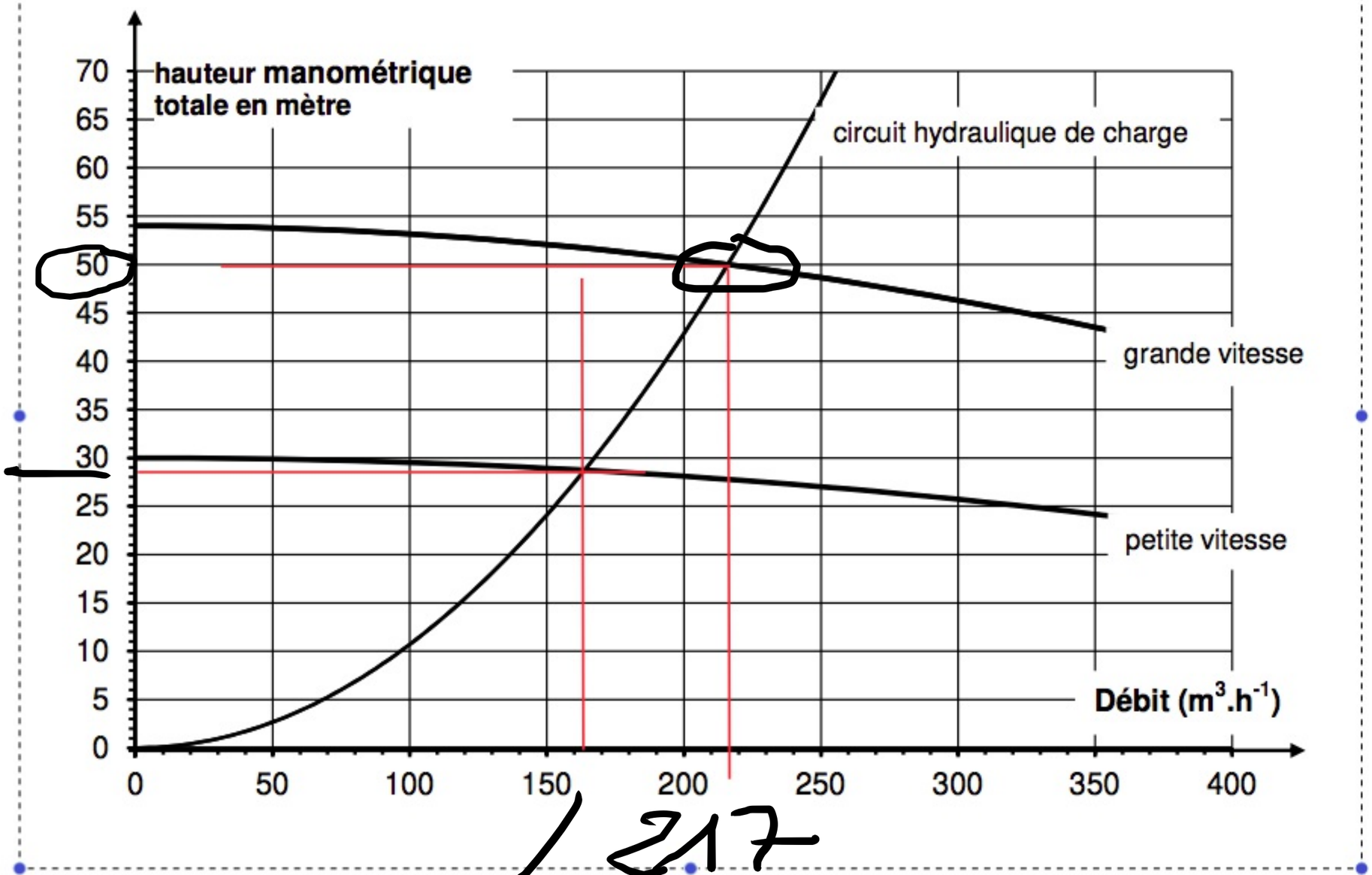


28,5 m

217

163 $m^3 h^{-1}$

$$P_{GV} = 1000 \times 10 \times 850 = 5\,10^5 \text{ Pa}$$

5 bar

$$Q_{GV} = \frac{217}{3600} = 0,0603 \text{ m}^3\text{s}^{-1}$$

60 l s^{-1} !

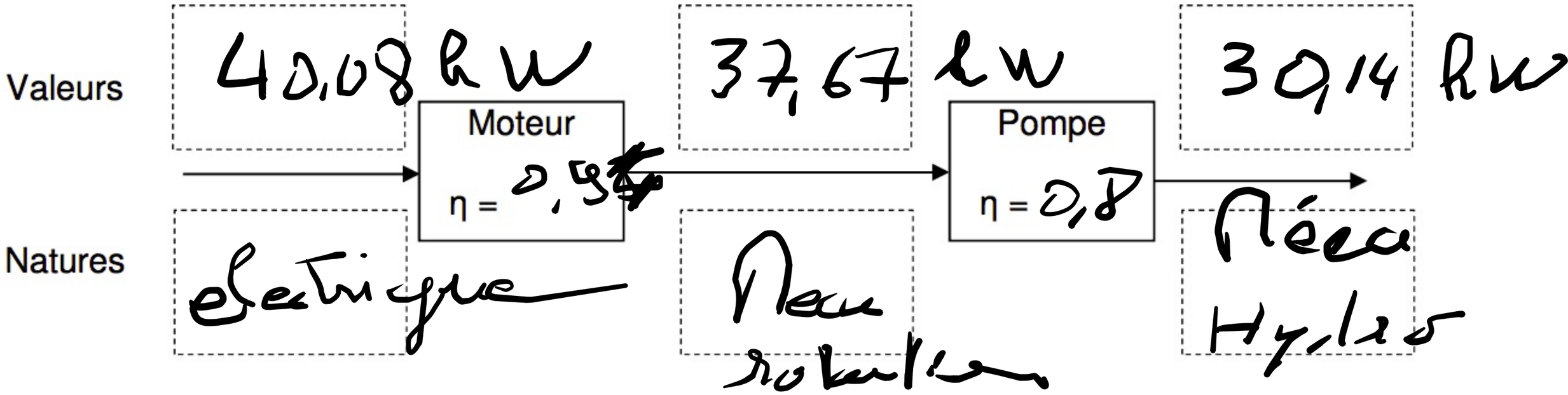
$$\mathcal{P}_{hydraulique\ GV} = P_{GV} \times Q_{GV} = 5\,10^5 \times 0,0603$$

$$= 30,14 \text{ kW}$$

$$P_{mGV} = \frac{Q_{14}}{0,8} = \frac{30,14}{0,8} = 37,67\,kW$$

$$P_{mGV} = \frac{37,67}{0,95} = 10,08\,kW$$

Document réponse n°1



$$P_{nPV} = \frac{163}{3600} \times 28,1 \times 1000 \times 10$$

$$= 12,9 \text{ kW}$$

$$\Rightarrow 13 \text{ kW} \quad \text{OK.}$$

$$P_{uPV} = \frac{13}{0,8} = 16,25 \text{ kW}$$

$$P_{uPV} = 17,3 \text{ kW} \quad \rightarrow -5\%$$

$$P_a + \rho_E \times g \times h_a + P_{atv} - \Delta p = P_B + \rho_E \times g \times h_B$$

$$P_B = P_A + \rho_E \, g \left(h_a - h_B \right) + P_{atv} - \Delta p$$

$$= 10^5 + 1000 \times 10 \times (-7) + 5\,10^5 - 3,6\,10^5$$

$$= 1,7\,10^5 \text{ Pa} \qquad 1,7 \text{ bar}$$

$$> 1 \text{ bar}$$