

# Energy Saving Products Company - Energy-saving Products



## ESE-DT Series Energy Saving

### **About the Product:**

ESE-DT Series Energy Saving System is tailored for escalators.

Large shopping mall sells different commodities on different floors. Usually, the frequently consumed everyday use goods and foods are located on the first floor. While, expensive goods of famous brands are located on the second floor and above. Most of the time, there won't be so prosperous, which results in the relatively long unload period of the escalator. Accumulated over a year, there will be huge waste of power and electricity. Therefore, it is necessary to make use of ESE-DT Series Energy Saving System to avoid wasting.

### **Electricity Saving Principle**

- 1.If someone uses escalator, it starts running. After the passenger reaches his destination (from the escalator), it will stop running for some time (running time and pause time can be freely set).
2. During the operation of the escalator, if there is another passenger board on it, ESE-DT Escalator Energy Saving System will time according to the last passenger.
3. Delay time: In order to avoid unnecessary frequent start of the escalator, it is necessary to delay pause time. In order to ensure that other passengers will arrive in a short time, the escalator will keep running. If it exceeds the pause time (generally 10s), the escalator will stop running or slowdown.

### **System Features**

On the basis the original escalator system, the control cabinet composed of microcomputer PLC, sensors sampling circuits and energy-saving driver is added. If there are some people on the escalator, it will even speed up the ladder automatically with rated speed operation. If there is no one on the escalator, it will automatically decelerate with low-speed operation to save energy. Its unload energy-saving rate can reach as much as 60 percent. The

original escalator is relay or microcomputer controlled system. It requires the speed adjusting energy saving device coexists with the original system to facilitate the inter-shift in the system failure by making advantage of the security conditions of the original system. The security conditions of the two systems is logic "or". Due to the small size of the escalator chamber, the control box of the speed adjusting energy saving device has to occupy the maintenance space. It is designed as movable structure. In normal operation, it should be placed into the engine room. It will be moved out of the engine room for maintenance. The design has taken into account of the heat, movement and grounding.

The speed adjusting energy saving device adopts relay sampling for the original system.

If there is no passenger on the escalator, it will be operated at the 1/5 rated speed. The system is under energy saving state.

If there are passengers on the escalator, it will smoothly transit into rated speed from energy saving speed.

If it is under maintenance, the system will operate at 1/2 rated speed.

#### **Technical Parameters**

- rated input voltage: three-phase 380VAC , 50Hz
- allowed working scope of the voltage: 380V±15%
- allowed voltage fluctuations: 380V±15% frequency: 50Hz±5%
- output voltage: 0~380V
- overload capability: 5.5KW~132KW: 120% rated current 1 minute
- 160KW and above: 110% rated current 1 minute
- 150% rated current 1s
- terms of use: indoor; not exposed to the sun light; no corrosion gas, flammable gas, oil mist or steam.
- altitude: lower than 1000m
- environmental temperature: -10 ~+40 ( please reduce use frequency at the temperature of 40 -50 ) .
- Temperature: 20~90%RH (without dew)
- protection rank: IP20~IP44
- control mode: automatic, manual remote control
- cooling: forced wind cooling, fan control, water cooling on explosive occasions

It is identical with F Model.