



VEBKO ONLINE HELP

Drawing the Mho Characteristic in GEC PYTC Relay

Category	tester
Section	Testing of relays protection functions
Language	English
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For example, we consider the PYTC relay to manually draw the distance characteristic. PYTC is actually a model of the PYTS relay used to protect systems including underground cables, as well as systems consisting of cable and airlines combination. The Mho characteristic in this relay makes the Distance function available to protect these systems.

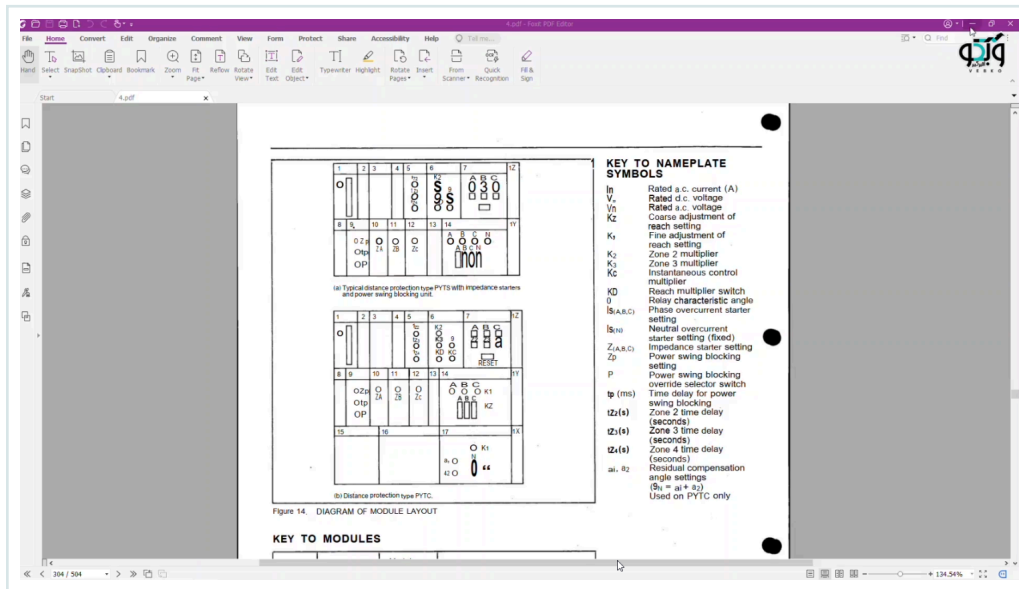


Figure 1

The modules on this relay allow adjusting the protection zones based on different parameters.

DISTANCE RELAY									
TYPE	MANUFA.	Fn	In	Vn	Vx	CVT RATIO		CT RATIO	
PYTC	GEC	50	1	110	110	63	110	500	1
LOAD CHARACTERISTIC								LINE	
Z Load min		R Load min		<Z Load		Zf max		Length	17
45.51904762		36.41349206		36.87		64.22081714		Number	
RELAY CHARACTERISTIC									
PARAMETER		SETTING		TARGET	PARAMETER		SETTING		TARGET
K1A		0.51			KC		1		
K1B		0.51			k2		1.5		
K1C		0.51			K3		3.28		
KZA		10			0n(a1+a2)		20		
KZB		10			0ph		65		
KZC		10			0c		20		
KZN		10			a1		20		
K1N		0.648			a2		0		
KD		1			-		-		
IMPEDANCE SETTING									
PARAMETER		SETTING		TARGET	PARAMETER		SETTING		TARGET
Z1(zone1)		5.1			ZN		6.48		
Z2(zone2)		7.65			TZ2(s)		0.4		
Z3(zone3)		16.728			TZ3(s)		1		
ZC		5.1			-		-		

Figure 2

assume the different element settings of the modules in this relay as follows:

In this case, considering the angle of the line is equal to 66 degrees, we add three Mho zones.

The first zone features a forward with a reach of 5.1 ohms and an angle of 66 degrees.

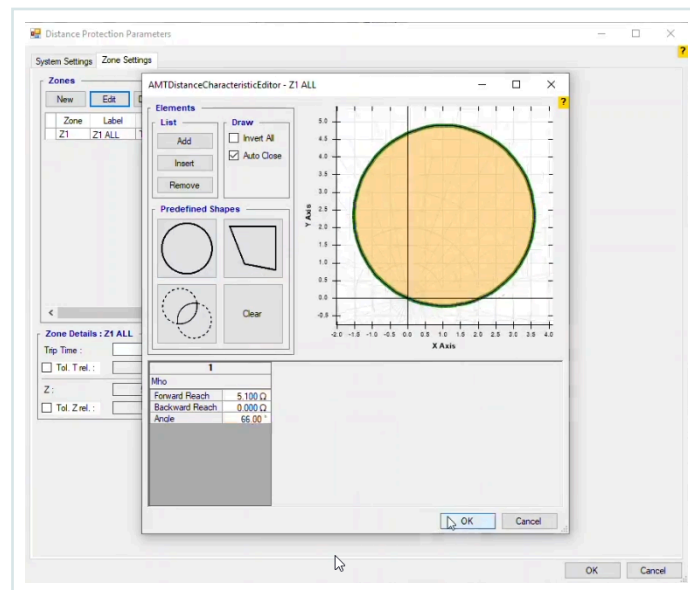


Figure 3

The second zone has a forward characteristic of 7.65 ohms reach and an angle of 66 degrees,

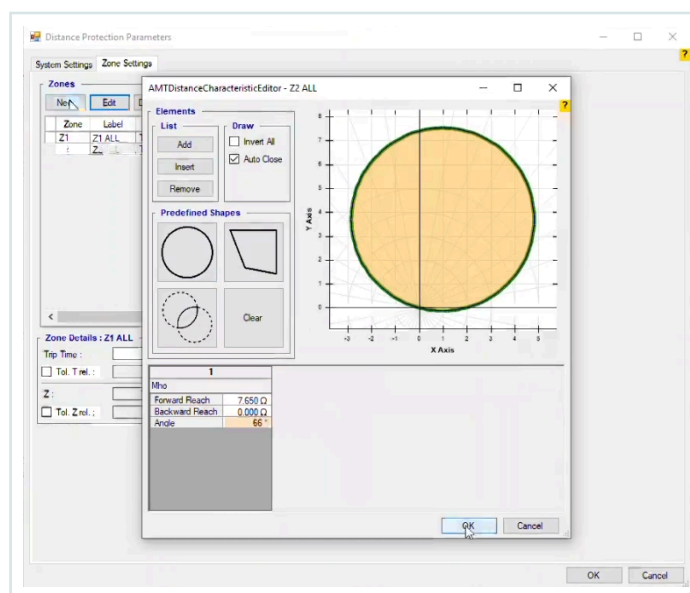


Figure 4

and finally the third zone 16.78 ohms reach with the same angle.

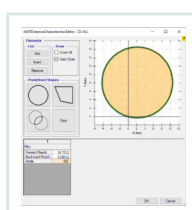


Figure 5

After this, you can also manually enter the trip time for each zone.

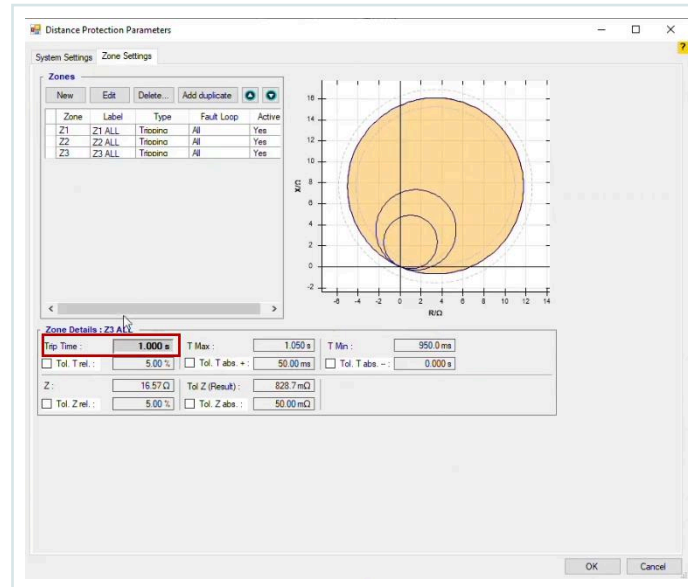


Figure 6

[jg1]Drawing_the_MHO_characteristic_in_GEC_PYTC_relay