

Smart Refrigeration



HYFRA sigma



HYFRA sigma water chiller 5 kW – 320 kW, plug and play or specified for customer needs. Microchannel technology for highest efficiency.

HYFRA gamma



Immersion chiller 5 kW – 80 kW for oil or emulsion to be fitted directly into the coolant tank. Stainless steel evaporator with optimal usage of the ground floor.

HYFRA alpha



Circulation chiller plug and play 5 kW – 80 kW with plate heat exchanger or shell in tube evaporator for easy maintenance and cleaning.

HYFRA chilly



Table or small chiller 0,8 – 6 kW, big capacity in ultra compact housing with digital thermostat.

Liquid Chiller

Plug and Play package chiller



HYFRA alpha series

- Plug and Play unit, easy to connect
- Compact design due to micro-channel technology
- Optimized footprint: 80kW cooling capacity in a 1 m² package
- Energy efficient: reduced power consumption
- Low noise level: for indoor factory hall usage
- Environmental friendly: up to 60% less refrigerant gas
- High range of temperature



Datas, pictures and drawings without obligation and subject to changes – 09/13

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Energy
efficiency
Environment



5 ■■■■ 80 kW

efficient process cooling – made in Germany

TECHNICAL DATAS

	HYFRA alpha		5	7	9	13	16	18	22	28	34	42
ambient temp. °C	emulsion	oil	cooling capacity									
	°C	°C	kW									
32	10	15	3,2	5,2	6,6	9,7	11,8	14,1	16,9	21,4	25,7	31,4
	15	20	4,0	6,2	7,8	11,5	13,9	16,6	20,0	25,3	29,9	37,0
	20	25	4,5	6,9	8,7	12,6	15,4	18,3	21,7	28,0	33,5	41,5
37	10	15	2,8	5,1	6,0	9,1	10,9	13,1	16,4	20,2	23,9	29,6
	15	20	3,6	6,1	7,2	10,7	13,0	15,7	19,2	23,9	28,2	34,9
	20	25	4,1	6,7	7,9	11,8	14,4	17,2	20,5	26,2	31,1	37,9
42	10	15	3,2	4,7	5,9	8,7	9,1	12,9	15,6	19,6	22,9	25,0
	15	20	3,4	5,7	7,1	10,2	11,4	15,4	18,5	22,9	27,4	30,9
	20	25	3,9	6,4	7,9	11,2	13,0	17,0	20,1	26,6	30,2	35,0

EMULSION

refrigerant			R134a	R410A								
refrigerant charge		kg	1,5	1,1	1,1	1,2	1,4	2,1	2,2	2,3	2,7	3,0
sound pressure level*(1) user side		dB(A)	68					64				71
power consumption max. *(2)		kW	4,0	4,4	5,0	6,4	7,1	7,4	9,1	11,5	13,7	17,5
current consumption max. *(2)		A	7,6	8,4	8,7	9,4	13,4	14,5	19,2	22,1	26,0	29,6
condenser			1									
air flow rate max.		m³/h	4500					6000			6800	10000
connection inlet/outlet		inch	1 1/4					1 1/2				
A / B / C		mm	715 / 715 / 1545					1000/1000/2000				
weight (approx.)		kg	160	170	170	190	190	290	290	310	310	340

OIL

refrigerant			R134a	R410A								
refrigerant charge		kg	1,5	1,1	1,1	1,2	1,4	2,1	2,2	2,3	2,7	3,0
sound pressure level*(1) user side		dB(A)	68					64				71
power consumption max. *(2)		kW	4,3	4,7	5,3	6,7	7,4	8,8	10,5	12,9	15,0	18,9
current consumption max. *(2)		A	8,7	9,5	9,8	10,5	14,5	16,9	21,6	24,5	28,5	32,1
condenser			1									
air flow rate max.		m³/h	4500					6000			6800	10000
connection inlet/outlet		inch	1 1/2					2				
A / B / C		mm	715 / 715 / 1545					1000/1000/2000				
weight (approx.)		kg	160	170	170	190	190	290	290	310	310	340

*(1) sound pressure level measured in free field at a distance of 1m and 1,2m height with tolerance of +/- 1dB(A)

*(2) at 42°C ambient temperature and 20°C medium temperature

Technical datas temporarily
Max. viscosity ISO VG 32

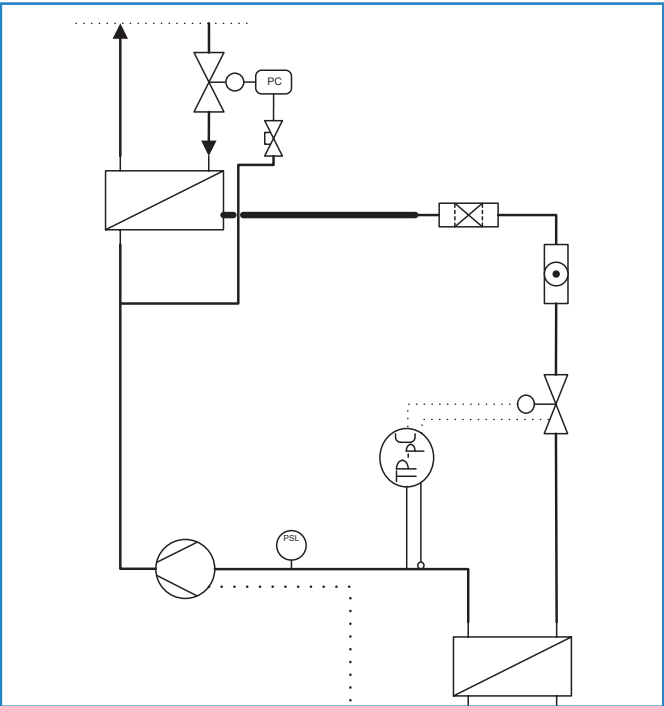
TECHNICAL DESCRIPTIONS:

- Emulsion / oil cooling
- Frame made in stainless steel
- Easy to clean copper-nickel plated evaporator (only for emulsion/oil)
- Plate heat exchanger made of stainless steel (only for water)
- Chiller IP 54
- Micro channel condenser made in Aluminum
- Standard-chiller up to 42°C ambient temp. allowable
- Free programmable temperature control with digital thermostat +/- 1,0 K
- Economical and low-noise Scroll compressor
- External starting function of chiller
- Potential free collected failure alarm
- Star/Delta speed control
- Individual housing color (optional, RAL color)

OPTIONS:

- DC control voltage
- Manometer at medium outlet
- All common power supplies possible
- More powerful air fan for higher exhaust air pressure
- Cut-off valve for I/Outlet
- Cable identification / marking electrical wires
- Harting- or Wieland connectors
- Exact temperature control, e.g. +/- 0,1 K
- Ambient temperature > 42° C
- Refrigerant R134a
- Differential control
- Water cooled condenser
- Gear pump
- Air inlet filter
- Additional options on demand

Flow chart
with water cooled condenser



Flow chart
with air cooled condenser

