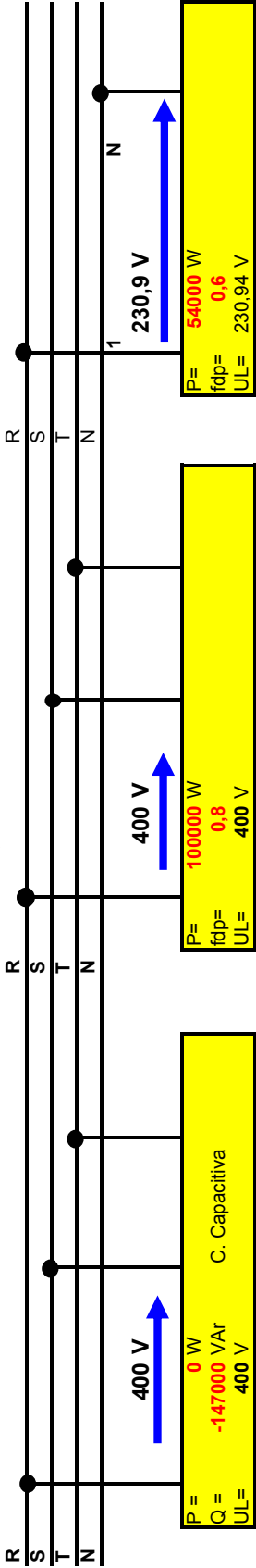


Tubos fluorescentes repartidos entre R y N



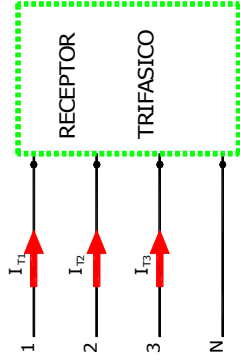
$P = 0 \text{ W}$	$\varphi = -1,5708 \text{ rad}$	$\varphi = 0,6435 \text{ rad}$	$\varphi = 0,927 \text{ rad}$
$Q = -147000 \text{ Var}$	$\varphi = -90^\circ$	$\varphi = 36,87^\circ$	$\varphi = 53,13^\circ$
$S = 147000 \text{ VA}$	$IL = 212,18 \text{ A}$	$IL = 180,42 \text{ A}$	$S = 90000 \text{ VA}$
$I1 = 212,176$	$180,00^\circ = -212,18 + 0,00 \text{ j}$	$I1 = 180,422$	$53,13^\circ = 108,25 + 144,34 \text{ j}$
$I2 = 212,176$	$60,00^\circ = 106,09 + 183,75 \text{ j}$	$I2 = 180,422$	$-66,87^\circ = 70,87 + -165,92 \text{ j}$
$I3 = 212,176$	$-60,00^\circ = 106,09 + -183,75 \text{ j}$	$I3 = 180,422$	$-186,87^\circ = -179,13 + 21,58 \text{ j}$
$ZE = 1,088$	$-90,00^\circ = 0 + -1,0884 \text{ j}$	$ZE = 1,280$	$36,87^\circ = 1,024 + 0,768 \text{ j}$
$S = 147000,0$	$-90,00^\circ = 0 + -147000 \text{ j}$	$S = 125000,0$	$36,87^\circ = 100000 + 75000 \text{ j}$

Total: Carga 2 (equilibrada 100 KW; 0.8) + Carga 3 (tubos Fluorescentes R-N)

$IT1 = 565,179$	$42,00^\circ = 420,02 + 378,16 \text{ j}$	$Z1 = 0,409$	$48,00^\circ$	$fdp1 = 0,669$	$W1 = 87333 \text{ W}$
$IT2 = 180,422$	$293,13^\circ = 70,87 + -165,92 \text{ j}$	$Z2 = 1,280$	$-323,13^\circ$	$fdp2 = 0,8$	$W2 = 33333 \text{ W}$
$IT3 = 180,422$	$173,13^\circ = -179,13 + 21,58 \text{ j}$	$Z3 = 1,280$	$36,87^\circ$	$fdp3 = 0,8$	$W3 = 33333 \text{ W}$

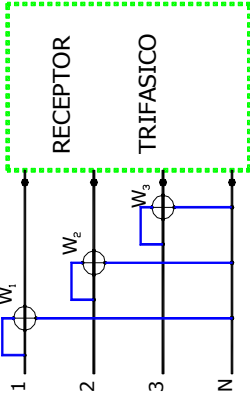
Total: Carga 1 + Carga 2 + Carga 3

$IT1 = 431,519$	$61,21^\circ = 207,85 + 378,16 \text{ j}$	$Z1 = 0,535$	$28,79^\circ$	$fdp1 = 0,87636$	$W1 = 87333,3 \text{ W}$
$IT2 = 177,858$	$5,75^\circ = 176,96 + 17,83 \text{ j}$	$Z2 = 1,298$	$-35,75^\circ$	$fdp2 = 0,81153$	$W2 = 33333,3 \text{ W}$
$IT3 = 177,858$	$245,75^\circ = -73,04 + -162,17 \text{ j}$	$Z3 = 1,298$	$-35,75^\circ$	$fdp3 = 0,81153$	$W3 = 33333,3 \text{ W}$



$PT = 154000 \text{ W}$	$fdp = 1$
$QT = 0,00 \text{ Var}$	$\varphi = 0,00^\circ$
$ST = 154000 \text{ VA}$	$IL = 222,27985 \text{ A}$

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$P = W_1 + W_2 + W_3$