

KENMEC



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Passive Water-Cooling Rear Door Heat Exchanger

Model Number : RX300 / RX200



High Efficiency



No Noise



Require
Less Cabinet



PUE ≤ 1.4



Energy Saving



Less Floor
Space Require

Passive

Water-Cooling Rear Door Heat Exchanger

RX300 / RX200

1. Ideal energy saving thermal solution, help Data Center solve thermal issue due to increase on performance requirement (kW), suitable for high density server / storage placement.
2. Enable PUE<1.4
3. Maximum cooling capability over 30kW.
4. No fan requirement, eliminate noise and zero power consumption.
5. Utilized chilled water from existing facilities or dedicate cooling facilities.

How it Works

System fans blow cold air into cabinet and bring hot air toward rear door for heat exchange, these exchanged heat will then send to external cooling system (chiller) by chilled water in rear door, thus air temperature after passing through rear door will equal to or less than room temperature.



Specification

Specification	High Density (30kW)		Standard (20kW)							
Model	KMTS-R30-642-nn	KMTS-R30-842-nn	KMTS-R20-642-nn	KMTS-R20-742-nn	KMTS-R20-842-nn	KMTS-R20-647-nn	KMTS-R20-747-nn	KMTS-R20-652-nn		
Max. Cooling Capacity ^{*2}	45kW (153,548 BTU/Hr)	55kW (187,688 BTU/Hr)	21.6kW (73,710 BTU/Hr)	27.6kW (94,190 BTU/Hr)	30.6kW (104,423 BTU/Hr)	23.2kW (79,170 BTU/Hr)	29.1kW (99,310 BTU/Hr)	25kW (85,315 BTU/Hr)		
Min. Cooling Capacity ^{*3}	30.2kW (103,048 BTU/Hr)	41.8kW (142,642 BTU/Hr)	14.6kW (49,825 BTU/Hr)	19.5kW (65,550 BTU/Hr)	22.2kW (75,758 BTU/Hr)	15.6kW (53,235 BTU/Hr)	20.6kW (70,300 BTU/Hr)	16.6kW (56,648 BTU/Hr)		
Coolant Type	Chilled water		Chilled water							
Coolant Capacity	10.0 L (2.7 Gal)	10.8 L (2.85 Gal)	5.7 L (1.5 Gal)	6.8 L (1.8 Gal)	7.3 L (1.9 Gal)	5.9 L (1.56 Gal)	7.0 L (1.85 Gal)	6.1 L (1.6 Gal)		
Coolant Flow Rate	up to 56.8 LPM (15 GPM)	up to 56.8 LPM (14 GPM)	up to 45 LPM (12 GPM)	up to 45 LPM (12 GPM)	up to 45 LPM (12 GPM)	up to 45 LPM (12 GPM)	up to 45 LPM (12 GPM)	up to 45 LPM (12 GPM)	up to 45 LPM (12 GPM)	
Coolant Inlet Temp.	Above dew point		Above dew point							
Max. Work Pressure	690 kPa (100 psi)		690 kPa (100 psi)							
Air Pressure	0.142 inH ₂ O @ 4000 CFM	0.1 inH ₂ O @ 4000 CFM	0.075 inH ₂ O @ 2000 CFM	0.06 inH ₂ O @ 2000 CFM	0.036 inH ₂ O @ 2000 CFM	0.065 inH ₂ O @ 2000 CFM	0.05 inH ₂ O @ 2000 CFM	0.055 inH ₂ O @ 2000 CFM		
Pressure Drop ^{*4*5}	54.5 kPa	57.3 kPa	51.9 kPa	53.1 kPa	54.5 kPa	49.5 kPa	50.7 kPa	47.1 kPa		
Cooling coil	Copper Tube, Aluminum Fin		Copper Tube, Aluminum Fin							
Connector Type	ISO 7241-1 Series B self sealing Quick Connects		ISO 7241-1 Series B self sealing Quick Connects							
Connector Material	Brass or 303 Stainless Steel	Brass or 302 Stainless Steel	Brass or 304 Stainless Steel							
Connector Dimension	3/4" Quick Connects		3/4" Quick Connects							
Connection Location	Top or Bottom Feed		Top or Bottom Feed							
Noise Level	0 dBA		0 dBA							
Suitable Cabinet	42 U*600mm (W)	42 U*800mm (W)	42 U*600mm (W)	42 U*735*740mm (W)	42 U*800mm (W)	45~48 U*600mm (W)	45~48 U*735*740mm (W)	52 U*600mm (W)		
Rear door Dimension	1950 x 600 x 181 mm	1950 x 800 x 181 mm	1950 x 600 x 117 mm	1950 x 735 x 117 mm	1950 x 800 x 117 mm	2160 x 600 x 117 mm	2160 x 735 x 117 mm	2360 x 600 x 117 mm		
Net Weight	43 kg (94.8 lbs)	51.5 kg (113.5 lbs)	29.6 kg (63 lbs)	33 kg (73 lbs)	34 kg (75 lbs)	35 kg (77.2 lbs)	43.8 kg (96.6 lbs)	40.4 kg (89 lbs)		

Note:

*1. Above cooling capability is based on condition listed by ASHRAE, cabinet inlet air flow @120CFM/kW, humidity 50%, coolant inlet temp. for rear door at 18°C (64.4°F)

*2. Max. cooling capacity is estimate with environment temp. at 32°C (89.6°F)

*3. Min. cooling capacity is estimate with environment temp. at 27°C (80.6°F)

*4. Data for 30kW rear door is measure under coolant flow rate at 56.8 LPM (15 GPM)

*5. Data for 20kW rear door is measure under coolant flow rate at 45.4 LPM (12 GPM)

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