

题目9

均匀供水量  $Q_1 = \frac{1}{24} \sum_{i=1}^{24} q_i = 4678.16 \text{ m}^3/\text{h}$

清水池调节容积  $W_1 = \frac{1}{2} \left| \sum_{i=1}^{24} q_i - Q_1 \right| = 26384.76 \text{ m}^3$

题目10

无水塔：一级泵站设计流量  $Q_1 = \frac{\alpha Q_d}{T} = \alpha \frac{50 \times 10^4 \text{ m}^3/\text{d}}{24 \text{ h} \times 3600 \text{ s/h}} = 5.787 \alpha \text{ m}^3/\text{s}$   
 取  $\alpha = 1.1$ ，则  $Q_1 = 6.366 \text{ m}^3/\text{s}$

二级泵站设计流量  $Q_2 = \max\{q_i\} = \frac{50 \times 10^4 \times \frac{6}{24}}{3600} = 8.33 \text{ m}^3/\text{s}$

有水塔：一级泵站设计流量  $Q'_1 = Q_1 = 5.787 \alpha \text{ m}^3/\text{s}$ ，取  $\alpha = 1.1$ ，则  $Q'_1 = 6.366 \text{ m}^3/\text{s}$

二级泵站设计流量：= 取泵站最高设计供水线 5%

$\therefore Q_2 = \frac{Q_d}{T} \times 5\% = \frac{50 \times 10^4}{3600} \times 5\% = 6.94 \text{ m}^3/\text{s}$