



Brazed Plate Heat Exchangers

Lehimli Plakalı Isı Değiştiricileri



Introduction

In the field of HVAC&R, such as heat pump, electric bus A/C and energy storage battery cooling are typical applications where renewable energies are used and inside of those you will find brazed plate heat exchangers (BPHEs) are playing very important roles.

Genel Tanım

HVAC&R alanında, ısı pompası, elektrikli otobüs kliması ve enerji depolama bataryası soğutması gibi, yenilenebilir enerjilerin kullanıldığı tipik uygulamalarda, bu uygulamaların içinde lehimli plakalı ısı değiştiricilerin (BPHE'ler) çok önemli roller oynadığı görülmektedir.

Model	Max no. of Plates	Max flow [m ³ /h]	Max working Pressure [MPa]	Working Temperature	Volume per Channel [L]	Weight w/o connection(kg)	Flow Direction	Pack [qty]
S6	60	1.7	5.0	-196/+225	0.005/0.005	0.12+0.018N	Parallel flow	
S11A	60	1.7	3.0/5.0(optional)	-196/+225	0.0069/0.0069	0.53+0.034N	Parallel flow	
S12B	60	1.7	5.0	-196/+225	0.009/0.009	0.66+0.042N	Parallel flow	
S14B	60	4	5.0	-196/+225	0.026/0.026	0.68+0.048N	Parallel flow	
S20	60	4	3.0/5.0(optional)	-196/+225	0.04/0.04	0.72+0.068N	Parallel flow	
S20B	60	4	3.0/5.0(optional)	-196/+225	0.024/0.024	0.97+0.069N	Parallel flow	
S40A	120	8.8	5.0	-196/+225	0.0486(F1F2)/0.0422(F3F4)	1.26+0.106N	Parallel flow	
S60	120	17	3.0/5.0(optional)	-196/+225	0.11/0.11	2.6+0.18*N	Parallel flow	
S60B	120	17	3.0/5.0(optional)	-196/+225	0.0967(F1F2)/0.0863(F3F4)	2.2+0.168*N	Parallel flow	

Technical Specifications

- Plate : SUS 316L/SUS 304
- Connection : SUS 304
- Solder : Copper

Teknik Özellikler

- Plaka : SUS 316L/SUS 304
- Bağlantı : SUS 304
- Kaynak : Bakır

Below table is showing the recommended applications with different models:

	S6	S11A	S12B	S14B	S20	S20B	S40A	S60	S60B
550mm									
450mm									
350mm									
250mm									
150mm									
50mm									
	54x119	76x154	77x192	77x213	75x317	76x318	118x332	120x527	120x527[mm]

Designation of SANHUA BPHE

S 200 A H - 50 H Z - XX

- Design serial number (except boiler). 2 digits like 01,02..., including connections and bolts etc.
- Presence of distributor such as Z, in case of vacant: w/o distributor.
- Fishbone angle: H(large angle), L(small angle) and M(mixed).
- Numbers of plate, such as 8,20 and 50 etc.
- Design Pressure, H: up to 50bar, L: up to 30bar.
- Internal structure, with letter of A, B, C...including layout of plate, depth of plate and pitch of holes etc.
- Nominal heat transfer area, such as 20, 95 and 200, unit: 1/1000m².
- Application: S=Standard HVAC&R, A=Air drier, B=Boiler, L=Open Type.

	S6	S11A	S12B	S14B	S20	S20B	S40A	S60	S60B
Capacity(Kw)*	1-5	1-8	1-10	2-15	2-25	2-25	5-40	10-90	10-90
Capacity(Ton)*	0.3-1.4	0.3-2.3	0.3-2.8	0.6-4.3	0.6-7	0.6-7	1.4-11	2.8-26	2.8-26
Asymmetric	-	-	-	-	-	-	x	-	x
Reduced Depth	-	x	x	-	-	x	-	-	-
Distributor Option	-	-	-	-	-	-	x	-	x
VRF_Eco	x		x		x	x			
ATW/ATA HP_Eco	x	x			x	x			
ATW/GHP HP_Con							x	x	x
Mini Chiller_Con/Evp							x		
E-Bus_Battery Cooling		x							
Energy Storage Cooling			x	x			x		x
Transport_Eco/SuctionGas HX				x	x	x			
Water Chiller_Evp					x	x	x		x
Water Chiller_Eco								x	x
Ref_Rack Eco					x	x			
Ref_Waterloop_Con	x	x							
Oil Cooler								x	x

Note: * The cooling capacities are based on R410A, condensing temperature 40°C, 5K subcooling, water inlet/outlet temperature 12°C/7°C, 5K superheat.