

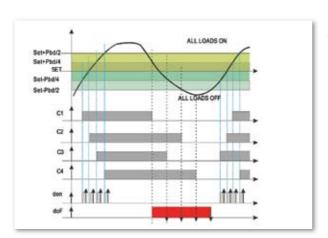


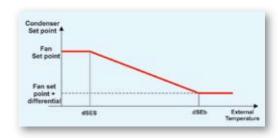
## **SCREW COMPRESSORS**

The XC642C is designed for screw compressors. It has a PTC probe for monitoring cylinder head temperature and control liquid injection cooling. The control algorithm can manage compressors with up to 4 steps.

## DYNAMIC SET POINT

The dynamic set point guarantees excellent plant efficiency, considering the real operative conditions. The condensing set point is changed according to the external temperature, to maintain optimum condensing temperature.





## PROPORTIONAL BAND ADJUSTMENT

A pressure value is set (set point) and an adjustment band (Pbd) is positioned over the set point. The adjustment band is then divided into equal parts, one for each stage being controlled. As the pressure increases and passes the various stages, the controller activates each load. As the pressure decreases, the loads are turned off. In this way, above the adjustment band all the compressors will be running, while below the band they will all be off. The switching on and off of the loads is carried out in such a way as to balance the run hours. The graph shows, in a simplified way, the adjustment algorithm with 4 equal loads.

## **NEUTRAL ZONE ADJUSTMENT**

A pressure value (Set-point) and a band that is symmetric compared with the Set value (Pbd) can be programmed. Within this band a state of system equilibrium can exist, where the instrument will mantain the status of the outputs. If the pressure moves outside this band the switching on and off of available outputs begins, subject to delays set in parameters "don" (delay between two consecutive starts) and "dof" (delay between two consecutive stops), always respecting the protection times of each compressor. The graph illustrates, in a simplified way, neutral zone regulation with equal loads.

