

PART 1 - REPEAT EXCEL CALCULATION

```
[ reset ()
[ j:=I
[ i
[ s:=0.0060833:
[ R1 := 0.0704000:
[ X1 := 1.9801000:
[ R2 := 0.0653000:
[ X2 := 1.1985000:
[ XM := 98.5000000:
[ RFE := 2950.0000000:
[
[ VLL:=5500:
[ f:=50:
[
[ Z2:=R2/s+j*X2
[ 10.73430539 + 1.1985 i
[ ZM:=1/(1/RFE + 1/(j*XM))
[ 3.285235659 + 98.39030654 i
[ ZPARA:=(1/(1/ZM + 1/Z2))
[ 10.32324105 + 2.283220064 i
[ ZTOT:=ZPARA + R1+j*X1
[ 10.39364105 + 4.263320064 i
[ I1:=float(VLL/sqrt(3) / ZTOT)
[ 261.5157106 – 107.2699327 i
[ abs(I1)
[ 282.6611139
[ VM:=float(VLL/sqrt(3) - I1*(R1+j*X1))
[ 2944.610581 – 510.2754552 i
[ I2:=VM/Z2
[ 265.697999 – 77.20243431 i
[ P:=3*abs(I2)^2*R2/s*(1-s)
[ 2450317.689
```

PART 2 - ADJUST R1, X2, R2, X2 based on slip from part 1 and repeat calc

```
[ s:=0.006124296266
[ 0.006124296266
[
[ R1 := 0.0704000*(1-s) + s*0.0565;
[ X1 := 1.9801000*(1-s) + s*1.8306;
[ R2 := 0.0653000*(1-s) + s*0.1412;
```

```
X2 := 1.1985000*(1-s) + s*0.9279;
```

```
0.07031487228
```

```
1.979184418
```

```
0.06576483409
```

```
1.196842765
```

```
Z2:=R2/s+j*X2
```

```
10.73834956 + 1.196842765 i
```

```
ZM:=1/(1/RFE + 1/(j*XM))
```

```
3.285235659 + 98.39030654 i
```

```
ZPARA:=(1/(1/ZM + 1/Z2))
```

```
10.32736421 + 2.282487162 i
```

```
ZTOT:=ZPARA + R1+j*X1
```

```
10.39767909 + 4.26167158 i
```

```
I1:=float(VLL/sqrt(3) / ZTOT)
```

```
261.4724854 - 107.1690952 i
```

```
abs(I1)
```

```
282.582865
```

```
VM:=float(VLL/sqrt(3) - I1*(R1+j*X1))
```

```
2944.933673 - 509.9666876 i
```

```
I2:=VM/Z2
```

```
265.6515296 - 77.09842138 i
```

```
P:=3*abs(I2)^2*R2/s*(1-s)
```

```
2449835.315
```