

★ Chiller Efficiency KW/TR

# COP

① EVAPORATOR APPROACH DegC  ② CONDENSOR APPROACH DegC

③ EVAPORATOR RANGE DegC  ④ CONDENSOR RANGE DegC

Same as ⑧ → Chiller POWER KW

## OUTPUT

PARAMETERS	UNIT	Port	Value	EVAPORATOR		CONDENSOR	
				Para	Unit	Port	Value
⑦ Chilled water FLOW	m <sup>3</sup> /hr	<input type="text"/>	<input type="text"/>	① Temp IN	DegC	<input type="text"/>	④ Temp IN DegC <input type="text"/>
				② Temp OUT	DegC	<input type="text"/>	⑤ Temp OUT DegC <input type="text"/>
⑧ Chiller power	KW	<input type="text"/>	<input type="text"/>	③ Refrigerant Temp	DegC	<input type="text"/>	⑥ Refrigerant Temp <input type="text"/>

↓  
INPUTS

Formulas

- (A) Evaporator Approach = (2) - (3)  
 (B) Evaporator Range = (2) - (1)  
 (C) Condenser Approach = (6) - (5)  
 (D) Condenser Range = (4) - (5)

$$\begin{aligned}
 & \textcircled{\star} \text{ KW/TR} = \frac{\textcircled{8}}{\left( \frac{\textcircled{7} \times 4.18 \times 1000 \times (\textcircled{2} - \textcircled{1})}{3.51 \times 3600} \right)}
 \end{aligned}$$

$$\textcircled{\#} \text{ COP} = \frac{3.517}{\textcircled{\star}}$$