

How to set Field Loss (Anis code 40) is Sepam series 60 and 80?

What is the required data to set this protection?

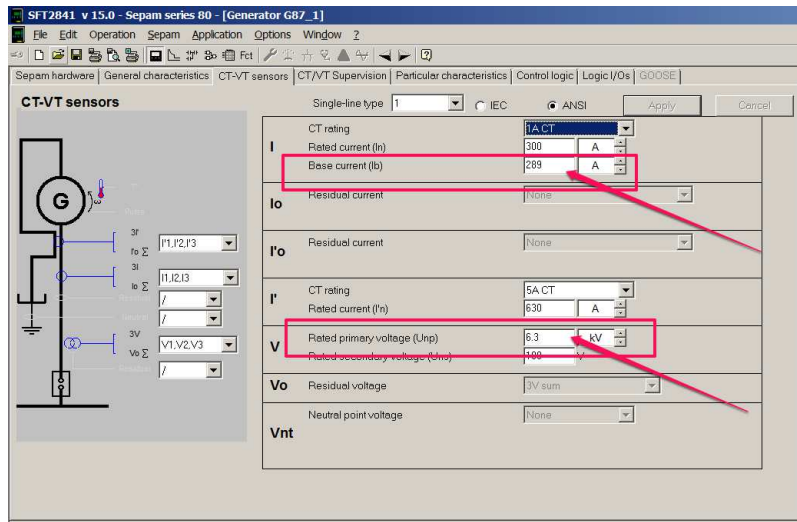
U_{np} which is rated voltage of generator, I_b which is base current of machine (calculated by having S_n , U_n), X_d and $X'd$ which are reactance of machine (most of the time are available in generator and motor data sheets)

It is better to give you an example to make it clearer:

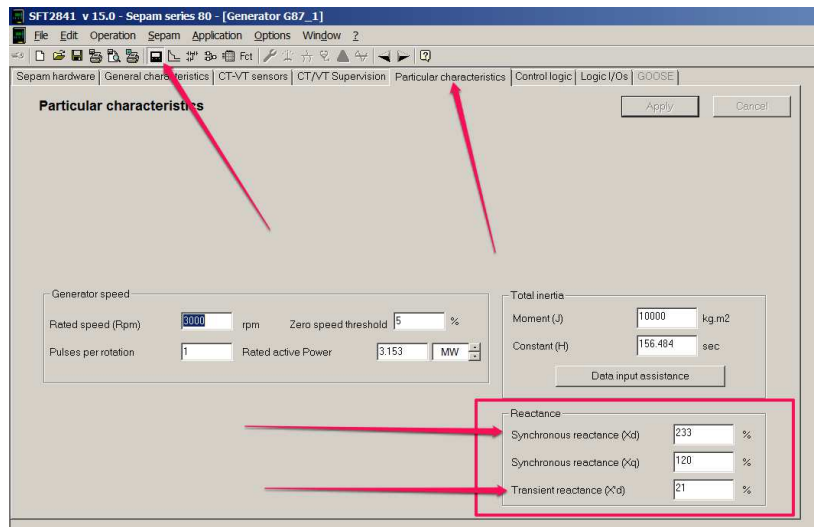
Assume we have got following data form Generator's data sheets:

$U_n = 6.3\text{KV}$, $S = 3.15\text{ MVA} \rightarrow I_b = 3150 / (\sqrt{3} * 6.3) = 289\text{ Amp}$, $X_d = 233$ and $X'd = 21$

Where to set U_{np} , I_b : go trough: sepam settings>CT-VT sensors

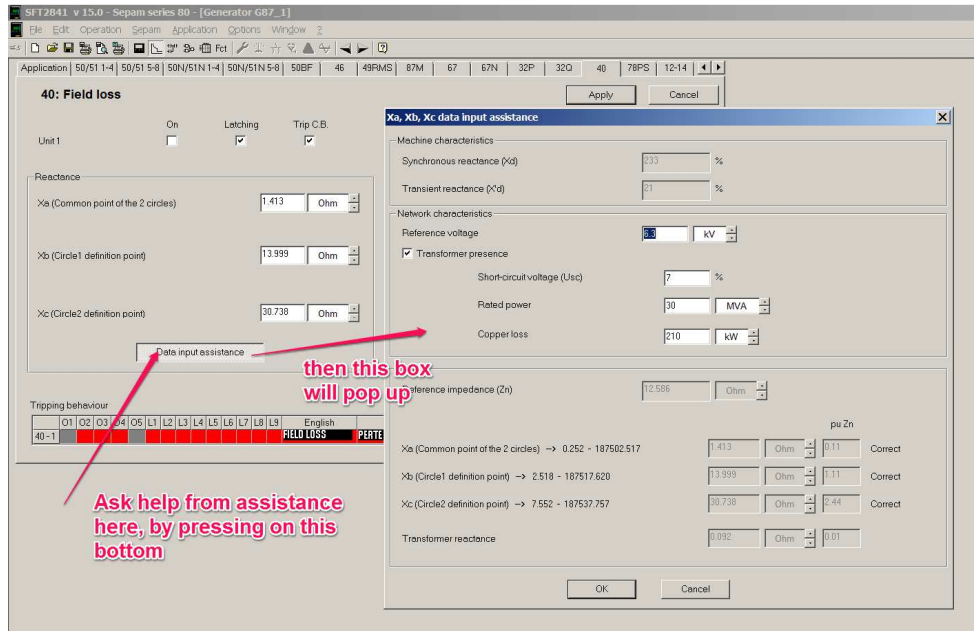


Where to set $X_d, X'd$: go trough sepam settings>particular characteristics



By entering these 4 parameters then setting Field Loss (40) protection in Sepam would be very easy:

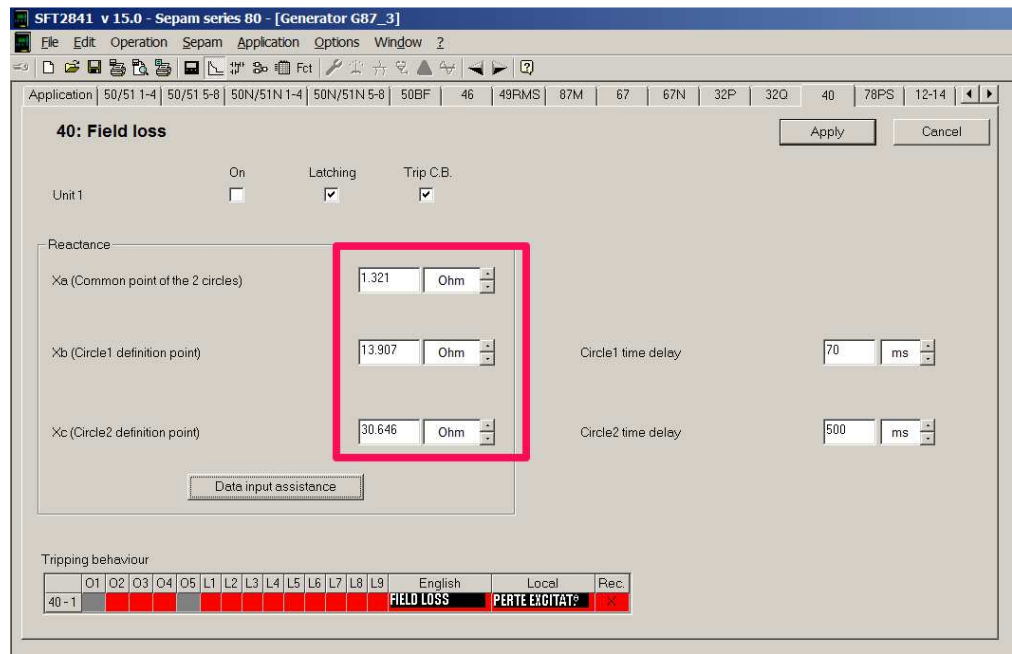
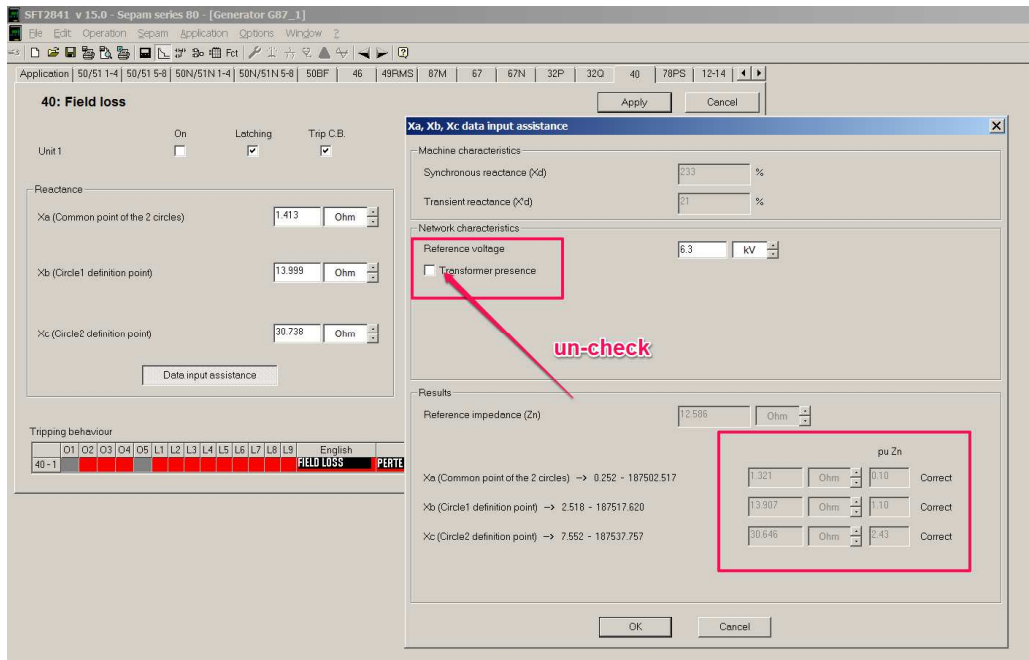
As we have got “Data input assistance”, we can use it to calculate three setting points in the function which are Xa, Xb and Xc. First we can call assistance help by pressing the related bottom:



As you see in the first table up there, two important values of Xd and X'd are already set as 233 and 21 as we set them before in “Particular characteristics”. So the next step is adding transformer characteristics if any. In our example we consider that there is no any step-up (or step-down) transformer in the feeder. Then all we need to do is to un-check the transformer setting. As you see the values automatically are calculated by SFT2841 referring to the formula which is explained in the Sepam’s user manual. The final step is press ok to insert this values to Xa,Xb and Xc in Field Loss protection.

Please notice that it is not mandatory to use “Data input assistance”. If you calculated three parameters of Xa,Xb and Xc (according to formula printed in Sepam’s user manual) it is possible to enter your calculated values manually in Filed Loss setting boxes.

Using “Data input assistance” it is important to consider or not the transformer characteristics. This data must set while we have got step-down or step-up transformer in the application. So this parameter totally depends on the application. While using “Data input assistance “it is highly recommended to make a right decision in order to check or un-check this transformer presence setting according to feeder application.s



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