

FORMULA 3.478.4

$$\int_0^{\infty} x^{\nu-1} \exp(-\beta x^p - \gamma x^{-p}) dx = \frac{2}{p} \left(\frac{\gamma}{\beta}\right)^{\frac{\nu}{2p}} K_{\frac{\nu}{p}}(2\sqrt{\beta\gamma}) \quad \text{Re } \beta > 0, \text{Re } \gamma > 0$$