

Solaira Omnis High Power Control (OC)

Description: Phase Angle HIGH POWER Power Control
Solid State Single Zone Heater Control

Product Range: 110V - 240V Single Phase VAC,
30 to 200 AMP (up to 84,000W)

Application: Variable Resistance, High Inrush
Electric Heating Systems

Input Options:

- * 0-10DCv/4-20mA input,
- * BMS BUILDING MANAGEMENT SYS. (Lutron*, Crestron*, Control 4*) ready
- * Occupancy/Motion Sensor ready (optional)
- * Timer ready (optional)
- * Thermostat input ready (optional)

Included:

- * Solaira OC PASCRC Control
- * Nema 1 vented enclosure
- * stainless on/off/variable Potentiometer fits standard j-box

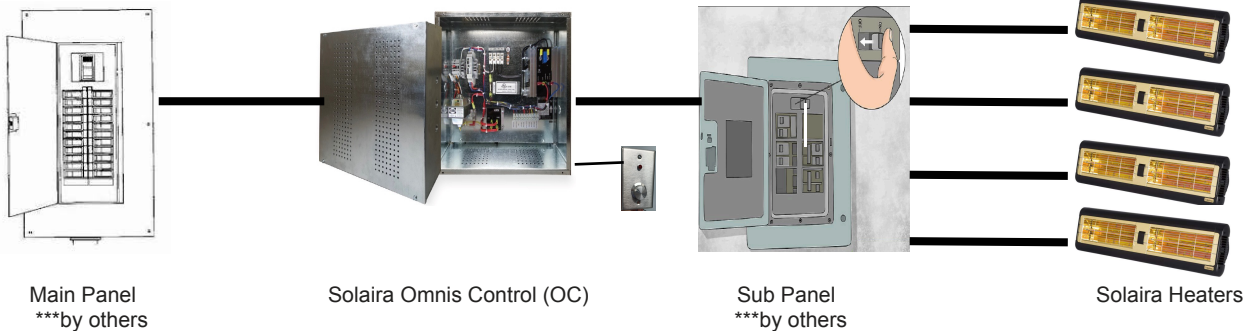
Certifications:

- * UL508 APPROVED Industrial,
- * CSA APPROVED Control Equipment



UNIVERSAL SOLAIRA OMNIS OC CONTROL *

- ideal for easy spec/quick ship control systems
- requires sub panel (distribution panel) for independant heater cut off



NOTE: * Fully customized control/fused output also available - see Solaira Omnis Custom Controls (OCC)

* Solaira Omnis Control must be installed by certified Electrician to all local and National Electrical Code requirements (NEC)

SOLAIRA OMNIS CONTROLS (OC) utilize state of the art phase-angle firing to provide total control of single-phase A.C. Voltages to variable resistance loads for quartz/tungstan emitter, tube and black body resistive heating systems. The Solaira Omnis (OC) are solid state and have no known MTBF or life expectancy rating.

SOLAIRA OMNIS CONTROLS (OC) include stainless on/off/variable 0 - 10dcV Potentiometer. The OC is equipped with low voltage input terminal for integration with Building Management Control (BMS). Optically isolated input, open or closed loop with 0 -10V or 4-20mA input options.

APPLICATION FLEXIBILITY Standard configuration of all OMNIS controls is manual control via 270° turn potentiometer (included). A 1/2 second soft start feature minimizes the current inrush to variable resistance loads when first energized. Standard option allows for automatic open or closed loop control in response to analog control signal from temperature controller, PLC I/O module or other external source. Other options allow controls to be configured for the specific requirements of each application including occupancy sensing, timer control and integration with automated system controls, 0-10/4-20ma input and are compatible with any building Management System (including Lutron*, Crestron*, Control 4* and other leading brands). OMNIS OC is designed to be used in conjunction with a breaker panel (sold separately) to provide independent cut off and fused protection to appliances (per local and National Electrical Code requirements). Should an engineer or electrician prefer integrated fused heater appliance outputs, consider the SOLAIRA OMNIS CUSTOM (OCC) system for a completely customized control (custom load management, custom input design, custom output options).

Solaira Omnis Power Control (OC)

ONE ZONE DESIGN Solaira Omnis (OC) is engineered to give system designer a simple one zone option for the complete, controlled output in the zone designated area. This system can be scaled for larger areas with individual ONE ZONE SYSTEMS (ie 3 separate OMNIS 50A controls for 3 separate zones in an area). If an engineer/electrician is looking for a fully integrated multi-zone system, consider the SOLAIRA OMNIS CUSTOM (OCC) system for a completely customized control (custom load management, custom input design, custom output options)

POWER CIRCUIT Inverse-parallel semiconductors traditional round body style selected VBO Clamping transient protection with parallel R-C circuit for dv/dt protection. Current-clamping or 2 millisecond power fuses in series with the power semiconductors provide short circuit protection.

MAINS FREQUENCY/OUTPUT VOLTAGE: 50/60 Hz standard, 4% to nominal input voltage, infinitely variable **OVERALL EFFICIENCY/POWER LOSS:** 98.5 TO 99.5%, approx. 1-2 watts/ampere/switched pole **Voltage Drop Across Power Circuit at 100%:** 1-2 volt maximum per switched pole.

PROOF VOLTAGE: Isolation between power circuit, control circuit and ground, greater than 2.5kV

CONTROL INPUT: manual control via potentiometer with INTEGRAL On/Off switch and calibrated dial plate standard (included) 0 - 10 dcV, 4 - 20 mA input for integration with BMS Systems (Crestron, Lutron, Control 4 exc)

CONTROL POWER: 5 watts minimum, derived from 12 VA isolation control transformer on all units

OPTIONS:

OMNIS MAX INPUT/Timer Module:	Omnis MAX module, Timer/PLCI/O Mod for occ. sensor	Part# PSST-MAXTIM
OMNIS 2 Button Decora Switch (requires OMNIS MAX) Module:	Omnis @ button Wall switch (on/off/variable/timer start)	Part# PSW-2BW
OMNIS Occupancy Sensor:	Requires Omnis MAX module	Part# PSW-OS
OMNIS Adjustable Thermostat	Requires Omnis MAX module	Part# PSW-THERMV3
OMNIS NEMA 3 Rated Enclosure	Waterproof Control Enclosure	Part # Call



#PSW-2BW



#PSW-OS



#PSW-THERMV3

SOLAIRA OMNIS CONTROLS (OC) SIZING CONSIDERATION ONE ZONE DESIGN allows engineers/Electricians to size total zone applied AMP Load as opposed to kW. Load plan should adhere to all local/National Electrical Code (NEC) requirements.

1. Always apply maximum planned load/draw in ONE ZONE for sizing purpose
2. Solaira Omnis (OC) operating voltage: 110 - 240VAC Single Phase
(Note: for other voltage/3 phase requirements consider OMNIS CUSTOM)
3. Planned load/draw should not exceed load limit of Control selected and outlined on rating plate

SOLAIRA OMNIS CONTROLS (OC) Single Phase

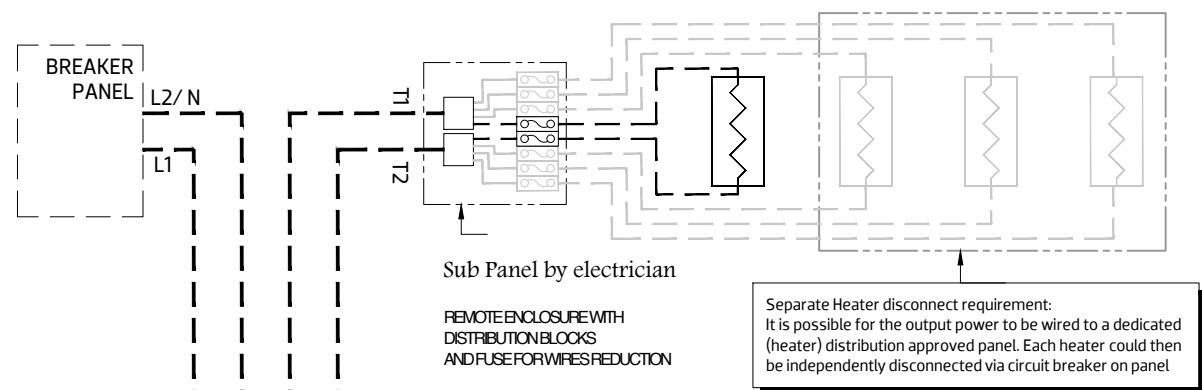
Model Number	Description	Max Amp	Enclosure
PASCR30-1	Solaira Omnis Control w/Enclosure/Dimmer, 30 Amp, 0-10dcV, 4-20mA Variable	30 A	12" X 12" X 8" Deep
PASCR90-1	Solaira Omnis Control w/Enclosure/Dimmer, 90 Amp, 0-10dcV, 4-20mA Variable	90 A	12" X 16" X 12" Deep
PASCR165-1*	Solaira Omnis Control w/Enclosure/Dimmer, 165 Amp, 0-10dcV, 4-20mA Variable	165 A	12" X 16" X 12" Deep
PASCR200-1*	Solaira Omnis Control 200A	CALL FOR SPECIFICATIONS	
PASCR350-1*	Solaira Omnis Control 350A	CALL FOR SPECIFICATIONS	

* Special Order

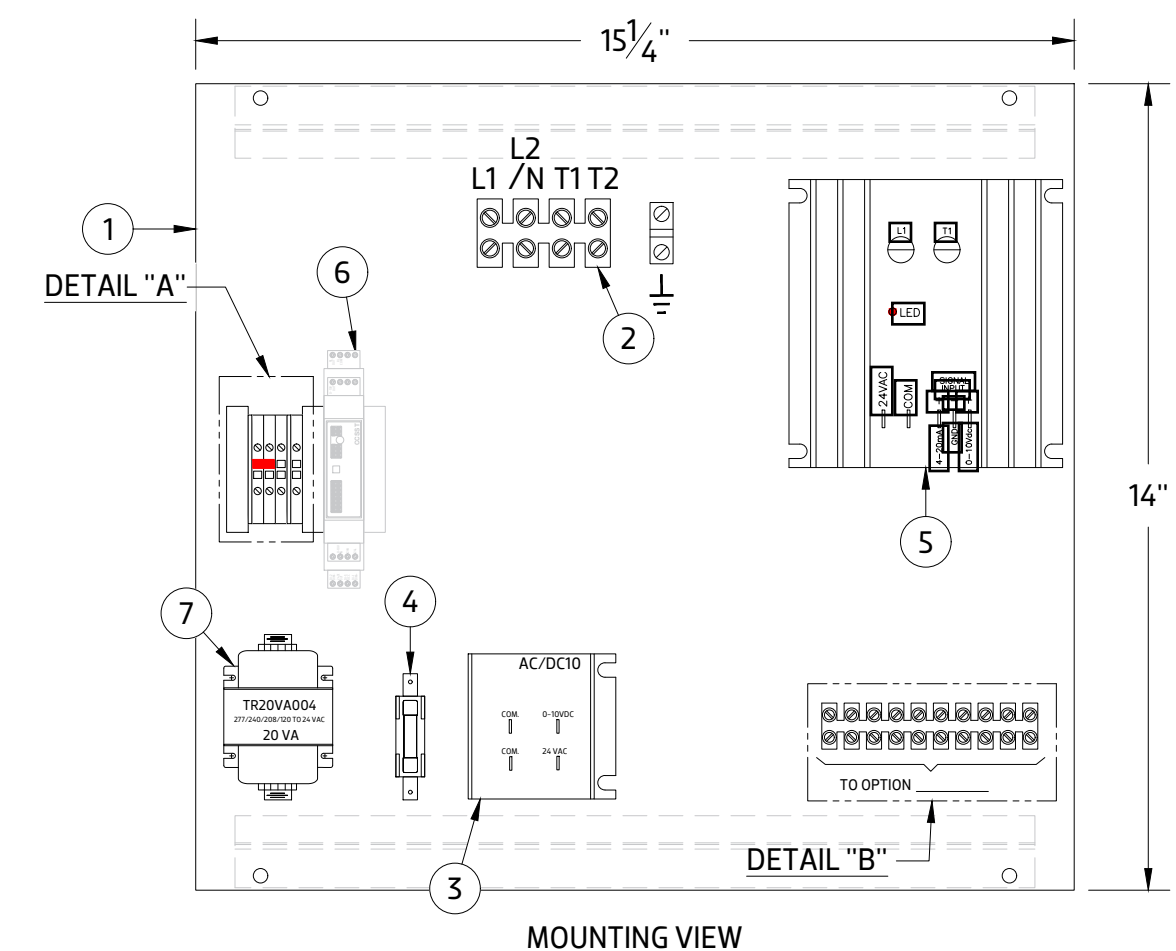
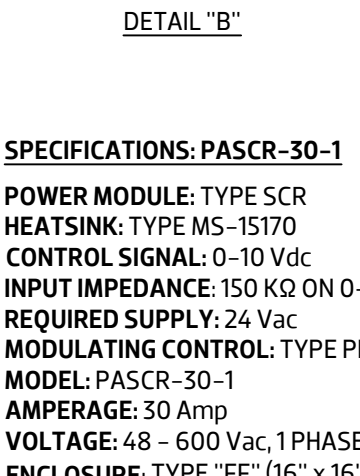
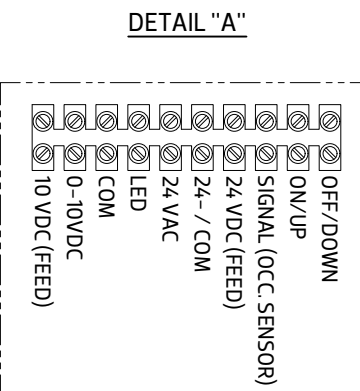
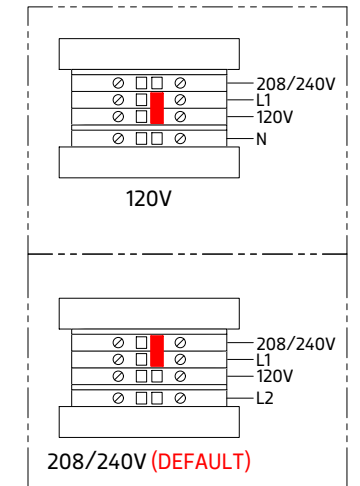
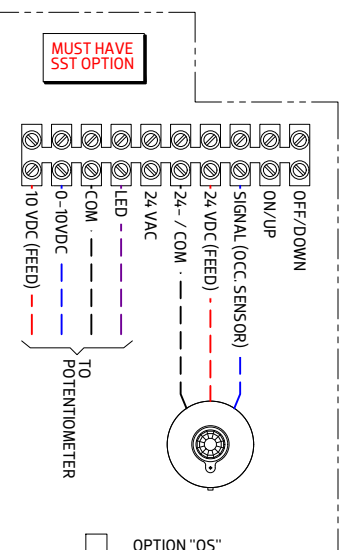
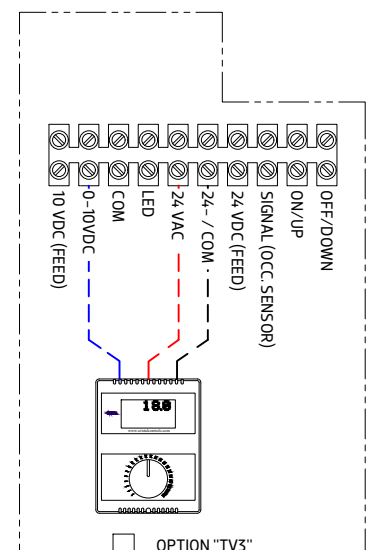
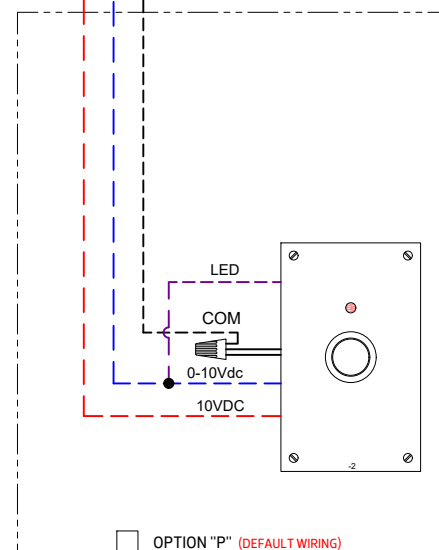
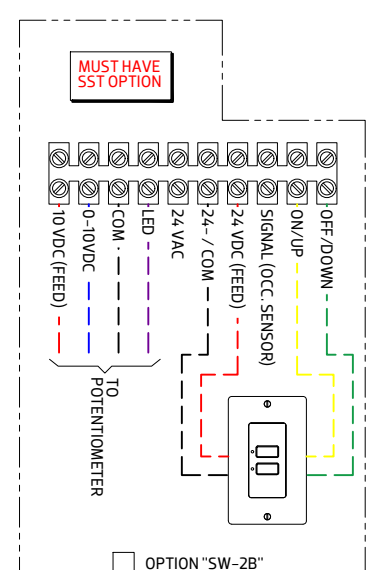
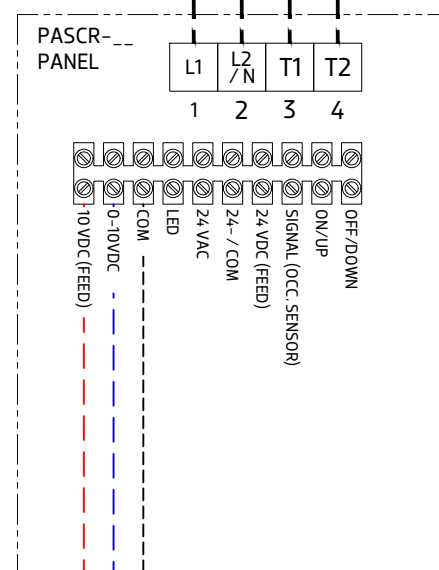
NOTE: For 3 Phase Controls or controls with custom input, fused outputs, Please see Solaira Omnis Custom Controls (OCC) Specification Sheet

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Due to ongoing product improvements, specifications and dimensions are subject to change and correction without notice and without incurring obligations.



Separate Heater disconnect requirement:
It is possible for the output power to be wired to a dedicated (heater) distribution approved panel. Each heater could then be independently disconnected via circuit breaker on panel



SPECIFICATIONS: PASC-R-30-1
POWER MODULE: TYPE SCR
HEATSINK: TYPE MS-15170
CONTROL SIGNAL: 0-10 Vdc
INPUT IMPEDANCE: 150 KΩ ON 0-10 Vdc INPUT
REQUIRED SUPPLY: 24 Vac
MODULATING CONTROL: TYPE PHASE ANGLE
MODEL: PASC-R-30-1
AMPERAGE: 30 Amp
VOLTAGE: 48 - 600 Vac, 1 PHASE, 50-60 Hz
ENCLOSURE: TYPE "FF" (16" x 16" x 6 1/8")

PART LIST		
ITEM	EQUIPMENT	DESCRIPTION
1	-	BACK PLATE 14" x 15 1/4"
2	327-HDS/12	SCREW TERMINAL STRIPS
3	AC/DC10	24VAC TO 10DC CONVERTER (250 mA)
4	TYPE 3AG-SLOWBLOW	FUSE 1 Amp
5	CCPA-30-1	POWER CONTROLLER
6	CC-SST	TIMER AND OCCUPANCY CONTROLLER (OPTION)
7	TR20VA004	TRANSFO. 277/240/208/120 to 24 Vac 20 VA

- FOR PARTS REPLACEMENT REFER TO SERIAL NUMBER

OPTION
 P: Potentiometer
 SST: Timer and Occupancy controller
 SW-2B: Switch
 TV3: Thermostat 0-10V
 OS: Occupancy sensor

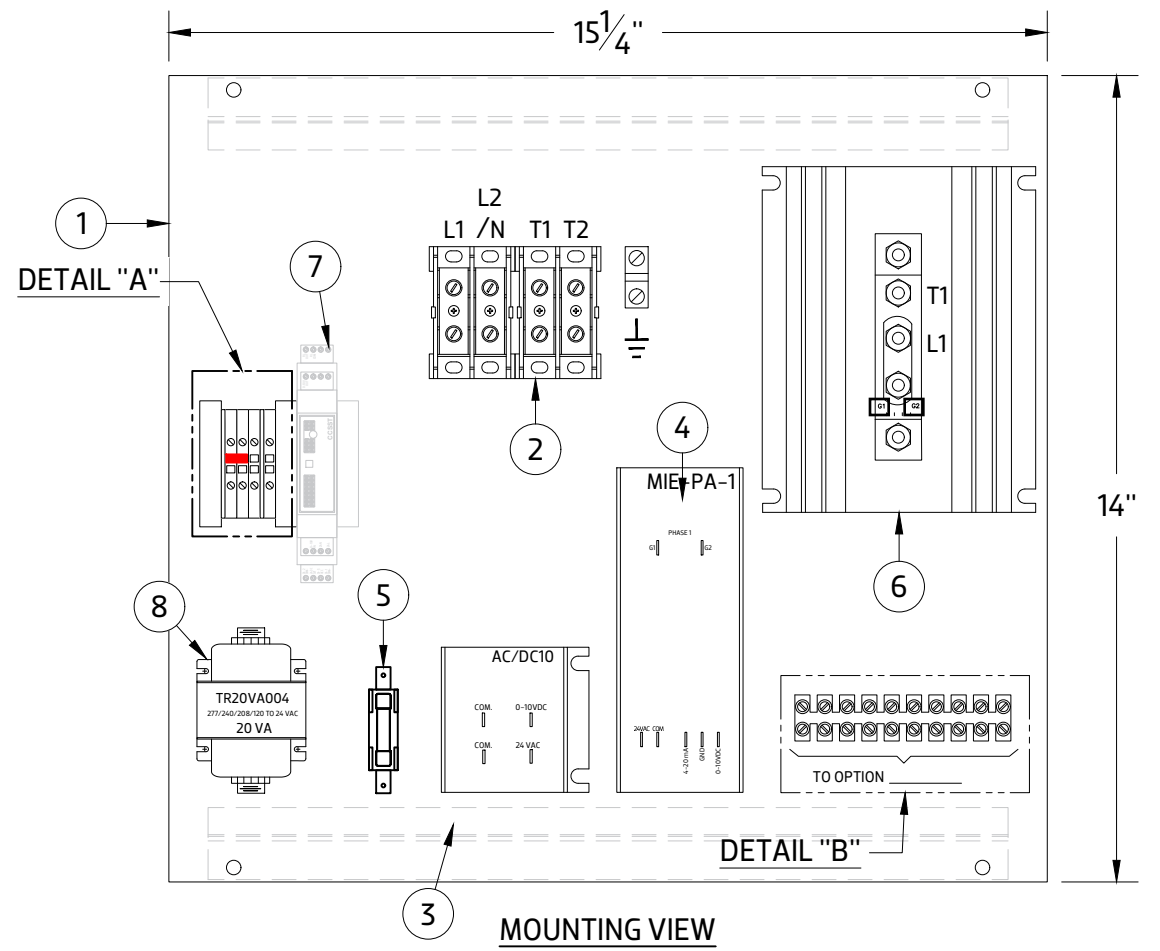
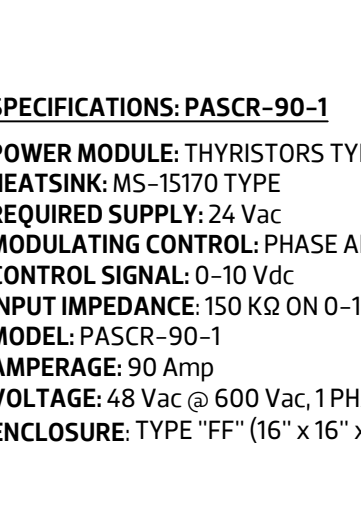
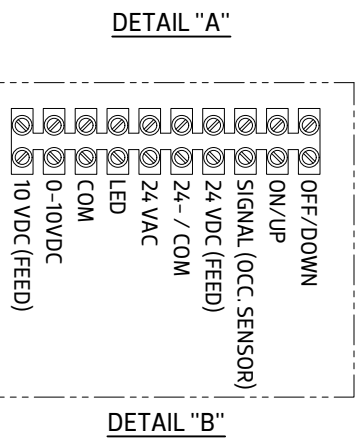
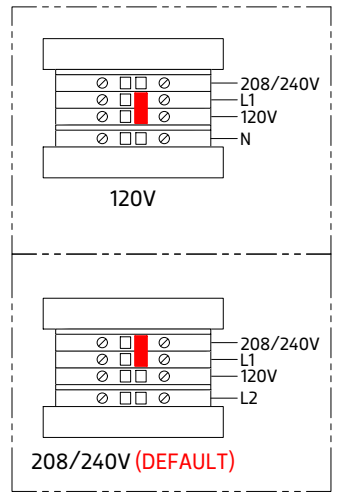
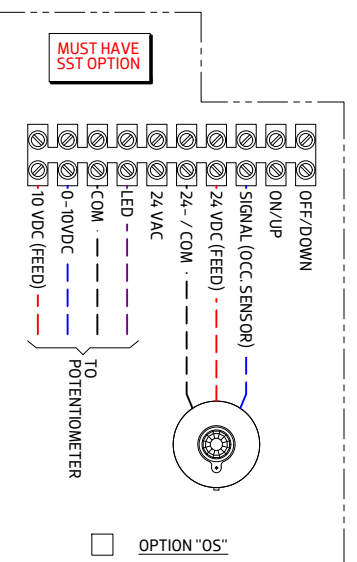
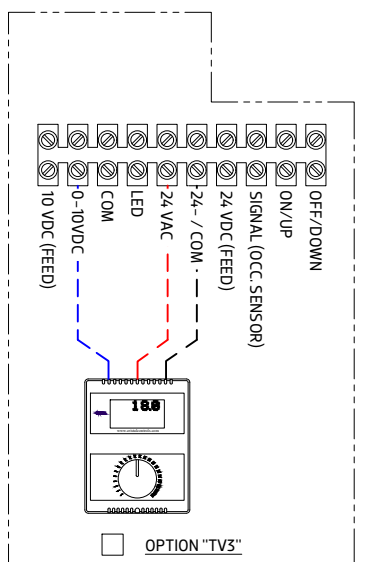
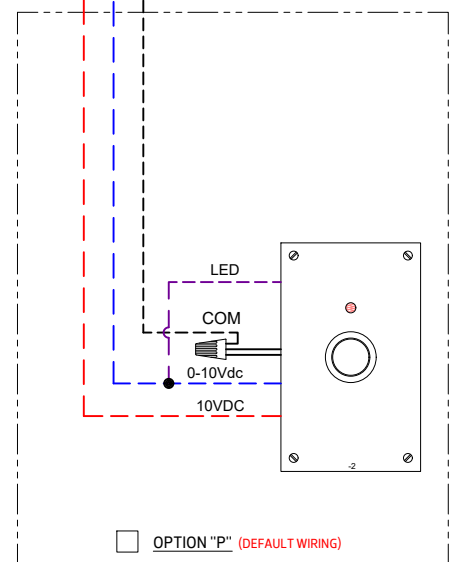
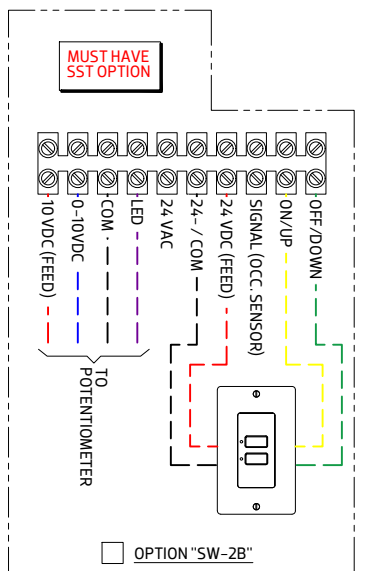
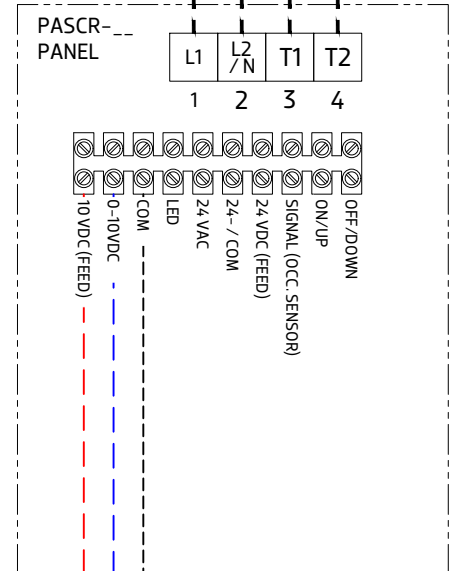
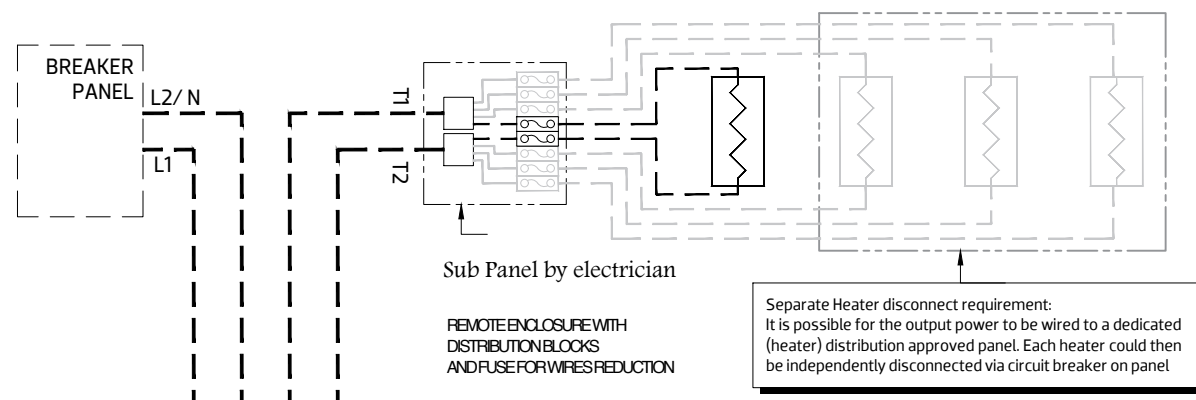
Connection diagram is for illustrative purposes only. Installation must be carried out by certified electrician to local, state/provincial and N.E.C. codes. Inforesight Consumer Products assumes no responsibility for heater or controller electrical plan or installation

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UL US
 UL Std No. 508
 -INDUSTRIAL CONTROL EQUIPMENT

No. Projet / Project no: 2019-09-10
 Date: 2019-05-27
 Dessiné par / Draw by: Y.G
 Vérifié par / Check by:
 Echelle / Scale: Rev:
 Feuille / Sheet: 1 / 3

Inforesight
 WIRING AND OPTION
 PASC-R-30-1-P-FF



SPECIFICATIONS: PASC-R-90-1
POWER MODULE: THYRISTORS TYPE
HEATSINK: MS-15170 TYPE
REQUIRED SUPPLY: 24 Vac
MODULATING CONTROL: PHASE ANGLE TYPE
CONTROL SIGNAL: 0-10 Vdc
INPUT IMPEDANCE: 150 KΩ ON 0-10 Vdc INPUT
MODEL: PASC-R-90-1
AMPERAGE: 90 Amp
VOLTAGE: 48 Vac @ 600 Vac, 1 PHASE
ENCLOSURE: TYPE "FF" (16" x 16" x 6 1/8")

PART LIST		
ITEM	EQUIPMENT	DESCRIPTION
1	-	BACK PLATE 14" x 15 1/4"
2	1412300	INPUT TERMINAL BLOCK 115 A, 600 V, 2 POLE
3	AC/DC10	24VAC TO 10DC CONVERTER (250 mA)
4	MIE-PA-1	CCPA CONTROLLER
5	TYPE 3AG-SLOWBLOW	FUSE 1 Amp
6	CCPA-90-1	POWER CONTROLLER
7	CC-SST	TIMER AND OCCUPANCY CONTROLLER (OPTION)
8	TR20VA004	TRANSFO. 277/240/208/120 to 24 Vac 20 VA

- FOR PARTS REPLACEMENT REFER TO SERIAL NUMBER

OPTION
 P: Potentiometer
 SST: Timer and Occupancy controller
 SW-2B: Switch
 TV3: Thermostat 0-10V
 OS: Occupancy sensor

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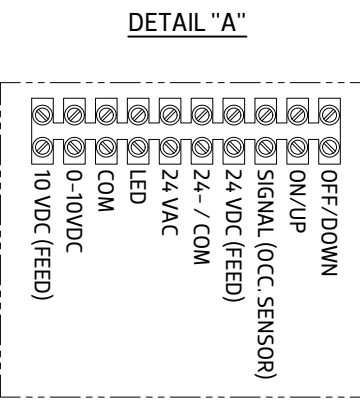
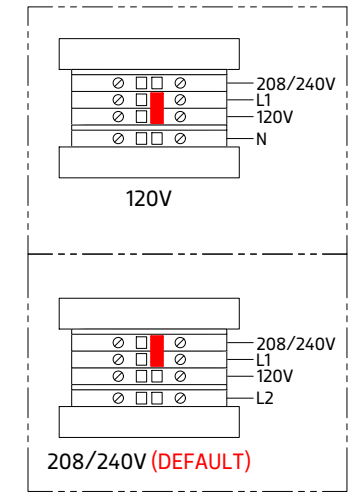
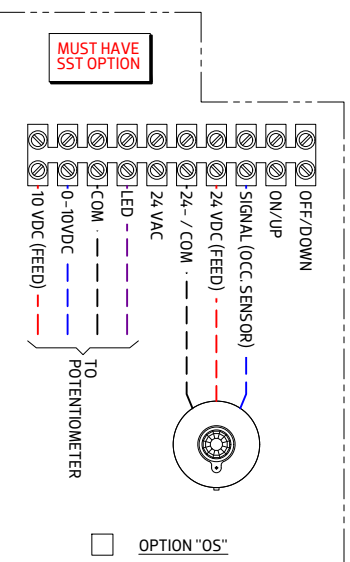
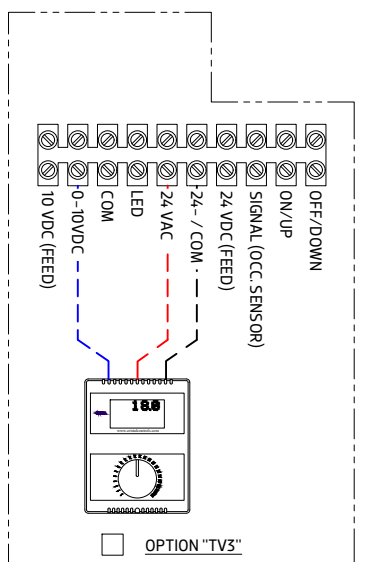
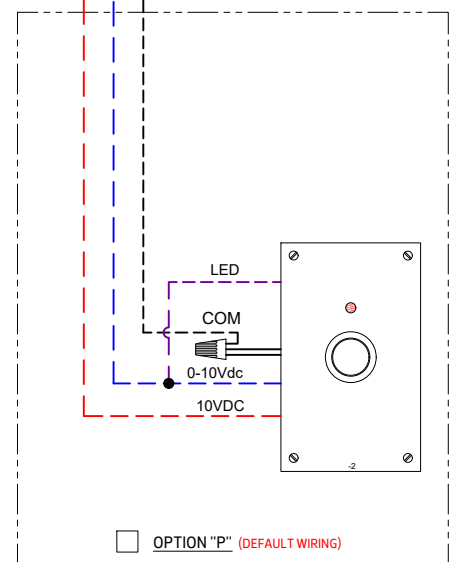
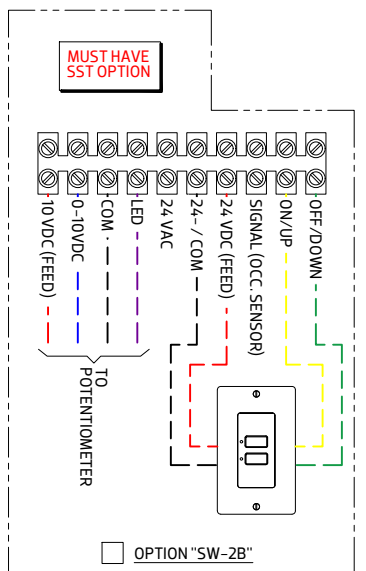
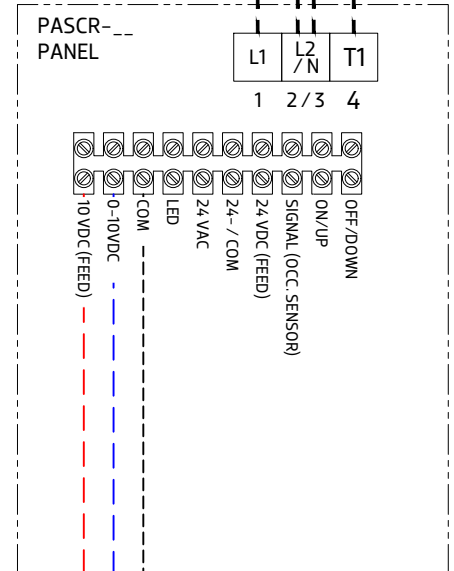
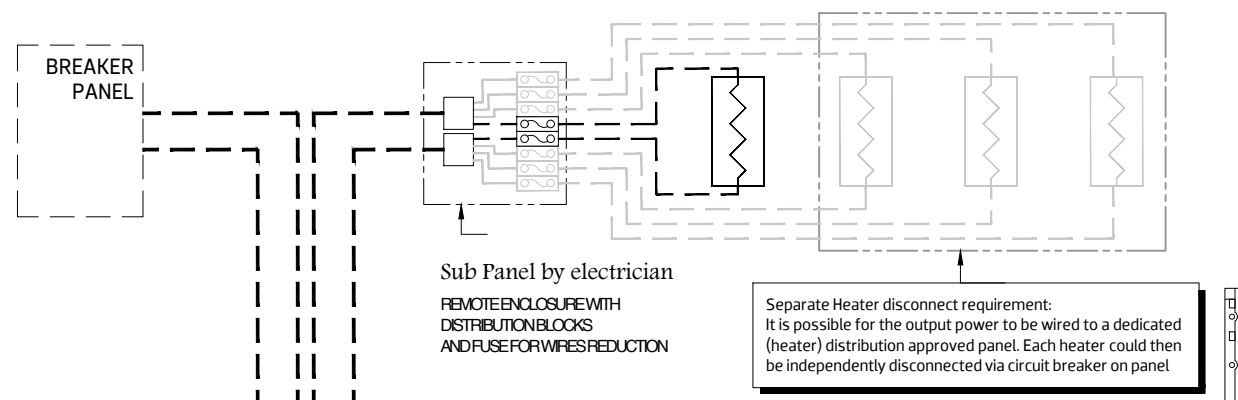
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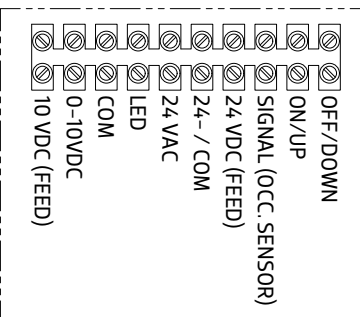
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No. Projet / Project no.:
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 Echelle / Scale: Rev:
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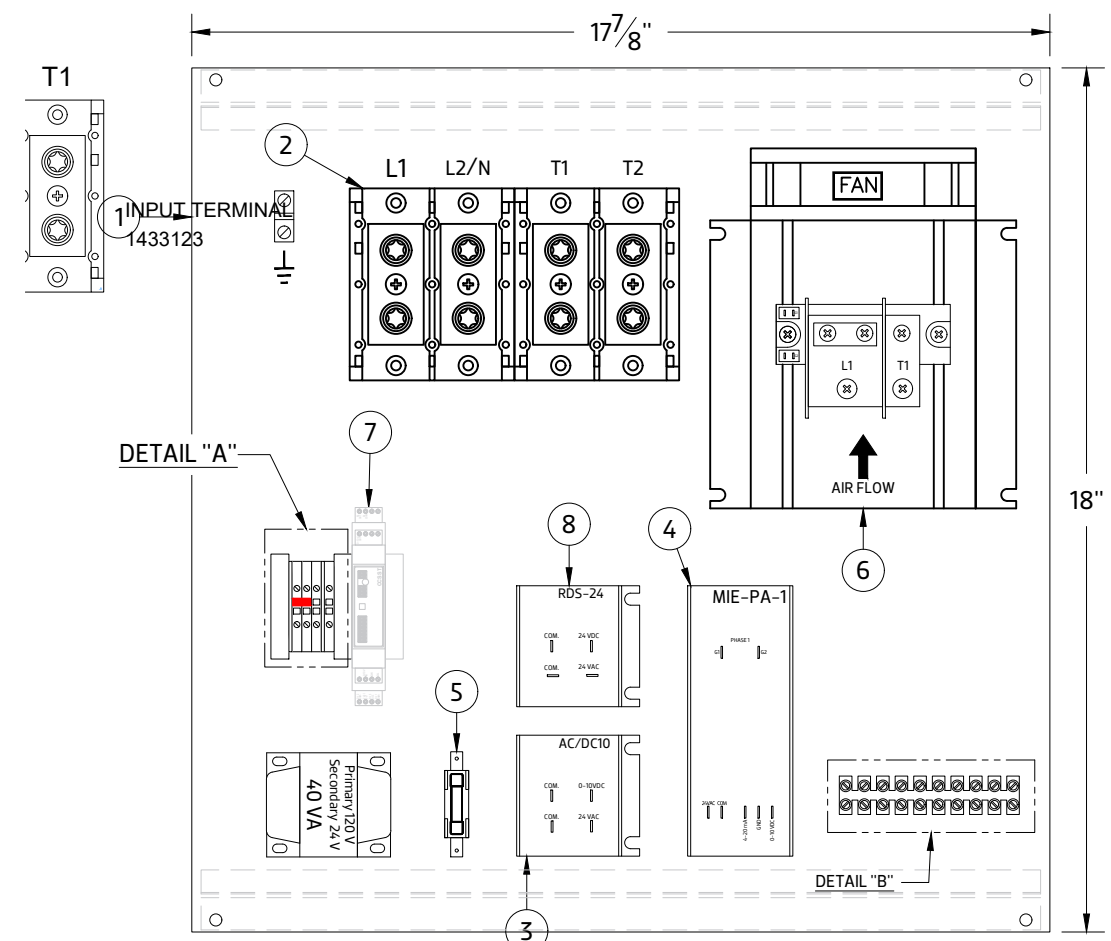
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 WIRING AND OPTION
 PASC-R-90-1-P-FF



DETAIL "A"



DETAIL "B"



MOUNTING VIEW

SPECIFICATIONS: PASC-R-165-1

- POWER MODULE :** THYRISTOR TYPE
- HEATSINK :** 62905 TYPE
- FAN :** 110 CFM EACH
- REQUIRED SUPPLY :** 24 Vac
- MODULATING CONTROL :** PHASE ANGLE TYPE
- CONTROL SIGNAL :** 0-10 Vdc
- INPUT IMPEDANCE :** 150 KΩ ON 0-10 Vdc INPUT
- MODEL :** PASC-R-165-1
- AMPERAGE :** 165 Amp
- VOLTAGE :** 48 Vac @ 600 Vac, 1 PHASE
- ENCLOSURE :** TYPE "C" (20"x 18" x12")

PART LIST		
ITEM	EQUIPMENT	DESCRIPTION
1	-	BACK PLATE 18" x 17 7/8 "
2	1422572	INPUT TERMINAL BLOCK 175 A, 600 V, 2 POLE
3	AC/DC10	24VAC TO 10DC CONVERTER (250 mA)
4	MIE-PA-1	CCPA CONTROLLER
5	TYPE 3AG-SLOWBLOW	FUSE 2 Amp
6	CCPA-165-1	POWER CONTROLLER
7	CC-SST	TIMER AND OCCUPANCY CONTROLLER (OPTION)
8	RDS-24	FAN CONTROLLER

- FOR PARTS REPLACEMENT REFER TO SERIAL NUMBER

- OPTION**
- P: Potentiometer
 - SST: Timer and Occupancy controller
 - SW-2B: Switch
 - TV3: Thermostat 0-10V
 - OS: Occupancy sensor

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