

1.0 INTRODUCTION

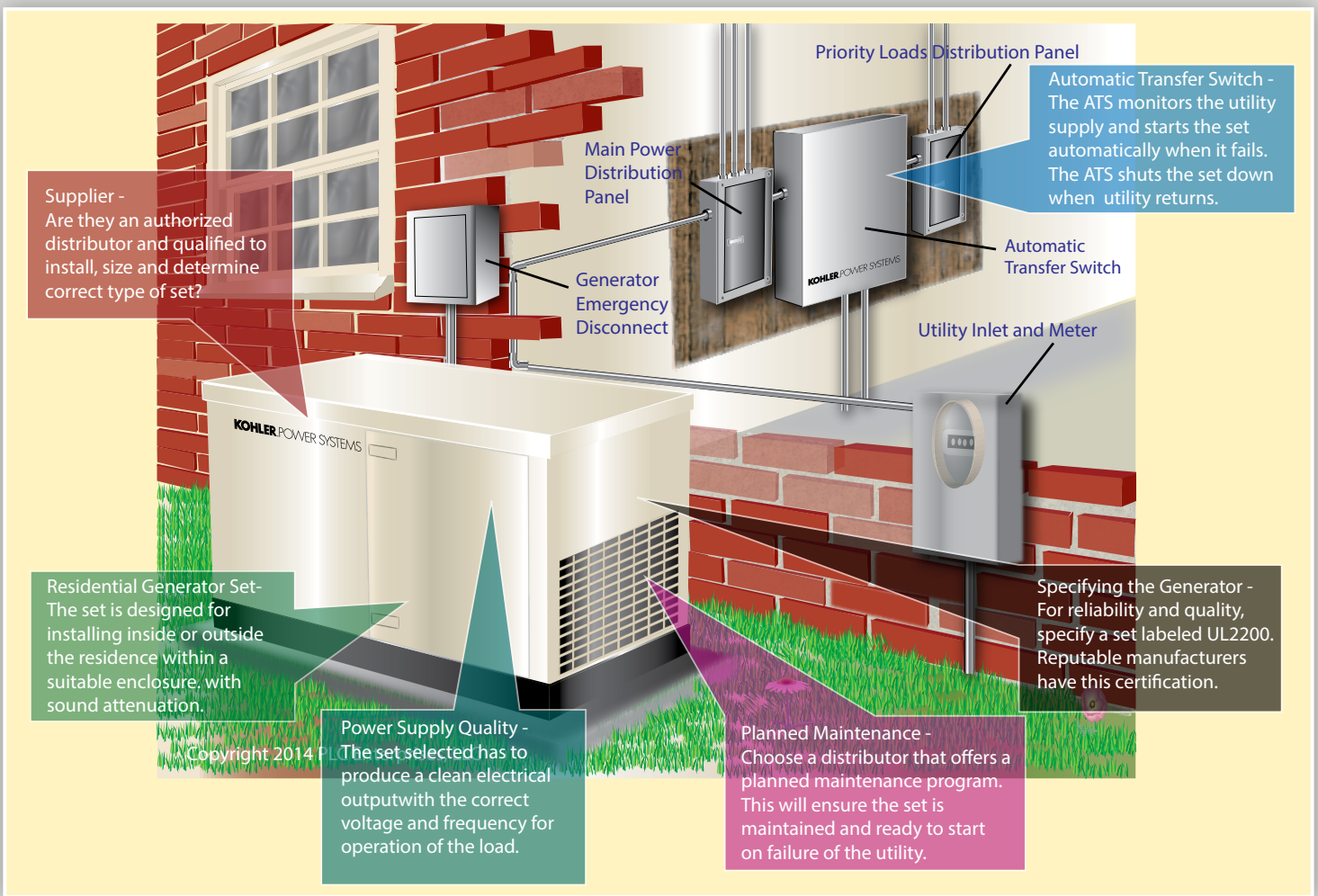
When selecting a generator set to supply standby power for a residence the primary consideration are to choose between a portable or permanently installed unit designed for residential use and how to determine the kW size.

This information sheet discusses the advantages of permanent installation, sizing criteria and preferable supply sources.

2.0 PORTABLE UNITS

These are normally limited to about 8kW maximum and have to be placed outside the residence (including a garage) during operation, in a well ventilated spot, and at least 15ft away from any windows or doors.

SELECTING THE RIGHT GENERATOR SET FOR A RESIDENTIAL APPLICATION



To fulfill our commitment to be the leading supplier in the power generation industry, the Loftin Equipment team ensures they are always up-to-date with the current power industry standards as well as industry trends. As a service, our **Information Sheets** are circulated on a regular basis to existing and potential power customers to maintain their awareness of changes and developments in standards, codes and technology within the power industry.

Principal characteristics of portable sets are:

- Portable generator usually operate on gasoline and will run certain major appliances using electrical extension cords from the generator, passing through an opening to the appliance.
- Most portable units only run at 3,600 rpm and are therefore noisier and have relatively short lives.
- The gas tank will have to be replenished every 6 to 8 hours of operation. It is advisable to shut the generator off with sufficient time to cool down before attempting to refill the tank to avoid any risk of fire.
- Strict care must be taken to avoid any deadly carbon monoxide poisoning.
- Carry out a careful study to ensure that you select the correct kW size of residential set that will have adequate electrical power to best meet your requirements during a power outage.
- Assist with the complete installation, fuel hook-up, and start-up by qualified technicians.
- Provide planned maintenance service every six or twelve months to ensure the generator is kept in its best operational condition minimizing possible failures during an outage.
- Ensure compliance with all local codes, noise and emission restrictions and permits that must be obtained for these units.
- Factory warranty from the manufacture.

While new homes can be designed and built pre-wired for a residential set a dealer is fully experienced in applying a generator set to a residence not having a built in system.

5.0 SPECIFYING A RESIDENTIAL GENERATOR SET

The majority of residential generators are supplied with a weather-proof, rodent-resistant metal housing, either in steel or aluminum. Sound attenuation material is fitted to reduce the noise levels – normally about 65dBA's at 7-meters, at full load.

The following should also be considered when selecting and specifying a residential set:

- While kW size is a determining cost factor, it is best to specify a quality generator brand with necessary accessories within the budget.
- A quality set with an UL2200 label will assure trouble-free life, durability and increase the resale value of the home.
- Specify a set that gives clean, stable and safe electrical power is essential, particularly with today's sensitive electronics.
- An auto exerciser should be included to start and run the set each week.

6.0 LOCATION OF GENERATOR SET

The generator should be installed at a reasonable distance from the house with good air flow for proper ventilation and the USDA Forest Service-approved exhaust facing away from any prevailing winds and windows/doors.

7.0 ESSENTIAL LOADS

At a minimum the kW rating of the set should have sufficient power for applications like: refrigerator, freezer, air-conditioning, dehumidifier, water heater, furnace fan, fans, sump and/or well pump, garage door opener, personal computer and/or home office,

lighting, radio and TV, and security system. This is particularly important for the protection of the elderly and young children and will also avoid the possibility of water pipes bursting with freezing, food damage and spoiling, etc.

8.0 STANDARD ACCESSORIES

Supply normally includes: engine and alternator, base without need for concrete mounting pad, battery cables and static charger, line circuit breaker, ATS, critical silencer, and all necessary controls and fittings for its correct operation.

9.0 OPTIONAL ACCESSORIES

In selecting a generator set the dealer will recommend and advise of the following accessories:

- Battery
- Carburetor heater (recommended for reliable starts at temperatures below 0°C (32°F))
- Battery blanket or heater for low temperature sites
- Braided steel flexible fuel lines
- Gas strainers
- High wind enclosure doors
- Selection of ATS choices with: built-in load center, digital controls
- Different ATS amp sizes to suit loads
- Remote monitoring devices and annunciators
- External alarm modules
- Maintenance kits

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