

Formule-overzicht EWP/EWS

$$U = I \times R$$

U = spanning (V)
I = Stroom (A)
R = Weerstand (Ohm)

$$P = U \times I$$

P = vermogen (W)

$$\Delta R = \frac{\rho \times \Delta L}{A}$$

R = weerstand
 ρ = soortelijke weerstand
L = lengte (m)
A = doorsnede (mm²)

$$A = \frac{\pi D^2}{4} = \pi r^2$$

A = doorsnede (mm²)
D = diameter (mm)
r = radius (mm)

$$E = \eta \times \frac{U \times I}{v}$$

E = warmte-inbreng (kJ/mm)
 η = rendement lasproces
U = spanning (V)
I = stroom (A)
v = voortloopsnelheid in mm/s

$$\Delta L = \alpha \times L_0 \times \Delta T$$

ΔL = lengte verandering (mm)
 α = Lineaire uitzettingscoëfficiënt
 L_0 = Originele lengte (mm)
 ΔT = temperatuurverandering (K of °C)

135: $U_b = 14 + \frac{I}{20}$

141: $U_b = 10 + \frac{I}{25}$

111: $U_b = 20 + \frac{I}{25}$