

## Transfer Switch Panels



*All Panels are Manufactured  
in the USA and Meet UL® 1008*

### Product Description

A Transfer Switch Panel is a device that is mounted next to the loadcenter (distribution panel) in the home or small business. The Transfer Switch Panel is used in conjunction with an emergency generator (supplied by others) and serves the purpose of turning selected circuits on and off during a power outage. The Transfer Switch Panel allows the owner to start up a generator and then restore power to critical circuits when utility power is not available.

The owner designates which circuits are critical such as their refrigerator and certain lights. Sometimes called Emergency Power Panels, Emergency Generator Panels, Gen. Panels, Transfer Switches or Emergency Panels; Transfer Switch Panels provide the homeowner or small business owner with a safe and easy way to continue using electrical appliances when the utility power is unavailable.

### Application Description

Transfer Switch Panels are most often used in residential, agricultural and light commercial applications. Comfort and safety are key concerns of many homeowners who are dependent on an uninterrupted supply of electricity.

The increase in our dependence on power is due in part to the popularity of home offices and in-home health care. Various heavily populated regions of the United States experience periodic power outages due to extreme weather conditions such as ice and snowstorms, heat waves, tornadoes or hurricanes. These regions which include the Pacific Northwest, Atlantic Coast and the Gulf Coast are the strongest markets for portable generators and Transfer Switch Panels.

## Features, Benefits and Functions

Eaton offers two unique emergency power solutions.

- Manual transfer switches.
- Emergency generator panels.

### Manual Transfer Switches



*Indoor Design*



*Indoor/Outdoor Design*

- Panel and components sold separately.
- Hardwired generator connection.
- Ideal for new construction/larger loads.
- Sturdy copper bus construction.
- Types (CH and CHNT) breakers are sold separately.
- Mechanically interlocked main disconnects to prevent paralleling of normal and emergency power source.
- Indoor and outdoor designs offered.

## Emergency Generator Panels



*Indoor Design*



*Outdoor Design*

- Panel and components sold separately.
- Plug-in generator connection.
- All circuit breakers are included — switching duty rated.
- Includes dual wattmeters for load balancing.
- Mechanically interlocked main disconnects prevent paralleling of normal and emergency power source.
- Indoor and outdoor designs offered.

### Standards and Certifications

- UL 67 listed.
- UL 1008 listed.

### Product Specifications

- 10,000 AIC rating.
- Switching devices must be circuit breakers.
- Transfer switch panel must be supplied with neutral and ground.
- Power inlet box must include a circuit breaker for generator protection.

### Technical Data and Specifications

Table 4-11. Manual Transfer Switch

Enclosure Type	Dimensions in Inches (mm)			Weight Lbs. (kg)
	Height	Width	Depth	
NEMA 1	16.75 (425.5)	14.31 (363.5)	3.88 (98.5)	25 (11)
NEMA 3R	13.00 (330.2)	11.00 (279.4)	3.56 (90.4)	14 (6)

Table 4-12. Emergency Generator Panel

Enclosure Type	Dimensions in Inches (mm)			Weight – Lbs. (kg)	
	Height	Width	Depth	6 Circuit	10 Circuit
NEMA 1	13.23 (336.0)	11.41 (289.8)	4.10 (104.1)	24 (11)	26 (12)
NEMA 3R	17.12 (434.8)	9.45 (240.0)	7.16 (181.9)	29 (13)	31 (14)

### Installation Diagrams

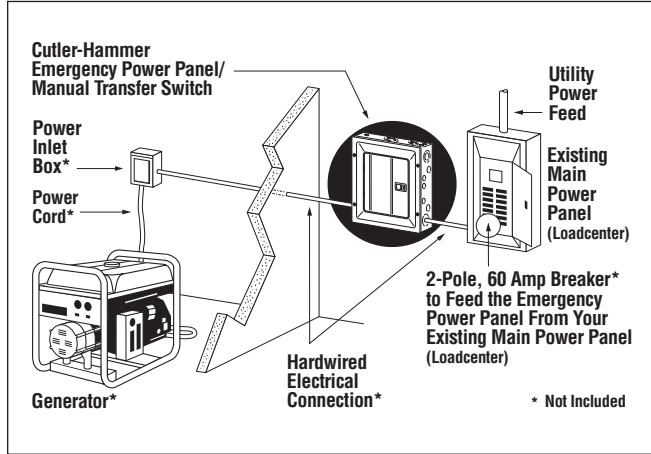


Figure 4-3. Manual Transfer Switches — Indoor Installation Diagram

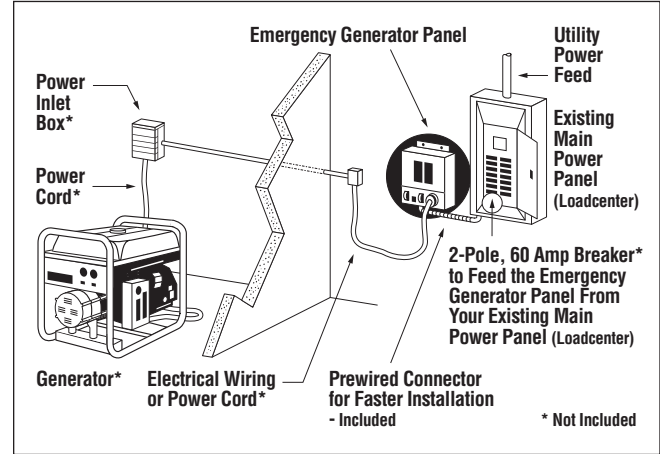


Figure 4-5. Emergency Generator Panels — Indoor Installation Diagram

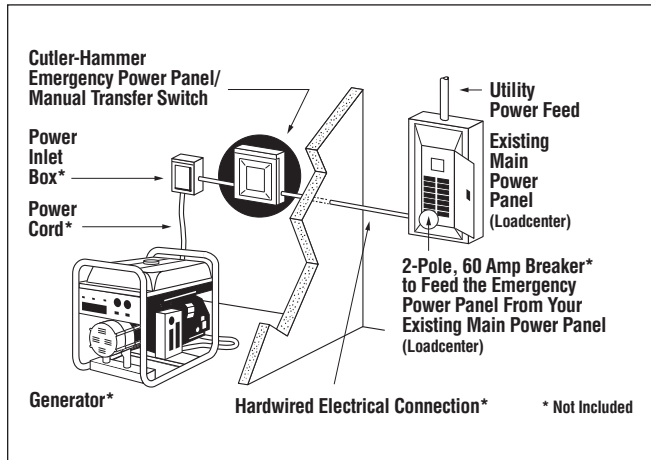


Figure 4-4. Manual Transfer Switches — Outdoor Installation Diagram

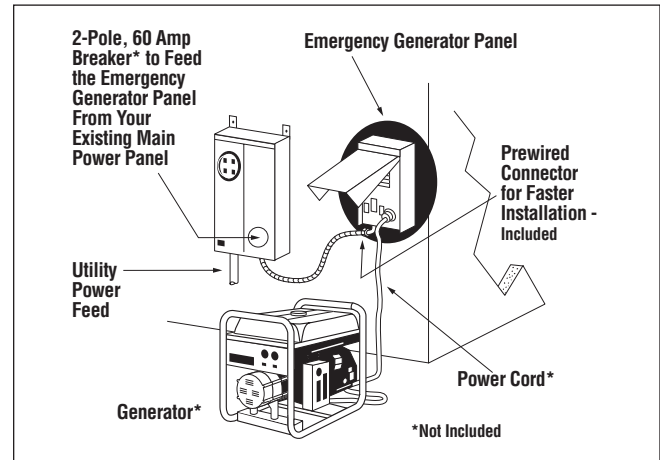


Figure 4-6. Emergency Generator Panels — Outdoor Installation Diagram

### Warranty

#### Manual Transfer Switch

- 15-year loadcenter warranty.
- Lifetime branch breaker warranty.
- Extend the warranty to 20 years by purchasing an emergency generator panel with surge protection.

#### Emergency Generator Panel

- 15-year loadcenter warranty.
- Lifetime branch breaker warranty.
- Extend the warranty to 20 years by purchasing an emergency generator panel with surge protection.

**Product Selection**

**Table 4-13. Selection**

Enclosure Type	Watts	Number of Circuits	Ampere Rating	Main/Emergency Ampere Rating	Feeder Breakers	Included Accessories	Catalog Number	Price U.S. \$
<b>Manual Transfer Switch</b>								
NEMA 3R	5,000	4 – 8	30	Provision	Provision	None	CH48GEN3060R	
NEMA 1	10,000	8 – 16	60	Provision	Provision	None	CH816GEN6060	
<b>Emergency Generator Panel</b>								
NEMA 1	5,000	6	20	60/20	5 – 1P 15 1 – 1P 20	None	CH6EGEN2060	
NEMA 3R	5,000	6	20	60/20	5 – 1P 15 1 – 1P 20	None	CH6EGEN2060R	
NEMA 1	5,000	6	20	60/20	5 – 1P 15 1 – 1P 20	2-Pole Surge Protector	CH6EGEN2060SUR	
NEMA 3R	5,000	6	20	60/20	5 – 1P 15 1 – 1P 20	2-Pole Surge Protector	CH6EGEN2060RSU	
NEMA 1	7,500	10	30	60/30	6 – 1P 15 2 – 1P 20 1 2P 30	None	CH10EGEN3060	
NEMA 3R	7,500	10	30	60/30	6 – 1P 15 2 – 1P 20 1 2P 30	None	CH10EGEN3060R	
NEMA 1	7,500	10	30	60/30	7 – 1P 15 2 – 1P 20 1 2P 30	2-Pole Surge Protector	CH10EGEN3060SUR	
NEMA 3R	7,500	10	30	60/30	7 – 1P 15 2 – 1P 20 1 2P 30	2-Pole Surge Protector	CH10EGEN3060RSU	

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**Table 4-14. Accessories**

Description	Ampere Rating	Catalog Number	Price U.S. \$
Flush Flange Kit (for use with Emergency Generator Panel Only)	—	CHEGENFKIT	
25-Foot (7.62 m) Power Cord	30	CHGENCORD30	
Power Inlet Box	20	CH6EGENPIB	
Power Inlet Box	30	CH10EGENPIB	

**Cross-Reference**

**Table 4-15. Cross-Reference**

Watts	Number of Circuits	Ampere Rating	Catalog Number					Cutler-Hammer Catalog Number
			Coleman ①	Gen/Tran ①	EmerGen ①	Square D	Generac ①	
5000	4 – 8	30	—	—	—	QO48M30DSGP	—	CH48GEN3060R
10,000	8 – 16	60	—	—	—	QO48M60DSGP	—	CH816GEN6060
5000	6	20	—	20216	6-5000	—	—	CH6EGEN2060
5000	6	20	—	R20216	6-5000 + RTE657	—	—	CH6EGEN2060R
5000	6	20	—	—	—	—	—	CH6EGEN2060SUR
5000	6	20	—	—	—	—	—	CH6EGEN2060RSU
7500	10	30	PA0650080	302110-20	10-7500	—	—	CH10EGEN3060
7500	10	30	—	R30211-20	10-7500 + RTE1075	—	—	CH10EGEN3060R
7500	10	30	—	—	—	—	—	CH10EGEN3060SUR
7500	10	30	—	—	—	—	—	CH10EGEN3060RSU
5000	6	20	—	—	—	—	—	—
7500	10	30	—	TRC0603A ①	—	QO48M30DFGPW1	1276-1 ②	—
5000	6	30	—	—	—	—	—	—

① Gen/Trans device is not supplied with a power cord.

② Generac device is 7200 maximum watts on 6-circuit device and 12,000 maximum watts on 10-circuit device.

## Product Description

## Standby Generator Systems



12 – 20 kW



7 – 10 kW

## Product Description

A standby generator system is a package of equipment specifically designed to provide substitute electrical power to a residence in the event of a utility power outage or other emergency. These systems are comprised of a generator, transfer switch, and the connections necessary for installation. Eaton's standby generator line consists of air and liquid cooled models ranging from 7000 watts up to 45,000 watts.

Standby Generator Systems are most often used in residential, agricultural and light commercial applications. Comfort and safety are key concerns of many homeowners who are dependent on an uninterrupted supply of electricity.

The increase in our dependence on power is due in part to the popularity of home offices and in-home health care. Many regions of the United States experience periodic power outages due to extreme weather conditions such as ice and snowstorms, heat waves, tornadoes or hurricanes.

Portable generator systems are primarily used for smaller homes or for construction sites where temporary power is required. Permanently installed systems are designed for larger homes, small businesses or secondary residences such as vacation homes, cabins, etc., that require uninterrupted power for critical loads.

Eaton highly recommends that any generator system be installed by a qualified electrician and/or generator installer.

## Application Description

All systems allow the user to pre-select critical circuits that will need power during an outage as shown in **Table 4-17**.

When selecting the essential circuits that will be switched to "Backup Power," it is important that the sum of the combined circuit loads does not exceed the wattage/ampere capacity of the generator. To help you with your selection of essential circuits, please add up the total wattage of all electrical devices to be connected at one time. This total should NOT be greater than the generator's wattage capacity.

Table 4-17. Circuit Selection

Device	Running Watts
Air Conditioner (12,000 Btu)	1700
Air Conditioner (24,000 Btu)	3800
Air Conditioner (40,000 Btu)	6000
Battery Charger (20 Amp)	500
Circular Saw (6-1/2-inch)	800 – 1000
Clothes Dryer (Electric)	5750
Clothes Dryer (Gas)	700
Clothes Washer	1150
Coffee Maker	1750
Compressor (1 hp)	2000
Compressor (1/2 hp)	1400
Compressor (3/4 hp)	1800
Curling Iron	700
Dehumidifier	650
Electric Blanket	400
Electric Range (per element)	1500
Electric Skillet	1250
Freezer	700
Furnace Fan (3/5 hp)	875
Garage Door Opener	500 – 750
Hair Dryer	1200

Device	Running Watts
Hand Drill	250 – 1100
Iron	1200
Jet Pump	800
Light Bulb	100
Microwave Oven	700 – 1000
Milk Cooler	1100
Oil Burner on Furnace	300
Oil Fired Space Heater (140,000 Btu)	400
Oil Fired Space Heater (30,000 Btu)	150
Oil Fired Space Heater (85,000 Btu)	225
Radio	50 – 200
Refrigerator	700
Slow Cooker	200
Submersible Pump (1 hp)	2000
Submersible Pump (1/2 hp)	1500
Submersible Pump (1-1/2 hp)	2800
Sump Pump	800 – 1050
Table Saw (10-inch)	1750 – 2000
Television	200 – 500
Toaster	1000 – 1650

## Notes:

- The rated wattage of lights can be taken from light bulbs. The rated wattage of tools, appliances and motors can usually be found on a data plate or decal affixed to the device.
- If the appliance, tool or motor does not give wattage, multiply 120 volts times the ampere rating to determine watts (volts x amps = watts).
- Some electric motors (induction types) require about three times more watts of power for starting than for running. This surge lasts for only a few seconds. Be sure you allow for this high starting wattage when selecting electrical devices that will be energized by the backup power system:
  - Figure the watts required to start the largest motor.
  - Add that to the total running watts of all other connected loads.

## Features, Benefits and Functions

### Features, Benefits and Functions

Eaton's Cutler-Hammer generator systems offer a wide range of features. All systems feature:

- Powerful Briggs & Stratton and GM engines.
- Reliable Eaton transfer switches and control systems using switching duty rated circuit breakers.
- Transfer switches are mechanically interlocked to prevent paralleling of normal and emergency power sources.

- Automatic Transfer system features automatic start/stop and provision for using propane or natural gas.
- Vanguard™ OHV V-Twin engine.
- Diagnostic panel with remote system status.
- Weekly exercise function.
- Automatic battery charger.
- Run-time meter.
- Four sound absorbing, weather-protected panels.
- CSA, cUL® and UL 2200 listed and approved.
- Briggs & Stratton ELS™ OHV engine.

### Standards and Certifications

- All transfer switches are UL 67 and UL 1008 listed as "Transfer Switches."
- All generators are UL 2200 listed.

## Product Selection

**Table 4-18. Home Standby Selection Chart**

Description	Catalog Number			
	CHGEN7000	CHGEN10000V	CHGEN12000	CHGEN15000
	Price U.S. \$			
Running Watts LP/NG	7000W (LP)/6000W (NG)	10000W (LP)/9000W (NG)	12000 (LP)/11000 (NG)	15000 (LP)/14000W (NG)
Surge Watts LP/NG	10500W (LP)/9000W (NG)	12500W (LP)/11750W (NG)	15500 (LP)/14500W (NG)	18500 (LP)/17000W (NG)
Engine	504cc Intek	570cc Vanguard	627cc Vanguard	895cc Vanguard
Operation Voltage	Fully Automatic	Fully Automatic	Fully Automatic	Fully Automatic
Amps LP/NG	120/240 Vac, Single-phase	120/240 Vac, Single-phase	120/240 Vac, Single-phase	120/240 Vac, Single-phase
Alternator Type	Automatic Voltage Regulator	Automatic Voltage Regulator	Brushless Design	Brushless Design
Full Pressure Lubrication	Yes	Yes	Yes	Yes
Fuel Type	Liquid Propane Natural Gas	Liquid Propane Natural Gas	Liquid Propane Natural Gas	Liquid Propane Natural Gas
Sound Rating	77 dB @ 7 Meters	72 dB @ 7 Meters	65 dB @ 7 Meters	65 dB @ 7 Meters
Battery Charger	Yes	Yes	Yes	Yes
Over Crank Protection	Yes	Yes	Yes	Yes
Dimensions in Inches (L x W x H)	30.50 x 22.50 x 32.50	30.50 x 22.50 x 32.50	49.50 x 33.00 x 30.50	49.50 x 33.00 x 30.50
Weight (lbs.)	280	300	380	400
Warranty	2 Years	3 Years	4 Years	4 Years

Discount Symbol ..... 22CD

**Technical Data**

**Table 4-18. Home Standby Selection Chart (Continued)**

Description	Catalog Number					
	EGEN20-LP	EGEN20-NG	CHGEN30000-LP	CHGEN30000-NG	CHGEN45000-LP	CHGEN45000-NG
	Price U.S. \$					
Running Watts LP/NG	20000W	18000W	30000W	27000W	45000W	42000W
Surge Watts LP/NG	28000W	25200W	37500W	33000W	56000W	53000W
Engine	993cc Big Block V-Twin		GM Vortec 3.0L in-line 4 cylinder		GM Vortec 5.0L V8	
Operation Voltage	Fully Automatic	Fully Automatic	Fully Automatic	Fully Automatic	Fully Automatic	Fully Automatic
Amps LP/NG	120/240 Vac, Single-phase	120/240 Vac, Single-phase	120/240 Vac, Single-phase	120/240 Vac, Single-phase	120/240 Vac, Single-phase	120/240 Vac, Single-phase
Alternator Type	Brushed Alternator	Brushed Alternator	4-Pole Brushless	4-Pole Brushless	4-Pole Brushless	4-Pole Brushless
Full Pressure Lubrication	Yes	Yes	Yes	Yes	Yes	Yes
Fuel Type	Liquid Propane	Natural Gas	Liquid Propane	Natural Gas	Liquid Propane	Natural Gas
Sound Rating	68 dB @ 7 Meters	68 dB @ 7 Meters	65 dB @ 7 Meters	65 dB @ 7 Meters	65 dB @ 7 Meters	65 dB @ 7 Meters
Battery Charger	Yes	Yes	Yes	Yes	Yes	Yes
Over Crank Protection	Yes	Yes	Yes	Yes	Yes	Yes
Dimensions in Inches (L x W x H)	49.50 x 33.00 x 30.50	49.50 x 33.00 x 30.50	84.50 x 39.50 x 41.50	84.50 x 39.50 x 41.50	98.50 x 39.50 x 44.00	98.50 x 39.50 x 44.00
Weight (lbs.)	600	600	1800	1800	2100	2100
Warranty	4 Years	4 Years	4 Years	4 Years	4 Years	4 Years

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**Automatic Transfer Switches  
50, 100 and 200 Ampere**



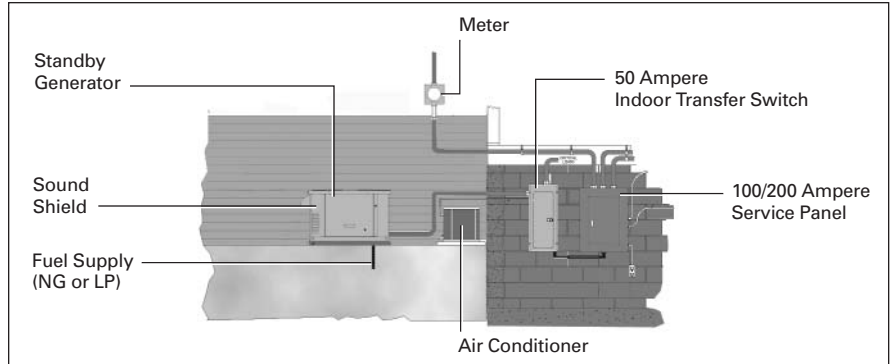
*Eaton Offers a Full Line of Residential Automatic Transfer Switches*



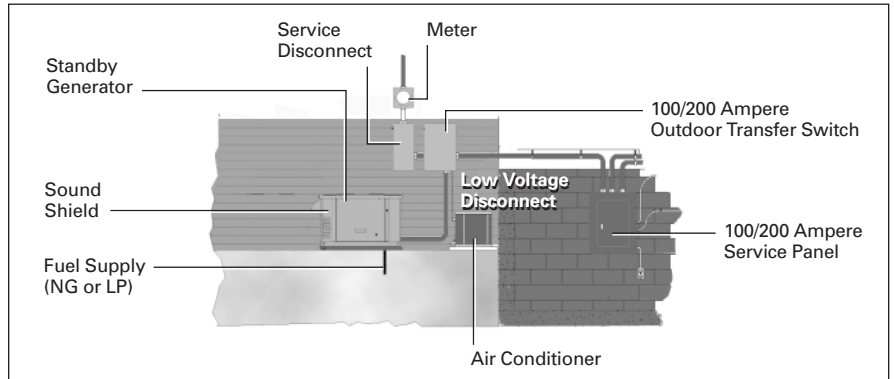
*100 Ampere Outdoor with Integrated 24-Circuit CH Loadcenter*

**Fully Automatic**

All of our switches monitor utility and generator voltages and will automatically connect to the appropriate source of power. 100 and 200 ampere switches are capable of 'whole house' power transfer in residential/small business applications.



**Figure 4-7. 50 Ampere — Indoor Installation — Selected Load Pre-Wired**



**Figure 4-8. 100/200 Ampere — Outdoor Installation — Whole House Pre-Wired**



## Technical Data and Specifications

Table 4-19. Selection Chart

Specifications or Dimensions	Catalog Number					
	EGS50L12	EGS50L12R	EGS100	EGS100SE	CHGEN100ATSRAC	CHGEN100ATSSEAC
	Price U.S. \$					
Voltage	120/240	120/240	120/240	120/240	120/240	120/240
Circuits	10	10	n/a	n/a	n/a	n/a
Amperes	50	50	100	100	100	100
Air Conditioning Control Module	No	No	No	No	Yes	Yes
Poles	2	2	2	2	2	2
Frequency	50/60	50/60	50/60	50/60	50/60	50/60
UL Listed	1008	1008	1008	1008	1008	1008
Switch Type	Electrically Held	Electrically Held	Mechanically Held	Mechanically Held	Mechanically Held	Mechanically Held
Enclosure	NEMA 1 (Indoor)	NEMA 3R (Outdoor)	NEMA 3R (Outdoor)	NEMA 3R (Outdoor)	NEMA 3R (Outdoor)	NEMA 3R (Outdoor)
Dimensions (in.)						
Width	14.25	14.25	16.87	16.87	12.00	12.00
Height	21.00	21.00	14.46	14.46	16.00	22.00
Depth	4.00	6.00	5.32	5.32	6.00	6.00
Weight (lbs.)	25	29	25	28	24	35.5

Table 4-19. Selection Chart (Continued)

Specifications or Dimensions	Catalog Number					
	CHGEN200ATSRAC	CHGEN200ATSSEAC	EGS200	EGS200SE	EGS100L24R	EGSLC200SEAC
	Price U.S. \$					
Voltage	120/240	120/240	120/240	120/240	120/240	120/240
Circuits	n/a	n/a	n/a	n/a	24	n/a
Amperes	200	200	200	200	100	200
Air Conditioning Control Module	Yes	Yes	No	No	No	Yes
Poles	2	2	2	2	2	2
Frequency	50/60	50/60	50/60	50/60	50/60	50/60
UL Listed	1008	1008	1008	1008	1008	1008
Switch Type	Mechanically Held	Mechanically Held	Mechanically Held	Mechanically Held	Mechanically Held	Mechanically Held
Enclosure	NEMA 3R (Outdoor)	NEMA 3R (Outdoor)	NEMA 3R (Outdoor)	NEMA 3R (Outdoor)	NEMA 3R (Outdoor)	NEMA 3R (Outdoor)
Dimensions (in.)						
Width	16.00	16.00	25.08	29.20	29.33	33.00
Height	22.00	30.00	14.46	14.46	14.46	10.25
Depth	7.00	7.00	5.25	5.32	5.32	19.00
Weight (lbs.)	36.5	59.5	35	45	38	64

Discount Symbol ..... 22CD