ECC CC AAHE and AARE - Common Vocabulary - ENGLISH
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Version 2.1

Symbol	Formula	Recommended	Accepted	Forbidden
t		Temperature [1]		
x		Absolute humidity [1]	Humidity Moisture contents [1] Moisture [2]	
h		Total enthalpy [3]	Specific enthalpy [3] Enthalpy [2]	
$\cdots11$		Extract air [if Exhaust air is used] Exhaust air inlet [1] [if Exhaust air outlet is used]	Exhaust air in [if Exhaust air out is used] Exhaust air entering [2]	
$\cdots21$		Supply air inlet [1]	Supply air in Supply air entering [2] Fresh air	
$\cdots12$		Exhaust air [if Extract air is used] Exhaust air outlet [1] [if Exhaust air inlet is used]	Exhaust air out [if Exhaust air in is used] Exhaust air leaving [2]	
$\cdots22$		Supply air outlet [1]	Supply air out Supply air leaving [2] Supply air [if Fresh air is used]	
$\cdots w$		Wet bulb [1]		
$\cdots d$		Dry bulb [2]		
Q_{HRS}		Capacity of the heat recovery system	Capacity of the HRS [3] HRS capacity Recuperation power	
P_{el}		Electric power consumption [3]		
η_t	$\eta_t = \dfrac{t_{22} - t_{21}}{t_{11} - t_{21}}$	Temperature efficiency dry [for plates] Temperature efficiency wet [for plates] Temperature efficiency [for rotaries]	Temperature ratio dry [for plates] Temperature ratio wet [for plates] Temperature ratio [1] [for rotaries] Sensible efficiency Latent efficiency	Efficiency [without Temperature or Sensible or Latent in front] Ratio [without Temperature in front] Temperature efficiency [for plates, without dry or wet after] Temperature ratio [for plates, without dry or wet after]
η_x	$\eta_x = \dfrac{x_{22} - x_{21}}{x_{11} - x_{21}}$	Humidity efficiency	Humidity ratio [1]	
η_h	$\eta_h = \dfrac{h_{22} - h_{21}}{h_{11} - h_{21}}$	Total efficiency	Total ratio Enthalpy efficiency Enthalpy ratio	
ε_t	$\varepsilon_t = \dfrac{\dot{m}}{\dot{m}_{min}} \cdot \dfrac{(t_{22} - t_{21})}{(t_{11} - t_{21})}$	Sensible effectiveness dry [for plates] Sensible effectiveness wet [for plates] Sensible effectiveness [4] [for rotaries]	Temperature effectiveness dry [for plates] Temperature effectiveness wet [for plates] Temperature effectiveness [for rotaries]	Effectiveness [without Temperature or Sensible in front] Temperature effectiveness [for plates, without dry or wet after] Sensible effectiveness [for plates, without dry or wet after]
ε_x	$\varepsilon_x = \dfrac{\dot{m}}{\dot{m}_{min}} \cdot \dfrac{(x_{22} - x_{21})}{(x_{11} - x_{21})}$	Latent effectiveness [4]	Humidity effectiveness	
ε_h	$\varepsilon_h = \dfrac{\dot{m}}{\dot{m}_{min}} \cdot \dfrac{(h_{22} - h_{21})}{(h_{11} - h_{21})}$	Total effectiveness [4]	Enthalpy effectiveness Total heat effectiveness	
η_e	$\eta_e = \eta_t \cdot (1 - 1/\varepsilon)$	Energy efficiency Remark: it is always defined for balanced airflows.	Energetic efficiency	Efficiency [3] [without Energy or Energetic in front]
ε	$\varepsilon = Q_{HRS}/P_{el}$	Coefficient of performance [3]		

REFERENCES
1. **CEN/TC 110.** *EN308: Heat exchangers - Test procedures for establishing the performance of air to air flue gases heat recovery devices.* 1997.
2. **ASHRAE.** *ASHRAE Handbook - HVAC systems and equipment ; Chap. 44: Air-to-air energy recovery.* 2000.
3. **CEN/TC 156.** *EN13053/A1: Ventilation for buildings - Air handling units - Rating and performance for units, components and sections.* 2011 - to be published.
4. **ASHRAE/TC 5.5.** *ASHRAE/ANSI 84: Method of testing air-to-air heat exchangers.* 1991.