

# www.ClydeHady.com

## General Power Calculations

### Critical Load Calcs

A. Well Pump	Approx	15A @ 240V
B. Septic Pump	Approx	7A @ 240V
C. Sump Pump	Approx	7A @ 240V
D. Refrigeration	Approx	15A @ 240V (2 Units)
E. A/C	Approx	10A @ 240V per Ton
F. AHU (Heat)	Approx	4A @ 240V per KW of Heat
G. Lighting	Approx	1/2A @ 240V per Fixture
H. TV, Radio, etc	Approx	1/2A @ 240V per Device
I. Microwave	Approx	7A @ 240V
J. Range	Approx	40A @ 240V

**Note:** Approximate load calculations are NOT absolute. There are variations in the load requirements of all equipment, these approximations represent average loads. All loads are calculated at 240V (though some may be 120V) for ease of calculation. A well-balanced system reacts as a total 240V load.

Loads such as pumps are non-continuous loads in use for only short periods of time. Loads such as AHU (Heat), A/C, Lighting and Appliances are continuous loads and may be on for extended periods of time.

Loads such as Heat, A/C, Appliances and Lighting are discretionary and may be alternated by choice to provide a wider range of capabilities.

### 5KW Power Availability

Approximately 20A at 240V

This amount of power would avail the user enough power to supply water, toilet facilities, refrigeration and a small amount of discretionary load such as lighting.

**Note:** The 5KW systems are typically manually operated systems. These systems must be started and transferred by hand. These systems are not recommended for physically restricted persons, or for locations that may be left unattended for long periods of time.

### 7KW Power Availability

Approximately 29A 240V

This amount of power would avail the user enough power to supply water, toilet facilities, refrigeration and a small amount of discretionary load such as lighting. There is also the possibility of a small A/C or Heat load available with this unit. (ie 1 1/2 ton A/C = 15A @ 240V as a discretionary load)

# www.ClydeHady.com

**Note:** The 7KW systems are typically automatically operated systems. These systems start and transfer automatically. These systems are more dependable for physically restricted persons or for locations that may be left unattended for long periods of time. However restrictions of size may not allow proper maintenance of climate control. Consideration should be made for the ability of users to properly control discretionary loads (such as A/C or Heat) in order to maintain the needed climate control.

## 12KW Power Availability

Approximately 50A 240V

This amount of power would avail the user enough power to supply water, toilet facilities, refrigeration, average sized A/C (2 1/2 Ton A/C = 25A @ 240V) and a small amount of discretionary load such as lighting. There is also the possibility of a small Heat load available with this unit. (ie 10KW Heat = 42A @ 240V as a discretionary load)

**Note:** The 12KW systems are typically automatically operated systems. These systems start and transfer automatically. These systems are more dependable for physically restricted persons or for locations that may be left unattended for long periods of time. However restrictions of size (depending upon in house units) may not allow proper maintenance of climate control. Consideration should be made for the ability of users to properly control discretionary loads (such as A/C or Heat) in order to maintain the needed climate control.

## 15KW Emergency System (Automatic)

Approximately 62A 240V

This amount of power would avail the user enough power to supply water, toilet facilities, refrigeration, larger sized A/C (3 Ton A/C = 30A @ 240V), an average heat load (ie 10KW Heat = 42A @ 240V as a discretionary load) and a small amount of discretionary load such as lighting. Note that heat and A/C would not normally work simultaneously.

**Note:** The 15KW systems are typically automatically operated systems. These systems start and transfer automatically. These systems are more dependable for physically restricted persons or for locations that may be left unattended for long periods of time. However restrictions of size (depending upon in house units) may not allow proper maintenance of climate control. Consideration should be made for the ability of users to properly control discretionary loads (such as A/C or Heat) in order to maintain the needed climate control.