

Hotel Energy Saver Systems

The Energy Saver System operates the circuit only when the keycard or Smart Card is being used. The illuminated keycard holder can easily be located in the dark. By installing a magnetic contact switch to the balcony door it becomes possible to switch off only the air condition when the balcony door gets opened. The same system can also be applied to the window. An Energy Saver System that works only with a specified hotel credit card (Smart Card) can be applied in hotels that use such credit cards.

ENERGY SAVER TYPES

1. Standard Type
2. Type with air condition renting function
3. Smart Card Type
4. Custom-made Energy Savers for special projects

I. ENERGY SAVER – STANDARD TYPE

SYSTEM COMPONENTS AND THEIR INSTALLATION

1. Keycard Holder
2. 220 V AC 3x10=30 Ampere Control Relay
3. Relay socket with rail mounting
4. Coded keycard with logo imprint

15 sec. delay
function
Rail mounting
3x10=30 A 220 V

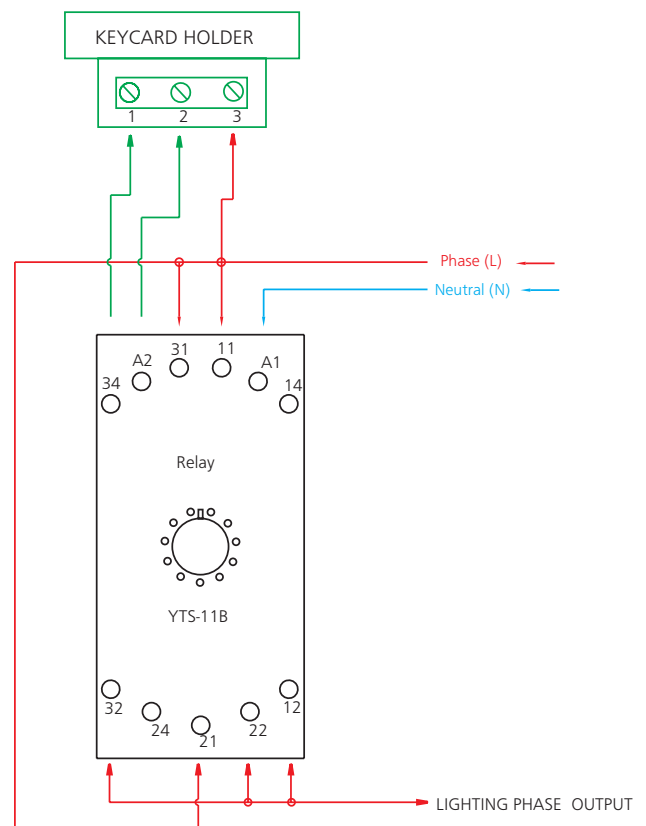
1. KEYCARD HOLDER

It is available in all V-KO switch range designs and colours except the Classic and Palmiye series. The keycard holder can be integrated into 2-gang and 3-gang frames and is illuminated so that it can be easily located in dark rooms.

It needs to be connected to the relay socket in the fuse box by three thin cables (0,25–0,40 mm²).

2. CONTROL RELAY (220 V AC, 3x10 A)

The control relay has to be plugged into the relay socket in the fuse box and has 11 pins and three output contacts. Each of these contacts can carry up to 3 Ampere. In order to achieve a total output of 30 Ampere it is necessary to connect the three separate outputs by shortcutting them as shown in the connection diagram. The relay outputs may be connected to three separate loads if necessary.



Standard Model Energy Saver Wiring Diagram

3. RELAY CONNECTOR WITH RAIL MOUNTING

The relay socket is the part of the control relay to which all connections are being made. The three cables that come from the energy saver and all other panel connections and distributions must be made to the relay connector (see connection diagram).

The following connectors on the socket must be bridged: 11-21-31 and 12-22-32. The network phase input needs to be connected to any one of 11-21-31 while the output must be connected to any one of connectors 12-22-32. The neutral line must be connected to A1. Connector No. 34 on the socket must be connected to connector No.1 at the keycard holder, and A2 to connector No.2 of the keycard holder. The last connection goes from any of connectors 11-21-31 to connector No. 3 of the keycard holder.

4. KEYCARD WITH CODING AND LOGO IMPRINT

The keycard is a unit of the Standard Energy Saver Type; inserting it into the keycard holder switches the power of the room on. Both sides of it are printed with abrasion resistant paint: the Hotel's logo on the front and a short instruction for usage in 3 or 4 languages on the back.

II. ENERGY SAVER WITH AIR CONDITION RENTING FUNCTION

This type of Energy Saver provides besides the energy saving function the option of renting the air condition to the guest. Hotels that choose to use this type of energy savers in their rooms can rent the rooms with or without air condition.

Establishments that decide to install this system must have two separate keycard holders in each room: one for switching on the power for lighting only and the other one for the coded keycard that switches on both lighting and air condition.

Coded keycard for lighting this keycard switches on the light only.

CODED KEYCARD FOR LIGHTING AND AIR CONDITION

This keycard switches allows the guest to operate both lighting and air condition. By inserting this card into the keycard holder the lighting and air condition contacts get unblocked and the control relay switches the outputs for lighting and air condition on.

SYSTEM COMPONENTS AND THEIR INSTALLATION

1. Keycard Holder with air condition renting
2. Relay unit with two control relays
3. Coded keycard for lighting, with logo imprint
4. Coded keycard for lighting and air condition, with logo imprint

The keycard holder with air condition renting function needs to be connected to the Relay unit in the fuse box by means of a 4-gang cable (4 x 0,25–0,40 mm²).

III. ENERGY SAVER – SMART CARD TYPE

After opening the room door with the smart card, the same card can be placed into the keycard holder. This releases electric power for all units in the room. When the card is taken off the keycard holder the electric power will be cut off after 15 seconds and no electrical appliance except the mini bar will work.

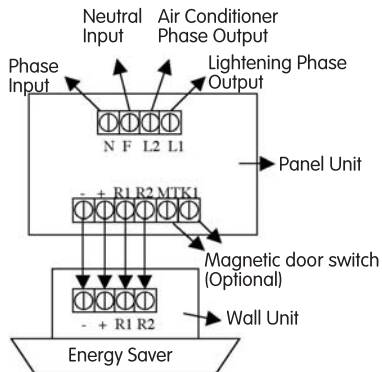
It operates with the special hotel credit card used for various purposes in the hotel and that contains data about the guest such as room number, duration of stay, etc.

SYSTEM COMPONENTS AND THEIR INSTALLATION

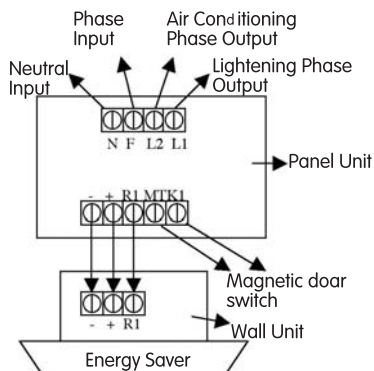
1. Keycard Holder for Smart Card
2. Relay unit with two control relays
3. Magnetic contact switch
4. Smart Card (Coded or with barcode)

1. KEYCARD HOLDER FOR SMART CARD

The Keycard Holder contains either barcode reader for bar-coded credit cards or an electronic sensor for recognising Smart Cards. It needs to be connected to the relay unit with a 3-gang cable (3 x 0,25–0,40 mm²).



With Air Conditioner Option



With Standard Card

2. RELAY UNIT WITH TWO RELAYS

The relay unit is rail mounted and can be fixed into the fuse box of the hotel room. It carries two relays (2 x 15 A). One relay controls lighting and socket-outlets, the other one controls just the air conditioning. One additional relay can be added to the unit if two air condition units shall be controlled.

The relay unit has an integrated transformer that reduces the 220 V input voltage to 12 V or 24 V. A 3-gang cable (3 x 0,25–0,40 mm²) must be used to connect the relay unit to the Smart Card type keycard holder through the -, +, and R1 connectors. The Magnetic Contact Switch must be connected to the relay unit through the MTK connector. There is a free space for a 3rd relay on the unit which can be necessary if it is desired to control a second air condition unit. In such a case a second Magnetic Contact Switch can be connected to the relay unit.

3. MAGNETIC CONTACT SWITCH

It must be installed into the balcony door and needs to be connected with the Control Relay Unit. The connection is to be made with a 2-gang cable (2 x 0,25–0,40 mm²) to the connector MTK on the Relay Unit. The Magnetic Contact Switch switches the air condition relay on the relay unit on and off. The switch turns the air condition off if the balcony door gets opened while the guest is in the room. It turns it on again, 5 seconds after the balcony door has been closed.

4. CREDIT CARD (with coding or barcode)

This is the Smart Card or credit card that the hotel gives its guests, for locking up their rooms or accessing various services within the hotel; it may also contain information data about the guest. The guest inserts this card into the keycard holder right after entering his room and switches the electric energy on. If the hotel uses a card with magnetic strip, then it is necessary to add a small barcode onto the cards so that the keycard holder can read the card. If the hotel uses a so called Smart Card (with microchip) a security code must be loaded to the card in order to enable the keycard holder to read the card. This prevents to operate the system with any other card.

GENERAL FEATURES OF THE SYSTEM

1. 15 seconds delay
2. 3 year warranty
3. By-pass feature that prevents the room from falling into darkness in case of any defect in the system
4. works just with its the specified keycard or credit card of each room
5. voltage regulation
6. Logo imprint on the keycard with abrasion resistant paint
7. Transformer protected against oxidation
8. Rail mounting of the relay socket and the relay unit
9. various options of switch series and colours
10. Easy installation without alteration