

Solaira Omnis High Power Control (OC)

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

Product Range: 110V - 277V 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

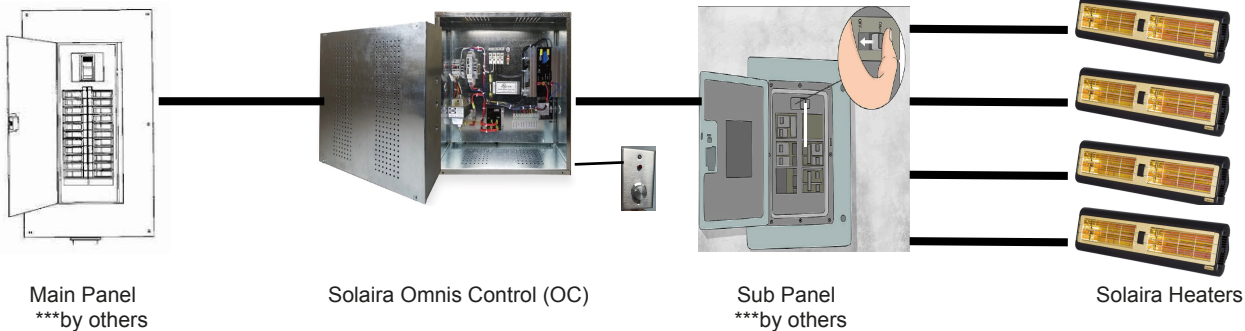
Certifications:

- * 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/tungsten 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 Multi-Functional Input Timer:
OMNIS 2 Button Decora Switch
 (requires OMNIS MAX) **Module:**
OMNIS Occupancy Sensor: OMNIS
Adjustable Thermostat OMNIS
OMNIS BACnet Module

Soft Start, User Set Timer, Mod for OS & 2BW
 Omnis Button Wall Switch (on/off/variable/timer start)
 Requires Omnis Multi-Functional Input Timer
 Requires Omnis Multi-Functional Input Timer
 Controls 0-10Vdc via BACnet MSTP

Part# PSST-MAXTIM
Part# PSW-2BW
Part# PSW-OS
Part# PSW-THERMV3
Part#:PSST-BACnet



#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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