



$$\begin{aligned}
 S &= 30 \text{ kVA} \\
 V_{HV} &= 415 \text{ V} \\
 V_{LV} &= 240 \\
 Z\% &= 3 \\
 I_{FLA-HV} &= 72.29 \text{ A} \\
 I_{FLA-LV} &= 125 \text{ A} \\
 Z_{BASE} &= 1.92 \Omega \\
 Z_T &= 0.0576 \Omega \\
 I_{F(A-N)} &= 4166.667 \text{ A} \\
 I_{F(A-E)} &= ???
 \end{aligned}$$

$$\begin{aligned}
 S &= 90 \text{ kVA} \\
 V_{HV} &= 415 \text{ V} \\
 V_{LV} &= 415.6922 \\
 Z\% &= 3 \\
 I_{FLA-HV} &= 125.21 \text{ A} \\
 I_{FLA-LV} &= 125.42 \text{ A} \\
 Z_{BASE} &= 1.92 \Omega \\
 Z_T &= 0.0576 \Omega \\
 I_{F(3\phi)} &= 4166.667 \text{ A} \\
 PTW I_{F(3\phi)} &= 3480 \text{ A}
 \end{aligned}$$

PTW value is less because of source impedance.