

Date 27.04.09  
Offer number 1.212  
Reference  
Software Version TKEY 7.30 06/06

To

**MODEL P30-170 Ev S / \_ S (Ev:35,2/76,4mm) (S2:76,4mm)**

#### **BPHE EVAPORATOR**

##### **BRAZED PLATE HEAT EXCHANGERS**

The basic concept for a BPHE is stainless steel (AISI 316) plates, permanently brazed together with pure copper (99,9% Cu). The plates are stacked together and form flow chambers for two or more medias. Every second plate is alternatively rotated 180° and creates flow chambers for the medias. Thermokey has developed a new type of BPHE for evaporator applications, as well as for high value systems.

The new type BPHE is smaller, cheaper and more secure than other heat exchangers.

##### **EV- SYSTEM**

Thermokey has invented the latest evaporator distribution system, EV-system in order to avoid bad distribution. It both breaks down the liquid drops in the refrigerant and distributes it over the entire plate package. To make "on-off" systems more precise, Thermokey has found a solution to evaporate the liquid that normally builds up in the BPHE during non-operation.

##### **QUALITY**

The new type Thermokey's BPHE are PED-CE (Dir. 97/23 CE) certified and 100% of the BPHE are pressure and vacuum tested.

##### **Primary connection circuit**

Evaporator with EV-System

##### **Primary conn. circuit dimensions**

IN 35,2mm/OUT 76,4mm

##### **Secondary connection circuit**

Soldered

##### **Secondary conn. circuit dimensions**

IN/OUT 76,4mm

##### **Secondary connection circuit Bottom Plate**

None

##### **Feet and lifting lugs**

Soldered

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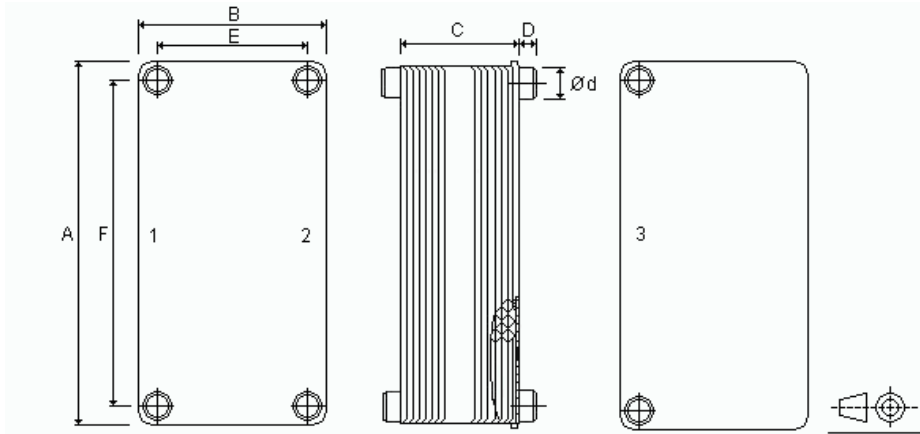
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TECHNICAL DATA				
<b>Capacity [kW]</b>	Effective	141,4	Reserve [%]	-0,40
	Required	142,0		
<b>REFRIGERANT SIDE</b>				
Refrigerant		R134a		
Evaporating temperature [°C]		4,0	Superheating temp. difference	5,0
Condensing temperature [°C]		58,0	Subcooling temp. difference [K]	5,0
<b>FLUID SIDE</b>				
Fluid		WASSER		
Entering temperature [°C]		12,0	Leaving temperature [°C]	6,0
Flow rate [m³/h]		20,21	Pressure drops [kPa]	3
Fouling factor		0,000043		



DIMENSIONS [mm]			
A	782	G	O
B	265	H	R
C	507	K	S
D	27	L	T
E	220	M	U
F	655	N	X

CONNECTIONS	
STD a saldare	76,2
STD EV-system	35,2
STD filettate	2 " 1/2

<b>VOLUME 1</b>
44,52
<b>VOLUME 2</b>
45,05
<b>WHEIGHT</b>
162