TABELA 2 — FORMULÁRIO GERAL

1. Circuitos monofásicos

CIRCUITOS - SÉRIE

Circuito resistivo	Circuito indutivo	Circuito capacitivo	Circuito RLC
$\cos\varphi = 1$	$\cos\varphi = R/Z$	$\cos\varphi = R/Z$	$\cos\varphi = R/Z$
$P = U\ I\cos\varphi$	$P = U\ I\cos\varphi$	$P = U\ I\cos\varphi$	$P = U\ I\cos\varphi$
$= R\ I^2$	$= R\ I^2$	$= R\ I^2$	$= R\ I^2$
$= U_R\ I$	$= U_R\ I$	$= U_R\ I$	$= U_R\ I$
$Q = 0$	$Q = U\ I\ \text{sen}\varphi$	$Q = -U\ I\ \text{sen}\varphi$	$Q = \pm U\ I\ \text{sen}\varphi$
	$= X_L\ I^2$	$= -X_C\ I^2$	$= (X_L - X_C)\ I^2$
	$= U_L\ I$	$= -U_C\ I$	$= (U_L - U_C)\ I$
$Z = R$	$Z = \sqrt{R^2 + X_L^2}$	$Z = \sqrt{R^2 + X_C^2}$	$Z = \sqrt{R^2 + (X_L - X_C)^2}$
$S = P$	$S = \sqrt{P^2 + Q^2}$	$S = \sqrt{P^2 + Q^2}$	$S = \sqrt{P^2 + Q^2}$

CIRCUITOS - PARALELO

Circuito resistivo	Circuito R//L	Circuito R//C	Circuito R//L//C
$I = U/R_T$	$I = \sqrt{I_R^2 + I_L^2}$	$I = \sqrt{I_R^2 + I_C^2}$	$I = \sqrt{I_R^2 + (I_L - I_C)^2}$
$\cos\varphi = 1$	$\cos\varphi = I_R/I$	$\cos\varphi = I_R/I$	$\cos\varphi = I_R/I$
$P = U\ I\cos\varphi$	$P = U\ I\cos\varphi$	$P = U\ I\cos\varphi$	$P = U\ I\cos\varphi$
$= R_T\ I^2$	$= R\ I_R^2$	$= R\ I_R^2$	$= R\ I_R^2$
$= U\ I$	$= U\ I_R$	$= U\ I_R$	$= U\ I_R$
$Q = 0$	$Q = U\ I\ \text{sen}\varphi$	$Q = -U\ I\ \text{sen}\varphi$	$Q = U\ I\ \text{sen}\varphi$
	$= X_L\ I_L^2$	$= -X_C\ I_C^2$	$= X_L\ I_L^2 - X_C\ I_C^2$
	$= U_L\ I_L$	$= -U\ I_C$	$= U\ I_L - U\ I_C$
$Z = R$	$Z^2 = \dfrac{R^2 . X_L^2}{R^2 + X_L^2}$	$Z^2 = \dfrac{R^2 . X_C^2}{R^2 + X_C^2}$	$Z^2 = \dfrac{R^2 . (X_L - X_C)^2}{R^2 + (X_L - X_C)^2}$
$S = P$	$S = \sqrt{P^2 + Q^2}$	$S = \sqrt{P^2 + Q^2}$	$S = \sqrt{P^2 + Q^2}$

2. Circuitos trifásicos

Ligação em estrela com neutro	Ligação em triângulo
$I = U_S/Z$ (por fase)	$I_Z = U_C/Z$ (na carga)
$\cos\varphi = R/Z$ (por fase)	$\cos\varphi = R/Z$ (individual)
$P_t = P_1 + P_2 + P_3 = U_S I_1 \cos\varphi_1 + U_S I_2 \cos\varphi_2 + U_S I_S \cos\varphi_3$	$P_t = P_1 + P_2 + P_3 = U_C I_{Z1} \cos\varphi_1 + U_C I_{Z2} \cos\varphi_2 + U_C I_{Z3} \cos\varphi_3$
$P_t = \sqrt{3}\, U_C\, I \cos\varphi$ (só equilib.)	$P_t = \sqrt{3}\, U_C\, I \cos\varphi$ (só equilib.)
$Q = Q_1 + Q_2 + Q_3 = U_S I_1 \operatorname{sen}\varphi_1 + U_S I_2 \operatorname{sen}\varphi_2 + U_S I_3 \operatorname{sen}\varphi_3$	$Q_t = Q_1 + Q_2 + Q_3 = U_C I_{Z1} \operatorname{sen}\varphi_1 + U_C I_{Z2} \operatorname{sen}\varphi_2 + U_C I_{Z3} \operatorname{sen}\varphi_3$
$Q_t = \sqrt{3}\, U_C\, I \operatorname{sen}\varphi$ (só equilib.)	$Q_t = \sqrt{3}\, U_C\, I \operatorname{sen}\varphi$ (só equilib.)
$S_t = \sqrt{P_t^2 + Q_t^2}$	$S_t = \sqrt{P_t^2 + Q_t^2}$
$\vec{I_N} = \vec{I_1} + \vec{I_2} + \vec{I_3}$	$I = \sqrt{3}\, I_Z$ (só equilib.)
$U_C = \sqrt{3}\, U_S$ (só equilib.)	(I — corrente na linha)