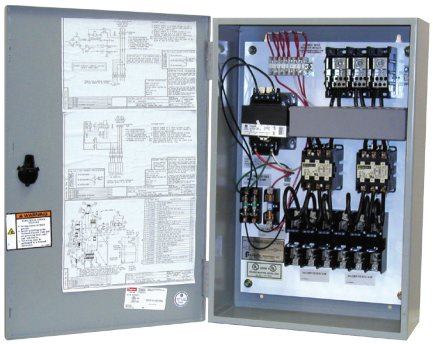
Pre-Wired Contactor Panels



FPC-463-2FA

Manufactured in U.S.A.

- Factory pre-wired for quick installation, with the following optional equipment:
  - Snow & Ice Detector (APS-3C)
  - Single & Two-Stage Thermostats*
  - *requires 2-contactors
- Step-down transformer and secondary fusing for 24V or 120V control circuit.
- 3-Phase load rated.
- Fuses are NOT included.
- NEMA 1 Enclosures.
- Max 50-Amp branch circuit fusing.

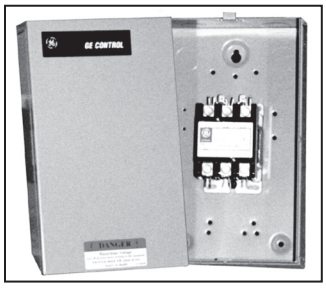
Note: Contact factory for 3R, 4, 4X, & NEMA 12 "special" built models.

IMPORTANT FUSING INFORMATION

Fuses are NOT included since panels can be used with various infrared heat sources. Quartz Lamp Heat Sources: Use FRS-600V (or equal) "Time Delay" fuses; Class RK-5. Quartz Tube & metal Sheath Heat Sources: Use KTS-R 600V (or equal) "Fast Acting" fuses; Class RK-1. Fuse circuits as close to calculated load as possible. Circuits less than 35 Amps will require the use of fuse reducers.

120-V Control System		24-V Control System		Max. Amps	Volts	Cabinet Size (In.)			WT. (Lbs.)
UPC# 686334	Model	UPC# 686334	Model			Depth	Width	Height	
4459902	FPC8110	4864302	FPC8210	50	208	6.75	16	24	52
4460002	FPC2110	4864402	FPC2210		240				
4460102	FPC7110	4864502	FPC7210		277/480				
4460202	FPC4110	4864602	FPC4210		480				
4460302	FPC8120	4864702	FPC8220	100	208	6.75	16	24	70
4460402	FPC2120	4864802	FPC2220		240				
4460502	FPC7120	4864902	FPC7220		277/480				
4460602	FPC4120	4865002	FPC4220		480				
4460702	FPC8140	4865102	FPC8240	200	208	6.75	24	30	88
4460802	FPC2140	4865202	FPC2240		240				
4460902	FPC7140	4865302	FPC7240		277/480				
4461002	FPC4140	4865402	FPC4240		480				
4461102	FPC8160	4865502	FPC8260	300	208	6.75	30	36	106
4461202	FPC2160	4865602	FPC2260		240				
4461302	FPC7160	4865702	FPC7260		277/480				
4461402	FPC4160	4865802	FPC4260		480				

Contactor Enclosures



FEC-30-120

Manufactured in U.S.A.

- Economical load handling / switch device, ideal for use with other control equipment.
- NEMA 1 Enclosures.
- Load rating up to 600V Max., 3-Pole.
- Magnetic contactor.

UPC 686334	Model	Contactor Amps	Coil Voltage	Cabinet Size (In.)			Wt. (LBS.)
				Depth	Width	Height	
440851	FEC-30-120	30	120	5	6	10	5
440868	FEC-30-240		208/240				
440875	FEC-60-120	60	120				
440882	FEC-60-240		208/240				

Note: Installer to provide overload protection for all infrared heaters.

Markel Products Company

Electric Infrared Heating Controls

Variable Controllers

VHC-32

Manufactured in U.S.A.

- Solid State phase angle variable "Triac" knob controller adjusts heat settings from 10-100% with heat loads up to 15.4-Amps.
- 208/240 VAC single-phase, single stage controller, 3200 Watt max.
- Positive "Off" & built-in On/Off Rocker switch lights "red" during operation.
- NEMA 1 Aluminum enclosure with stainless steel face plate designed for wall mounting or suitable for semi-recessed applications.
- Must be mounted in a protected area.
- Can either operate Quartz Lamps or Quartz Tube Infrared Heaters.

VHC-15

Manufactured in U.S.A.

- Solid state variable device controls heat loads up to 15-Amps.
- 208/240Volt "In-Line" Controller.
- Built in On/Off knob switch with positive "off" & surface plate included.
- Designed for a 2" x 4" electrical wall box mounting (not supplied).
- Must be mounted in a protected area.
- Can only operate Fostoria Quartz Tube Infrared Heaters.

30-Amp or 80-Amp Enclosed

18D-2-80CF ENC.

Manufactured in U.S.A.

- SCR Voltage Controller - 80 Amp MAX.
- Includes (1) 24-volt Potentiometer (3" square) to control the heat output.
- Only operates Quartz Lamps at 240 or 208-Volts, single phase only.
- Potentiometer can be mounted outside, but the SCR must be located in a protected area.
- Factory wired with millisecond fuses included.

UPC 686334	Model	Description	Dimension (In.)			Wt.
			Depth	Width	Height	
485357	VHC-32	Variable Heat Controller 208/240-Volt; 15.4 Amp	3	5	5	3 lbs.
445948	VHC-15	Variable Heat Controller 208/240-Volt; 15 Amp	3	5	5	3 lbs.
445634	18D-2-30CF Open	SCR Controller - 26 Amp MAX No Enclosure	6	6	9	11 lbs.
445641	18D-2-30CF Enclosed	SCR Controller - 26 Amp MAX Enclosure Included	8	10	12	15 lbs.
445658	18D-2-80CF Enclosed	SCR Controller - 80 Amp MAX Enclosure Included	8	12	14	29 lbs.

Snow & Ice Detectors

APS-3C Includes: Remote Switch/Plate Assembly (RCU-3)

APS-3C

Manufactured in U.S.A.

- Main control unit for Automatic Snow & Ice Control Systems.
- By sensing both temperature and moisture the system activates and melts any snow & ice accumulations until conditions subside.
- NEMA 3R Enclosure is UL Listed and houses timers and switching electronics to operate the system.
- Capability to monitor up to 6 sensors (CIT-1).
- Unit can be manually activated and can be controlled and monitored from an optional remote switch (Model RCU-).

CIT-1

- Positioned above ground to maximize the sensors capability.
- Detects falling or blowing of precipitation such as snow when the temperature is below 38° F.
- Most common sensor device.

UPC# 686334	Model	Description	Dimension (In.)			Wt.
			Depth	Width	Height	
319614	APS-3C	Snow / Ice Control Switch	6.56	11.5	9.25	8 lbs.
319761	CIT-1	General Purpose Snow Sensor	3.25	3.25	4.13	1 lb.

Note: Any snow & ice control system should be used with the correct sized control panel (with contactors & fusing) as supplied by factory or your electrical contractor. Also, the APS-3B requires a control device (RCU-1, CIT-1, SIT-6E) in order to operate properly.

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