engine cooling is provided by a unit mounted radiator. The engine is equipped with a belt driven pusher type fan.

Fuel Consumption	Full Load	Half Load
LP Gas	4.7 gal/hr	4.1 gal/hr
Natural Gas	450 ft <sup>3</sup> /hr	332 ft <sup>3</sup> /hr

### Generator

The generator is a single bearing rotating field generator mounted to the engine flywheel via dual flex drive discs. Three phase generators have 12 lead broad range reconnectable stators; single phase stators are 4 lead. An external voltage regulator maintains proper voltage output, accurate to +/- 1.5%. The generator features Class H insulation with harmonic distortion of less than 5% at full load.

Telephone interference; The THF (as defined by BS4999 Part 40) is better than 2%. The TIF (as defined by ASA C50.12) is better than 50.

The engine generator combination has the ability to start and operate motors up to 17.5 hp Code G. Mainline circuit breaker included for generator protection.

### Size and Weight

L x W x H (in.)	93.5 x 35 x 48.5
Ship Weight (lbs.)	1920 lbs.

### Engine/Generator Control System

- \* Solid state digital control with LCD display
- \* Run-Off-Auto function is controlled by three push buttons with indicator lights
- \* LCD Displays: Engine Oil Pressure, Coolant Temperature, Battery Voltage Level and Frequency continuously, with the ability to toggle the voltage and amperage on each phase.
- \* Three additional Indicator Lamps notify the user when the system is Not-In-Auto, in Alarm condition, or when the generator is supplying over 2% of its capacity to the loads.

### Digital Engine Control Standard Set Up:

* Start Delay	10 seconds
* Cool Down Delay	5 minutes
* Cycle Cranking	3 cycles
* Overcrank Protection	Standard
* Overspeed Protection	Standard
* Low Oil Pressure Protection	Standard
* High Water Temperature Protection	Standard

### Options:

- \* NFPA 99 and NFPA 110 compatible Digital Controls available with pre-alarms.
- \* Remote displays with 7 pre-alarms and 8 alarm indicators, switch off auto and unit supplying load lamps.
- \* Vapor fuel strainer.
- \* LPG liquid withdrawal fuel system.
- \* Optional automatic transfer switch sold separately. Contact factory for sizes and types available.

### Warranty Information

Generator	2 yrs or 1000 hrs
Engine	1 yr or 2000 hrs



## PSS50LS PACKAGED STANDBY GENERATOR

MODEL NUMBER	POWER OUTPUT (60hz)	KW	L.P. GAS		NATURAL GAS		
			KVA	AMPS	KW	KVA	AMPS
PSS50LS	120/240V, 1-Phase, 1.0 p.f.	50.0	50.0	200	45.0	45.0	187
PSS50LS-4	120/208V, 3-Phase, .8 p.f.	50.0	62.5	173	45.0	56.2	156
PSS50LS-17	120/240V, 3-Phase, .8 p.f.	50.0	62.5	150	45.0	56.2	135
PSS50LS-18	277/480V, 3-Phase, .8 p.f.	50.0	62.5	75	45.0	56.2	67.5

Power Rating - Continuous Standby; Derate 3.5% per 1,000 feet elevation above sea level.

### Engine Specifications and Features

The 8 cylinder, overhead valve GM 5.7L engine develops 102 hp at 1800 rpm with a displacement of 350 cu.in. The engine is controlled by an electronic governor, maintaining frequency at 60hz +/- .5%. DB rating is 74 dBA at standard 7 meters.

The engine features include electronic ignition, engine blockheater and a vapor fuel system as standard. A critical grade muffler is installed to reduce engine noise levels. Battery rack and cables, and a battery tender (charger) are also installed in the standard package. A BCI Group 24 650 CCA battery must be purchased separately.

Engine cooling is provided by a unit mount radiator. The engine is equipped with a belt driven pusher type fan.

Fuel Consumption	Full Load	Half Load
LP Gas	10 gal/hr	6.5 gal/hr
Natural Gas	725 ft <sup>3</sup> /hr	500 ft <sup>3</sup> /hr

### Generator

The generator is a single bearing rotating field generator mounted to the engine flywheel via dual flex drive discs. Three phase generators have 12 lead broad range reconnectable stators; single phase stators are 4 lead. An external voltage regulator maintains proper voltage output, accurate to +/- 1.5%. The generator features Class H insulation with harmonic distortion of less than 5% at full load.

Telephone interference; The THF (as defined by BS4999 Part 40) is better than 2%. The TIF (as defined by ASA C50.12) is better than 50.

The engine generator combination has the ability to start and operate motors up to 23 hp Code G. Mainline circuit breaker included for generator protection.

### Size and Weight

L x W x H (in.)	99.5 x 40 x 49
Ship Weight (lbs.)	2533 lbs.

### Engine/Generator Control System

- \* Solid state digital control with LCD display
- \* Run-Off-Auto function is controlled by three push buttons with indicator lights
- \* LCD Displays: Engine Oil Pressure, Coolant Temperature, Battery Voltage Level and Frequency continuously, with the ability to toggle the voltage and amperage on each phase.
- \* Three additional Indicator Lamps notify the user when the system is Not-In-Auto, in Alarm condition, or when the generator is supplying over 2% of its capacity to the loads.

### Digital Engine Control Standard Set Up:

* Start Delay	10 seconds
* Cool Down Delay	5 minutes
* Cycle Cranking	3 cycles
* Overcrank Protection	Standard
* Overspeed Protection	Standard
* Low Oil Pressure Protection	Standard
* High Water Temperature Protection	Standard

### Options:

- \* NFPA 99 and NFPA 110 compatible Digital Controls available with pre-alarms.
- \* Remote displays with 7 pre-alarms and 8 alarm indicators, switch off auto and unit supplying load lamps.
- \* Vapor fuel strainer.
- \* LPG liquid withdrawal fuel system.
- \* Optional automatic transfer switch sold separately. Contact factory for sizes and types available.

### Warranty Information

Generator	2 yrs or 1000 hrs
Engine	1 yr or 2000 hrs





# PSS75LS PACKAGED STANDBY GENERATOR

MODEL NUMBER	POWER OUTPUT (60hz)	KW	L.P. GAS		NATURAL GAS		
			KVA	AMPS	KW	KVA	AMPS
PSS75LS	120/240V, 1-Phase, 1.0 p.f.	70.0	70.0	291	75.0	75.0	300
PSS75LS-4	120/208V, 3-Phase, .8 p.f.	70.0	87.5	243	75.0	93.7	250
PSS75LS-17	120/240V, 3-Phase, .8 p.f.	70.0	87.5	211	75.0	93.7	225
PSS75LS-18	277/480V, 3-Phase, .8 p.f.	70.0	87.5	100	75.0	93.7	100

Power Rating – Continuous Standby; Derate 3.5% per 1,000 feet elevation above sea level.

### Engine Specifications and Features

The 8 cylinder, overhead valve GM 5.7L turbocharged engine develops 130 hp at 1800 rpm with a displacement of 350 cu.in. The engine is controlled by an electronic governor, maintaining frequency at 60hz +/- .5%. DB rating is 74.2 dBA at standard 7 meters.

The engine features include electronic ignition, engine blockheater and a vapor fuel system as standard. A critical grade muffler is installed to reduce engine noise levels. Battery rack and cables, and a battery tender (charger) are also installed in the standard package. A BCI Group 24 650 CCA battery must be purchased separately.

Engine cooling is provided by a unit mount radiator. The engine is equipped with a belt driven pusher type fan.

Fuel Consumption	Full Load	Half Load
LP Gas	12.2 gal/hr	9.1 gal/hr
Natural Gas	1000 ft <sup>3</sup> /hr	820 ft <sup>3</sup> /hr

### Generator

The generator is a single bearing rotating field generator mounted to the engine flywheel via dual flex drive discs. Three phase generators have 12 lead broad range reconnectable stators; single phase stators are 4 lead. An external voltage regulator maintains proper voltage output, accurate to +/- 1.5%. The generator features Class H insulation with harmonic distortion of less than 5% at full load.

Telephone interference; The THF (as defined by BS4999 Part 40) is better than 2%. The TIF (as defined by ASA C50.12) is better than 50.

The engine generator combination has the ability to start and operate motors up to 30 hp Code G. Mainline circuit breaker included for generator protection.

### Size and Weight

L x W x H (in.)	99.5 x 40 x 52
Ship Weight (lbs.)	2596 lbs.

### Engine/Generator Control System

- \* Solid state digital control with LCD display
- \* Run-Off-Auto function is controlled by three push buttons with indicator lights
- \* LCD Displays: Engine Oil Pressure, Coolant Temperature, Battery Voltage Level and Frequency continuously, with the ability to toggle the voltage and amperage on each phase.
- \* Three additional Indicator Lamps notify the user when the system is Not-In-Auto, in Alarm condition, or when the generator is supplying over 2% of its capacity to the loads.

### Digital Engine Control Standard Set Up:

* Start Delay	10 seconds
* Cool Down Delay	5 minutes
* Cycle Cranking	3 cycles
* Overcrank Protection	Standard
* Overspeed Protection	Standard
* Low Oil Pressure Protection	Standard
* High Water Temperature Protection	Standard

### Options:

- \* NFPA 99 and NFPA 110 compatible Digital Controls available with pre-alarms.
- \* Remote displays with 7 pre-alarms and 8 alarm indicators, switch off auto and unit supplying load lamps.
- \* Vapor fuel strainer.
- \* LPG liquid withdrawal fuel system.
- \* Optional automatic transfer switch sold separately. Contact factory for sizes and types available.

### Warranty Information

Generator	2 yrs or 1000 hrs
Engine	1 yr or 2000 hrs



# ASCO<sup>®</sup> Series 165

## Residential/Light Commercial Automatic Transfer Switches

### Product Features

- Nominal voltage 120/240 V 60 Hz, single phase.
- Listed to UL1008 Transfer Switch Equipment and CSA Certified to CSA 22.2 No. 178-1978 Automatic Transfer Switches.
- Meets National Electrical Code (NEC) and National Fire Protection Association (NFPA) requirements.
- True double-throw contacts (no intentional off position), with inherent mechanical interlocking to prevent connection of generator and utility source.
- Convenient terminals to connect neutral and ground conductors from service and load feeders.
- Available in Type 1 (indoor) and Type 3R (outdoor) enclosures.
- Available from stock.

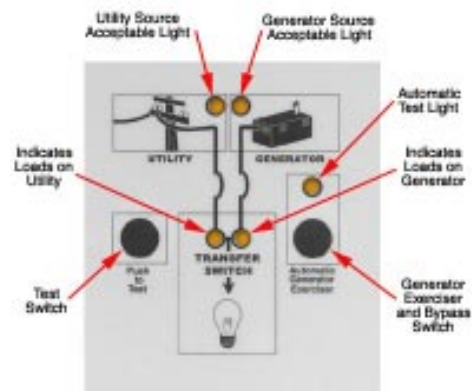
### Time Delay Functions

- 3-second time delay to override momentary utility source.
- 15-second transfer to emergency time delay to allow engine generator to stabilize after starting.
- 15-second time delay after transfer to the standby source to ignore momentary voltage dips on the generator during initial loading.
- 5-minute time delay on retransfer to allow utility source to stabilize prior to transferring the load back to utility
- 1-minute unloading running time delay for engine generator cool-down before shutdown.



### Control Panel

User-friendly control panel with easy to understand symbols and all the necessary visual indicators to inform the operator of transfer switch and power source status.



### Diagnostic Indicators

The 165 Automatic Transfer Switch has a unique built-in automatic digital diagnostic monitoring system, which provides status on potential system problems such as: generator failed to start; generator over frequency; transfer switch did not transfer; and more. It's one more way you can count on ASCO to provide continuous power protection ...anytime.



# ASCO® Series 300

## Series 300 Automatic Transfer Switch

The ASCO Microprocessor Controller is used with all sizes of Power Transfer Switches. It represents the most reliable microprocessor controller in the industry and includes, as standard, all of the voltage, frequency, control, timing and connectivity functions required for most emergency and standby power applications.

The easy-to-read flush-mounted control and display panel provides LED indicators for switch position and source availability. It also includes test and time-delay bypass



### Electrical Features:

- 600 volt spacing per UL and CSA standards.
- Interfacing relays are industrial grade, plug-in type with dust covers.
- Meets or exceeds the requirements for Electromagnetic Compatibility (EMC).
- ANSI C37.90A/IEEE472 Voltage Surge Test
- NEMA ICS-109.21 Impulse Withstand Test
- Digital circuitry isolated from line voltages
- IEC 801-2 Electrostatic discharge (ESD) immunity
- ENV50140 and IEC 803-1: Radiated electromagnetic field immunity
- IEC 801-4 Electrical fast transient (EFT) immunity
- ENV50142 Surge transient immunity
- ENV50141: Conducted radio-frequency field immunity
- EN55011: Group 1, Class A conducted and radiated emissions
- Optically isolated RS-485 Serial Port
- EN61000- 4-11 voltage dips and interruptions immunity.

### Standard Selectable Features

- Inphase monitor to transfer motor loads, without any intentional off time to prevent motor inrush currents from exceeding normal starting levels.
- Engine exerciser to automatically test backup generator each week. Includes control switch for testing with or without load.
- Selective load disconnect, double-throw contact to operate at an adjustable 0 to 20 second time delay prior to transfer and reset 0 to 20 seconds after transfer.
- 60 Hz or 50 Hz selector switch.
- Three-phase/single-phase selector switch.

### Voltage & Frequency Sensing

- Adjustable three-phase, close differential voltage sensing on normal source.
- Normal source pickup voltage is adjustable to 95% of nominal; drop-out is adjustable from 70 to 90% of nominal.
- Frequency sensing on emergency source. Pickup at 95% and dropout at 85% of nominal.

### Time Delays

- Adjustable time delay to override momentary normal source outages to delay all transfer switch and engine-starting signals.
- Transfer to emergency time delay. Adjustable from 0 to 5 minutes for controlled timing of load transfer to emergency.
- Retransfer to normal time delay. Adjustable to 30 minutes.
- Five-minute unloaded running time delay for emergency engine generator cool down.
- Four-second time delay to override momentary to ignore momentary voltage and frequency transients during initial genset loading.

# Series 300

## Optional Accessories

### Accessory 11BG

A programmable engine exerciser that provides for weekly or biweekly operation, includes one form C contact for source availability of normal and emergency (contact rating 2 amps @ 30VDC, 0.5 amp. @ 125 VAC resistive). The programmable engine exerciser incorporates a 7 day or 14 day time base with a digital readout display. Includes "with or without" load control switch for exerciser period.



### Accessory 14AA/BA (not pictured)

Auxiliary contacts to indicate position of main contacts. Two (2) for normal and two (2) for emergency position (one set is standard).

### Accessory 44A (not pictured)

Strip Heater with thermostat for extremely cold areas to prevent condensation and freezing of this condensation. External 120 volt power source required.



### Accessory 44G

Strip Heater with thermostat, wired to load terminals: 208-240, 360-380, 460-480, 550-600 volts. Contains wiring harnesses for all transfer switch sizes.



### Accessory 72A

Serial Module 5110 (RS-485) is used to allow local or remote communications with ASCO *PowerQuest*® or *SITEWEB*™ communications products. (See [Remote Monitoring Section](#))



### Accessory 72E

Connectivity Module 5150 is used to bring several different serial devices that communicate at different baud rates and with different protocols to a common Ethernet media.

### Accessory 123

A protective window that includes a polycarbonate frame and weather gasket to provide secure access to the membrane interface for the Type 1 Enclosures. This lockable cover is an alternative to



### ASCO Pulsar® 450 High-Performance Surge Suppressor

The ASCO Pulsar® 450 provides unparalleled protection from power surges and transients. It is a high-performance surge suppressor which limits large surges and transients through a unique array of computer-matched metal oxide varistors (MOVs).

### Accessory 62W Audible Alarm with Silence Feature

For City of Chicago Code Requirement - audible alarm with silencing feature to signal each time transfer to emergency occurs. Keyed test switch/retransfer delay bypass, momentary in both directions. Keyed test switch maintained transfer to emergency. Includes feature 9C, signal light (PL3 - Green) indicates normal source available, and 9D, signal light (PL4 - Red) indicates emergency source available.





# ZTX

## Automatic Transfer Switch

GE Zenith's ZTX Series Automatic Transfer Switches are designed for residential and light commercial critical/non-life safety applications requiring the dependability and ease of operation found in a power contactor switch.

- Ratings 40 to 400 amps (2, 3 and 4 pole)
- UL 1008, CSA and IEC listed to 480 VAC 50/60Hz
- Seismic Compliance to IEEE-693-2005 and IBC-2003
- Double throw, mechanically interlocked contactor mechanism
- Electrically operated, mechanically held
- Designed for standby applications

GE Zenith's ZTX switches are equipped with the MX60 control panel. This microprocessor control includes:

- Undervoltage sensing (90% pickup/80% dropout) of Source 1 (normal)
- Voltage and frequency sensing of Source 2 (emergency) (90% voltage/95% frequency pickup)
- Time Delay Engine Start (**P**) - 5 seconds
- Time Delay Engine Warmup (**W**) - Transfer to Emergency (Source 2) - 20 seconds
- Time Delay Utility Stabilization/Retransfer to Utility (Source 1) (**T**) - 5 minutes
- Time Delay Engine Cool Down (**U**) - 5 minutes

All time delays are fixed (non-adjustable).



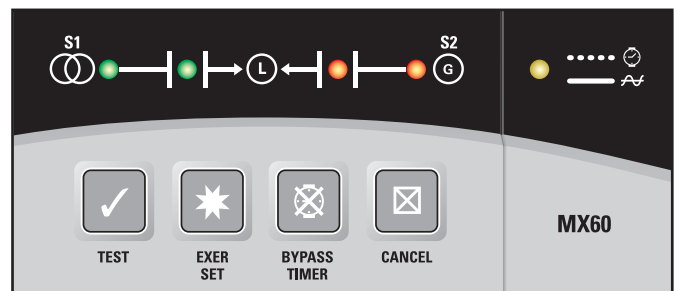
ZTX Series Residential & Light Commercial Switch with LED Control Panel (cover removed)

The unit is available in open type, NEMA 1 or NEMA 3R enclosures. The MX60 control adds a user interface and functionality, including:

- Indicating LEDs for source availability and switch position
- Pushbuttons for test, exerciser set, timer bypass and program cancel
- Special status annunciation of in-phase transfer and timer operation
- Selectable 7, 14, 21 or 28 day (factory set 28 days) generator (Source 2) with or without load exerciser timer
- Diagnostic LED indications in logical one-line configuration

Additional options include:

- A3/A4** Auxiliary contacts (1 each) closed in Source 1 (normal) and Source 2 (emergency) positions
- B9X** 1.5 Amp/12 or 24 VDC Battery Charger



MX60 Microprocessor Control Panel

## Ordering Information

Z T X 0 0 0		0			-	Z E C	Z V C	M 0 6 0
MODEL/TYPE	CONTROL PANEL	APPLICATION	AMPERE SIZE	SWITCHED POLES		ENCLOSURE TYPE	OPERATIONAL VOLTAGE	ACCESSORIES
Z T X 0 0 0 Standard (Open Transition)	M 6 MX60 Microprocessor Control Unit	0 Utility - Generator	0 0 4 40 amps	B 2 Poles		0 1 Type 1 Enclosure	A B Consult Table Below	Then choose additional accessories
	0 0 No Microprocessor Control Unit		0 0 8 80 amps	E 3 Poles		3 R Type 3R Enclosure		A3/A4 Auxiliary Contacts (1 each) Closed in Source 1 (normal) and Source 2 (emergency)
			0 1 0 100 amps	F 4 Poles		0 0 Open Style Unit		B9X Battery Charger 1.5 Amp / 12 or 24 VDC
			0 1 5 150 amps					
			0 2 0 200 amps	0 2 2 225 amps				
			0 3 0 300 amps	0 4 0 400 amps				

### Example

ZTX000M60010E-ZEC01ZVC50M060

This number string shows the correct format for a ZTX Model Automatic Transfer Switch with MX60 microprocessor control unit, Utility - Generator, 100 amps, 3 pole, NEMA Type 1 enclosure, 480V 3 $\phi$ , 3 wire, 60 Hz system with the standard group of accessories.

## Technical Specifications

Lug Configuration			
Amp Size	Qty Per Phase and Neutral	Size	
40 - 80	1	#8 to 3/0	8 to 85 mm <sup>2</sup>
100 - 225	1	#6 to 250 MCM	13 to 127 mm <sup>2</sup>
300 - 400	1	#4 to 600 MCM	21 to 304 mm <sup>2</sup>

Ampere Rating	Poles	Dimensions inches (mm)						Weight lbs. (kg)	
		NEMA 1			NEMA 3R			Open Style	NEMA 1
		H	W	D	H	W	D		
40 - 225	2, 3	24 (610)	18 (457)	10 (254)	24 (610)	18.5 (470)	10.5 (267)	12 (5.4)	67 (30.4)
	4							18 (8.2)	73 (33.1)
300 - 400	2, 3	46 (1168)	24 (610)	14 (356)	46 (1168)	24 (610)	15 (381)	59 (26.8)	168 (76.2)
	4							70 (31.8)	180 (81.7)

## UL 1008 Withstand and Closing Ratings

Please refer to GE Zenith Controls Bulletin TB-1102.

A	B	Voltage	Phase	Config.	Hz
1	0	120	1	2 wire	60
2	0	120/240	1	3 wire	60
2	2	110/220	1	3 wire	50
3	0	240	3	3 wire	60
3	1	208	3	3 wire	60
3	2	220	3	3 wire	50
3	5	139/240	3	4 wire	60
4	0	120/208	3	4 wire	60
4	1	127/220	3	4 wire	60
4	2	127/220	3	4 wire	50
5	0	480	3	3 wire	60
5	1	440	3	3 wire	60
5	2	440	3	3 wire	50
5	5	460	1	3 wire	50
5	7	480	1	2 wire	60
5	8	254/440	3	4 wire	60
6	3	575	1	2 wire	60
7	0	277/480	3	4 wire	60
7	1	277	1	2 wire	60
7	4	266/460	3	4 wire	60
7	5	460	3	3 wire	60
8	2	380	1	2 wire	50
9	0	240/416	3	4 wire	60
9	1	220/380	3	4 wire	60
9	2	220/380	3	4 wire	50
9	3	240/416	3	4 wire	50
9	7	380	3	3 wire	60

**Note:** Operating voltage must be specified at time of order. Only the most common voltages are shown above.



GE Digital Energy – Power Quality  
701 E 22nd Street, Lombard, IL 60148 USA  
800 637 1738 [www.gedigitalenergy.com/ats](http://www.gedigitalenergy.com/ats)

Information subject to change without notice. Please verify all details with GE.  
PB-1601 (8/08) © 2008 General Electric Company All Rights Reserved

# Why Winco PTOS?

- ◆ **Winco PTO Generators**-Quality & Innovation since 1927
- ◆ PTO Generators come standard with:
  - Color coded voltmeter for PTO/RPM viewable from tractor.
  - Full power plug which allows the full rated output from a single outlet up to 416 Amps (240V)
  - Protective rodent screens
  - Lifting eye
- ◆ Insulation class F, double dip varnished.
- ◆ Continuous duty ratings at 104° F (40° C)
- ◆ Watertight, pre-lubricated bearings
- ◆ High quality generator ends, built to last
- ◆ 100% copper windings assure longer life expectancy
- ◆ Superior motor starting capabilities for larger motors
- ◆ Helical gear drive
- ◆ Industrial powder coat paint on all units.
- ◆ Circuit breaker protection, 1 main & 2 secondary
- ◆ 100% of generators are load tested, not statistically sampled as some manufacturers do
- ◆ Service and parts distributors available nationwide
- ◆ 15-50KW 540 X 6 spline input
- ◆ 50-75KW 1000 RPM gearcase with 6 spline input.
- ◆ 85-150KW 1000 RPM gearcase with heavy duty 1¾” 20 spline input
- ◆ Optional Accessories
  - Heavy duty trailers for all models
  - 15KW three point hitch kits
  - 25-50KW 1000 RPM gearcase with 6 spline input
  - Tumbling bars to meet most tractor shaft configurations
  - Square D 100 & 200 amp manual transfer switches





## TRACTOR DRIVEN POWER TAKE-OFF GENERATORS

**SINGLE AND THREE PHASE  
540 AND 1000 RPM  
15KW - 150KW**



### **FULL RANGE PTO GENERATOR LINE FOR TODAY'S DIVERSE MARKETS!**

Responding to the growing need for tractor-driven generators of all sizes, WINCO has added numerous new models to its product offering in PTO generators.

Since 1927, WINCO has been providing solutions to power problems by offering a line of electrical generator products. Today, WINCO offers PTO Generators in sizes ranging from 15kW through 150kW, with either 540 or 1000 rpm gear cases available on most models. This extensive offering will meet our customers' individual requirements, from the hobby farmer to the large livestock producer.





## SINGLE PHASE GENERATORS

**The perfect accessory for your compact tractor.**

WINCO's PTO series is designed to provide reliable electrical power for customers who already have a compact utility tractor with sufficient pto horsepower. The PTO generator is a cost effective way of providing 120/240 volt single phase standby power when utility power is disrupted, inaccessible or impractical.

### STANDARD FEATURES

- \* Brushless two pole generator utilizes compound excitation
- \* Low harmonic content (< 8%) is safe for sensitive loads
- \* Capacitive excitation for close regulation and high motor starting capability
- \* Large, magnetically shielded voltmeter is easily viewed from tractor seat allowing easy setting of speed
- \* Rugged cast iron gear case with 540 RPM 1-3/8" six spline input shaft
- \* Compact for easy storage

### SPECIFICATIONS

### W15PTOS

Power Rating (Watts) (1)	15 kW
A C Output Voltage	120/240 volts
Amps (Continuous) (2)	60 amps
Generator Speed (RPM)	3600
Phase	1
<b>Receptacles</b>	
NEMA 5-20R 120V Duplex	1-20 amp
NEMA 14-60R 120/240V	1-60 amp
Tractor HP Recommended (4)	30
PTO Input Speed (RPM)	540
Code G Motor Starting (3)	8
Generator Type (10)	RFL(C)
Dimensions (LxWxH)	33 x 19 x 20
Ship Weight (lbs)	292
Warranty	1 Year



### STANDARD FEATURES

- \* Mainline circuit breakers
- \* 100% copper windings
- \* PTO safety shield
- \* Single point lifting eye
- \* Protective rodent screen
- \* Color coded voltmeter for PTO/rpm adjustment and to verify proper operation
- \* 3 year limited warranty



### SPECIFICATIONS

### 25PTOC-3

### 35PTOC-3

### 50PTOC-3

Power Rating (Watts) (1)	25 kW	35 kW	50 kW
A C Output Voltage	120/240 volts	120/240 volts	120/240 volts
Amps (Continuous) (2)	104 amps	146 amps	208 amps
Generator Speed (RPM)	3600	1800	1800
<b>Receptacles</b>			
NEMA 5-20R 120V Duplex	1-20 amp	1-20 amp	1-20 amp
NEMA 6-50R 240V	1-50 amp	1-50 amp	1-50 amp
Full Power Receptacle/Plug	Yes	Yes	Yes
Tractor HP Recommended (4)	50	70	100
PTO Input Speed (RPM)	540/1000 optional	540/1000 optional	540/1000 optional
Code G Motor Starting (3)	10	20	25
Generator Type (10)	RAB	RFB	RFB
Dimensions (LxWxH)	29 x 16 x 20	39 x 20 x 21	39 x 20 x 21
Ship Weight (lbs)	330	536	612
Warranty	3 Years	3 Years	3 Years

## SINGLE PHASE GENERATORS



SPECIFICATIONS	W85FPTOS	W100FPTOS	W150FPTOS
Power Rating (Watts) (1)	85 kW	100 kW	150 kW
A C Output Voltage	120/240 volts	120/240 volts	120/240 volts
Amps (Continuous) (2)	354 amps	416 amps	625 amps
Generator Speed (RPM)	1800	1800	1800
Phase	1	1	1
Receptacles	Yes (6, 8)	Yes (6, 8)	Yes (6)
Tractor HP Recommended (4)	170	200	290
PTO Input Speed (RPM)	1000	1000	1000
Code G Motor Starting (3)	45	55	75
Generator Type (10)	RFL(X)	RFL(X)	RFL(X)
Dimensions (LxWxH)	49 x 17 x 27	47 x 21 x 30	47 x 27 x 30
Ship Weight (lbs)	1080	1275	1620
Warranty	3 Years	3 Years	3 Years

### STANDARD FEATURES

- \* Heavy duty construction
- \* 100% copper windings
- \* Superior motor starting
- \* Operates at 1800 rpm
- \* Precision-AVR regulated voltage - 2% on RFL(X) types
- \* Full load connector-350A & below
- \* Convenience receptacles
- \* Mainline circuit breaker
- \* Grounding terminal
- \* Lifting eye and Mounting base
- \* Sealed ball bearings
- \* Helical gears
- \* Rodent Screen
- \* Shielded PTO shaft
- \* Speed indicator visible from tractor seat
- \* Three year limited warranty

## THREE PHASE GENERATORS



SPECIFICATIONS	40PTOC-4/ 45PTOC-17	75FPTOC-4/ 75FPTOC-17	W105FPTOT	W145FPTOT
Power Rating (Watts) (1)	40/45 kW	75 kW	105 kW	145 kW
A C Output Voltage	120/208 or 120/240	120/208 or 120/240	120/208, 120/240 or 277/480	120/208, 120/240 or 277/480
Amps (Continuous) (2)	111/108	208/180	291/253/126	402/349/174
Generator Speed (RPM)	1800	1800	1800	1800
Phase	3	3	3	3
Receptacles	Yes (6, 8)	Yes (6, 8)	Yes (6, 8, 9)	Yes (6, 9)
Tractor HP Recommended (4)	90	150	210	290
PTO Input Speed (RPM)	540 (1000 opt)	1000	1000	1000
Code G Motor Starting (3)	25	40	40	70
Generator Type (10)	RFB	RFB	RFL(X)	RFL(X)
Dimensions (LxWxH)	38 x 23 x 20	44 x 23 x 20	47 x 21 x 30	47 x 27 x 30
Ship Weight (lbs)	558	738	1234	1540
Warranty	3 Years	3 Years	3 Years	3 Years

### NOTES:

- 1) Continuous rating per NEMA MG1-22.40 standards
- 2) Unity (1.0) power factor
- 3) NEMA Code G capacitor start motor
- 4) For full rated output. Each 2 hp of tractor power equals approximately 1 kW of electric power output
- 6) NEMA 5-20R, NEMA 6-50R receptacles
- 7) NEMA 5-20R, NEMA 14-60R receptacles
- 8) Full load connector and plug provided
- 9) 480 volt machines have no convenience receptacles or full load connector, connections to circuit breaker only
- 10) RFL(C) is Rotating Field Brushless, capacitor excitation; RFL(X) is Rotating Field Brushless, external regulation; RAB is Rotating Armature Brush Type; RFB is Rotating Field Brush Type
- 11) Specifications Subject To Change Without Notice

# PERFORMANCE MATCHED ACCESSORIES



**Three-point Hitch, includes PTO shaft**  
(for model W15PTOS)



**Off-road Trailers**

## Double Throw Manual Transfer Switches



- \* General Duty
- \* Non-Fusible
- \* Double Throw
- \* Nema 3R Outdoor
- \* Available in 100 and 200 amp, single or three phase voltages.



**Spline Adapter** (Use with 25PTOC-3)  
(1-1/8" i.d. - 1-3/8" 6 spline)



## Tumbling Bar Specifications

Generator PTO Power Rating	Operating Speed	Generator End Connection	Tractor End Connection	Shaft Power Rating
15 kW	540 rpm	1-3/8"-6 spline	1-3/8"-6 spline	43 hp
25 kW	540 rpm	1-1/8"-keyed	1-3/8"-6 spline	50 hp
35, 40, 45 & 50 kW	540 rpm	1-3/8"-6 spline	1-3/8"-6 spline	90 hp
25 - 75 kW	1000 rpm	1-3/8"-6 spline	1-3/8"-21 spline	135 hp
85 kW (Option 1)	1000 rpm	1-3/4"-20 spline	1-3/4"-20 spline	167 hp
85 kW (Option 2)	1000 rpm	1-3/4"-20 spline	1-3/8"-21 spline	167 hp
100 & 105 kW (Option 1)	1000 rpm	1-3/4"-20 spline	1-3/4"-20 spline	167 hp
100 & 105 kW (Option 2)	1000 rpm	1-3/4"-20 spline	1-3/8"-21 spline	167 hp
145 & 150 kW	1000 rpm	1-3/4"-20 spline	1-3/4"-20 spline	257 hp

(Note: 25 kW has keyed end - requires spline adapter)

### WARNING:

An approved manual transfer switch must be used to connect your PTO generator to your electrical system. Without an approved manual transfer switch, power can flow from the PTO generator into the power lines, causing fatal electric shock to repair crews working on the power lines. Consult an electric power company representative and a licensed electrician for the proper installation procedures.

# **WINCO INC**

A Division of **DT** Dyna Technology Inc

225 South Cordova Avenue, Le Center MN 56057

507-357-6821 Fax: 507-357-4857

Sales: 800-733-2112 Service: 507-357-6831

E-Mail: [wincosales@wincogen.com](mailto:wincosales@wincogen.com)

Web Site: [www.wincogen.com](http://www.wincogen.com)

**TWO BEARING GENERATORS**



2FSM2PC-1



8KS2GC-3

Industrial designed, rugged, two bearing generator. Double baked armatures, oversize diode and double sealed permanent bearings, all combine to insure maximum performance and life. Units are designed to rotate either direction without changing the wiring, and are rated at unity power factor. Units require approximately 2 HP input for each 1000 watts output from the generator. Each unit is factory tested to insure its performance and reliability.

MODEL NUMBER	2FSM2PC-1	8KS2GC-3
WATTS	2000	8000
RATED AC AMPS	16.7	66.6/33.3
VOLTS @ 60 HZ	120	120/240
OPERATING SPEED	3600 rpm	3600 rpm
MOTOR STARTING CAPABILITY	1/2 hp	3 hp
RECEPTACLES:		
120V NEMA 5-15R	2-15 amp	2-15 amp
240V NEMA 6-15R	N/A	2-15 amp
240V NEMA 6-50R	N/A	1-50 amp
AC VOLTMETER	N/A	Standard
LENGTH	15 in.	19 in.
WIDTH	6.5 in.	12 in.
HEIGHT	6.75 in.	17.75 in.
SHAFT DIAMETER	5/8 in.	1-1/4 in.
WEIGHT	56 lbs.	175 lbs.
WARRANTY	1 year	1 year



**BRUSHLESS  
TWO BEARING  
GENERATORS**



TB6000C



TB7200GFI

WINCO's TB Series Two Bearing Generators incorporate a rugged yet lightweight, brushless design. Epoxy baked rotors, oversized diode, cast iron drive-side end brackets and double sealed permanent bearings all combine to insure maximum performance and life. Units are designed to rotate either direction without changing the wiring, and are rated at unity power factor, requiring approximately 2 HP input for each 1000 watts output from the generator. Each unit is factory tested to insure its performance and reliability.

<b>MODEL NUMBER</b>	<b>TB2400C</b>	<b>TB4000C*</b>	<b>TB6000C*</b>	<b>TB7200GFI*</b>
WATTS	2400	4000	6000	7200
RATED AC AMPS	20	33.3/16.7	50/25	60/30
VOLTS @ 60 HZ	120	120/240	120/240	120/240
OPERATING SPEED	3600 rpm	3600 rpm	3600 rpm	3600 rpm
MOTOR STARTING CAPABILITY	3/4 hp	1-1/2 hp	3 hp	5 hp
<b>RECEPTACLES:</b>				
120V NEMA 5-20R	2-20 amp	4-20 amp	4-20 amp	N/A
120V NEMA L5-15R	N/A	N/A	N/A	4-15 amp
120/240V NEMA L14-30R	N/A	1-30 amp	1-30 amp	1-30 amp
CIRCUIT BREAKERS	1-20 amp	2-20 amp	2-25 amp	1-30 amp GFI, 4-15 amp
LENGTH	14.25 in.	15.13 in.	17.75 in.	20.13 in.
WIDTH	8.5 in.	8.5 in.	8.5 in.	8.5 in.
HEIGHT	8.94 in.	8.94 in.	8.94 in.	11.75 in.
SHAFT DIAMETER	1.125 in.	1.125 in.	1.125 in.	1.125 in.
WEIGHT	61 lbs.	67 lbs.	86 lbs.	118 lbs.
WARRANTY	1 year	1 year	1 year	1 year

\* These units can be reconnected for 120V full power. Consult factory for details.



ECV2512FPTOU-3

MODEL NUMBER	ECV2510FPTOU-3	ECV2512FPTOU-3	35PSB4G-3	45PSB4G-17	55PSB4G-3	75PSB4G-17
<b>Electrical Specifications</b>						
Power Rating-Surge (1)	25/25kW	N/A	N/A	N/A	N/A	N/A
Power Rating-Cont (2)	20/20kW	35kW	45kW	55kW	75kW	
AC Output Voltage (3)	120/240	120/240	120/240	120/240	120/240	120/240
Phase/Frequency	1-PH, 60HZ	1-PH, 60HZ	3-PH, 60HZ	1-PH, 60HZ	3-PH, 60HZ	
AC Output Amps-Cont (2)	83	146	108	229	180	
Motor Starting (4)	7.5	20	30	30	40	
Generator Rotor Speed	3600 RPM	1800 RPM	1800 RPM	1800 RPM	1800 RPM	1800 RPM
Conduit Mtg.KO(s) Size/(Qty)	1-1/4" (1)	2" (2), 1/2" (2)	2" (2), 1/2" (2)	2" (2), 1/2" (2)	2" (2), 1/2" (2)	2" (2), 1/2" (2)
Conductors Size/(Qty)	#10 (6) Pwr-36" #4 (1) Grnd-36"	None	None	None	None	None
<b>Mechanical Specifications</b>						
Min Drive HP Required (5)	50	65	80	95	125	
Input Drive Speed	1000/1181 RPM	1800 RPM	1800 RPM	1800 RPM	1800 RPM	1800 RPM
Input Shaft Size	1-1/8" Keyed	1-5/8" Keyed	1-5/8" Keyed	1-5/8" Keyed	1-5/8" Keyed	1-5/8" Keyed
Type/Drive Rotation Direction	Gear/Either	Direct/Either	Direct/Either	Direct/Either	Direct/Either	Direct/Either
<b>Product Information</b>						
L x W x H (in.)	26.4x19.4x12.3	28.7x19.2x16.4	28.7x19.2x16.4	34.8x19.2x16.4	34.8x19.2x16.4	
Net Weight	287/275	416	420	598	605	
Shipping Weight	318/306	436	440	618	638	
Warranty Information	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year

NOTES: (1) Surge Rating (2) Continuous Rating per NEMA MG1-22.40 Standards at Unity (1.0) power factor (3) +/- 7% (4) NEMA Code G capacitor start motor (5) Required for full rated output