

EQUI8 SIMULATION TOOL

Input Cells		Output Cells	
Network and loads definition			
Line :	0,350 Ohms	Input the line impedance here or use sheet calcul-résistance	
Neutral :	0,350 Ohms		
Reference Voltage Feeder U 230 Volts N 0 0 0 L1 230 0 230 L2 -115 199 230 L3 -115 -199 230			
Customer's load or power injection N and L1 0 0 Amp N and L2 -25 43 50 Amp N and L3 0 0 Amp			
Customer Voltage without EQUI8 x y Module(V) dU/U Voltage between lines N -9 15 239 4,0% U12 383 L1 230 0 239 4,0% L2 -106 184 195 -15,2% U13 398 L3 -115 -199 239 4,0% U23 383			
Customer Voltage with EQUI8 x y Module (V) dU/U Voltage between lines Vn -2 3 3 -0,4% U12 383 L'1 228 4 229 -0,4% L'2 -109 188 214 -6,9% U13 398 L'3 -117 -195 229 -0,4% U23 383			
EQUI8 information Rn EQUI8 0,1 Ohm 0,1 Ohm for 1 EQUI8 ; 0,05 Ohm for 2 EQUI8 in parallel In flowing through EQUI8 21 -36 41 Amps EQUI8 balancing neutral current = (Voltage offset between real neutral and virtual neutral) / EQUI8 Rn Resistance In must be smaller than 45 Amps for one EQUI8 Ip1=Ip2=Ip3 -7 12 14 Amps The balancing current on each line = 1/3 of the EQUI8 neutral current (flowing opposite)			

Network impedance at customer connecting point
Get network data from sheet calcul-résistance
Input here customer's load (>0) or power injection(<0)

Customer's Voltage

Output : Voltage without EQUI8
Output : Voltage with EQUI8

calcul-résistance

Wire material	
AL	31,1 Ohm/km/mm ²
AM	34 Ohm/km/mm ²
CU	18,4 Ohm/km/mm ²

HV/LV Transf. (source EDF HN 52-S-54)		<i>Transf. Impedance note taken into account</i>
0	0 Ohms	
50	0,0857 Ohms	
100	0,0341 Ohms	
160	0,0194 Ohms	
250	0,0108 Ohms	
400	0,0060 Ohms	
630	0,0034 Ohms	
1000	0,0021 Ohms	