



## RESOLUTION



Is this solution useful ? [YES](#) [NO](#)

[Post a Comment](#)

## What does it mean "utilisation coefficient" for the relay RXM it is (20%)

### Applicable to Product Range(s) : Zelio Relay

Document Number: SOL191650

Revision: 1.0

#### Goals and Symptoms

What does it mean "utilisation coefficient" for the relay RXM it is (20%)

#### Facts and Changes

utilisation

#### Causes and Fixes

20% is the value given as Utilisation coefficient, also known as duty factor. During cycling operation, duty factor is the ratio between the energised time and one period.

Under no load conditions the catalog states 18,000 ops/hr ( equal to 300 ops/min or equal to 5 ops/sec),  
therefore, 1 operation (relay state 'on', relay state 'off') will take 200 msec ----> (1/5 sec = 200 msec).

With utilization category equal to 20%, the relay state 'on' would be 40 msec and the relay state 'off' would be 160 msec.

The same goes for the loaded conditions as well. The catalog states 1,200 ops/hr (equal to 20 ops/ min or equal to .333 ops/sec),  
therefore, 1 operation (relay state 'on', relay state 'off') will take 3 seconds ----> (1/.333 sec = 3 seconds).

With utilization category equal to 20% the relay state 'on' would be .6 seconds and the relay state 'off' would be 2.4 seconds.

These values are given to avoid over heating of the contacts generated by the commutations. There is no restriction to let the contact on a position for a longer time.