

# Controlling Radiant Heaters for Energy Efficiency

Radiant heaters can be installed individually or in groups (zones). In order to ensure that the heaters operate energy efficiently, it is recommended that they are controlled correctly for the application they are intended for.

There are a number of control options which should be considered when designing the heating system.

## Outdoor Radiant Heating

Outdoor radiant heaters can be controlled individually by a suitably rated Switch, a PIR or by a Controller. If the heaters are to be zoned in groups it is advisable that they are switched by a suitably rated contactor.

- **EXTLSW EXTERIOR TIME LAG 2 - 20 MINS 16 AMP.** Ideal for energy saving control of external heaters and exterior lighting. The EXTLSW is also suitable for damp areas. Pressing the touch sensitive area brings the connected load on. The load is then switched off automatically after the time lag has elapsed. The time lag is adjustable from 2 to 20 minutes.
- **CIRT REGULATOR / CONTROLLER.** The CIRT is a variable output Regulator with timer, designed for radiant heating and is especially suited for spot and zone heating. The heat output can be regulated between 25% and 100% of the output of the heaters. A built-in timer can be set for periods from 30 minutes to four hours (30mins, 60mins, 120mins and 240mins). Maximum load is 3600watts at 230V.

**Note: Not suitable for 767PB & Varma heaters**

- **12998 PIR.** The 12988 PIR detects the presence of a moving body within the pre set sensor range and starts the heater. The built-in over run timer can be adjusted between 3mins and 20mins. A suitably rated contactor is required to operate the PIR which can be obtained from any good electrical wholesaler.



EXTLSW Exterior Time Lag



CIRT Regulator / Controller

## Single Phase Radiant Heating

Radiant heaters are usually installed in groups or zones. There are a number of control options:

- **CIRT REGULATOR / CONTROLLER.** The CIRT is a variable output Regulator with timer, designed for radiant heating and is especially suited for spot and zone heating. The heat output can be regulated between 25% and 100% of the output of the heaters. A built-in timer can be set for periods from 30 minutes to four hours (30mins, 60mins, 120mins and 240mins). Maximum load is 3600watts at 230V.
- **ERP REGULATOR / CONTROLLER.** The ERP is a variable output Regulator that has a built – in temperature sensor to precisely control the energy use in the area to be heated. The temperature can be adjusted by the control knob on the unit. The current is electronically switched by triac without any moving parts and is therefore silent and maintenance free. Maximum load is 3600watts at 230V. The ERP can be used in conjunction with a slave unit (ERPS) to control the heating output in larger areas. Maximum load is 3600watts at 230V.
- **ERPS SLAVE UNITS.** The ERPS slave unit operate in conjunction with the ERP Regulator to control the heating output in larger areas. Maximum load is 3600watts at 230V. Each ERP can control one additional ERPS slave unit.
- **TKS16 THERMOSTAT.** The TKS16 Thermostat is an electronically controlled thermostat with an adjustable control knob. Maximum load is 16A
- **KUR TIME CLOCK.** The KUR is a 24hour / 7 day programmable timer which will ensure that the heating system is not energised while the premises are unoccupied (at night or at weekends). It will also ensure that the heating system heats up the area prior to arrival at the premises.



ERP Regulator / Controller

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## Three Phase Ecosun S36 Plus Radiant Heater

Ecosun and IR three phase radiant heaters are usually installed in groups or zones. There are a number of control options:

- **S123 3 POSITION SWITCH.** The S123 three position switch is typically used with the 3 Phase Ecosun and IR Radiant Heaters. The S123 switch will allow the end user to manually decrease or increase the heating output in steps 1/3, 2/3 and full output. Maximum load is 20A 3 Phase.
- **TKS16 THERMOSTAT.** The TKS16 Thermostat is an electronically controlled thermostat with an adjustable control knob. Maximum single phase load is 16A. A 3phase contactor must be used on the output of the TKS16.
- **KUR TIME CLOCK.** The KUR is a 24hour / 7 day programmable timer which will ensure that the heating system is not energised while the premises are unoccupied (at night or at weekends). It will also ensure that the heating system heats up the area prior to arrival at the premises. A 3phase contactor must be used on the output of the KUR.



S123 3 Position Switch



TKS16 Thermostat



KUR Time Clock