

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.

Immersion Chiller for oil and emulsion Plug and Play immersion chiller



HYFRA gamma 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



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

HYFRA gamma - Plug and Play immersion chiller

TECHNICAL DATAS

			gamma 5	gamma 7	gamma 9	gamma 13	gamma 16	gamma 18	gamma 22
ambient temp. °C	emulsion °C	oil °C	cooling capacity kW						
32	10	15	3,6	5,6	7,0	10,1	12,2	14,8	17,6
	15	20	4,4	6,6	8,2	11,9	14,3	17,3	20,7
	20	25	4,9	7,3	9,1	13,0	15,8	19,0	22,4
37	10	15	3,2	5,5	6,4	9,5	11,3	13,8	17,4
	15	20	4,0	6,5	7,6	11,1	13,4	16,4	20,7
	20	25	4,5	7,1	8,3	12,2	14,8	17,9	22,4
42	10	15	3,6	5,1	6,3	9,1	9,5	13,6	16,3
	15	20	3,8	6,1	7,5	10,6	11,8	16,1	19,2
	20	25	4,3	6,8	8,3	11,6	13,4	17,7	21,1

EMULSION

refrigerant			R134a	R410A						
refrigerant charge		kg	1,3	1,3	1,3	1,4	1,6	2,5	2,5	
sound pressure level*(1) user side		dB(A)	68						64	
power consumption max. *(2)		kW	3,6	4,0	4,6	6,0	6,7	6,6	8,3	
current consumption max. *(2)		A	6,6	7,4	7,7	8,4	12,4	12,5	17,2	
condenser		1								
air flow rate max.		m³/h	4500						6000	
A / B / C		mm	785/785/1310			785/785/1410			1085/1085/1940	
hight of machinery top		mm	815						1280	
lenght of immersion part		mm	715						1000	
width of immersion part		mm	715						1000	
immersion depth		mm	500			600			660	
minimum coolant level		mm	60		80		110		130	150
weight (approx.)		kg	130		130	140	150	160	250	260

OIL

refrigerant			R134a	R410A						
refrigerant charge		kg	1,5	1,5	1,6	1,7	1,9	3,2	3,5	
sound pressure level*(1) user side		dB(A)	68						64	
power consumption max. *(2)		kW	3,6	4,0	4,6	6,0	6,7	6,6	8,3	
current consumption max. *(2)		A	6,6	7,4	7,7	8,4	12,4	12,5	17,2	
condenser			1							
air flow rate max.		m³/h	4500						6000	
A / B / C		mm	785/785/1215			785/785/1315			1085/1085/1940	
hight of machinery top		mm	815						1280	
lenght of immersion part		mm	715						1000	
width of immersion part		mm	715						1000	
immersion depth		mm	500			600			660	
minimum coolant level		mm	110	150	200			220	240	
weight (approx.)		kg	140	140	150	160	170	280	310	

*(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:

- Agitator for better heat transfer
- Frame and evaporator made in stainless steel
- Economical and low-noise Scroll compressor
- Micro channel condenser made in Aluminum
- Free programmable temperature control with digital thermostat +/- 1,0 K
- External starting function of chiller
- Star/Delta speed control
- Air inlet filter
- Potential free collected failure alarm
- Individual housing color (optional, RAL color)

OPTIONS:

- Speed-controlled compressor or fan
- DC control voltage
- All common power supplies possible
- More powerful air fan for higher exhaust air pressure
- Harting- or Wieland connectors
- Exact temperature control, e.g. +/- 0,1 K
- Ambient temperature > 42° C
- Refrigerant R134a or R404A
- Differential control
- Water cooled condenser
- Additional options on demand

HYFRA gamma - Plug and Play immersion chiller

TECHNICAL DATAS

			gamma 28	gamma 34	gamma 42	gamma 52	gamma 56	gamma 67	gamma 80
ambient temp. °C	emulsion °C	oil °C	cooling capacity kW						
32	10	15	22,1	26,4	32,1	39,6	44,3	52,8	64,3
	15	20	26,0	30,6	37,7	46,2	52,1	61,3	75,5
	20	25	28,7	34,2	42,2	52,5	57,4	68,5	84,5
37	10	15	20,9	24,6	30,3	35,9	41,9	49,3	60,6
	15	20	24,6	28,9	35,6	42,8	49,2	57,9	71,2
	20	25	26,3	31,8	38,6	49,7	52,7	63,8	77,8
42	10	15	20,3	23,6	25,7	34,0	40,7	47,2	51,4
	15	20	24,2	28,1	31,6	40,9	48,5	56,3	63,3
	20	25	26,3	30,9	35,7	48,0	52,7	62,0	71,4

EMULSION

refrigerant			R410A						
refrigerant charge		kg	2,6	3,0	3,3	4,8	6,0	7,5	8,5
sound pressure level*(1) user side		dB(A)	64			71			72
power consumption max. *(2)		kW	10,7	12,9	16,7	18,9	18,7	25,1	28,9
current consumption max. *(2)		A	20,1	23,9	27,5	32,3	32,1	42,3	47,5
condenser			1			2			
air flow rate max.		m³/h	6000	6800	10000	10800	15500		
A / B / C		mm	1085/1085/1940						
hight of machinery top		mm	1280						
lenght of immersion part		mm	1000						
width of immersion part		mm	1000						
immersion depth		mm	660						
minimum coolant level		mm	180	220	240		340	410	520
weight (approx.)		kg	270	280	290	320	330	340	350

OIL

refrigerant			R410A						
refrigerant charge		kg	3,7	4,6	4,7	6,7	8,3	10,4	11,2
sound pressure level*(1) user side		dB(A)	64			71			72
power consumption max. *(2)		kW	10,7	12,9	16,7	19,0	18,8	25,2	29,0
current consumption max. *(2)		A	20,1	23,9	27,5	32,8	32,3	42,5	47,7
condenser			1			2			
air flow rate max.		m³/h	6000	6800	10000	10800	15500		
A / B / C		mm	1085/1085/1940			1605/1085/1940			
hight of machinery top		mm	1280						
lenght of immersion part		mm	1000						
width of immersion part		mm	1000			1515			
immersion depth		mm	660						
minimum coolant level		mm	340	410	520	240	340	410	520
weight (approx.)		kg	330	360	390	410	420	440	460

*(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

