

BENEFITS

Global Plasma Solutions technology is easily added to any forced air heating and cooling system. With most installations taking 15 minutes or less, GPS is the installers first choice and the end users first choice due to all of the benefits the GPS-FC technology provides. Below is a short list of the many benefits the technology provides:

Odor Control

Mold Control

Virus Control

Bacteria Control

Allergen Control*

Easy Installation

LED Operation Light

No Replacement Parts

Particulate Reduction

Static Electricity Control

Low Power Consumption

Essentially No Maintenance

UL Listed for Electrical Safety

No Ozone Per UL 867-2007 chamber test

*Based on testimonials by actual customers



CUSTOMERS



NORTON
HEALTHCARE

Children's Hospital Boston



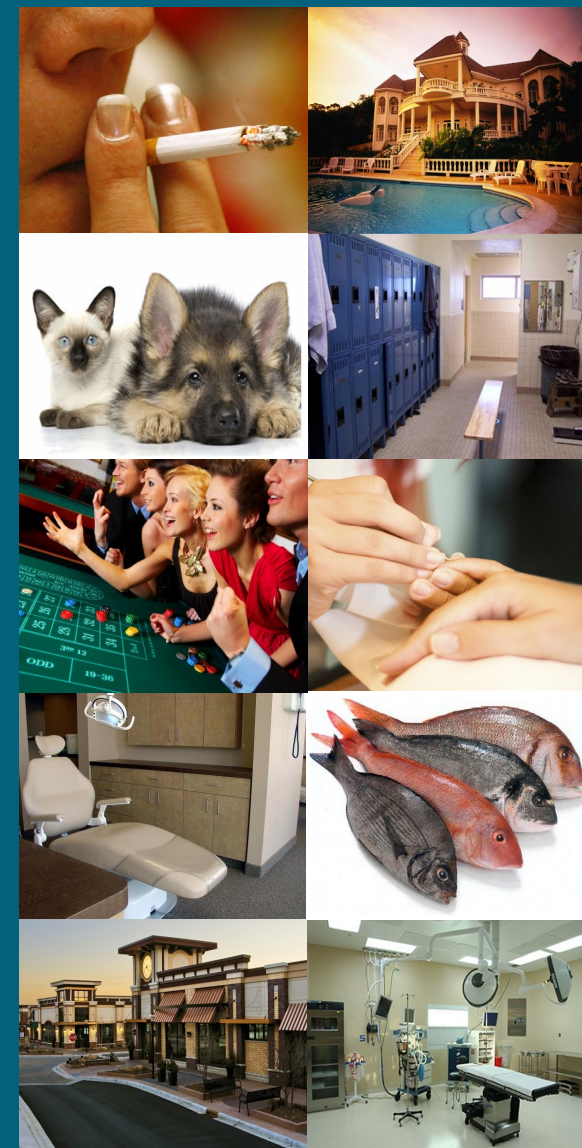
Global Plasma Solutions

714 Mall Blvd., Suite 3
Savannah, GA 31406
Phone: (912) 356-0115
Fax: (912) 356-0114
Email: info@globalplasmasolutions.com
Web: www.globalplasmasolutions.com

Distributed By:

Global Plasma Solutions

GPS-FC

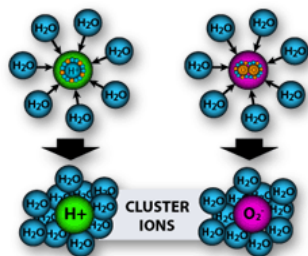


ENGINEERING AIR FOR A BETTER WORLD™

What Can Plasma Do For You?

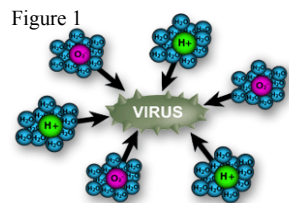
Plasma in it's simplest form is oppositely charged hydrogen and oxygen ions, also called bi-polar ionization. These natural, friendly, oxidizers are produced when a sufficiently high voltage is applied to a sharp point. The plasma, when produced and injected into a moving air stream, breaks down gases to harmless compounds prevalent in the atmosphere such as oxygen, nitrogen, water vapor and carbon dioxide. In addition to the reduction of gases and odors, plasma also reduces particulates and kills mold, bacteria and virus.

Plasma Reduces Airborne Particles



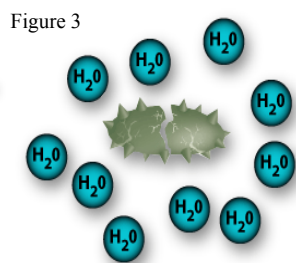
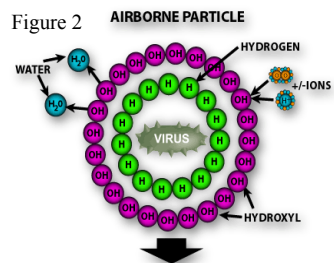
The Plasma clusters are drawn to airborne particles by their electrical charge. Once the cluster is formed around the particle, the particle grows larger by attracting nearby particles and increases the filtration effectiveness.

Plasma Kills Virus, Bacteria and Mold - In the Space!

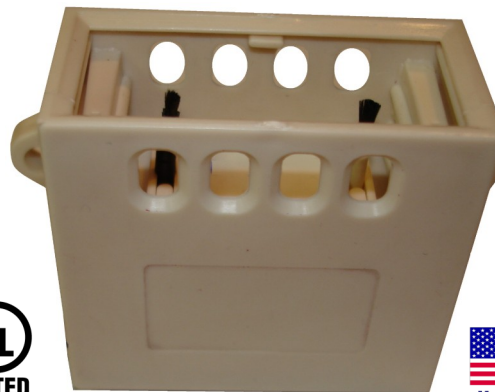


Positive and negative ions react to form hydroxyls (nature's detergent), which surrounds the pathogen (See Figure 1). Next, the hydroxyls rob the pathogens of the hydrogen necessary for them to survive

(See Figure 2). During the final step, the hydroxyl eliminates hydrogen from the pathogen and then the cleansing process is complete, making the airborne virus, bacteria or mold spore inactive (See Figure 3).



GPS-FC



ACTUAL SIZE SHOWN

Voltage: 24VAC, 115VAC, 208-240VAC
Capacity: 1,200 CFM Nominal
Size: 2.2" x 1.6" x 1"
Weight: 0.25 lbs



Your Family, Your Health



Plasma Kills Contaminants Fast

H1N1
H5N1
MRSA
STAPH
e.Coli

Feline Coronavirus
Coxsackie Virus
Polio Virus
SARS Virus
Serratia Bacterium (TB)

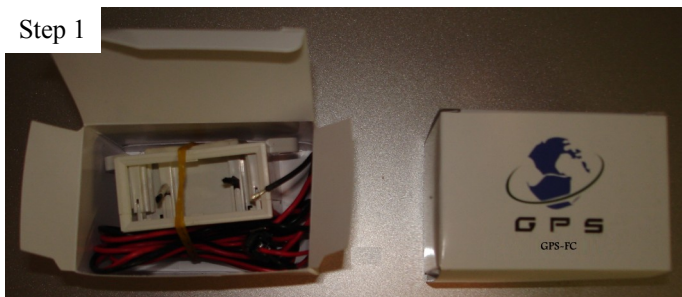


GLOBAL PLASMA SOLUTIONS

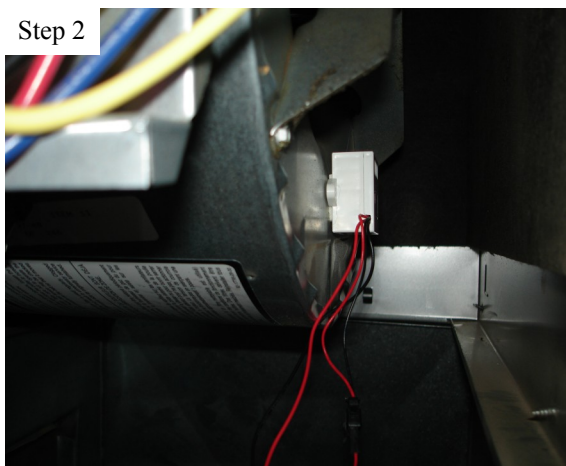
GPS-FC INSTALLATION

Quick Reference Guide (Typical Split Systems)

Step 1



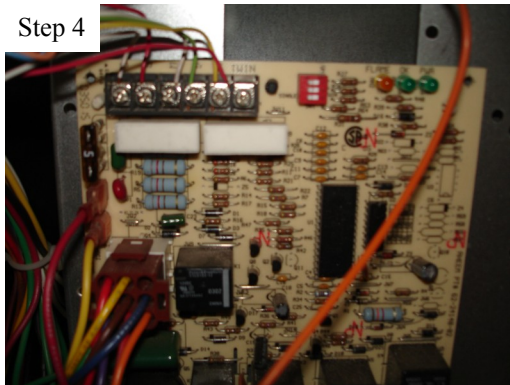
Step 2



Step 3



Step 4



Model	Voltage	VA
GPS-FC-1	115VAC	0.5
GPS-FC-2	208-240VAC	0.5
GPS-FC-3	24VAC	0.5

INSTALLATION INSTRUCTIONS



Installs Under
5 Minutes

Step 1. Check contents of box to make sure ion generator and green status indication light is not damaged from shipping or rough handling.

Step 2. Disconnect power to air handler, remove service access panels and locate fan compartment. Clean an area on the fan inlet to make free of dust, dirt and oil. Remove double sided tape backing and press GPS-FC firmly to the fan inlet such that air will flow across both needles simultaneously, level with the fan inlet.

Step 3. Secure green ion output status LED such that it will not be pulled into the fan inlet. If desired, the ion output status indication wiring may be extended by the installing contractor to show product operation elsewhere, up to 100 feet away using 18/2 cable.

Step 4. Wire the GPS-FC's black and red wires to the proper voltage terminals on the AHU power board. All GPS-FC units require 0.5VA to operate. The wires are not polarity sensitive to common or ground reference. Restore power to AHU and confirm green LED is illuminated. Placing a non-contact voltage detector probe near the ion output will prove ion generation in addition to the green light.

Optional Control Relay: If BAS alarm status is required, remove the green LED by cutting the wires nearest the LED and wire to optional control relay. See next page.

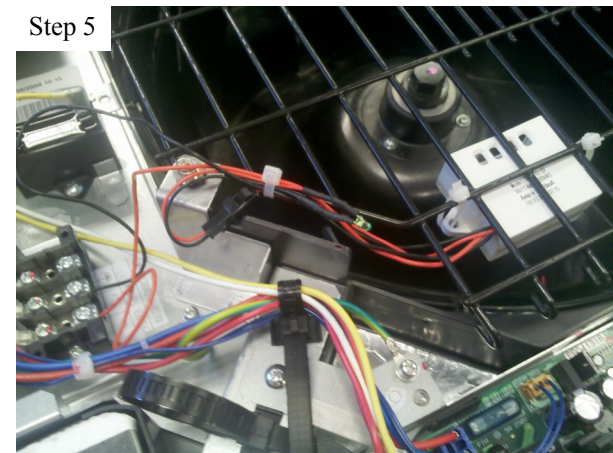
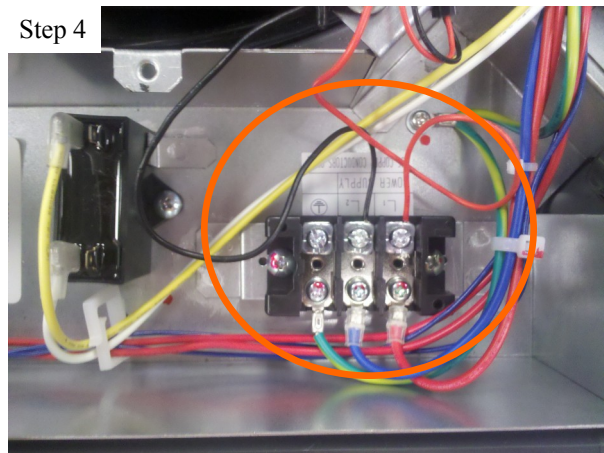
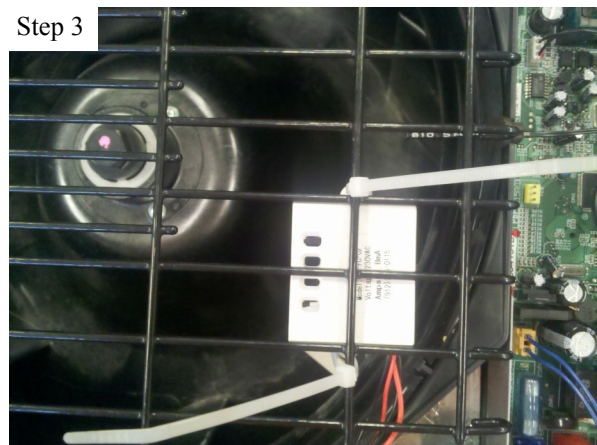
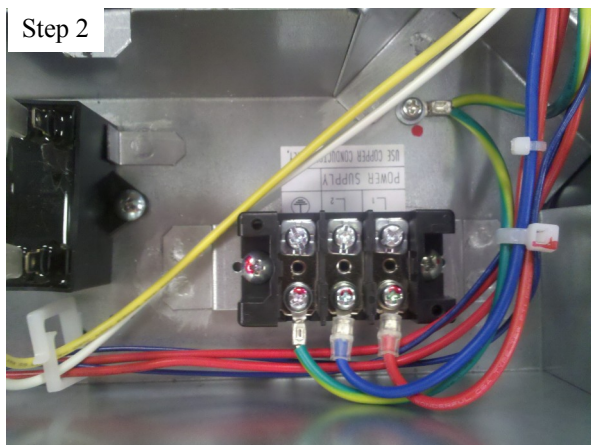
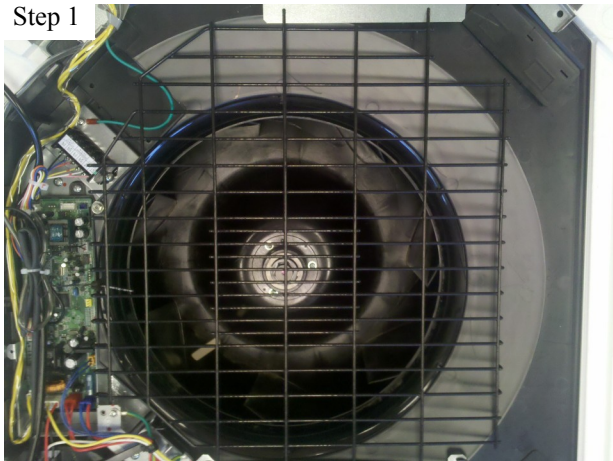
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714 Mall Blvd., Suite 4
Savannah, GA 31406

Phone: 912-356-0115
Fax: 912-356-0114
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GPS-FC CEILING CASSETTE MODULE INSTALLATION



- Step 1 - Confirm power is disconnected from AHU and remove face panel, exposing fan compartment.
- Step 2 - Locate power distribution block where main power is or will be connected to unit.
- Step 3 - Lift up a portion of the protective wire screen and wire tie the GPS-FC to the fan side of the screen.
- Step 4 - Wire GPS-FC to the terminal block as shown. The wires are not polarity sensitive and may be shortened as required. Make sure to use the proper GPS-FC model based on the primary voltage.
- Step 5 - Wire tie green LED for ease of visual inspection and clip off excess wire tie leads. Power unit and confirm green LED is operating. GPS-FC may be powered 24/7. Note, LED does not appear lit when viewed from a side angle.

GPS-FC WALL HUNG MODULE INSTALLATION



Figure 2

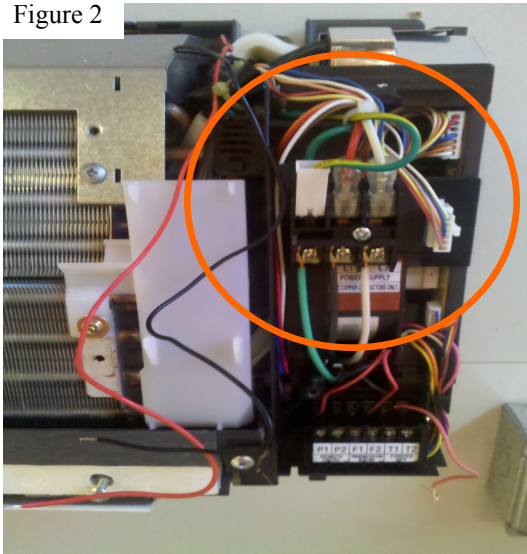


Figure 1



- Step 1 - Confirm power is disconnected from AHU and remove face panel, exposing coil compartment.
- Step 2 - Locate power distribution block where main power is or will be connected to unit.
- Step 3 - Remove double sided tape from GPS-FC and secure to back wall plate as shown in Figure 1.
- Step 4 - Wire GPS-FC to the terminal block shown in Figure 2. The wires are not polarity sensitive and may be shortened as required. Make sure to use the proper GPS-FC model based on the primary voltage.
- Step 5 - Lay green LED in convenient location for visual inspection when the cover is replaced. A piece of duct tape to hold the LED in the proper location may be required. Power unit and confirm green LED is operating. GPS-FC may be powered 24/7. Note, LED does not appear lit when viewed from a side angle.

GPS-FC DUCTED MODULE INSTALLATION



Figure 2

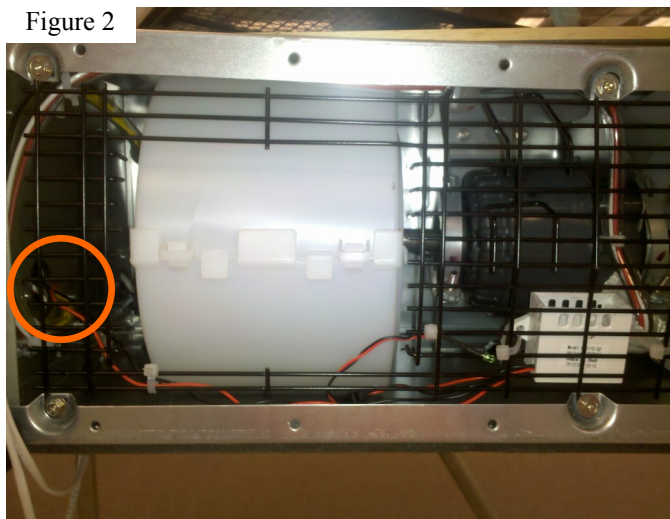


Figure 1

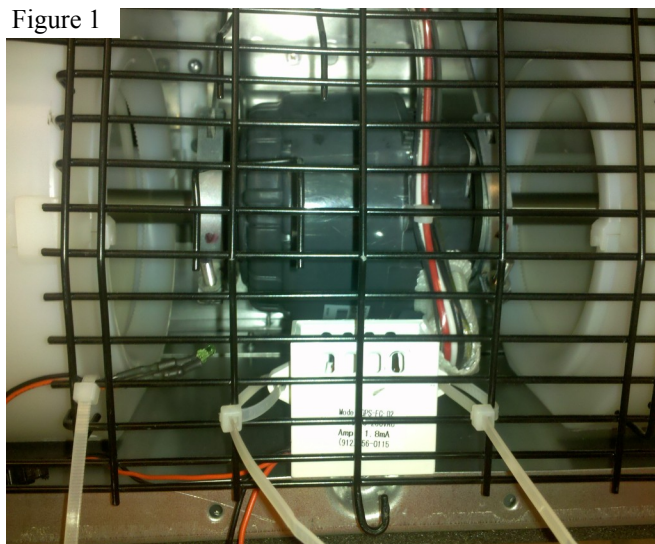


Figure 3

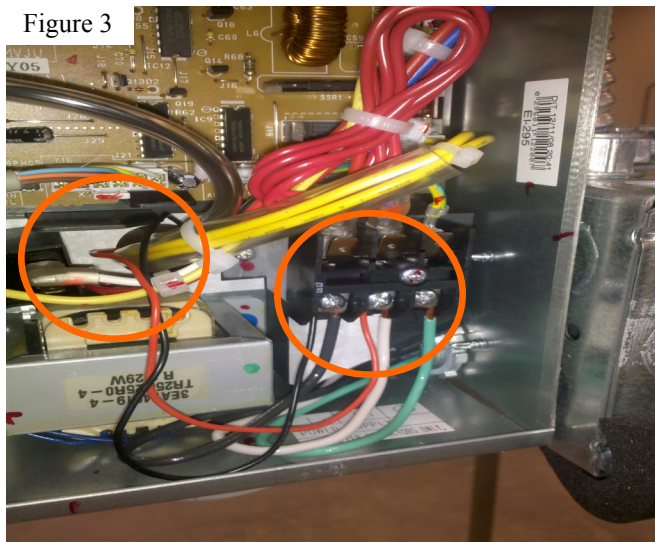
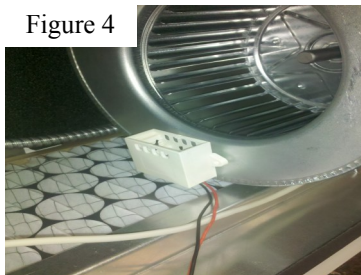
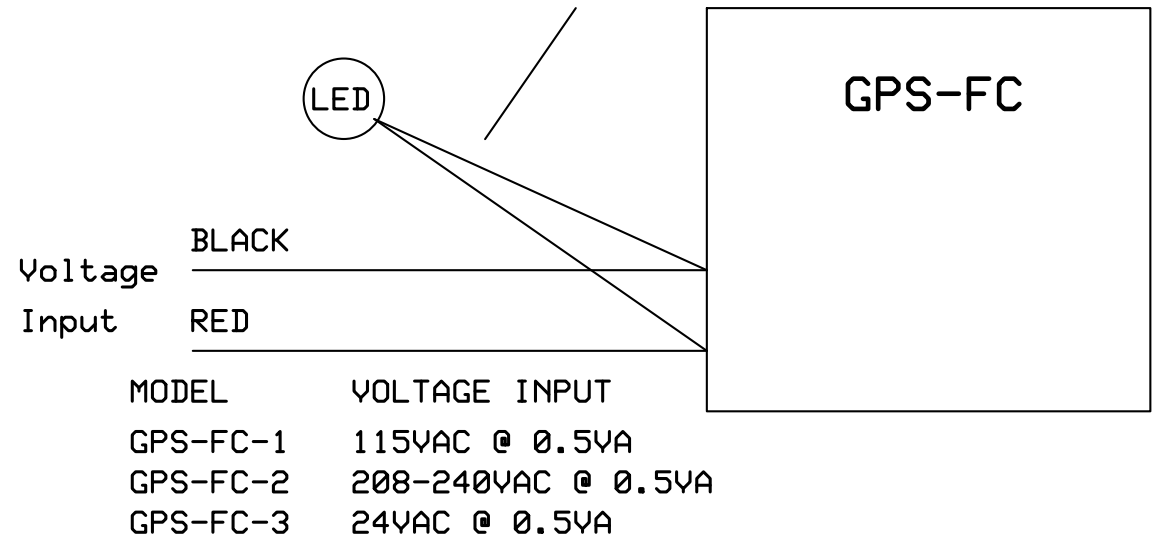


Figure 4



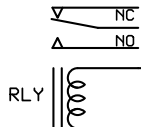
- Step 1 - Confirm power is disconnected from AHU and remove filter panel, exposing fan compartment.
- Step 2 - Locate power distribution block where main power is or will be connected to unit, Figure 3.
- Step 3 - Remove screws from bottom of protective grill to allow the GPS-FC to slide under. Using wire ties, mount the GPS-FC as shown in Figure 1 so air flows across both brushes simultaneously.
- Step 4 - Use a wire tie and secure the green LED to the protective screen as shown in Figure 1.
- Step 5 - Using existing wire conduit hole with grommet, route power wiring to power distribution block as shown in Figure 2. Remove excess wire tie. Retighten screen with screws removed in Step 3.
- Step 6 - Wire GPS-FC to the terminal block as shown in Figure 3. The wires are not polarity sensitive and may be shortened as required. Make sure to use the proper GPS-FC model based on the primary voltage. GPS-FC may be powered 24/7. Note, LED does not appear lit when viewed from a side angle.
- Step 7 - This step is only necessary if a protective screen is not provided from the air handler manufacturer. Remove double sided tape from back of GPS-FC and place to fan inlet as shown in Figure 4. If the fan shroud is too thin for mounting the GPS-FC, a bracket, provided by others, may be used to secure GPS-FC.

Installing contractor may cut wire and extend green LED
up to 100 feet using 18/2 wiring



Note: Optional BAS relay available in place of status LED
Add 2 VA to load if relay is used.

OPTIONAL BAS ALARM RELAY



NO and NC contacts for alarm status

Remove LED from GPS-FC and wire leads to control relay as shown
Relay provided with LED indication and test mode

MODEL	VOLTAGE
RELAY-FC-1	115VAC @ 2VA
RELAY-FC-2	230VAC @ 2VA
RELAY-FC-3	24VAC @ 2VA

Global Plasma Solutions

GPS-FC

CHW

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