

# Hyperchill Plus Industrial Water Chiller

## Technical Data

Model ICEP		002-W	003-W	005-W	007-W	010-W	014-W	020-W	024-W	030-W	040-W	050-W	060-W
Cooling capacity <sup>1</sup>	kW	1.7	3.3	5.2	7.8	10.8	14.6	20.3	23.6	29.7	40.6	49.0	58.3
Compressor abs. power <sup>1</sup>	kW	0.7	1.3	1.4	1.7	2.5	3.2	4.4	5.4	5.7	7.5	10.0	12.3
SEPR <sup>3</sup>		3.15	3.73	4.5	4.55	4.86	4.73	4.53	4.51	4.76	5.13	5.12	5.11
Power supply	V/ph/Hz	230/1/50					400/3/50						
Protection index		33					54						
Refrigerant		R407c											

## Compressor

Type		hermetic pistons					scroll						
Compressors / circuit		1 / 1											
Max.abs. power <sup>1</sup> compressor	kW	0.7	1.3	1.5	2.4	3.8	4.4	5.7	6.6	8.3	11.4	14.9	17.3

## Axial Fans

Quantity	n.°	1	1	1	1	1	1	2	2	2	2	2	2
Max. abs. power <sup>1</sup> fan	kW	0.07	0.12	0.12	0.3	0.3	0.4	0.4	0.4	0.45	0.69	0.69	0.69
Air flow	m <sup>3</sup> /h	430	1295	1295	3437	3437	4337	6878	6159	9437	16029	15215	16875

## Water Cooled Version

Condenser water flow	m <sup>3</sup> /h	N.A.					1.5	2.1	2.5	2.9	3.9	5.1	5.9
Condenser connections	in	N.A.					¾"	¾"	¾"	1"	1¼"	1¼"	1¼"

## Pump P30

Max.abs.power	kW	0.4	0.4	0.4	0.9	0.9	1.0	1.3	1.3	1.3	2.2	2.2	2.2
Water flow (nom./max) <sup>1</sup>	m <sup>3</sup> /h	0.3/1.9	0.6/1.9	0.9/1.9	1.3/4.8	1.8/4.8	2.5/6	3.4/9.6	4.9/9.6	5.1/9.6	6.9/18	8.4/18	10.1/18
Head pressure (nom./max) <sup>1</sup>	m H <sub>2</sub> O	35/5	33/5	26/5	30/12.8	29/12.8	29/21	29/17.3	28/17.3	26/17.3	29/23.1	27/23.1	25/23.1

## Weights & Dimensions

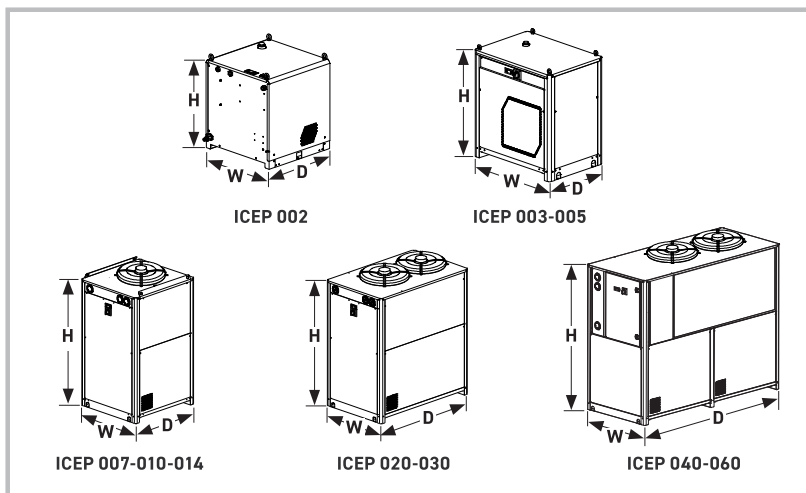
Width	mm	520	755	755	756	756	756	756	756	756	856	856	856
Depth	mm	500	535	535	806	806	806	1206	1206	1206	1956	1956	1956
Height	mm	550	801	801	1405	1405	1405	1405	1405	1405	1680	1680	1680
Connections in/out	in	½"	¾"	¾"	¾"	¾"	¾"	1"	1"	1"	1½"	1½"	1½"
Tank capacity	l	15	15	22.5	65	65	65	100	100	130	250	250	250
Weight (axial)	kg	40	80	85	160	165	175	220	230	250	450	470	510
Weight (water cooled)	kg	n/a	n/a	n/a	n/a	n/a	175	220	230	250	450	470	510

## Noise level

Sound pressure (axial) <sup>2</sup>	dB(A)	52	52	52	53	53	50	50	50	51	52	52	53
-------------------------------------	-------	----	----	----	----	----	----	----	----	----	----	----	----

- At water in/out temperature 20/15°C, glycol 0%, either 25°C ambient temperature (air-cooled models) or 25°C condenser water inlet temperature with 35°C condensing temperature (water-cooled models).
- Referred to axial fan version in free field conditions at a distance of 10 m from unit, measured on condenser side, 1m from ground.
- Value calculated in accordance with the European regulation (EU) 2016/2281 with regards to Ecodesign requirements for high temperature process chillers.

As the manufacturer of process chillers delivering water at a design temperature of 15°C, Parker Hannifin Manufacturing s.r.l., Gas Separation and Filtration Division EMEA, declares that Parker chillers are exempt from Ecodesign EU regulation 2016/2281.



### Correction Factors

<b>A)</b>	<b>Ambient Temperature</b>	°C	5	10	15	20	25	30	35	40	45
	<b>Correction Factor (f1)</b>		1.05	1.05	1.05	1.05	1	0.94	0.89	0.84	0.80
<b>B)</b>	<b>Water Outlet Temperature</b>	°C	5	10	15	20	25				
	<b>Correction Factor (f2)</b>		0.76	0.87	1	1.04	1.04				
<b>C)</b>	<b>Glycol (by weight)</b>	%	0	10	20	30	40				
	<b>Correction Factor (f3)</b>		1	0.99	0.98	0.97	0.96				
<b>D)</b>	<b>Condenser Water Inlet Temp.</b>	°C	20	25	30	35	40				
	<b>Correction Factor (f4)</b>		1.05	1	0.95	0.9	0.85				

To obtain the required cooling capacity, multiply the value at nominal conditions by the above correction factors (i.e. cooling capacity =  $P \times f1 \times f2 \times f3 \times f4$ , where P is the cooling capacity at the water outlet temperature of 15°C). Hyperchill Plus, in its standard configuration, can operate up to ambient temperatures of max. 48°C and min. 5°C and water temperatures of max. 30°C inlet and min. 0°C outlet. The above correction factors are approximative: for a precise selection, always refer to the software selection programme.

# Hyperchill Plus Industrial Water Chiller (50Hz)

## Part Number Breakdown / Product Key

Product Code	Model	-	Fluid to be Cooled	Condenser Section	Power Supply	Pumps	Water Tank	Control Water Temp.	Low Ambient	Low Water	Antifreeze	Fill Kit Mounted	Options
ICEP	002	-	W	A	S	P1	T	C	FS	LW	A	0	P
	003			W	T	P3	0	0	L1	00	0	1	S
	005			T		P5			L2			2	D
	007			B		00			00			3	C
	010			C		D3							1
	014												
	020		W = Water		S = 230V/1Ph/50Hz		T = With Tank			LW = Low Water			
	024				T = 400V/3Ph/50Hz		0 = Without Tank			00 = No Low Water			
	030												
	040		A = Air Axial			P1 = Single Pump 1.5 bar		C = Close Control +/- 0.5°C			A = With Antifreeze		
	050		W = Water			P2 = Single Pump 3 bar		0 = Without Close Control			0 = Without Antifreeze		
	060		T = Tropicalised			P5 = Single Pump 5 bar							
			B = BioEnergy & Aggressive Ambients			00 = No Pump							
			C = High Head Pressure Fans			D3 = Dual Pump 3 bar							
									FS = Fan Speed Control (Low Ambient -10°C)			Without Fill Kit	
									L1 = Low Ambient -10°C (Fan Step Control)			Ambient Manual Fill Kit	
									L2 = Low Ambient -20°C			Ambient Automatic Fill Kit	
									00 = No Low Ambient			Pressurised Fill Kit	
												P = Harting Plug For Signals	
												S = Siemens Electrical Components	
												D = Differential Dynamic Set Point	
												C = Control Panel Cover	
												1 = Manual External Bypass	
												No Character = No Options Selected	

## Versions

	ICEP002-W	ICEP003-W	ICEP005-W	ICEP007-W	ICEP010-W	ICEP014-W	ICEP020-W	ICEP024-W	ICEP030-W	ICEP040-W	ICEP050-W	ICEP060-W
Open Circuit	•	•	•	Available with ambient manual fill kit fitted								
Closed Circuit			•	•	•	•	•	•	•	•	•	•
Air Cooled with Axial Fans	•	•	•	•	•	•	•	•	•	•	•	•
Air Cooled with High Head Pressure Fan For Air Channeling										•	•	•
Water Cooled						•	•	•	•	•	•	•

# Hyperchill Plus Industrial Water Chiller (50Hz)

## Standard Part Numbers - Air Cooled with Axial Fans

Hyperchill Plus Air Cooled with axial fans (non ferrous open hydraulic circuit with tank and 3 bar pump)	
ICEP002-W	ICEP002-WASP3T0000001
ICEP003-W	ICEP003-WASP3T0000001
ICEP005-W	ICEP005-WASP3T0000001
Hyperchill Plus Air Cooled with axial fans (non ferrous pressurized closed hydraulic circuit with tank and 3 bar pump)	
ICEP005-W	ICEP005-WASP3T0000000
ICEP007-W	ICEP007-WATP3T0000000
ICEP010-W	ICEP010-WATP3T0000000
ICEP014-W	ICEP014-WATP3T0000000
ICEP020-W	ICEP020-WATP3T0L10000
ICEP024-W	ICEP024-WATP3T0L10000
ICEP030-W	ICEP030-WATP3T0L10000
ICEP040-W	ICEP040-WATP3T0L10000
ICEP050-W	ICEP050-WATP3T0L10000
ICEP060-W	ICEP060-WATP3T0L10000

## Options & Standard Features - Air Cooled with Axial Fans

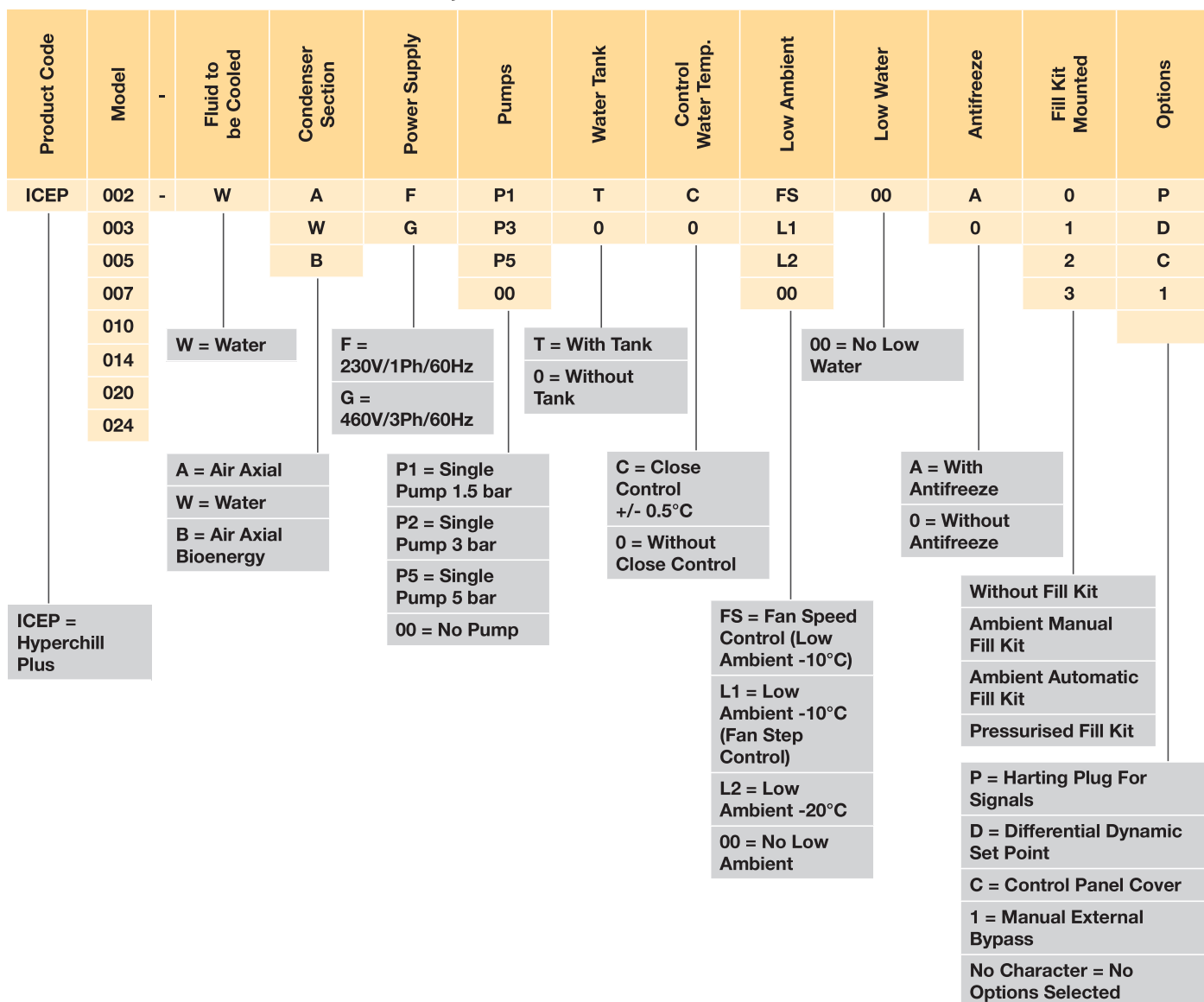
	ICEP002-W	ICEP003-W	ICEP005-W	ICEP007-W	ICEP010-W	ICEP014-W	ICEP020-W	ICEP024-W	ICEP030-W	ICEP040-W	ICEP050-W	ICEP060-W
Differential pressure switch	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard
MODBUS				standard	standard	standard	standard	standard	standard	standard	standard	standard
Eyebolts	standard	standard	standard	standard	standard	standard						
Non ferrous hydraulic circuit with water tank and 3 bar pump	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard
Low ambient -10°C with fan step control							standard	standard	standard	standard	standard	standard
No tank	•	•	•	•	•	•	•	•	•	•	•	•
No tank & no pump	•	•	•	•	•	•	•	•	•	•	•	•
No pump	•	•	•	•	•	•	•	•	•	•	•	•
P50 (5 bar pump)		•	•	•	•	•	•	•	•	•	•	•
P15 (1.5 bar pump)				•	•	•	•	•	•	•	•	•
Dual pump P30 (3 bar pump)										•	•	•
Harting plug	•	•	•	•	•	•	•	•	•	•	•	•
Close control (+/- 0.5°C)		•	•	•	•	•	•	•	•	•	•	•
Low water -10°C				•	•	•	•	•	•	•	•	•
Low ambient -10°C with fan speed control				•	•	•	•	•	•	•	•	•
Low ambient -20°C with fan speed control, crankcase heater and electrical panel heater				•	•	•	•	•	•	•	•	•
Antifreeze heating				•	•	•	•	•	•	•	•	•
BioEnergy & aggressive ambients protection				•	•	•	•	•	•	•	•	•
Tropicalization (53°C)						•	•	•		•	•	
Differential dynamic set point				•	•	•	•	•	•	•	•	•



# Hyperchill Plus Industrial Water Chiller (60Hz UL\*)

\*ICEP002: UL Compliant / ICEP003-024: UL Listed

## Part Number Breakdown / Product Key



## Versions

	ICEP002-W	ICEP003-W	ICEP005-W	ICEP007-W	ICEP010-W	ICEP014-W	ICEP020-W	ICEP024-W
Open Circuit	•	•	•	Available with ambient manual fill kit fitted				
Closed Circuit			•	•	•	•	•	•
Water Cooled						•	•	•

# Hyperchill Plus Industrial Water Chiller (60Hz UL\*)

## Standard Part Numbers - Air Cooled with Axial Fans

Hyperchill Plus Air Cooled with axial fans (non ferrous open hydraulic circuit with tank and 3 bar pump)	
ICEP002-W	ICEP002-WAFP3T0000001
ICEP003-W	ICEP003-WAFP3T0000001
ICEP005-W	ICEP005-WAFP3T0000001
Hyperchill Plus Air Cooled with axial fans (non ferrous pressurized closed hydraulic circuit with tank and 3 bar pump)	
ICEP005-W	ICEP005-WAFP3T0000000
ICEP007-W	ICEP007-WAGP3T0000000
ICEP010-W	ICEP010-WAGP3T0000000
ICEP014-W	ICEP014-WAGP3T0000000
ICEP020-W	ICEP020-WAGP3TOL10000
ICEP024-W	ICEP024-WAGP3TOL10000

## Options & Standard Features - Air Cooled with Axial Fans

	ICEP002-W	ICEP003-W	ICEP005-W	ICEP007-W	ICEP010-W	ICEP014-W	ICEP020-W	ICEP024-W
Differential pressure switch	standard	standard	standard	standard	standard	standard	standard	standard
MODBUS				standard	standard	standard	standard	standard
Eyebolts	standard	standard	standard	standard	standard	standard		
Non ferrous hydraulic circuit with water tank and 3 bar pump	standard	standard	standard	standard	standard	standard	standard	standard
Low ambient -10°C with fan step control							standard	standard
No tank	•	•	•	•	•	•	•	•
No tank & no pump	•	•	•	•	•	•	•	•
No pump	•	•	•	•	•	•	•	•
P50 (5 bar pump)		•	•	•	•	•	•	•
P15 (1.5 bar pump)				•	•	•	•	•
Harting plug for signals	•	•	•	•	•	•	•	•
Close control (+/- 0.5°C)		•	•	•	•	•	•	•
Low water -10°C				•	•	•	•	•
Low ambient -10°C with fan speed control				•	•	•	•	•
Low ambient -20°C with fan speed control, crankcase heater and electrical panel heater				•	•	•	•	•
BioEnergy & aggressive ambients protection				•	•	•	•	•
Differential dynamic set point				•	•	•	•	•

# Hyperchill Plus - Kits and Accessories

## Available Kits and Accessories

	ICEP002-W	ICEP003-W	ICEP005-W	ICEP007 - ICEP014	ICEP020 - ICEP030	ICEP040 - ICEP060
<b>Fill kit - ambient manual***</b> Non-ferrous ambient manual kits, for water filling in any installation.				398H785314	398H785314	398H785314
<b>Fill kit - ambient automatic***</b> Non-ferrous ambient automatic kits, for water filling in any installation.				398H785316	398H785316	398H785316
<b>Fill kit - pressurised automatic with expansion tank***</b> Non-ferrous pressurized, automatic kits, with expansion tank. For water filling in any installation.			398H785312	398H785304	398H785304	398H785304
<b>Remote control - base</b> Base version for remote ON/OFF and general alarm monitoring.	398H785009	398H785009	398H785009	398H785010	398H785010	398H785010
<b>Remote control - advanced</b> Advanced version for complete remote unit monitoring.				398H785307	398H785307	398H785307
<b>Wheels</b> For ease of transport.	398H785302	398H785301	398H785301	398H785301		
<b>Control panel cover***</b>				398H785303	398H785303	398H785303
<b>Manual external bypass***</b> Non-ferrous, externally adjustable allowing the correct flow through the system to be set.		398H785305	398H785305	398H785305	398H785306	398H785317

\*\*\*From model ICEP007: ambient manual and automatic fill kit, pressurised automatic fill kit, control panel cover, manual external bypass can be supplied already installed or loose.

