3540 FC Power Condition Monitoring

A. Alarms

Alarms can be generated for the following measurement types:

a. Voltage
b. Current
c. Active power
d. THD–V
e. THD–A
f. Power factor
g. Frequency

B. Alarm types

The following Alarm types are possible for the above measurement types:

a. Above a threshold (User specified)
b. Below a threshold (User specified)
c. Between two specified thresholds (User specified)
d. Out of two specified thresholds (User specified)

C. Alarm generation and exclusivity

Alarms are generated based on the following conditions:

a. A data point in violation of a threshold will raise an alarm.

b. **Alarm Suppression:**
An alarm of a particular alarm type (See Sec D) once raised will follow the following repetition cycle as long as the violation condition continues to be met:
* For the first 1 hour: 1 Alarm every 5 minutes
* For the next 5 hours: 1 Alarm every hour
* From the 6th hour to 24th hour: 1 Alarm every 6 hours
* After the 24th hour: 1 Alarm every 24 hours

c. Alarms Suppression works based on Alarm Types, hence when one Alarm Type is suppressed, another alarm of different type can be raised.

d. Multiple Alarms of the same type configured for an asset.
If multiple alarms of the same type are set for an asset, and more than one of them are violated according to Sec C.a, we will be unable to identify which specific alarm will be raised. Any one of the violated alarms can be raised.

Example 1.0:
Given:
Asset: Motor1
Alarm Thresholds: > 10C, > 12C, >15C
Alarm Type: Above a threshold
Violating Data point (Acc Sec C.a): 17C @ 1/1/2020 00:00:10

Then:
Alarm Raised will be **one** of the following:
* 17C @ 1/1/2020 00:00:10 for violating threshold >10C
* 17C @ 1/1/2020 00:00:10 for violating threshold >12C
* 17C @ 1/1/2020 00:00:10 for violating threshold >15C
Exact alarm **cannot** be determined.