



## TROX automatically checks energy efficiency according to ecodesign directive

TROX air handling units of Type X-CUBE are configured to individual customer requirements with a dedicated configuration software. This software automatically considers the new energy efficiency requirements for all X-CUBE air handling units and hence ensures their correct configuration. All X-CUBE air handling units that are produced and placed on markets of the European Union from 1 January 2016 onwards meet the new requirements.

ErP-Stage		January 2016	January 2018	
Heat recovery system (HRS) BVU with a regulator device		demanded	demanded	
HRS BVU heat recovery efficiency $\eta$ [%]	Run-around coil system	63	68	
	Plate heat exchangers, rotary heat exchanger, miscellaneous	67	73	
Filter differential pressure monitoring		–	demanded	
Fan speed regulation		demanded	demanded	
Fan efficiencies UVU $\eta_{\text{sys}}$ [%]	$P_{\text{sys}} \leq 30 \text{ kW}$	$6,2 \times \ln(P_{\text{sys}}) + 35$	$6,2 \times \ln(P_{\text{sys}}) + 42$	
	$P_{\text{sys}} > 30 \text{ kW}$	56,1	63,1	
Internal SFP-Value reference configuration [W/(m <sup>3</sup> /s)]	BVU			
	Run-around coil system	$q < 2 \text{ m}^3/\text{s}$	$1700 + E - 300 \times q/2 - F$	$1600 + E - 300 \times q/2 - F$
		$q \geq 2 \text{ m}^3/\text{s}$	$1400 + E - F$	$1300 + E - F$
	Plate heat exchangers, rotary heat exchanger, miscellaneous	$q < 2 \text{ m}^3/\text{s}$	$1200 + E - 300 \times q/2 - F$	$1100 + E - 300 \times q/2 - F$
		$q \geq 2 \text{ m}^3/\text{s}$	$900 + E - F$	$800 + E - F$
UVU		250	230	
HRS-Efficiency bonus E [W/(m <sup>3</sup> /s)]	Run-around coil system	$(\eta - 0,63) \times 3000$	$(\eta - 0,68) \times 3000$	
	Plate heat exchangers, rotary heat exchanger, miscellaneous	$(\eta - 0,67) \times 3000$	$(\eta - 0,73) \times 3000$	
Filter correction value F [W/(m <sup>3</sup> /s)]	Reference configuration	0	0	
	Filter M5 is missing	160	150	
	Filter F7 is missing	200	190	
	Filters M5 + F7 are missing	360	340	