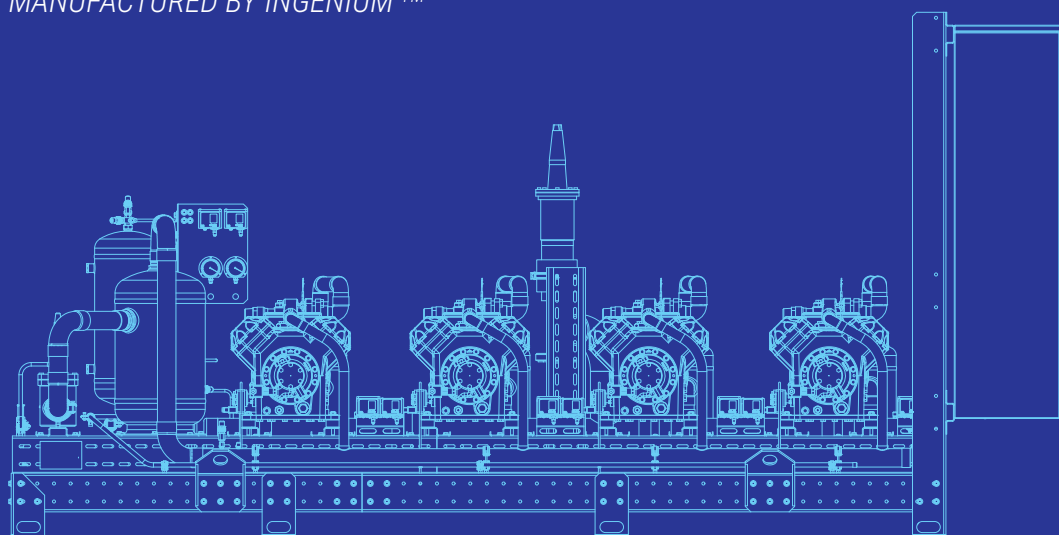


TECHNICAL CATALOGUE



PRODUCT CATALOGUE

MANUFACTURED BY INGENIUM™



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I-CU series cooling units

Semi-hermetic reciprocating compressor type

units with cooling capacity from 1 kW to 460 kW

Semi-hermetic screw compressor type

units with cooling capacity from 12 to 1710 kW

Hermetic scroll compressor type

units with cooling capacity from 2 to 228 kW

Compressor-condenser unit

cooling capacity from 3 to 1500 kW

Heat pump unit

with capacity from 3 to 1500 kW

I-CC series cooling units

Liquid cooling systems - chillers

Semi-hermetic screw compressor type

units with cooling capacity from 65 to 1600 kW

Semi-hermetic reciprocating compressor type

units with cooling capacity from 1,5 to 460 kW

Hermetic scroll compressor type

units with cooling capacity from 2 to 150 kW

I-RU series receiver units

I-PU series pumping units

Cooling units are completed with the original INGENIUM control panels



The company
conforms
ISO-2015 QMS



INGENIUM™
equipment meets the EEU
requirements

Field of Application

Food and Processing Industry

- edible food and food raw material process cooling and freezing
- food storage maintenance (meat, poultry, fish, milk, cheese, vegetable oil, beer, beverages, bread, confectionary products and etc.)
- vegetable and fruit long-term CA-storage maintenance (vegetable and fruit storehouse type implementation)
- handling and storage
- process air-conditioning of manufacturing areas

Chemical Industry

clean ethylene, propane, propylene content intake from petroleum and natural gas refinery, synthetic material and nitrogenous fertilizers industrial manufacturing

Construction

indoor climate control systems

Nuclear Industry

cooling units

Mining Industry

soil freezing in hole drilling process

Sports facilities

ice rinks and arenas, winter sports

Data processing centers

temperature control in enclosed space within desired limits

Logistics and Retail

low-temperature food storage facilities, distribution centers, wholesale distribution centers, hypermarkets, industrial freezers and freezing chambers

Pharmaceutical Industry

Industrial freezing facilities in drug manufacturing

Metallurgical engineering

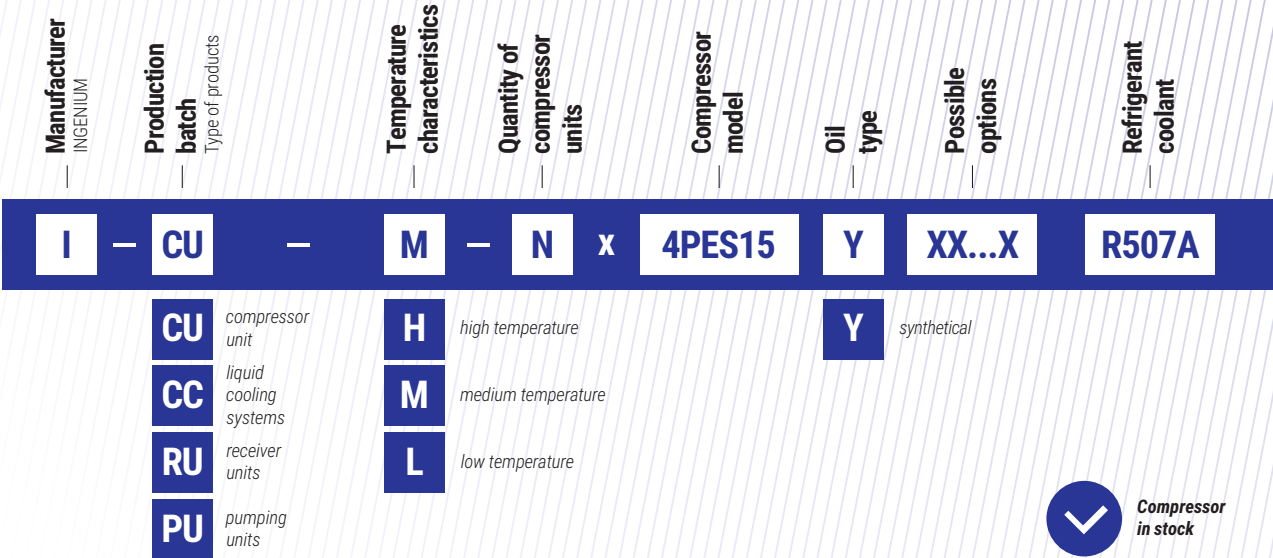
cooling systems in processing: wet blast furnace gas cleaning system

Plastic products

plastic and polymeric materials processing, PET manufacturing, PVC processing, PAP manufacturing, plastic window profile, packing units, cooling systems in injection molding machines and process extrusion lines processing, calender rollers and extruders operating

Shipbuilding Industry

cooling units for fishery products freezing and storage maintenance



End-to-end options description

Option A – vibration dampers

- A1 – vibration isolators set for each compressor
- A2 – vibrating bearings set under frame-mounted compressor unit

Option B – economizer, liquid and steam injector

- B1 – mechanically controlled TEV economizer
- B2 – electronically controlled TEV economizer
- B3 – liquid injection system
- B4 – steam injection system

Option C – check valve

- C1 – discharge reinforced check valve for each compressor unit
- C2 – discharge line check valve following the oil separator

Option D – liquid level sensor

- D1 – refrigerant receiver LLS
- D2 – refrigerant receiver LLS
- D3 – oil receiver tank LLS
- D4 – oil receiver tank HLS
- D5 – oil separator chamber LLS

Option E – control panel

Option F – cylinder heads blowdown fan

Option H – hot gas delivery line for operating the consumers defrosting system

Option K – oil cooling set

- K1 – ODAF system
- K2 – thermosyphon-type oil cooling system
- K3 – liquid-type oil cooling system

Option L – heat insulated liquid separator on suction line for each compressor

Option M – high- and low-pressure gauge

Option O – oil separator chamber equipped with heater, shutoff valve, filter and inspection window

- O1 – oil level indication line equalization line
- O2 – oil level electrically controlled adjusters

Option P – high- and low-pressure switch on suction and discharge line manifold

- P1 – high pressure control switch for condensing fans cooling, single item
- P2 – high pressure control switch for condensing fan cooling, two items
- P3 – high pressure control switch for condensing fan cooling, three items

Option Q – capacity control

- Q1 – master compressor capacity control for one cylinders' module
- Q2 – master compressor capacity control for two cylinders' modules
- Q3 – master compressor capacity control for three cylinders' modules
- Q4 – compressor capacity digital control
- Q5 – frequency regulation unit for master compressor capacity control
- Q6 – two master compressors' capacity frequency control unit

Option R – receiver module and liquid channel

- R1 – receiver unit equipped with shutoff valves, one relief damper, filter drain, inspection window and liquid flow line frame-mounted shutoff valve
- R2 – receiver unit equipped with shutoff valves, two relief dampers and three-way valve, as well as with filter drain, inspection window and liquid line frame-mounted shutoff valve
- R3 – two relief dampers with three-way valve mounted on refrigerant receiver

Option S – UV rays shielded insulation, IP55-compliant pressure switch protection, additional compressor crankcase heating

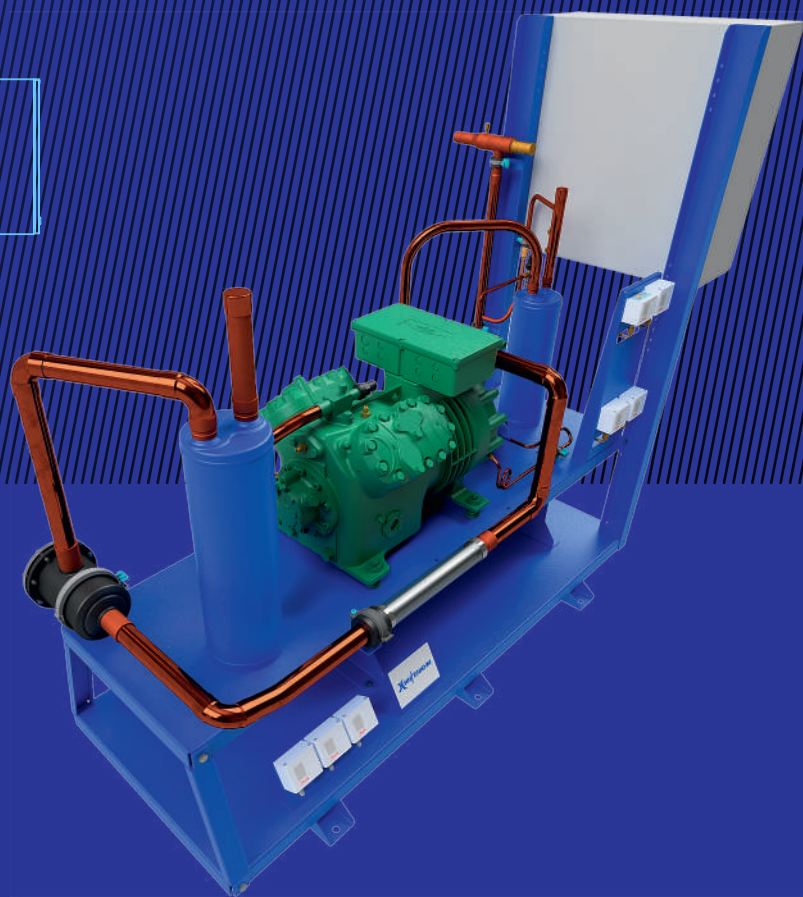
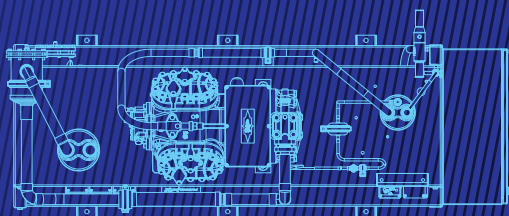
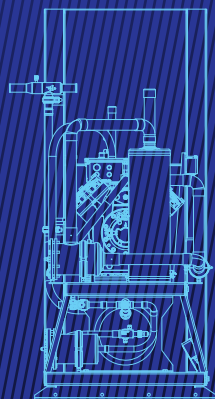
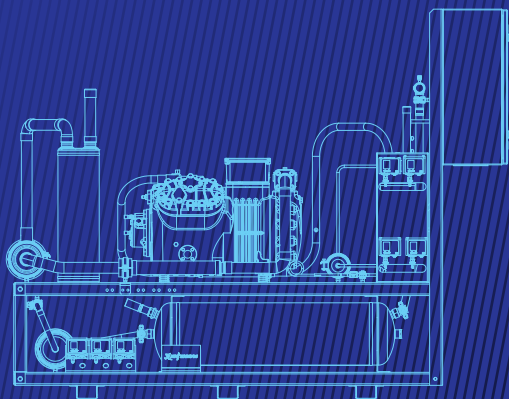
Option T – tubular electric heating element, heating

- T1 – refrigerant receiver heating system

Option V – shutoff valves set

Option W – condensing pressure control system for discharge line

Semi-hermetic reciprocating compressor
type single-compressor units



Compressor units item name

I-CU – L – 4FE28Y – E1LMOP2W R507A

1 2 3 4 5

- Unit type**
I-CU – Ingenium compressor unit
- Temperature level**
(evaporation temperature)
L/M/H – Low/Medium/High
- Compressor unit short name**
In case of different compressor types used, the marking is indicated with " / "
- Options**
refer to "End-to-end options description"
- Refrigerant used**
(optional)

**Semi-hermetic reciprocating compressor type
single-compressor units** *(standard package + options)*

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Standard item list
Semi-hermetic reciprocating compressor equipped with shutoff valves, crankcase heater, engine protection gear and oil pressure relay (within oil pump compressor units), high- and low- pressure switch
Vibration isolator set
Receiver equipped with shutoff valves and relief damper, filter drained liquid flow line system, inspection window and output shutoff valve
Suction line mounted cleaning filter
Painted metal frame
Documentation set

Additional options	
Item name	Marking
Discharge line check valve installed following oil separator unit	C2
Control panel	E
Cylinder heads blowdown fan	F
Heat insulated liquid separator on suction line per 1 compressor	L
High- and low- pressure gauges	M
Oil separator chamber equipped with heater, shutoff valve, filter and inspection window	O
One high-pressure switch to control condensing fans	P1
Two high-pressure switches to control condensing fans	P2
Three high-pressure switches to control condensing fans	P3
Master compressor capacity control for one cylinders' module	Q1
Master compressor capacity control for two cylinders' modules	Q2
Master compressor capacity control for three cylinders' modules	Q3
Frequency regulation unit for master compressor capacity control	Q5
UV rays shielded insulation, IP55-compliant pressure switch protection, additional compressor crankcase heating	S
Refrigerant receiver heating system	T1
Condensing pressure control system for discharge line	W

Compressor units can be equipped with extra-standard items with additional options to be provided on request

Semi-hermetic reciprocating compressor type single-compressor units

Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions LxWxH, mm	Weight, kg	Refrigerant receiver volume, l	Discharge line, mm	Condensing unit drain line, mm	Liquid flow line, mm	Suction line, mm
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Meduim temperature units

R404A / R507A, $t_k = +45^\circ\text{C}$, $t_0 = -10^\circ\text{C}$, SH =10K, SC=2K

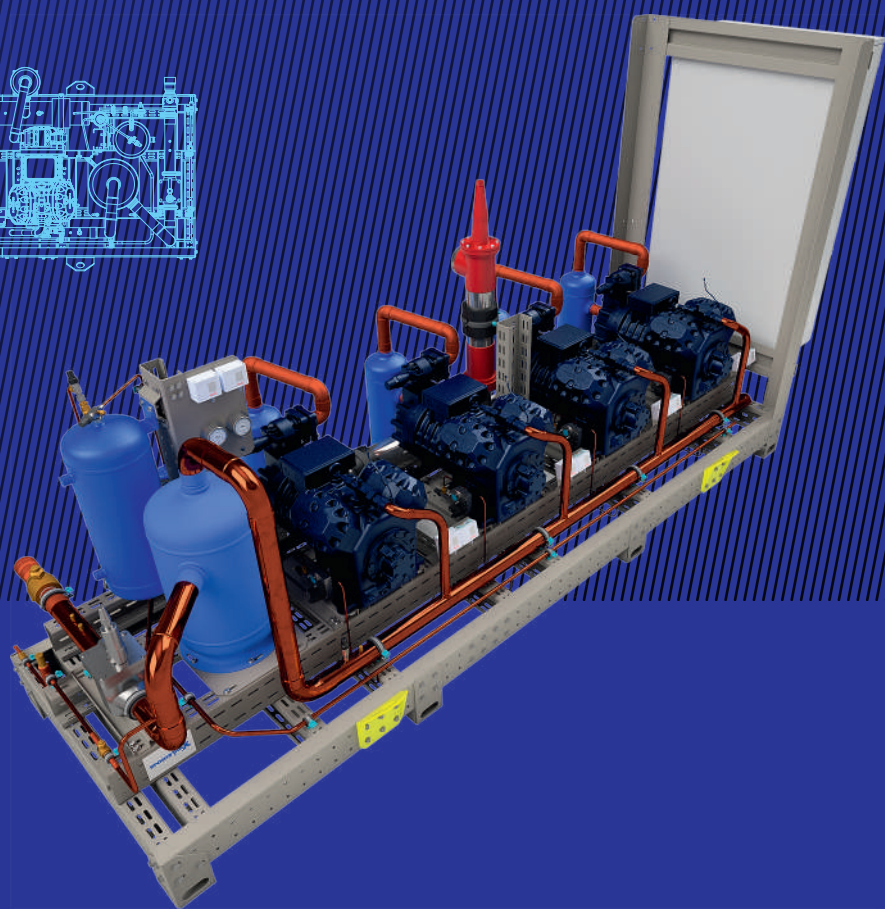
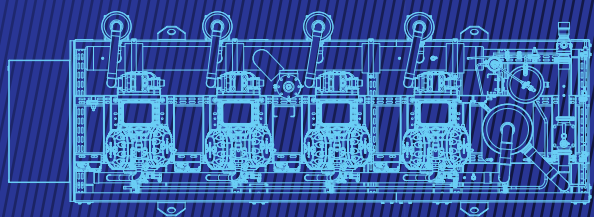
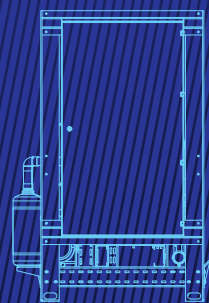
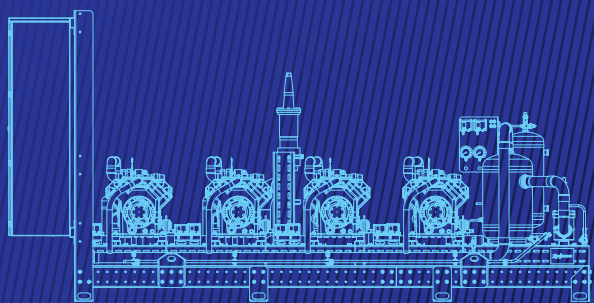
✓ I-CU-M-4DES7Y	12,6	5,9	17,5	1305x600x1255	242	25	16	16	16	28
I-CU-M-4CES6Y	15,7	7,5	18,7	1305x600x1255	247	25	22	22	16	28
✓ I-CU-M-4CES9Y	15,7	7,5	21,2	1305x600x1255	250	25	22	22	16	28
I-CU-M-4BES9Y	17,3	8,3	19,0	1305x600x1255	248	25	22	22	16	28
I-CU-M-4VES7Y	16,2	7,5	17,6	1305x600x1255	284	25	22	22	16	28
I-CU-M-4VES10Y	16,2	7,3	20,9	1305x600x1255	297	25	22	22	16	28
I-CU-M-4TES9Y	19,8	9,2	20,9	1305x600x1255	294	25	22	22	16	28
I-CU-M-4TES12Y	19,7	9,02	26,1	1305x600x1255	321	25	22	22	22	35
✓ I-CU-M-4PES12Y	22,5	10,3	23,7	1305x600x1255	318	25	22	22	22	35
I-CU-M-4PES15Y	22,4	10,2	29,2	1305x600x1255	331	25	22	22	22	35
✓ I-CU-M-4NES14Y	26,9	12,5	27,6	1305x600x1255	326	25	22	28	22	35
I-CU-M-4NES20Y	27,0	12,2	34,2	1655x700x1505	386	25	22	28	22	42
I-CU-M-4JE15Y	31,2	14,1	31,8	1655x700x1505	426	40	22	28	22	42
I-CU-M-4JE22Y	30,4	13,6	38,2	1655x700x1505	432	40	22	28	22	42
✓ I-CU-M-4HE18Y	36,6	16,9	37,7	1655x700x1505	435	40	22	28	22	42
I-CU-M-4HE25Y	35,9	16,2	45,0	1655x700x1505	465	40	22	28	28	54
✓ I-CU-M-4GE23Y	42,4	20,1	44,9	1655x700x1505	467	40	28	28	28	54
I-CU-M-4GE30Y	41,3	18,7	52,2	1655x700x1505	487	40	28	28	28	54
I-CU-M-6JE25Y	46,5	20,9	47,4	1655x700x1505	506	70	28	35	28	54
I-CU-M-6JE33Y	45,0	20,0	54,2	1655x700x1505	515	70	28	35	28	54
✓ I-CU-M-4FE28Y	50,3	23,9	53,8	1655x700x1505	495	70	28	35	28	54
I-CU-M-4FE35Y	49,8	23,3	63,1	1655x700x1505	503	70	28	35	28	54
I-CU-M-6HE28Y	53,8	24,9	54,2	1655x700x1505	517	70	35	35	28	54
I-CU-M-6HE35Y	52,8	24,2	65,4	1655x700x1505	535	70	35	35	28	54
✓ I-CU-M-6GE34Y	62,9	30,1	66,5	1655x700x1505	535	70	35	35	28	54
I-CU-M-6GE40Y	60,2	28,0	74,9	1655x700x1505	551	70	35	35	28	54
✓ I-CU-M-6FE44Y	75,4	36,0	84,2	1655x700x1505	571	70	35	42	28	54
I-CU-M-6FE50Y	73,5	34,6	97,2	1655x700x1505	583	70	35	42	28	54

Low temperature units

R404A / R507A, $t_k = +45^\circ\text{C}$, $t_0 = -25^\circ\text{C}$, SH =10K, SC=2K

✓ I-CU-M-4DES7Y	5,9	4,4	14,6	1305x600x1255	242,47	25	12	16	12	28
✓ I-CU-M-4CES9Y	7,3	5,3	17,5	1305x600x1255	249,71	25	12	16	12	28
I-CU-M-4BES9Y	8,0	5,9	21,2	1305x600x1255	248,35	25	12	16	12	28
I-CU-M-4VES7Y	7,1	5,0	17,6	1305x600x1255	284,19	25	12	16	12	28
I-CU-M-4TES9Y	8,9	6,3	20,9	1305x600x1255	294,18	25	16	22	16	35
✓ I-CU-M-4PES12Y	9,8	6,8	23,7	1305x600x1255	318	25	16	22	16	35
✓ I-CU-M-4NES14Y	12,1	8,5	27,6	1655x700x1505	326,1	25	16	22	16	35
I-CU-M-4JE15Y	14,5	10,1	31,8	1655x700x1505	425,9	40	22	28	22	42
✓ I-CU-M-4HE18Y	17,3	12	37,7	1655x700x1505	434,6	40	22	28	22	42
✓ I-CU-M-4GE23Y	20,4	14,3	44,9	1655x700x1505	467	40	22	28	22	54
I-CU-M-6JE25Y	21,7	14,8	47,4	1655x700x1505	506,3	70	22	28	22	54
✓ I-CU-M-4FE28Y	24,4	17,1	53,8	1655x700x1505	494,7	70	22	28	22	54
I-CU-M-6HE28Y	25,5	17,7	54,2	1655x700x1505	517,1	70	22	28	22	54
✓ I-CU-M-6GE34Y	30,8	21,8	66,5	1655x700x1505	534,6	70	22	35	22	54
✓ I-CU-M-6FE44Y	36,6	26,2	84,2	1655x700x1505	571,2	70	28	35	22	54

Semi-hermetic reciprocating compressor
type multi-compressor units



Compressor units item name

I-CU – L – 4 x H3400CC – E1LMPVW R507A



- 1. Unit type
I-CU – Ingenium compressor unit
- 2. Temperature level
(evaporation temperature)
L/M/H – Low/Medium/High
- 3. Compressor units' quantity
No number marking in case of single item
- 4. Compressor unit short name
In case of different compressor types usage, the marking is indicated with " / "
- 5. Options
refer to "End-to-end options description"
- 6. Refrigerant used
(optional)

Semi-hermetic reciprocating compressor type multi-compressor units (standard package + options)

Standard item list
Semi-hermetically sealed reciprocating compressor equipped with shutoff valves, crankcase heaters, engine protection gear and oil pressure relay within oil pump compressor units, high- and low- pressure switch controller per each compressor unit
Discharge manifold
Oil separator chamber equipped with heater, shutoff valve, filter and inspection window
Receiver unit equipped with shutoff valves, pressure differential valve and one shutoff valve separating oil receiver unit and suction header. Shutoff valve to be installed on the oil delivery line, and electrically operated oil level regulator to be provided for each compressor unit
Suction line mounted cleaning filter
Heat insulated suction manifold
Painted metal frame
Documentation set

Additional options	
Item name	Marking
Vibration isolator set per 1 compressor unit	A1
Vibrating bearings set under frame-mounted compressor unit	A2
Discharge line reinforced check valve per 1 compressor unit	C1
Discharge line check valve following the oil separator	C2
Oil receiver chamber LLS	D3
Oil receiver chamber HLS	D4
Control panel with cable connection	E
Cylinder heads blowdown fan	F
Heat insulated liquid separator to be installed per each compressor suction line	L
High- and low- pressure gauges	M
High- and low- pressure switches to be installed on the suction and discharge manifolds	P
One high-pressure switch to control condensing unit fans	P1
Two high-pressure switches to control condensing unit fans	P2
Three high-pressure switches to control condensing unit fans	P3
Master compressor capacity control for one cylinders' module	Q1
Master compressor capacity control for two cylinders' modules	Q2
Master compressor capacity control for three cylinders' modules	Q3
Frequency regulation unit for master compressor capacity control	Q5
Frequency regulation unit for two master compressors capacity control	Q6
UV rays shielded insulation, IP55-compliant pressure switch protection, additional compressor crankcase heating	S
Shutoff valves' set to be installed on the suction and discharge lines, on pressure regulation line within refrigerant receiver	V
Condensing pressure regulation system within pressure line	W

Compressor units can be equipped with extra-standard items with additional options to be provided on request

Semi-hermetic reciprocating compressor type multi-compressor units

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Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Oil receiver chamber volume, l	Discharge line, mm	Suction line, mm
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Meduim temperature units

R404A / R507A, $t_k = +45^{\circ}\text{C}$, $t_0 = -10^{\circ}\text{C}$, SH =10K, SC=2K

✓ I-CU-M-2x4DES7Y	25,3	11,9	34,0	1700x1300x700	400	8	22	42
I-CU-M-2x4CES6Y	31,5	15,0	36,4	1700x1300x700	400	8	22	42
✓ I-CU-M-2x4CES9Y	31,5	15,0	41,4	1700x1300x700	400	8	22	42
I-CU-M-2x4BES9Y	34,6	16,7	37,0	1700x1300x700	400	8	22	42
I-CU-M-2x4VES7Y	32,4	15,2	34,2	1900x1400x900	450	12	28	54
I-CU-M-2x4VES10Y	32,4	14,6	40,8	1900x1400x900	450	12	28	54
I-CU-M-2x4TES9Y	39,6	18,6	40,8	1900x1400x900	450	12	28	54
I-CU-M-2x4TES12Y	39,5	18,0	51,2	1900x1400x900	450	12	28	54
✓ I-CU-M-2x4PES12Y	45,0	20,6	46,4	1900x1400x900	450	12	28	54
I-CU-M-2x4PES15Y	44,8	20,4	57,4	1900x1400x900	450	12	28	54
I-CU-M-2x4NES14Y	53,8	25,0	54,2	1900x1400x900	450	12	28	54
I-CU-M-2x4NES20Y	54,0	24,4	67,4	1900x1400x900	500	12	28	54
I-CU-M-2x4JE15Y	62,4	28,2	62,6	2000x1400x1000	500	16	35	65
I-CU-M-2x4JE22Y	60,8	27,2	75,4	2000x1400x1000	500	16	35	65
✓ I-CU-M-2x4HE18Y	73,2	33,8	74,4	2000x1400x1000	500	16	35	65
I-CU-M-2x4HE25Y	71,8	32,4	89,0	2000x1400x1000	500	16	35	65
✓ I-CU-M-2x4GE23Y	84,8	40,2	88,8	2000x1400x1000	500	16	35	65
I-CU-M-2x4GE30Y	82,6	37,4	103,4	2000x1400x1000	500	16	35	65
✓ I-CU-M-2x4FE28Y	93,0	41,8	93,8	2000x1400x1000	500	25	42	Дy80
I-CU-M-2x4FE35Y	90,0	40,0	107,4	2000x1400x1000	500	25	42	Дy80
I-CU-M-2x6JE25Y	100,6	47,8	106,6	2000x1400x1000	500	25	42	Дy80
I-CU-M-2x6JE33Y	99,6	46,6	125,2	2000x1400x1000	500	25	42	Дy80
I-CU-M-2x6HE28Y	107,6	49,8	107,4	2000x1400x1000	500	25	42	Дy80
I-CU-M-2x6HE35Y	105,6	48,4	129,8	2000x1400x1000	500	25	42	Дy80
I-CU-M-2x6GE34Y	125,8	60,2	132,0	2000x1400x1000	500	25	42	Дy80
I-CU-M-2x6GE40Y	120,4	56,0	148,8	2000x1400x1000	500	25	42	Дy80
✓ I-CU-M-2x6FE44Y	150,8	72,0	167,4	2000x1400x1000	500	25	42	Дy80
I-CU-M-2x6FE50Y	147,0	69,2	193,4	2000x1400x1000	500	25	42	Дy80

✓ I-CU-M-3x4DES7Y	38,0	17,9	50,5	2400x1300x900	600	12	28	54
I-CU-M-3x4CES6Y	47,3	22,5	54,1	2400x1300x900	600	12	28	54
✓ I-CU-M-3x4CES9Y	47,3	22,5	61,6	2400x1300x900	600	12	28	54
I-CU-M-3x4BES9Y	52,0	25,1	55,0	2400x1300x900	600	12	28	54
I-CU-M-3x4VES7Y	48,6	22,8	50,8	2600x1400x1100	650	12	28	54
I-CU-M-3x4VES10Y	48,6	22,0	60,7	2600x1400x1100	650	12	28	54
I-CU-M-3x4TES9Y	59,4	27,8	60,7	2600x1400x1100	650	12	28	54
I-CU-M-3x4TES12Y	59,3	27,1	76,3	2600x1400x1100	650	12	28	65
I-CU-M-3x4PES12Y	67,5	30,9	69,1	2600x1400x1100	650	16	35	65
I-CU-M-3x4PES15Y	67,2	30,6	85,6	2600x1400x1100	650	16	35	65
✓ I-CU-M-3x4NES14Y	80,7	37,5	80,8	2600x1400x1100	650	16	35	65
I-CU-M-3x4NES20Y	81,0	36,6	100,6	2600x1400x1100	650	16	35	65
I-CU-M-3x4JE15Y	93,6	42,3	93,4	2700x1400x1200	700	25	42	Дy80
I-CU-M-3x4JE22Y	91,2	40,8	112,6	2700x1400x1200	700	25	42	Дy80
✓ I-CU-M-3x4HE18Y	109,8	50,7	111,1	2700x1400x1200	700	25	42	Дy80
I-CU-M-3x4HE25Y	107,7	48,6	133,0	2700x1400x1200	700	25	42	Дy80
✓ I-CU-M-3x4GE23Y	127,2	60,3	132,7	2700x1400x1200	700	25	42	Дy80
I-CU-M-3x4GE30Y	123,9	56,1	154,6	2700x1400x1200	700	25	42	Дy80
✓ I-CU-M-3x4FE28Y	139,5	62,7	140,2	2700x1400x1200	700	25	42	Дy80
I-CU-M-3x4FE35Y	135,0	60,0	160,6	2700x1400x1200	700	25	42	Дy80
I-CU-M-3x6JE25Y	150,9	71,7	159,4	2700x1400x1200	700	25	42	Дy80
I-CU-M-3x6JE33Y	149,4	69,9	187,3	2700x1400x1200	700	25	42	Дy80
I-CU-M-3x6HE28Y	161,4	74,7	160,6	2700x1400x1200	700	25	42	Дy80

Semi-hermetic reciprocating compressor type multi-compressor units

Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Oil receiver chamber volume, l	Discharge line, mm	Suction line, mm
I-CU-M-3x6HE35Y	158,4	72,6	194,2	2700x1400x1200	700	25	42	Дy80
✓ I-CU-M-3x6GE34Y	188,7	90,3	197,5	2700x1400x1200	700	25	54	Дy100
I-CU-M-3x6GE40Y	180,6	84,0	222,7	2700x1400x1200	700	25	54	Дy100
✓ I-CU-M-3x6FE44Y	226,2	108,0	250,6	2700x1400x1200	700	25	54	Дy100
I-CU-M-3x6FE50Y	220,5	103,8	289,6	2700x1400x1200	700	25	54	Дy100
I-CU-M-4x4DES7Y	50,6	23,9	68,0	2650x1300x900	750	16	28	54
I-CU-M-4x4CES6Y	63,0	30,0	72,8	2650x1300x900	750	16	35	54
I-CU-M-4x4CES9Y	63,0	30,0	82,8	2650x1300x900	750	16	35	54
I-CU-M-4x4BES9Y	69,3	33,4	74,0	2650x1300x900	750	16	35	Дy65
I-CU-M-4x4VES7Y	64,8	30,4	68,4	2900x1400x1100	1100	16	35	Дy65
I-CU-M-4x4VES10Y	64,8	29,3	81,6	2900x1400x1100	1100	16	35	Дy65
I-CU-M-4x4TES9Y	79,2	37,1	81,6	2900x1400x1100	1100	25	35	Дy65
I-CU-M-4x4TES12Y	79,0	36,1	102,4	2900x1400x1100	1100	25	35	Дy65
✓ I-CU-M-4x4PES12Y	90,0	41,2	92,8	2900x1400x1100	1100	25	35	Дy65
I-CU-M-4x4PES15Y	89,6	40,8	114,8	2900x1400x1100	1100	25	35	Дy65
✓ I-CU-M-4x4NES14Y	107,6	50,0	108,4	2900x1400x1100	1100	25	42	Дy80
I-CU-M-4x4NES20Y	108,0	48,8	134,8	2900x1400x1100	1100	25	42	Дy80
I-CU-M-4x4JE15Y	124,8	56,4	125,2	3000x1400x1200	1300	25	42	Дy80
I-CU-M-4x4JE22Y	121,6	54,4	150,8	3000x1400x1200	1300	25	42	Дy80
✓ I-CU-M-4x4HE18Y	146,4	67,6	148,8	3000x1400x1200	1300	25	42	Дy80
I-CU-M-4x4HE25Y	143,6	64,8	178,0	3000x1400x1200	1300	25	54	Дy80
✓ I-CU-M-4x4GE23Y	169,6	80,4	177,6	3000x1400x1200	1300	25	54	Дy100
I-CU-M-4x4GE30Y	165,2	74,8	206,8	3000x1400x1200	1300	25	54	Дy100
✓ I-CU-M-4x4FE28Y	186,0	83,6	187,6	3000x1400x1200	1300	25	54	Дy100
I-CU-M-4x4FE35Y	180,0	80,0	214,8	3000x1400x1200	1300	25	54	Дy100
I-CU-M-4x6JE25Y	201,2	95,6	213,2	3000x1400x1200	1300	25	54	Дy100
I-CU-M-4x6JE33Y	199,2	93,2	250,4	3000x1400x1200	1300	25	54	Дy100
I-CU-M-4x6HE28Y	215,2	99,6	214,8	3000x1400x1200	1300	25	54	Дy100
I-CU-M-4x6HE35Y	211,2	96,8	259,6	3000x1400x1200	1300	25	54	Дy100
✓ I-CU-M-4x6GE34Y	251,6	120,4	264,0	3000x1400x1200	1300	25	Дy65	Дy100
I-CU-M-4x6GE40Y	240,8	112,0	297,6	3000x1400x1200	1300	25	Дy65	Дy100
✓ I-CU-M-4x6FE44Y	301,6	144,0	334,8	3000x1400x1200	1300	25	Дy65	Дy125
I-CU-M-4x6FE50Y	294,0	138,4	386,8	3000x1400x1200	1300	25	Дy65	Дy125
✓ I-CU-M-5x4FE28Y	232,5	104,5	234,0	3450x1400x1200	1800	25	2 1/8"	Дy100
I-CU-M-5x4FE35Y	225,0	100,0	268,0	3450x1400x1200	1800	25	2 1/8"	Дy100
I-CU-M-5x6HE28Y	269,0	124,5	268,0	3450x1400x1200	1800	25	2 1/8"	Дy125
I-CU-M-5x6HE35Y	264,0	121,0	324,0	3450x1400x1200	1800	25	2 1/8"	Дy125
✓ I-CU-M-5x6GE34Y	314,5	150,5	329,5	3450x1400x1200	1800	25	Дy65	Дy125
I-CU-M-5x6GE40Y	301,0	140,0	371,5	3450x1400x1200	1800	25	Дy65	Дy125
✓ I-CU-M-5x6FE44Y	377,0	180,0	418,0	3450x1400x1200	1800	25	Дy65	Дy125
I-CU-M-5x6FE50Y	367,5	173,0	483,0	3450x1400x1200	1800	25	Дy65	Дy125
✓ I-CU-M-6x4FE28Y	279,0	125,4	280,4	4000x1400x1200	2100	25	Дy65	Дy125
I-CU-M-6x4FE35Y	270,0	120,0	321,2	4000x1400x1200	2100	25	Дy65	Дy125
I-CU-M-6x6HE28Y	322,8	149,4	321,2	4000x1400x1200	2100	25	Дy65	Дy125
I-CU-M-6x6HE35Y	316,8	145,2	388,4	4000x1400x1200	2100	25	Дy65	Дy125
✓ I-CU-M-6x6GE34Y	377,4	180,6	395,0	4000x1400x1200	2100	25	Дy65	Дy125
I-CU-M-6x6GE40Y	361,2	168,0	445,4	4000x1400x1200	2100	25	Дy65	Дy125
✓ I-CU-M-6x6FE44Y	452,4	216,0	501,2	4000x1400x1200	2100	25	Дy80	Дy150
I-CU-M-6x6FE50Y	441,0	207,6	579,2	4000x1400x1200	2100	25	Дy80	Дy150

Semi-hermetic reciprocating compressor type multi-compressor units

Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Oil receiver chamber volume, l	Discharge line, mm	Suction line, mm
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Low temperature units

 R404A/R507A, $t_k = +45^\circ\text{C}$, $t_0 = -25^\circ\text{C}$, SH=10K, SC=2K

I-CU-L-2x4CES6Y	14,6	10,7	34,0	1700x1300x700	400	8	16	1 3/8"
I-CU-L-2x4BES9Y	16,0	11,9	41,4	1700x1300x700	400	8	16	1 5/8"
I-CU-L-2x4VES7Y	14,3	10,2	34,2	1900x1400x900	450	8	16	1 5/8"
I-CU-L-2x4TES9Y	17,9	12,7	40,8	1900x1400x900	450	8	22	1 5/8"
✓ I-CU-L-2x4PES12Y	19,7	13,8	46,4	1900x1400x900	450	8	22	1 5/8"
✓ I-CU-L-2x4NES14Y	24,3	17,2	54,2	1900x1400x900	450	8	22	1 5/8"
I-CU-L-2x4JE15Y	29,1	20,2	62,6	2000x1400x1000	500	8	22	2 1/8"
✓ I-CU-L-2x4HE18Y	34,6	24,0	74,4	2000x1400x1000	500	16	28	2 1/8"
✓ I-CU-L-2x4GE23Y	40,8	28,6	88,8	2000x1400x1000	500	16	28	2 5/8"
✓ I-CU-L-2x4FE28Y	43,4	29,6	93,8	2000x1400x1000	500	16	28	2 5/8"
I-CU-L-2x6JE25Y	48,8	34,2	106,6	2000x1400x1000	500	16	28	Дy80
I-CU-L-2x6HE28Y	51,0	35,4	107,4	2000x1400x1000	500	16	28	Дy80
✓ I-CU-L-2x6GE34Y	61,6	43,6	132,0	2000x1400x1000	500	16	28	Дy80
✓ I-CU-L-2x6FE44Y	73,2	52,4	167,4	2000x1400x1000	500	16	35	Дy80

I-CU-L-3x4CES6Y	21,9	16,1	50,5	2400x1300x900	600	16	22	1 5/8"
I-CU-L-3x4BES9Y	24,0	17,9	61,6	2400x1300x900	600	16	22	1 5/8"
I-CU-L-3x4VES7Y	21,5	15,2	50,8	2600x1400x1100	650	16	22	2 1/8"
I-CU-L-3x4TES9Y	26,8	19,1	60,7	2600x1400x1100	650	16	28	2 1/8"
✓ I-CU-L-3x4PES12Y	29,6	20,6	69,1	2600x1400x1100	650	16	28	2 1/8"
✓ I-CU-L-3x4NES14Y	36,4	25,7	80,8	2600x1400x1100	650	16	28	2 1/8"
I-CU-L-3x4JE15Y	43,6	30,3	93,4	2700x1400x1200	700	25	35	Дy65
✓ I-CU-L-3x4HE18Y	51,9	36,0	111,1	2700x1400x1200	700	25	35	Дy65
✓ I-CU-L-3x4GE23Y	61,2	42,9	132,7	2700x1400x1200	700	25	35	Дy80
✓ I-CU-L-3x4FE28Y	65,1	44,4	140,2	2700x1400x1200	700	25	35	Дy80
I-CU-L-3x6JE25Y	73,2	51,3	159,4	2700x1400x1200	700	25	35	Дy80
I-CU-L-3x6HE28Y	76,5	53,1	160,6	2700x1400x1200	700	25	35	Дy80
✓ I-CU-L-3x6GE34Y	92,4	65,4	197,5	2700x1400x1200	700	25	35	Дy100
✓ I-CU-L-3x6FE44Y	109,8	78,6	250,6	2700x1400x1200	700	25	42	Дy100

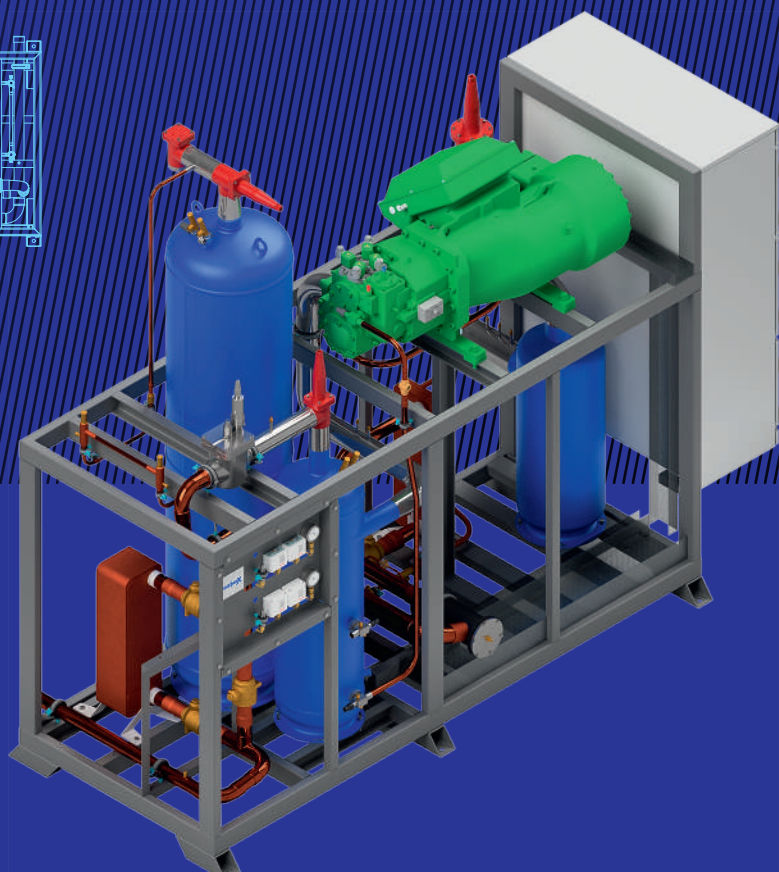
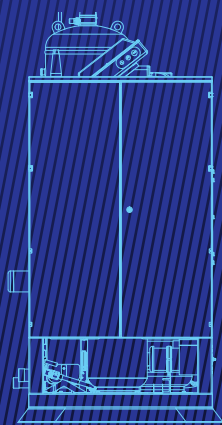
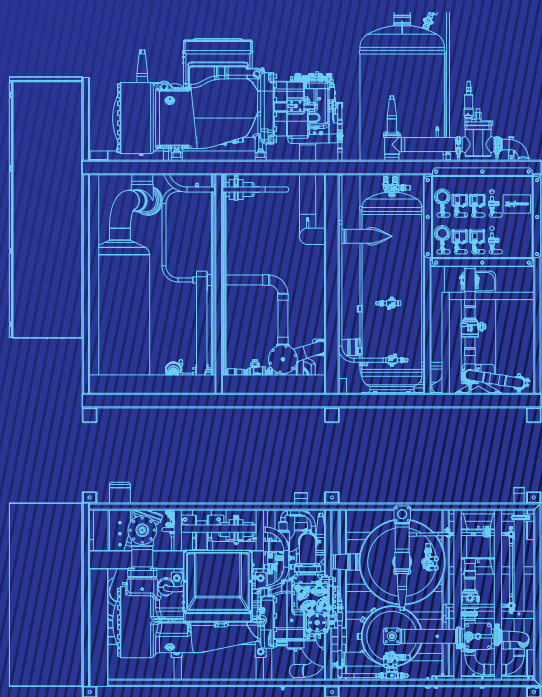
I-CU-L-4x4CES6Y	29,2	21,4	68,0	2650x1300x900	750	16	22	2 1/8"
I-CU-L-4x4BES9Y	32,0	23,8	82,8	2650x1300x900	750	16	22	2 1/8"
I-CU-L-4x4VES7Y	28,7	20,3	68,4	2900x1400x1100	1100	16	22	2 1/8"
I-CU-L-4x4TES9Y	35,8	25,4	81,6	2900x1400x1100	1100	25	28	2 1/8"
✓ I-CU-L-4x4PES12Y	39,4	27,5	92,8	2900x1400x1100	1100	25	28	2 1/8"
✓ I-CU-L-4x4NES14Y	48,6	34,3	108,4	2900x1400x1100	1100	25	28	Дy65
I-CU-L-4x4JE15Y	58,2	40,4	125,2	3000x1400x1200	1300	25	35	Дy65
✓ I-CU-L-4x4HE18Y	69,2	48,0	148,8	3000x1400x1200	1300	25	35	Дy80
✓ I-CU-L-4x4GE23Y	81,6	57,2	177,6	3000x1400x1200	1300	25	35	Дy80
I-CU-L-4x4FE28Y	86,8	59,2	187,6	3000x1400x1200	1300	25	35	Дy80
I-CU-L-4x6JE25Y	97,6	68,4	213,2	3000x1400x1200	1300	25	42	Дy80
I-CU-L-4x6HE28Y	102,0	70,8	214,8	3000x1400x1200	1300	25	42	Дy80
✓ I-CU-L-4x6GE34Y	123,2	87,2	264,0	3000x1400x1200	1300	25	42	Дy100
✓ I-CU-L-4x6FE44Y	146,4	104,8	334,8	3000x1400x1200	1300	25	42	Дy100

✓ I-CU-L-5x4FE28Y	108,5	74,0	234,0	3450x1400x1200	1800	25	42	Дy100
I-CU-L-5x6HE28Y	127,5	88,5	268,0	3450x1400x1200	1800	25	42	Дy100
✓ I-CU-L-5x6GE34Y	154,0	109,0	329,5	3450x1400x1200	1800	25	Дy50	Дy100
✓ I-CU-L-5x6FE44Y	183,0	131,0	418,0	3450x1400x1200	1800	25	Дy50	Дy100

✓ I-CU-L-6x4FE28Y	130,2	88,8	280,4	4000x1400x1200	2100	25	Дy50	Дy125
I-CU-L-6x6HE28Y	153,0	106,2	321,2	4000x1400x1200	2100	25	Дy50	Дy125
✓ I-CU-L-6x6GE34Y	184,8	130,8	395,0	4000x1400x1200	2100	25	Дy50	Дy125
✓ I-CU-L-6x6FE44Y	219,6	157,2	501,2	4000x1400x1200	2100	25	Дy50	Дy125

✓ Compressor unit in stock

Semi-hermetic screw compressor
type single-compressor units



Compressor units item name

I-CU – L – HSN7471 – B1E2LMVW R507A

1	2	3	4	5
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- 1. Unit type
I-CU – Ingenium compressor unit
- 2. Temperature level
(evaporation temperature)
L/M/H – Low/Medium/High
- 3. Compressor unit short name
In case of different compressor types usage, the marking is indicated with “/”
- 4. Options
refer to “End-to-end options description”
- 5. Refrigerant used
(optional)

Semi-hermetic screw compressor type single-compressor units
(standard package + options)

Standard package
Semi-hermetical screw compressor equipped with shutoff valves, engine protection gear and high- /low- pressure safety switches to control capacity
Discharge manifold
Oil separator chamber equipped with heater, thermostat, LL oil indication relay, relief damper and non-return shutoff valve
Oil filter, flow switch, inspection window, shutoff valve, solenoid valve installed on the oil return line
Condensing pressure control system on the discharge line
Receiver equipped with shutoff valves and relief damper, filter drained liquid flow line system, inspection window and output shutoff valve
Suction line cleaning filter
Heat insulated suction manifold
Painted metal frame
Documentation set

Additional options	
Item name	Marking
Mechanically controlled TEV economizer	B1
Electrically controlled TEV economizer	B2
Refrigerant receiver LLS	D1
Refrigerant receiver HLS	D2
Control panel	E
Hot gas delivery line for operating the consumers defrosting system	H
ODAF system	K1
Thermosyphon-type oil cooling system	K2
Liquid-type oil cooling system	K3
Heat insulated liquid separator within each compressor unit suction line	L
High- and low- pressure gauges	M
Two safety switches with three-way valve installed on refrigerant receiver section	R3
UV rays shielded insulation, IP55-compliant pressure switch protection, additional compressor crankcase heating	S
Refrigerant receiver heating system	T1
Shutoff valves set	V

Compressor units can be equipped with extra-standard items with additional options to be provided on request

Semi-hermetic screw compressor
type single-compressor units

Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Refrigerant receiver chamber volume, l	Discharge line, mm	Condensing unit drain line, mm	Liquid flow line, mm	Suction line, mm	Oil delivery line to oil cooler, mm	Oil drain line from oil cooler, mm
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Meduim temperature units

R404A/R507A, t_k = 45°C, t_o = -10°C, SH=10K, SC=2K, ECO-mode

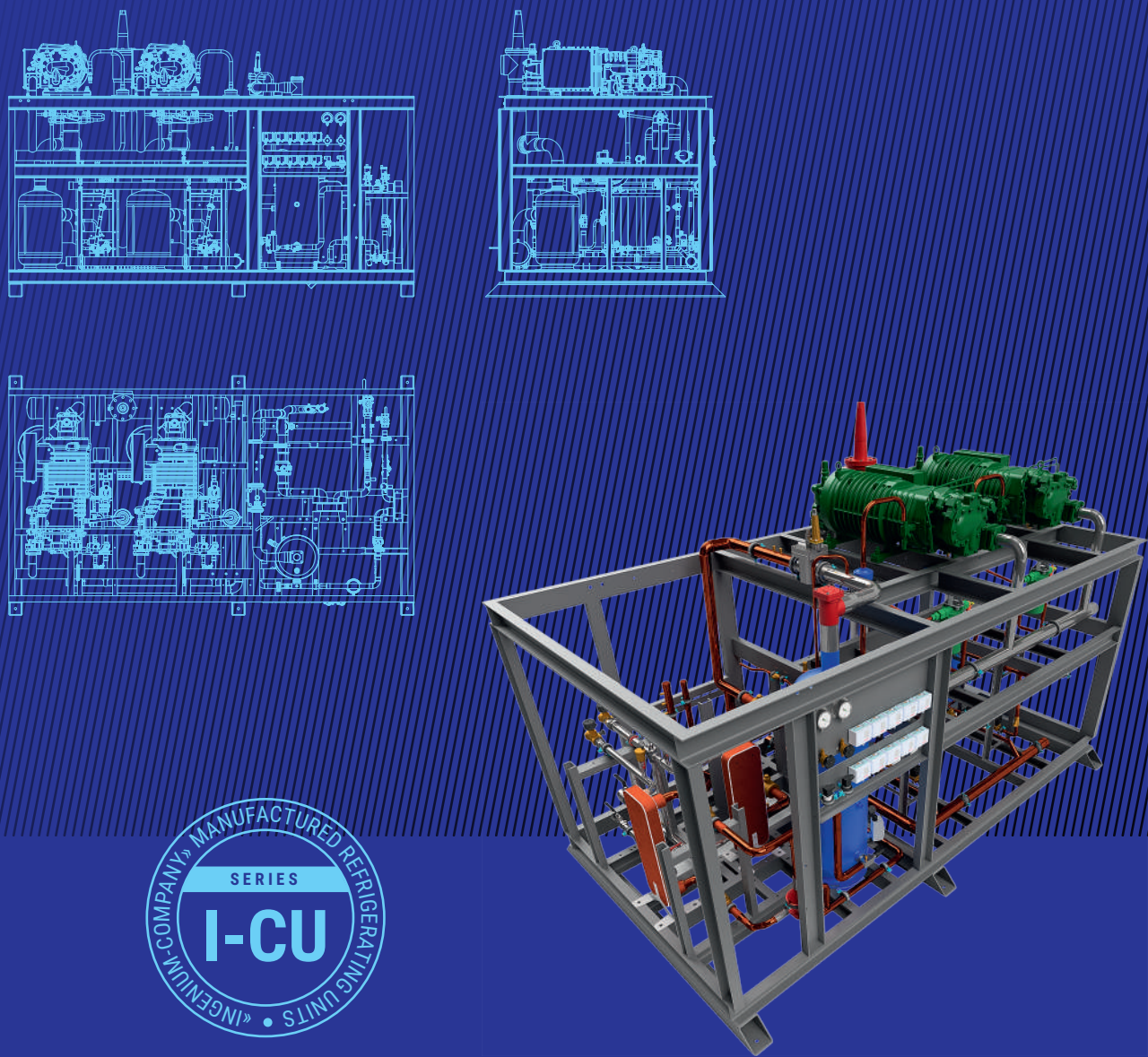
I-CU-M-HSK5343	61,2	27,8	53,0	2200x1400x1345	650	100	35	42	28	54	22	22
I-CU-M-HSK5353	71,7	32,4	59,0	2200x1400x1345	650	100	35	42	28	54	22	22
I-CU-M-HSK5363	81,8	36,2	67,0	2200x1400x1345	650	100	35	42	35	54	22	22
I-CU-M-HSK6451	95,8	41,0	80,0	2200x1400x1345	720	160	42	54	35	54	28	28
I-CU-M-HSK6461	113,5	50,4	99,0	2200x1400x1345	720	160	42	54	42	54	28	28
I-CU-M-HSK7451	137,2	61,8	125,0	2400x1600x1345	800	160	54	54	42	89	28	28
I-CU-M-HSK7461	153,0	66,8	145,0	2400x1600x1345	800	160	54	54	54	89	28	28
I-CU-M-HSK7471	166,1	72,6	163,0	2400x1600x1345	800	160	54	54	54	89	28	28
I-CU-M-HSK8551	208,0	101,6	181,0	2600x1600x1345	900	160	54	54	54	100	35	35
I-CU-M-HSK8561	238,0	112,7	217,0	2600x1600x1345	900	160	54	54	54	100	35	35
I-CU-M-HSK8571	266,0	121,3	247,0	2600x1600x1345	900	160	65	54	54	100	35	35
I-CU-M-HSK8581	305,0	134,4	278,0	2600x1600x1345	900	300	65	80	65	100	35	35
I-CU-M-HSK8591	341,0	151,4	331,0	2600x1600x1345	900	300	65	80	65	100	35	35

Low temperature units

R404A/R507A, t_k = 45°C, t_o = -35°C, SH=10K, SC=2K, ECO-mode

I-CU-L-HSN5343	23,4	25,4	49,0	2200x1400x1345	650	100	22	28	16	54	22	22
I-CU-L-HSN5353	27,7	28,9	53,0	2200x1400x1345	650	100	22	28	22	54	22	22
I-CU-L-HSN5363	32,5	32,7	59,0	2200x1400x1345	650	100	22	28	22	54	22	22
I-CU-L-HSN6451	39,0	36,9	66,0	2200x1400x1345	720	100	28	35	28	54	28	28
I-CU-L-HSN6461	44,9	43,0	80,0	2200x1400x1345	720	100	28	35	28	54	28	28
I-CU-L-HSN7451	53,3	54,3	99,0	2400x1600x1345	800	100	35	42	28	89	28	28
I-CU-L-HSN7461	61,5	57,2	125,0	2400x1600x1345	800	100	35	42	35	89	28	28
I-CU-L-HSN7471	65,0	61,1	145,0	2400x1600x1345	800	100	35	42	35	89	28	28
I-CU-L-HSN8561	78,3	91,5	198,0	2600x1600x1345	900	160	42	42	35	80	35	35
I-CU-L-HSN8571	105,3	95,4	217,0	2600x1600x1345	900	160	42	54	35	100	35	35
I-CU-L-HSN8591	130,7	127,1	275,0	2600x1600x1345	900	160	54	54	42	100	35	35

Semi-hermetic screw compressor
type multi-compressor units



Compressor units item name

I-CU – L – 2 x HSN7471 – B1E2LMVW R507A

1	2	3	4	5	6
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- 1. Unit type
I-CU – Ingenium compressor unit
- 2. Temperature level
(evaporation temperature)
L/M/H – Low/Medium/High
- 3. Compressor units' quantity
No number marking in case of single item
- 4. Compressor unit short name
In case of different compressor types usage, the marking is indicated with " / "
- 5. Options
refer to "End-to-end options description"
- 6. Refrigerant used
(optional)

Semi-hermetic screw compressor type multi-compressor units

(standard package + options)

Standard item list
Semi-hermetical screw compressor equipped with shutoff valves, engine protection gear, capacity regulation system and high- and low- pressure safety switch per each compressor unit
Discharge manifold
Oil separator chamber equipped with heater, thermostat, LL oil indication relay, relief damper and non-return shutoff valve
Oil filter, flow switch, inspection window, shutoff valve, solenoid valve installed on the oil return line per each compressor
Condensing pressure control system on the discharge line
Receiver equipped with shutoff valves and relief damper, filter drained liquid flow line system, inspection window and output shutoff valve
Suction line cleaning filter per each compressor
Heat insulated suction manifold
Painted metal frame
Documentation set

Additional options	
Item name	Marking
Mechanically controlled TEV economizer	B1
Electrically controlled TEV economizer	B2
Refrigerant receiver LLS	D1
Refrigerant receiver HLS	D2
Control panel	E
Hot gas delivery line for operating the consumers defrosting system	H
ODAF system	K1
Thermosyphon-type oil cooling system	K2
Liquid-type oil cooling system	K3
Heat insulated liquid separator within each compressor unit suction line	L
High- and low- pressure gauges	M
Suction and discharge manifold equipped with low- and high- pressure switches	P
UV rays shielded insulation, IP55-compliant pressure switch protection, additional compressor crankcase heating	S
Refrigerant receiver heating system	T1
Shutoff valves set	V

Compressor units can be equipped with extra-standard items with additional options to be provided on request

Semi-hermetic screw compressor type multi-compressor units

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Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Refrigerant receiver chamber volume, l	Discharge line, mm	Condensing unit drain line, mm	Liquid flow line, mm	Suction line, mm	Oil delivery line to oil cooler, mm	Oil drain line from oil cooler, mm
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Meduim temperature units

R404A/R507A, $t_k = 45^\circ\text{C}$, $t_o = -10^\circ\text{C}$, SH=10K, SC=2K, ECO-mode

I-CU-M-2xHSK5343	122,4	55,6	106,0	3030x1900x1792	1500	160	42	54	42	65	28	28
I-CU-M-2xHSK5353	143,4	64,8	118,0	3030x1900x1792	1500	160	42	54	42	65	28	28
I-CU-M-2xHSK5363	163,6	72,4	134,0	3030x1900x1792	1500	160	54	54	54	80	28	28
I-CU-M-2xHSK6451	191,6	82,0	160,0	3030x1900x1792	2000	200	54	54	54	80	35	35
I-CU-M-2xHSK6461	227,0	100,8	198,0	3030x1900x1792	2000	200	54	54	54	100	35	35
I-CU-M-2xHSK7451	274,4	123,6	250,0	3030x1900x1792	2000	300	65	80	65	100	35	35
I-CU-M-2xHSK7461	306,0	133,6	290,0	3030x1900x1792	2200	300	65	80	65	100	35	35
I-CU-M-2xHSK7471	332,2	145,2	326,0	3030x1900x1792	2200	300	65	80	65	100	35	35
I-CU-M-2xHSK8551	416,0	203,2	362,0	3030x1900x1792	2800	300	80	80	80	125	42	42
I-CU-M-2xHSK8561	476,0	225,4	434,0	3030x1900x1792	2800	300	80	80	80	125	42	42
I-CU-M-2xHSK8571	532,0	242,6	494,0	3030x1900x1792	2800	300	80	80	80	2 x 100	42	42
I-CU-M-2xHSK8581	610,0	268,8	556,0	3030x1900x1792	2800	300	80	80	80	2 x 100	42	42
I-CU-M-2xHSK8591	682,0	302,8	662,0	3030x1900x1792	2800	300	80	80	80	2 x 100	42	42
I-CU-M-3xHSK5343	183,6	83,4	320,0	3840x1900x1792	2000	200	54	54	54	80	35	35
I-CU-M-3xHSK5353	215,1	97,2	356,0	3840x1900x1792	2000	200	54	54	54	100	35	35
I-CU-M-3xHSK5363	245,4	108,6	404,0	3840x1900x1792	2000	200	65	54	54	100	35	35
I-CU-M-3xHSK6451	287,4	123,0	482,0	3840x1900x1792	2300	300	65	65	65	100	42	42
I-CU-M-3xHSK6461	340,5	151,2	596,0	3840x1900x1792	2300	300	65	65	65	100	42	42
I-CU-M-3xHSK7451	411,6	185,4	752,0	3840x1900x1792	2500	300	80	80	65	125	42	42
I-CU-M-3xHSK7461	459,0	200,4	872,0	3840x1900x1792	2500	300	80	80	65	125	42	42
I-CU-M-3xHSK7471	498,3	217,8	980,0	3840x1900x1792	2500	300	80	80	65	125	42	42
I-CU-M-3xHSK8551	624,0	304,8	1088,0	3840x1900x1792	3000	-	80	100	80	2 x 100	54	54
I-CU-M-3xHSK8561	714,0	338,1	1304,0	3840x1900x1792	3000	-	100	125	100	2 x 100	54	54
I-CU-M-3xHSK8571	798,0	363,9	1484,0	3840x1900x1792	3000	-	100	125	100	2 x 125	54	54
I-CU-M-3xHSK8581	915,0	403,2	1670,0	3840x1900x1792	3000	-	100	125	100	2 x 125	54	54
I-CU-M-3xHSK8591	1023,0	454,2	1988,0	3840x1900x1792	3000	-	100	125	100	2 x 125	54	54
I-CU-M-4xHSK5343	244,8	111,2	210,0	4250x2345x1792	2500	-	65	65	65	100	42	42
I-CU-M-4xHSK5353	286,8	129,6	234,0	4250x2345x1792	2500	-	65	65	65	100	42	42
I-CU-M-4xHSK5363	327,2	144,8	266,0	4250x2345x1792	2500	-	65	65	65	100	42	42
I-CU-M-4xHSK6451	383,2	164,0	318,0	4250x2345x1792	2800	-	80	80	80	125	54	54
I-CU-M-4xHSK6461	454,0	201,6	394,0	4250x2345x1792	2800	-	80	80	80	125	54	54
I-CU-M-4xHSK7451	548,8	247,2	498,0	4250x2345x1792	3000	-	80	80	80	2 x 100	54	54
I-CU-M-4xHSK7461	612,0	267,2	578,0	4250x2345x1792	3000	-	80	80	80	2 x 100	54	54
I-CU-M-4xHSK7471	664,4	290,4	650,0	4250x2345x1792	3000	-	100	100	100	2 x 100	54	54
I-CU-M-4xHSK8551	832,0	406,4	722,0	4250x2345x1792	3800	-	100	100	100	2 x 125	54	54
I-CU-M-4xHSK8561	952,0	450,8	866,0	4250x2345x1792	3800	-	100	100	100	2 x 125	65	65
I-CU-M-4xHSK8571	1064,0	485,2	986,0	4250x2345x1792	3800	-	100	125	100	2 x 125	65	65
I-CU-M-4xHSK8581	1220,0	537,6	1110,0	4250x2345x1792	3800	-	125	125	125	3 x 125	65	65
I-CU-M-4xHSK8591	1364,0	605,6	1322,0	4250x2345x1792	3800	-	125	125	125	3 x 125	65	65
I-CU-M-5xHSK8551	1040,0	508,0	262,0	5410x2803x1792	4500	-	100	125	100	2 x 125	65	65
I-CU-M-5xHSK8561	1190,0	563,5	292,0	5410x2803x1792	4500	-	125	125	100	3 x 125	65	65
I-CU-M-5xHSK8571	1330,0	606,5	332,0	5410x2803x1792	4500	-	125	125	125	3 x 125	65	65

Semi-hermetic screw compressor type multi-compressor units

Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Refrigerant receiver chamber volume, l	Discharge line, mm	Condensing unit drain line, mm	Liquid flow line, mm	Suction line, mm	Oil delivery line to oil cooler, mm	Oil drain line from oil cooler, mm
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Meduim temperature units

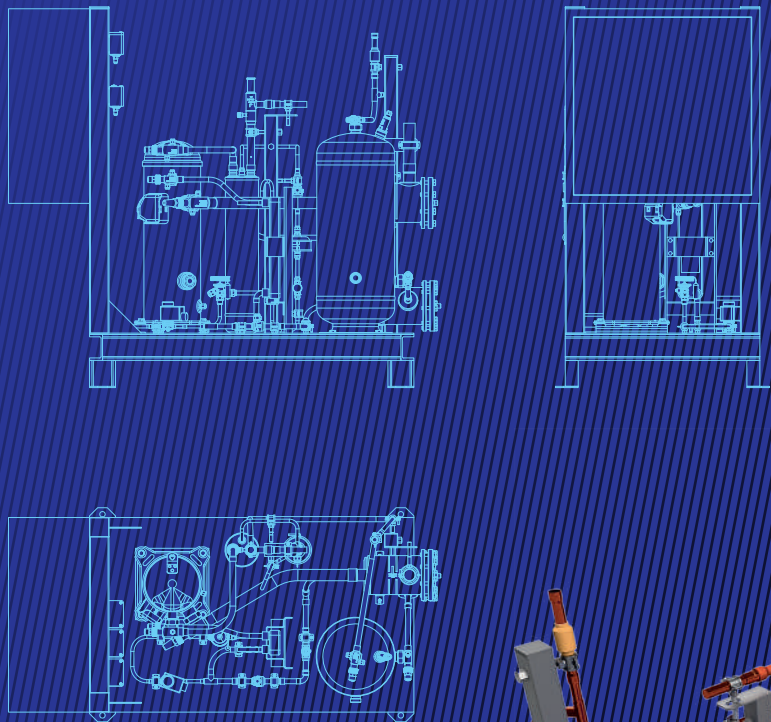
R404A/R507A, $t_k = 45^\circ\text{C}$, $t_0 = -35^\circ\text{C}$, SH=10K, SC=2K, ECO-mode

I-CU-L-2xHSN5343	46,8	50,8	97,0	3030x1900x1792	1500	160	28	35	28	65	28	28
I-CU-L-2xHSN5353	55,4	57,8	105,0	3030x1900x1792	1500	160	35	42	28	65	28	28
I-CU-L-2xHSN5363	65,0	65,4	117,0	3030x1900x1792	1500	160	35	42	28	80	28	28
I-CU-L-2xHSN6451	78,0	73,8	131,0	3030x1900x1792	2000	200	42	54	35	80	35	35
I-CU-L-2xHSN6461	89,8	86,0	159,0	3030x1900x1792	2000	200	42	54	35	100	35	35
I-CU-L-2xHSN7451	106,6	108,6	197,0	3030x1900x1792	2200	200	42	54	42	100	35	35
I-CU-L-2xHSN7461	123,0	114,4	249,0	3030x1900x1792	2200	200	42	54	42	100	35	35
I-CU-L-2xHSN7471	130,0	122,2	289,0	3030x1900x1792	2200	200	54	54	54	100	35	35
I-CU-L-2-HSN8561	156,6	183,0	395,0	3030x1900x1792	2800	200	54	54	54	100	42	42
I-CU-L-2xHSN8571	210,6	190,8	433,0	3030x1900x1792	2800	300	65	80	65	100	42	42
I-CU-L-2xHSN8591	261,4	254,2	549,0	3030x1900x1792	2800	300	65	80	65	100	42	42

I-CU-L-3xHSN5343	70,2	76,2	146,0	3840x1900x1792	2000	200	42	42	35	80	35	35
I-CU-L-3xHSN5353	83,1	86,7	158,0	3840x1900x1792	2000	200	42	42	35	80	35	35
I-CU-L-3xHSN5363	97,5	98,1	176,0	3840x1900x1792	2000	200	42	42	35	100	35	35
I-CU-L-3xHSN6451	117,0	110,7	197,0	3840x1900x1792	2300	200	42	54	42	100	42	42
I-CU-L-3xHSN6461	134,7	129,0	239,0	3840x1900x1792	2300	200	54	54	42	100	42	42
I-CU-L-3xHSN7451	159,9	162,9	296,0	3840x1900x1792	2500	200	54	54	54	125	42	42
I-CU-L-3xHSN7461	184,5	171,6	374,0	3840x1900x1792	2500	200	54	54	54	125	42	42
I-CU-L-3xHSN7471	195,0	183,3	434,0	3840x1900x1792	2500	200	54	54	54	125	42	42
I-CU-L-3xHSN8561	234,9	274,5	593,0	3840x1900x1792	3000	300	65	65	54	2 x 100	54	54
I-CU-L-3xHSN8571	315,9	286,2	650,0	3840x1900x1792	3000	300	65	65	54	2 x 125	54	54
I-CU-L-3xHSN8591	392,1	381,3	824,0	3840x1900x1792	3000	300	80	80	80	2 x 125	54	54

I-CU-L-4xHSN5343	93,6	101,6	194,0	4250x2345x1792	2500	-	42	42	35	100	42	42
I-CU-L-4xHSN5353	110,8	115,6	210,0	4250x2345x1792	2500	-	42	42	35	100	42	42
I-CU-L-4xHSN5363	130,0	130,8	234,0	4250x2345x1792	2500	-	54	54	35	100	42	42
I-CU-L-4xHSN6451	156,0	147,6	262,0	4250x2345x1792	2800	-	54	54	42	125	54	54
I-CU-L-4xHSN6461	179,6	172,0	318,0	4250x2345x1792	2800	-	54	54	42	125	54	54
I-CU-L-4xHSN7451	213,2	217,2	394,0	4250x2345x1792	3000	-	54	54	54	2 x 100	54	54
I-CU-L-4xHSN7461	246,0	228,8	498,0	4250x2345x1792	3000	-	65	65	65	2 x 100	54	54
I-CU-L-4xHSN7471	260,0	244,4	578,0	4250x2345x1792	3000	-	65	65	65	2 x 100	54	54
I-CU-L-4xHSN8561	313,2	366,0	790,0	4250x2345x1792	3800	-	80	100	65	2 x 125	65	65
I-CU-L-4xHSN8571	421,2	381,6	866,0	4250x2345x1792	3800	-	80	100	80	2 x 125	65	65
I-CU-L-4xHSN8591	522,8	508,4	1098,0	4250x2345x1792	3800	-	80	100	80	3 x 125	65	65

I-CU-L-5xHSN8561	391,5	457,5	987,0	5410x2803x1792	4500	-	80	100	80	2 x 125	65	65
I-CU-L-5xHSN8571	526,5	477,0	1082,0	5410x2803x1792	4500	-	80	100	80	2 x 125	65	65
I-CU-L-5xHSN8591	653,5	635,5	1372,0	5410x2803x1792	4500	-	100	125	100	3 x 125	65	65



Compressor units item name

I-CU – M – MLZ66T – E1MOW R507A

1 2 3 4 5

- 1. **Unit type**
I-CU – Ingenium compressor unit
- 2. **Temperature level**
(evaporation temperature)
L/M/H – Low/Medium/High
- 3. **Compressor unit short name**
In case of different compressor types usage, the marking is indicated with “ / ”
- 4. **Options**
refer to “End-to-end options description”
- 5. **Refrigerant used**
(optional)

Hermetic scroll compressor type single-compressor units
(standard package + options)

Standard item list
Hermetic scroll compressor equipped with shutoff valves, crankcase heater and engine protection gear, and high- and low- pressure switch as well
Receiver equipped with shutoff valves and relief damper, filter drained liquid flow line system, inspection window and output shutoff valve
Suction line cleaning filter
Painted metal frame
Documentation set

Additional options	
Item name	Marking
Liquid injection system	B3
Steam injection system	B4
Pressure line check valve to follow oil separator unit	C2
Control panel	E
Heat insulated liquid separator within each compressor unit suction line	L
High- and low- pressure gauges	M
Oil separator chamber equipped with heater, shutoff valve, filter and inspection window	O
One high-pressure switch to control condensing fans	P1
Two high-pressure switches to control condensing fans	P2
Three high-pressure switches to control condensing fans	P3
UV rays shielded insulation, IP55-compliant pressure switch protection, additional compressor crankcase heating	S
Refrigerant receiver heating system	T1
Condensing pressure control system on the discharge line	W

Compressor units can be equipped with extra-standard items with additional options to be provided on request

Hermetic scroll compressor type single-compressor units

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Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Refrigerant receiver chamber volume, l	Discharge line, mm	Condensing unit drain line, mm	Liquid flow line, mm	Suction line, mm
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Meduim temperature units

R404A/R507A, $t_k = 45^{\circ}\text{C}$, $t_o = -10^{\circ}\text{C}$, SH=10K, SC=2K

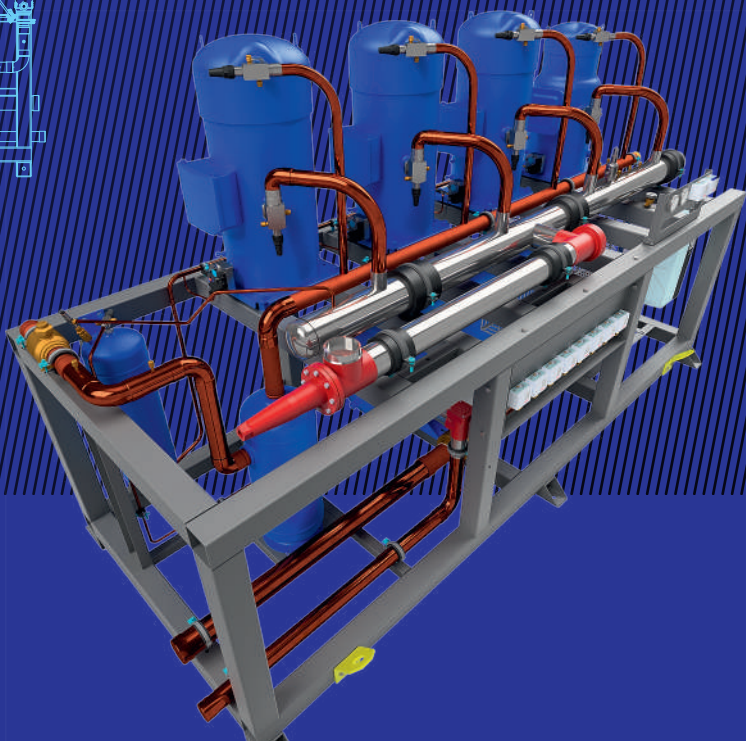
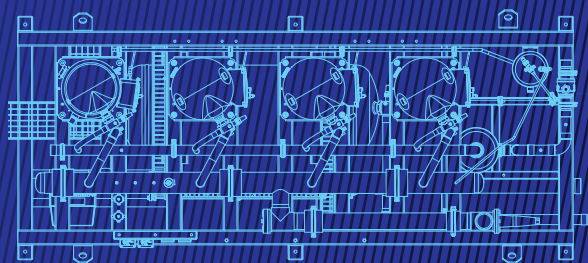
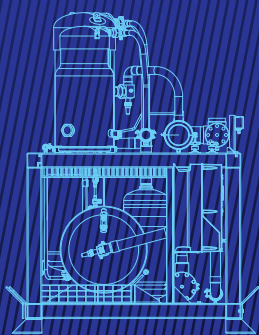
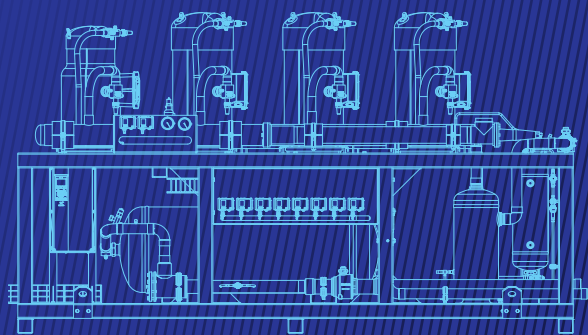
I-CU-M-MLZ15T	3,2	1,8	8,0	1305x600x1255	156	16	10	10	10	16
I-CU-M-MLZ19T	4,3	2,2	10,5	1305x600x1255	156	16	12	12	10	22
I-CU-M-MLZ21T	4,6	2,3	10,5	1305x600x1255	156	16	12	12	10	22
I-CU-M-MLZ26T	5,6	2,9	11,0	1305x600x1255	156	16	12	12	10	22
I-CU-M-MLZ30T	6,8	3,4	14,0	1305x600x1255	199	16	12	16	12	22
I-CU-M-MLZ38T	8,2	3,9	16,0	1305x600x1255	212	25	12	16	12	22
I-CU-M-MLZ45T	9,9	4,9	16,0	1305x600x1255	233	25	16	16	12	28
I-CU-M-MLZ48T	10,9	5,4	17,0	1305x600x1255	236	25	16	16	12	28
I-CU-M-MLZ58T	12,5	6,5	21,0	1305x600x1255	238	25	16	16	16	28
I-CU-M-MLZ66T	14,5	7,0	25,0	1305x600x1255	247	25	22	22	16	28
I-CU-M-MLZ76T	16,7	7,9	26,0	1305x600x1255	297	25	22	22	16	28
I-CU-M-SZ148-4	20,2	9,5	33,0	1305x600x1255	318	25	22	22	22	35
I-CU-M-SZ161-4	21,3	11,0	33,0	1305x600x1255	318	25	22	22	22	35
I-CU-M-SZ175-4	22,9	11,7	36,0	1305x600x1255	331	25	22	22	22	35
I-CU-M-SZ185-4	24,6	12,5	36,0	1305x600x1255	331	25	22	22	22	35

Low temperature units

R404A/R507A, $t_k = 45^{\circ}\text{C}$, $t_o = -10^{\circ}\text{C}$, SH=10K, SC=2K

I-CU-L-LLZ013T4	3,7	2,9	13,0	1305x600x1255	211,67	25	12	16	12	22
I-CU-L-LLZ015T4	4,4	3,5	16,0	1305x600x1255	211,67	25	12	16	12	22
I-CU-L-LLZ018T4	5,2	3,9	16,0	1305x600x1255	242,47	25	12	16	12	28
I-CU-L-LLZ024T4	6,7	4,9	22,0	1305x600x1255	249,71	25	12	16	12	28
I-CU-L-LLZ034T4	9,0	6,8	27,0	1305x600x1255	249,71	25	12	16	12	28

Hermetic scroll compressor type multi-compressor units



Compressor units item names

I-CU – M – 3 x MLZ66T – E1MVW R507A

1	2	3	4	5	6
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- 1. **Unit type**
I-CU – Ingenium compressor unit
- 2. **Temperature level**
(evaporation temperature)
L/M/H – Low/Medium/High
- 3. **Compressor units' quantity**
No number marking in case of single item
- 4. **Compressor unit short name**
In case of different compressor types usage, the marking is indicated with " / "
- 5. **Options**
refer to "End-to-end options description"
- 6. **Refrigerant used**
(optional)

Hermetic scroll compressor type multi-compression units (standard package + options)

Standard item list
Hermetic scroll compressor equipped with shutoff valves, crankcase heater and engine protection gear, and high- and low- pressure safety switch per each compressor unit as well
Suction manifold
Oil separator chamber equipped with heater, shutoff valve, filter and inspection window
Receiver unit equipped with shutoff valves, pressure differential valve and one shutoff valve separating oil receiver unit and suction manifold. Shutoff valve to be installed on the oil delivery line, and electrically operated oil level regulator to be provided for each compressor unit
Suction line cleaning filter
Heat insulated suction manifold
Painted metal frame
Documentation set

Additional options	
Item name	Marking
Vibration isolator set per 1 compressor unit	A1
Vibrating bearings set under frame-mounted compressor unit	A2
Liquid injection system	B3
Steam injection system	B4
Discharge line reinforced check valve per 1 compressor unit	C1
Discharge line check valve following the oil separator	C2
Control panel	E
Heat insulated liquid separator within each compressor unit suction line	L
High- and low- pressure gauges	M
Suction and discharge manifold equipped with low- and high- pressure switches	P
One high-pressure switch to control condensing fans	P1
Two high-pressure switches to control condensing fans	P2
Three high-pressure switches to control condensing fans	P3
UV rays shielded insulation, IP55-compliant pressure switch protection, additional compressor crankcase heating	S
Shutoff valves set	V
Condensing pressure control system on the discharge line	W

Compressor units can be equipped with extra-standard items with additional options to be provided on request

Hermetic scroll compressor type multi-compressor units

Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Discharge line, mm	Condensing unit drain line, mm	Suction line, mm
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Meduim temperature units

R404A/R507A, $t_k = 45^\circ\text{C}$, $t_0 = -10^\circ\text{C}$, SH=10K, SC=2K

I-CU-M-2xMLZ15T	6,4	3,6	15,0	1350x600x950	270	12	16	18
I-CU-M-2xMLZ19T	8,6	4,4	20,0	1350x600x950	270	12	16	18
I-CU-M-2xMLZ21T	9,2	4,6	20,0	1350x600x950	270	12	16	18
I-CU-M-2xMLZ26T	11,2	5,8	21,0	1350x600x950	270	16	16	22
I-CU-M-2xMLZ30T	13,6	6,8	27,0	1350x600x1100	285	16	16	22
I-CU-M-2xMLZ38T	16,4	7,8	31,0	1350x600x1100	285	16	16	28
I-CU-M-2xMLZ45T	19,8	9,8	31,0	1350x600x1100	285	18	18	28
I-CU-M-2xMLZ48T	21,8	10,8	33,0	1350x600x1100	285	18	18	35
I-CU-M-2xMLZ58T	25,0	13,0	41,0	1350x600x1300	310	22	22	35
I-CU-M-2xMLZ66T	29,0	14,0	49,0	1350x600x1300	310	22	22	35
I-CU-M-2xMLZ76T	33,4	15,8	51,0	1350x600x1300	310	22	22	35

I-CU-M-2xSZ148-4	40,4	19,0	65,0	1500x800x1300	520	28	28	42
I-CU-M-2xSZ161-4	42,6	22,0	65,0	1500x800x1300	520	28	28	42
I-CU-M-2xSZ175-4	45,8	23,4	71,0	1500x800x1300	580	28	28	42
I-CU-M-2xSZ185-4	49,2	25,0	71,0	1500x800x1300	580	28	28	42

I-CU-M-3xMLZ15T	9,6	5,4	22,0	1800x600x950	335	16	16	18
I-CU-M-3xMLZ19T	12,9	6,6	29,5	1800x600x950	335	16	16	22
I-CU-M-3xMLZ21T	13,8	6,9	29,5	1800x600x950	335	16	16	22
I-CU-M-3xMLZ26T	16,8	8,7	31,0	1800x600x950	335	16	16	28
I-CU-M-3xMLZ30T	20,4	10,2	40,0	1800x600x1100	380	18	18	35
I-CU-M-3xMLZ38T	24,6	11,7	46,0	1800x600x1100	380	22	22	35
I-CU-M-3xMLZ45T	29,7	14,7	46,0	1800x600x1100	380	22	22	35
I-CU-M-3xMLZ48T	32,7	16,2	49,0	1800x600x1100	380	22	22	35
I-CU-M-3xMLZ58T	37,5	19,5	61,0	1800x600x1300	440	28	28	42
I-CU-M-3xMLZ66T	43,5	21,0	73,0	1800x600x1300	440	28	28	42
I-CU-M-3xMLZ76T	50,1	23,7	76,0	1800x600x1300	440	28	28	42

I-CU-M-3xSZ148-4	60,6	28,5	97,0	1900x800x1300	760	28	35	54
I-CU-M-3xSZ161-4	63,9	33,0	97,0	1900x800x1300	760	28	35	54
I-CU-M-3xSZ175-4	68,7	35,1	106,0	1900x800x1300	850	35	35	54
I-CU-M-3xSZ185-4	73,8	37,5	106,0	1900x800x1300	850	35	35	54

I-CU-M-4xMLZ15T	12,8	7,2	30,0	2250x600x950	410	16	16	22
I-CU-M-4xMLZ19T	17,2	8,8	40,0	2250x600x950	410	16	16	28
I-CU-M-4xMLZ21T	18,4	9,2	40,0	2250x600x950	410	18	18	35
I-CU-M-4xMLZ26T	22,4	11,6	42,0	2250x600x950	410	22	22	35
I-CU-M-4xMLZ30T	27,2	13,6	54,0	2250x600x1100	470	22	22	35
I-CU-M-4xMLZ38T	32,8	15,6	62,0	2250x600x1100	470	22	22	35
I-CU-M-4xMLZ45T	39,6	19,6	62,0	2250x600x1100	470	28	28	42
I-CU-M-4xMLZ48T	43,6	21,6	66,0	2250x600x1100	470	28	28	42
I-CU-M-4xMLZ58T	50,0	26,0	82,0	2250x600x1300	550	28	28	42
I-CU-M-4xMLZ66T	58,0	28,0	98,0	2250x600x1300	550	28	35	54
I-CU-M-4xMLZ76T	66,8	31,6	102,0	2250x600x1300	550	35	35	54

I-CU-M-4xSZ148-4	80,8	38,0	130,0	2400x800x1300	1000	35	35	54
I-CU-M-4xSZ161-4	85,2	44,0	130,0	2400x800x1300	1000	35	42	67
I-CU-M-4xSZ175-4	91,6	46,8	142,0	2400x800x1300	1120	42	42	67
I-CU-M-4xSZ185-4	98,4	50,0	142,0	2400x800x1300	1120	42	42	67

I-CU-M-5xMLZ15T	16,0	9,0	37,0	2550x600x950	490	16	16	28
I-CU-M-5xMLZ19T	21,5	11,0	49,5	2550x600x950	490	16	16	28
I-CU-M-5xMLZ21T	23,0	11,5	49,5	2550x600x950	490	22	22	35
I-CU-M-5xMLZ26T	28,0	14,5	52,0	2550x600x950	490	22	22	35
I-CU-M-5xMLZ30T	34,0	17,0	67,0	2550x600x1100	565	28	28	42
I-CU-M-5xMLZ38T	41,0	19,5	77,0	2550x600x1100	565	28	28	42

Hermetic scroll compressor type multi-compressor units

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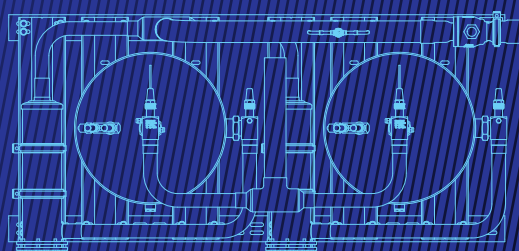
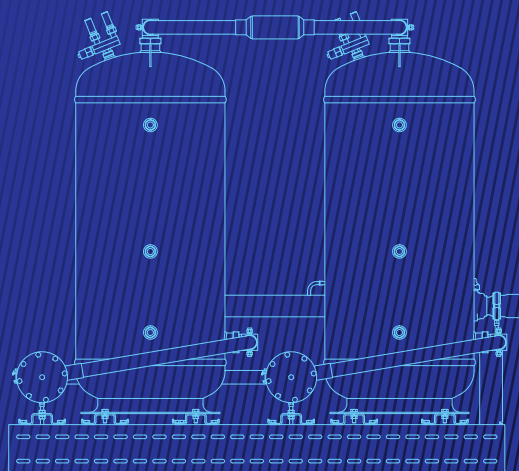
Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Discharge line, mm	Condensing unit drain line, mm	Suction line, mm
I-CU-M-5xMLZ45T	49,5	24,5	77,0	2550x600x1100	565	28	28	42
I-CU-M-5xMLZ48T	54,5	27,0	82,0	2550x600x1100	565	28	35	54
I-CU-M-5xMLZ58T	62,5	32,5	102,0	2550x600x1300	665	28	35	54
I-CU-M-5xMLZ66T	72,5	35,0	122,0	2550x600x1300	665	35	35	54
I-CU-M-5xMLZ76T	83,5	39,5	127,0	2550x600x1300	665	35	42	67
I-CU-M-5xSZ148-4	101,0	47,5	162,0	2700x800x1300	1220	42	42	67
I-CU-M-5xSZ161-4	106,5	55,0	162,0	2700x800x1300	1220	42	42	67
I-CU-M-5xSZ175-4	114,5	58,5	177,0	2700x800x1300	1370	42	42	67
I-CU-M-5xSZ185-4	123,0	62,5	177,0	2700x800x1300	1370	42	42	67
I-CU-M-6xMLZ15T	19,2	10,8	44,0	3000x600x950	585	16	16	28
I-CU-M-6xMLZ19T	25,8	13,2	59,0	3000x600x950	585	22	22	35
I-CU-M-6xMLZ21T	27,6	13,8	59,0	3000x600x950	585	22	22	35
I-CU-M-6xMLZ26T	33,6	17,4	62,0	3000x600x950	585	28	28	42
I-CU-M-6xMLZ30T	40,8	20,4	80,0	3000x600x1100	680	28	28	42
I-CU-M-6xMLZ38T	49,2	23,4	92,0	3000x600x1100	680	28	28	42
I-CU-M-6xMLZ45T	59,4	29,4	92,0	3000x600x1100	680	28	35	54
I-CU-M-6xMLZ48T	65,4	32,4	98,0	3000x600x1100	680	28	35	54
I-CU-M-6xMLZ58T	75,0	39,0	122,0	3000x600x1300	790	35	35	54
I-CU-M-6xMLZ66T	87,0	42,0	146,0	3000x600x1300	790	35	42	67
I-CU-M-6xMLZ76T	100,2	47,4	152,0	3000x600x1300	790	35	42	67
I-CU-M-6xSZ148-4	121,2	57,0	194,0	3200x1000x1300	1440	42	42	67
I-CU-M-6xSZ161-4	127,8	66,0	194,0	3200x1000x1300	1440	42	42	67
I-CU-M-6xSZ175-4	137,4	70,2	212,0	3200x1000x1300	1620	42	54	80
I-CU-M-6xSZ185-4	147,6	75,0	212,0	3200x1000x1300	1620	42	54	80

Low temperature units

R404A/R507A, $t_k = 45^\circ\text{C}$, $t_o = -25^\circ\text{C}$, SH=10K, SC=2K

I-CU-L-2xLLZ013T4	7,4	5,8	25,0	1350x600x1300	290	12	16	28
I-CU-L-2xLLZ015T4	8,8	7,0	31,0	1350x600x1300	290	12	16	28
I-CU-L-2xLLZ018T4	10,4	7,8	31,0	1350x600x1300	295	16	16	35
I-CU-L-2xLLZ024T4	13,4	9,8	43,0	1350x600x1300	310	16	16	35
I-CU-L-2xLLZ034T4	18,0	13,6	53,0	1350x600x1300	335	18	18	42
I-CU-L-3xLLZ013T4	11,1	8,7	37,0	1800x600x1300	395	16	16	35
I-CU-L-3xLLZ015T4	13,2	10,5	46,0	1800x600x1300	395	16	16	35
I-CU-L-3xLLZ018T4	15,6	11,7	46,0	1800x600x1300	405	16	16	35
I-CU-L-3xLLZ024T4	20,1	14,7	64,0	1800x600x1300	425	18	18	42
I-CU-L-3xLLZ034T4	27,0	20,4	79,0	1800x600x1300	425	22	22	42
I-CU-L-4xLLZ013T4	14,8	11,6	50,0	2250x600x1300	500	16	16	35
I-CU-L-4xLLZ015T4	17,6	14,0	62,0	2250x600x1300	500	16	16	35
I-CU-L-4xLLZ018T4	20,8	15,6	62,0	2250x600x1300	510	18	18	42
I-CU-L-4xLLZ024T4	26,8	19,6	86,0	2250x600x1300	540	22	22	42
I-CU-L-4xLLZ034T4	36,0	27,2	106,0	2250x600x1300	540	22	22	54
I-CU-L-5xLLZ013T4	18,5	14,5	62,0	2550x600x1300	605	16	16	35
I-CU-L-5xLLZ015T4	22,0	17,5	77,0	2550x600x1300	605	18	18	42
I-CU-L-5xLLZ018T4	26,0	19,5	77,0	2550x600x1300	620	22	22	42
I-CU-L-5xLLZ024T4	33,5	24,5	107,0	2550x600x1300	655	22	22	54
I-CU-L-5xLLZ034T4	45,0	34,0	132,0	2550x600x1300	655	28	28	67
I-CU-L-6xLLZ013T4	22,2	17,4	74,0	3000x600x1300	710	18	18	42
I-CU-L-6xLLZ015T4	26,4	21,0	92,0	3000x600x1300	710	22	22	42
I-CU-L-6xLLZ018T4	31,2	23,4	92,0	3000x600x1300	725	22	22	42
I-CU-L-6xLLZ024T4	40,2	29,4	128,0	3000x600x1300	770	28	28	54
I-CU-L-6xLLZ034T4	54,0	40,8	158,0	3000x600x1300	770	35	35	67

Receiver units



Receiver units' item name

I-RU – 2 x 100 – T1

1 2 3 4

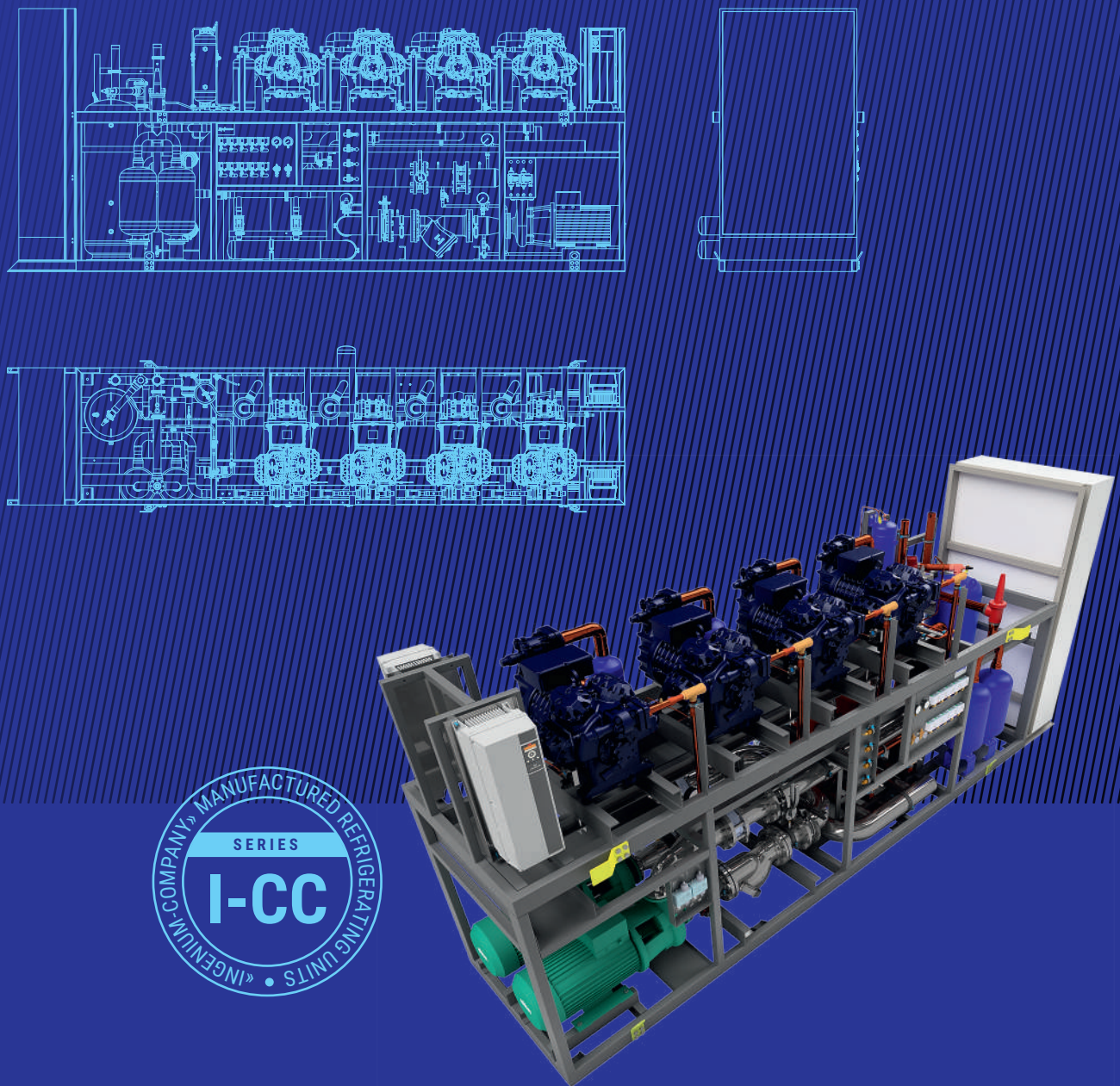
- 1. **Unit type**
I-RU – Ingenium receiver unit
- 2. **Receiver units' quantity**
No number marking in case of single item
- 3. **Receiver volume**
In case of different units usage, the marking is indicated with " / "
- 4. **Options**
refer to "End-to-end options description"

Standard item list	
Refrigerant receiver unit equipped with shutoff valves and relief damper, filter drained liquid flow line system, inspection window and output shutoff valve	
Painted metal frame	
Documentation set	
Additional options	
Item name	Marking
Receiver refrigerant LLS	D1
Receiver refrigerant HLS	D2
High-pressure gauge	M
Refrigerant receiver equipped with two relief three-way valve dampers	R3
Refrigerant receiver heating system	T1

Compressor units can be equipped with extra-standard items with additional options to be provided on request

Unit model	Overall dimensions, LxWxH, mm	Weight, kg	Refrigerant receiver volume, dm ³	Condensing unit drain line, mm	Liquid flow line, mm
I-RU-25	700x500x850	30	25	12	12
I-RU-35	700x500x1100	36	35	12	12
I-RU-40	700x500x1200	39	40	16	16
I-RU-50	750x740x1025	70	50	22	22
I-RU-60	750x740x1170	77	60	28	28
I-RU-80	750x740x1410	86	80	28	28
I-RU-100	750x740x1590	94	100	35	35
I-RU-120	750x740x1850	103	120	35	35
I-RU-160	770x740x1420	142	160	42	42
I-RU-200	790x740x1720	160	200	54	54
I-RU-250	790x740x1875	170	250	54	54
I-RU-2x160	1620x740x1420	270	320	67	67
I-RU-2x200	1620x740x1720	310	400	67	67
I-RU-2x250	1620x740x1880	325	500	80	80

Semi-hermetic reciprocating compressor type liquid chilling systems



Liquid chilling systems item name

I-CC – M – 4 x H9000CC – E2LMVW R407C

1	2	3	4	5	6
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- 1. **Unit type**
I-CC – Ingenium compressor chiller
- 2. **Temperature level**
(evaporation temperature)
L/M/H – Low/Medium/High
- 3. **Compressor units' quantity**
No number marking in case of single item
- 4. **Compressor unit short name**
In case of different compressor types usage, the marking is indicated with "/"
- 5. **Options**
refer to "End-to-end options description"
- 6. **Refrigerant used**
(optional)

Semi-hermetic reciprocating compressor type liquid chilling systems
(standard package + options)

Standard item list	
Semi-hermetic reciprocating compressor equipped with shutoff valves, crankcase heaters, engine protection gear and oil pressure relay (within oil pump compressor units), high- and low- pressure switch controller per each compressor unit	
Discharge manifold	
Refrigerant receiver unit equipped with shutoff valves and relief damper, filter drained liquid flow line system, inspection window, shutoff valve, solenoid valve and electrically controlled TE-valve	
Heat insulated plate-type evaporator, flow switch, drainage and air exhaust service valves	
Oil separator chamber equipped with heater, shutoff valve, filter and inspection window	
Receiver unit equipped with shutoff valves, pressure differential valve and one shutoff valve separating oil receiver unit and suction header. Shutoff valve to be installed on the oil delivery line, and electrically operated oil level regulator to be provided for each compressor unit	
Heat insulated suction manifold	
Painted metal frame	
Documentation set	

Additional options	
Item name	Marking
Vibration isolator set per 1 compressor unit	A1
Vibrating bearings set under skid-mounted compressor unit	A2
Discharge line reinforced check valve per 1 compressor unit	C1
Discharge line check valve following the oil separator	C2
Refrigerant receiver LLS	D1
Refrigerant receiver HLS	D2
Oil receiver LLS	D3
Oil receiver HLS	D4
Control panel	E
Heat insulated liquid separator within each compressor unit suction line	L
High- and low- pressure gauges	M
Suction and discharge manifold equipped with low- and high- pressure switches	P
One high-pressure switch to control condensing fans	P1
Two high-pressure switches to control condensing fans	P2
Three high-pressure switches to control condensing fans	P3
One cylinders module compressor capacity control	Q1
Two cylinders' modules compressor capacity control	Q2
Three cylinders' modules compressor capacity control	Q3
Frequency regulation unit for master compressor capacity control	Q5
Frequency regulation unit for two master compressors' capacity control	Q6
UV rays shielded insulation, IP55-compliant pressure switch protection, additional compressor crankcase heating	S
Shutoff valves set	V
Condensing pressure control system on the discharge line	W

Compressor units can be equipped with extra-standard items with additional options to be provided on request

Semi-hermetic reciprocating compressor type liquid chilling systems

Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Oil receiver chamber volume, dm ³	Discharge line, mm	Condensing unit drain line, mm	Liquid flow line, mm	Refrigerant input- output, mm
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Medium temperature chillers

R404A/R507A, $t_k = 45^\circ\text{C}$, $t_o = -10^\circ\text{C}$, SH=10K, SC=2K

I-CC-M-2KES05Y	1,6	0,88	3,8	2100x900x1100	253	16	10	10	10	Dy15
I-CC-M-2JES07Y	2,3	1,20	4,7	2100x900x1100	253	16	10	10	10	Dy15
I-CC-M-2HES1Y	2,8	1,53	4,8	2100x900x1100	254	16	10	10	10	Dy15
I-CC-M-2HES2Y	2,9	1,53	5,5	2100x900x1100	255	16	10	10	10	Dy15
I-CC-M-2GES2Y	3,4	1,81	6	2100x900x1100	255	16	10	10	10	Dy15
I-CC-M-2FES2Y	4,1	2,25	6,3	2100x900x1100	255	16	10	10	10	Dy15
I-CC-M-2FES3Y	4,1	2,22	7,1	2100x900x1100	257	16	10	10	10	Dy15
I-CC-M-2EES2Y	5,4	2,56	7	2100x900x1100	298	16	12	12	12	Dy15
I-CC-M-2EES3Y	5,4	2,53	8,5	2100x900x1100	301	16	12	12	12	Dy15
I-CC-M-2DES2Y	6,2	3,04	8,5	2100x900x1100	298	16	12	12	12	Dy20
I-CC-M-2DES3Y	6,2	2,96	9,6	2100x900x1100	301	16	12	12	12	Dy20
I-CC-M-2CES3Y	8,0	3,84	10,1	2100x900x1100	300	16	12	16	16	Dy20
I-CC-M-2CES4Y	8,0	3,77	11	2100x900x1100	300	16	12	16	16	Dy20
I-CC-M-4FES3Y	8,6	4,17	10,5	2100x900x1100	312	25	12	16	16	Dy20
I-CC-M-4FES5Y	8,6	4,09	11,8	2100x900x1100	316	25	12	16	16	Dy20
I-CC-M-4EES4Y	10,9	5,34	13,2	2100x900x1100	334	25	16	16	16	Dy20
I-CC-M-4EES6Y	10,8	5,14	14,6	2100x900x1100	336	25	16	16	16	Dy20
I-CC-M-4DES5Y	12,7	6,11	15,5	2100x900x1100	336	25	16	16	16	Dy25
✓ I-CC-M-4DES7Y	12,7	5,97	17,5	2100x900x1100	339	25	16	16	16	Dy25
I-CC-M-4CES6Y	15,8	7,51	18,7	2100x900x1100	341	25	22	22	22	Dy25
✓ I-CC-M-4CES9Y	15,8	7,51	21,2	2100x900x1100	341	25	22	22	22	Dy25
I-CC-M-4BES9Y	17,3	8,35	19	2100x900x1100	341	25	22	22	22	Dy25
I-CC-M-4VES7Y	16,2	7,59	17,6	2100x900x1100	379	25	22	22	22	Dy25
I-CC-M-4VES10Y	16,2	7,32	20,9	2100x900x1100	389	25	22	22	22	Dy25
I-CC-M-4TES9Y	19,8	9,28	20,9	2100x900x1100	384	25	22	22	22	Dy25
I-CC-M-4TES12Y	19,8	9,02	26,1	2100x900x1100	401	25	22	22	22	Dy25
✓ I-CC-M-4PES12Y	22,5	10,3	23,7	2100x900x1100	399	25	22	22	22	Dy25
I-CC-M-4PES15Y	22,4	10,2	29,2	2100x900x1100	407	25	22	22	22	Dy25
I-CC-M-4NES14Y	26,9	12,5	27,6	2100x900x1100	401	25	22	28	28	Dy32
I-CC-M-4NES20Y	27,0	12,2	34,2	2100x900x1100	430	25	22	28	28	Dy32
I-CC-M-4JE15Y	31,2	14,1	31,8	2100x900x1100	470	40	22	28	28	Dy32
I-CC-M-4JE22Y	30,4	13,6	38,2	2100x900x1100	470	40	22	28	28	Dy32
✓ I-CC-M-4HE18Y	36,6	16,9	37,7	2100x900x1100	470	40	22	28	28	Dy32
I-CC-M-4HE25Y	35,9	16,2	45	2100x900x1100	494	40	22	28	28	Dy32
✓ I-CC-M-4GE23Y	42,4	20,1	44,9	2100x900x1100	492	40	28	28	28	Dy40
I-CC-M-4GE30Y	41,3	18,7	52,2	2100x900x1100	506	40	28	28	28	Dy40
I-CC-M-6JE25Y	46,5	20,9	47,4	2100x900x1100	528	70	28	35	35	Dy40
I-CC-M-6JE33Y	45,0	20,0	54,2	2100x900x1100	531	70	28	35	35	Dy40
✓ I-CC-M-4FE28Y	50,3	23,9	53,8	2100x900x1100	507	70	28	35	35	Dy40
I-CC-M-4FE35Y	49,8	23,3	63,1	2100x900x1100	507	70	28	35	35	Dy40
I-CC-M-6HE28Y	53,8	24,9	54,2	2100x900x1100	528	70	35	35	35	Dy40
I-CC-M-6HE35Y	52,8	24,2	65,4	2100x900x1100	535	70	35	35	35	Dy40
✓ I-CC-M-6GE34Y	62,9	30,1	66,5	2100x900x1100	528	70	35	35	35	Dy50
I-CC-M-6GE40Y	60,2	28,0	74,9	2100x900x1100	538	70	35	35	35	Dy50
✓ I-CC-M-6FE44Y	75,4	36,0	84,2	2100x900x1100	541	70	35	42	42	Dy50
I-CC-M-6FE50Y	73,5	34,6	97,2	2100x900x1100	541	70	35	42	42	Dy50
I-CC-M-2x2EES2Y	10,7	5,1	13,0	2200X1000X1800	380	32	16	16	16	Dy25
I-CC-M-2x2EES3Y	10,7	5,1	16,0	2200X1000X1800	380	32	16	16	16	Dy25
I-CC-M-2x2DES2Y	12,5	6,1	16,0	2200X1000X1800	381	32	16	16	16	Dy25
I-CC-M-2x2DES3Y	12,5	5,9	18,2	2200X1000X1800	383	32	16	16	16	Dy25
I-CC-M-2x2CES3Y	15,9	7,7	19,2	2200X1000X1800	383	32	16	16	16	Dy25
I-CC-M-2x2CES4Y	15,9	7,5	21,0	2200X1000X1800	383	32	16	16	16	Dy25
I-CC-M-2x4FES3Y	17,2	8,3	20,0	2200X1000X1800	386	50	22	22	22	Dy25
I-CC-M-2x4FES5Y	17,2	8,2	22,6	2200X1000X1800	447	50	22	22	22	Dy25
I-CC-M-2x4EES4Y	21,8	10,7	25,4	2200X1000X1800	452	50	22	22	22	Dy25
I-CC-M-2x4EES6Y	21,5	10,3	28,2	2200X1000X1800	447	50	22	22	22	Dy25
I-CC-M-2x4DES5Y	25,3	12,2	30,0	2200X1000X1800	452	50	22	22	22	Dy32

Semi-hermetic reciprocating compressor type liquid chilling systems

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Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Oil receiver chamber volume, dm	Discharge line, mm	Condensing unit drain line, mm	Liquid flow line, mm	Refrigerant input- output, mm
✓ I-CC-M-2x4DES7Y	25,3	11,9	34,0	2200X1000X1800	450	50	22	22	22	Дy32
I-CC-M-2x4CES6Y	31,5	15,0	36,4	2200X1000X1800	450	50	22	22	22	Дy32
✓ I-CC-M-2x4CES9Y	31,5	15,0	41,4	2200X1000X1800	468	50	22	22	22	Дy32
I-CC-M-2x4BES9Y	34,6	16,7	37,0	2200X1000X1800	474	50	22	22	22	Дy32
I-CC-M-2x4VES7Y	32,4	15,2	34,2	2200X1000X1800	501	50	28	28	28	Дy32
I-CC-M-2x4VES10Y	32,4	14,6	40,8	2200X1000X1800	504	50	28	28	28	Дy32
I-CC-M-2x4TES9Y	39,6	18,6	40,8	2200X1000X1800	504	50	28	28	28	Дy32
I-CC-M-2x4TES12Y	39,5	18,0	51,2	2200X1000X1800	509	50	28	28	28	Дy32
✓ I-CC-M-2x4PES12Y	45,0	20,6	46,4	2200X1000X1800	512	50	28	28	28	Дy40
I-CC-M-2x4PES15Y	44,8	20,4	57,4	2200X1000X1800	512	50	28	28	28	Дy40
✓ I-CC-M-2x4NES14Y	53,8	25,0	54,2	2200X1000X1800	512	50	28	28	28	Дy40
I-CC-M-2x4NES20Y	54,0	24,4	67,4	2200X1000X1800	569	50	28	28	28	Дy40
I-CC-M-2x4JE15Y	62,4	28,2	62,6	2200X1000X1800	584	80	35	35	35	Дy50
I-CC-M-2x4JE22Y	60,8	27,2	75,4	2200X1000X1800	576	80	35	35	35	Дy50
✓ I-CC-M-2x4HE18Y	73,2	33,8	74,4	2200X1000X1800	602	80	35	35	35	Дy50
I-CC-M-2x4HE25Y	71,8	32,4	89,0	2200X1000X1800	599	80	35	35	35	Дy50
✓ I-CC-M-2x4GE23Y	84,8	40,2	88,8	2200X1000X1800	611	80	35	35	35	Дy50
I-CC-M-2x4GE30Y	82,6	37,4	103,4	2200X1000X1800	602	80	35	35	35	Дy50
✓ I-CC-M-2x4FE28Y	93,0	41,8	93,8	2200X1000X1800	645	100	42	42	42	Дy50
I-CC-M-2x4FE35Y	90,0	40,0	107,4	2200X1000X1800	705	100	42	42	42	Дy50
I-CC-M-2x6JE25Y	100,6	47,8	106,6	2200X1000X1800	705	100	42	42	42	Дy65
I-CC-M-2x6JE33Y	99,6	46,6	125,2	2200X1000X1800	705	100	42	42	42	Дy65
I-CC-M-2x6HE28Y	107,6	49,8	107,4	2200X1000X1800	741	100	42	42	42	Дy65
I-CC-M-2x6HE35Y	105,6	48,4	129,8	2200X1000X1800	738	100	42	42	42	Дy65
✓ I-CC-M-2x6GE34Y	125,8	60,2	132,0	2200X1000X1800	759	100	42	42	42	Дy65
I-CC-M-2x6GE40Y	120,4	56,0	148,8	2200X1000X1800	792	100	42	42	42	Дy65
✓ I-CC-M-2x6FE44Y	150,8	72,0	167,4	2200X1000X1800	797	100	42	42	42	Дy65
I-CC-M-2x6FE50Y	147,0	69,2	193,4	2200X1000X1800	761	100	42	42	42	Дy65
I-CC-M-3x2EES2Y	16,1	7,7	19,0	2600X1000X1800	658	50	22	22	22	Дy32
I-CC-M-3x2EES3Y	16,1	7,6	23,5	2600X1000X1800	658	50	22	22	22	Дy32
I-CC-M-3x2DES2Y	18,7	9,1	23,5	2600X1000X1800	660	50	22	22	22	Дy32
I-CC-M-3x2DES3Y	18,7	8,9	26,8	2600X1000X1800	663	50	22	22	22	Дy32
I-CC-M-3x2CES3Y	23,9	11,5	28,3	2600X1000X1800	663	50	22	22	22	Дy40
I-CC-M-3x2CES4Y	23,9	11,3	31,0	2600X1000X1800	663	50	22	22	22	Дy40
I-CC-M-3x4FES3Y	25,7	12,5	29,5	2600X1000X1800	668	50	22	22	22	Дy40
I-CC-M-3x4FES5Y	25,7	12,3	33,4	2600X1000X1800	775	50	22	22	22	Дy40
I-CC-M-3x4EES4Y	32,7	16,0	37,6	2600X1000X1800	783	50	28	28	28	Дy40
I-CC-M-3x4EES6Y	32,3	15,4	41,8	2600X1000X1800	775	50	28	28	28	Дy40
I-CC-M-3x4DES5Y	38,0	18,3	44,5	2600X1000X1800	783	50	28	28	28	Дy40
✓ I-CC-M-3x4DES7Y	38,0	17,9	50,5	2600X1000X1800	780	50	28	28	28	Дy40
I-CC-M-3x4CES6Y	47,3	22,5	54,1	2600X1000X1800	780	50	28	28	28	Дy50
✓ I-CC-M-3x4CES9Y	47,3	22,5	61,6	2600X1000X1800	811	50	28	28	28	Дy50
I-CC-M-3x4BES9Y	52,0	25,1	55,0	2600X1000X1800	822	50	28	28	28	Дy50
I-CC-M-3x4VES7Y	48,6	22,8	50,8	2600X1000X1800	868	50	28	28	28	Дy50
I-CC-M-3x4VES10Y	48,6	22,0	60,7	2600X1000X1800	874	50	28	28	28	Дy50
I-CC-M-3x4TES9Y	59,4	27,8	60,7	2600X1000X1800	874	50	28	28	28	Дy50
I-CC-M-3x4TES12Y	59,3	27,1	76,3	2600X1000X1800	881	50	28	28	28	Дy50
✓ I-CC-M-3x4PES12Y	67,5	30,9	69,1	2600X1000X1800	887	80	35	35	35	Дy50
I-CC-M-3x4PES15Y	67,2	30,6	85,6	2600X1000X1800	887	80	35	35	35	Дy50
✓ I-CC-M-3x4NES14Y	80,7	37,5	80,8	2600X1000X1800	887	80	35	35	35	Дy50
I-CC-M-3x4NES20Y	81,0	36,6	100,6	2600X1000X1800	985	80	35	35	35	Дy50
I-CC-M-3x4JE15Y	93,6	42,3	93,4	2600X1000X1800	1011	100	42	42	42	Дy65
I-CC-M-3x4JE22Y	91,2	40,8	112,6	2600X1000X1800	998	100	42	42	42	Дy65
✓ I-CC-M-3x4HE18Y	109,8	50,7	111,1	2600X1000X1800	1043	100	42	42	42	Дy65
I-CC-M-3x4HE25Y	107,7	48,6	133,0	2600X1000X1800	1037	100	42	42	42	Дy65
✓ I-CC-M-3x4GE23Y	127,2	60,3	132,7	2600X1000X1800	1058	100	42	42	42	Дy65
I-CC-M-3x4GE30Y	123,9	56,1	154,6	2600X1000X1800	1043	100	42	42	42	Дy65
✓ I-CC-M-3x4FE28Y	139,5	62,7	140,2	2600X1000X1800	1118	100	42	42	42	Дy65
I-CC-M-3x4FE35Y	135,0	60,0	160,6	2600X1000X1800	1222	100	42	42	42	Дy65
I-CC-M-3x6JE25Y	150,9	71,7	159,4	2600X1000X1800	1222	100	42	42	42	Дy80
I-CC-M-3x6JE33Y	149,4	69,9	187,3	2600X1000X1800	1222	100	42	42	42	Дy80

Semi-hermetic reciprocating compressor type liquid chilling systems

Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Oil receiver chamber volume, dm	Discharge line, mm	Condensing unit drain line, mm	Liquid flow line, mm	Refrigerant input- output, mm
I-CC-M-3x6HE28Y	161,4	74,7	160,6	2600X1000X1800	1284	100	42	42	42	Дy80
I-CC-M-3x6HE35Y	158,4	72,6	194,2	2600X1000X1800	1279	100	42	42	42	Дy80
✓ I-CC-M-3x6GE34Y	188,7	90,3	197,5	2600X1000X1800	1316	160	54	54	54	Дy80
I-CC-M-3x6GE40Y	180,6	84,0	222,7	2600X1000X1800	1373	160	54	54	54	Дy80
✓ I-CC-M-3x6FE44Y	226,2	108,0	250,6	2600X1000X1800	1381	160	54	54	54	Дy100
I-CC-M-3x6FE50Y	220,5	103,8	289,6	2600X1000X1800	1318	160	54	54	54	Дy100
I-CC-M-4x4EES4Y	43,6	21,4	50,8	3900X1000X2000	877	100	28	28	28	Дy40
I-CC-M-4x4EES6Y	43,0	20,6	56,4	3900X1000X2000	877	100	28	28	28	Дy40
I-CC-M-4x4DES5Y	50,6	24,4	60,0	3900X1000X2000	881	100	28	28	28	Дy40
✓ I-CC-M-4x4DES7Y	50,6	23,9	68,0	3900X1000X2000	884	100	28	28	28	Дy40
I-CC-M-4x4CES6Y	63,0	30,0	72,8	3900X1000X2000	884	100	35	35	35	Дy50
✓ I-CC-M-4x4CES9Y	63,0	30,0	82,8	3900X1000X2000	884	100	35	35	35	Дy50
I-CC-M-4x4BES9Y	69,3	33,4	74,0	3900X1000X2000	891	100	35	35	35	Дy50
I-CC-M-4x4VES7Y	64,8	30,4	68,4	3900X1000X2000	1033	100	35	35	35	Дy65
I-CC-M-4x4VES10Y	64,8	29,3	81,6	3900X1000X2000	1043	100	35	35	35	Дy65
I-CC-M-4x4TES9Y	79,2	37,1	81,6	3900X1000X2000	1033	100	35	35	35	Дy65
I-CC-M-4x4TES12Y	79,0	36,1	102,4	3900X1000X2000	1043	100	35	35	35	Дy65
✓ I-CC-M-4x4PES12Y	90,0	41,2	92,8	3900X1000X2000	1040	100	35	35	35	Дy65
I-CC-M-4x4PES15Y	89,6	40,8	114,8	3900X1000X2000	1040	100	35	35	35	Дy65
✓ I-CC-M-4x4NES14Y	107,6	50,0	108,4	3900X1000X2000	1082	160	42	42	42	Дy65
I-CC-M-4x4NES20Y	108,0	48,8	134,8	3900X1000X2000	1095	160	42	42	42	Дy65
I-CC-M-4x4JE15Y	124,8	56,4	125,2	3900X1000X2000	1158	160	42	42	42	Дy65
I-CC-M-4x4JE22Y	121,6	54,4	150,8	3900X1000X2000	1165	160	42	42	42	Дy65
✓ I-CC-M-4x4HE18Y	146,4	67,6	148,8	3900X1000X2000	1165	160	42	42	42	Дy80
I-CC-M-4x4HE25Y	143,6	64,8	178,0	3900X1000X2000	1175	200	54	54	54	Дy80
✓ I-CC-M-4x4GE23Y	169,6	80,4	177,6	3900X1000X2000	1182	200	54	54	54	Дy80
I-CC-M-4x4GE30Y	165,2	74,8	206,8	3900X1000X2000	1182	200	54	54	54	Дy80
✓ I-CC-M-4x4FE28Y	186,0	83,6	187,6	3900X1000X2000	1182	200	54	54	54	Дy80
I-CC-M-4x4FE35Y	180,0	80,0	214,8	3900X1000X2000	1314	200	54	54	54	Дy80
I-CC-M-4x6JE25Y	201,2	95,6	213,2	3900X1000X2000	1349	200	54	54	54	Дy100
I-CC-M-4x6JE33Y	199,2	93,2	250,4	3900X1000X2000	1331	200	54	54	54	Дy100
I-CC-M-4x6HE28Y	215,2	99,6	214,8	3900X1000X2000	1390	200	54	54	54	Дy100
I-CC-M-4x6HE35Y	211,2	96,8	259,6	3900X1000X2000	1383	200	54	54	54	Дy100
✓ I-CC-M-4x6GE34Y	251,6	120,4	264,0	3900X1000X2000	1411	2 x 160	Дy65	Дy65	Дy65	Дy100
I-CC-M-4x6GE40Y	240,8	112,0	297,6	3900X1000X2000	1390	2 x 160	Дy65	Дy65	Дy65	Дy100
✓ I-CC-M-4x6FE44Y	301,6	144,0	334,8	3900X1000X2000	1491	2 x 160	Дy65	Дy65	Дy65	Дy100
I-CC-M-4x6FE50Y	294,0	138,4	386,8	3900X1000X2000	1629	2 x 160	Дy65	Дy65	Дy65	Дy100

High temperature chillers

R404A/R507A, t_k = 45°C, t₀ = 2°C, SH=10K, SC=2K

I-CC-H-2KES05Y	2,7	1,01	3,8	2100x900x1100	250	16	10	10	10	Дy15
I-CC-H-2JES07Y	3,7	1,38	4,7	2100x900x1100	263	16	10	10	10	Дy15
I-CC-H-2HES1Y	4,8	1,78	4,8	2100x900x1100	276	16	10	10	10	Дy15
I-CC-H-2GES2Y	5,5	2,11	6	2100x900x1100	289	16	10	10	10	Дy15
I-CC-H-2FES3Y	6,7	2,70	7,1	2100x900x1100	304	16	10	10	10	Дy20
I-CC-H-2EES3Y	8,7	3,00	8,5	2100x900x1100	319	16	12	12	12	Дy20
I-CC-H-2DES3Y	10,1	3,51	9,6	2100x900x1100	335	16	12	12	12	Дy20
I-CC-H-2CES4Y	12,8	4,43	11	2100x900x1100	352	16	12	16	16	Дy20
I-CC-H-4FES5Y	14,0	4,71	11,8	2100x900x1100	369	25	12	16	16	Дy20
I-CC-H-4EES6Y	17,6	6,01	14,6	2100x900x1100	388	25	16	16	16	Дy20
✓ I-CC-H-4DES7Y	20,6	6,94	17,5	2100x900x1100	407	25	16	16	16	Дy20
✓ I-CC-H-4CES9Y	25,9	8,86	21,2	2100x900x1100	428	25	22	22	22	Дy25
I-CC-H-4VES10Y	27,2	8,86	20,9	2100x900x1100	449	25	22	22	22	Дy25
I-CC-H-4TES12Y	32,9	10,9	26,1	2100x900x1100	471	25	22	22	22	Дy25
I-CC-H-4PES15Y	37,7	12,4	29,2	2100x900x1100	495	25	22	22	22	Дy25
I-CC-H-4NES20Y	44,8	14,7	34,2	2100x900x1100	520	25	22	28	28	Дy32
I-CC-H-4JE22Y	49,8	16,4	38,2	2100x900x1100	546	40	22	28	28	Дy32
I-CC-H-4HE25Y	58,4	19,3	45	2100x900x1100	573	40	22	28	28	Дy40
I-CC-H-4GE30Y	66,8	22,4	52,2	2100x900x1100	602	40	28	28	28	Дy40
I-CC-H-6JE33Y	74,0	23,7	54,2	2100x900x1100	632	70	28	35	35	Дy40

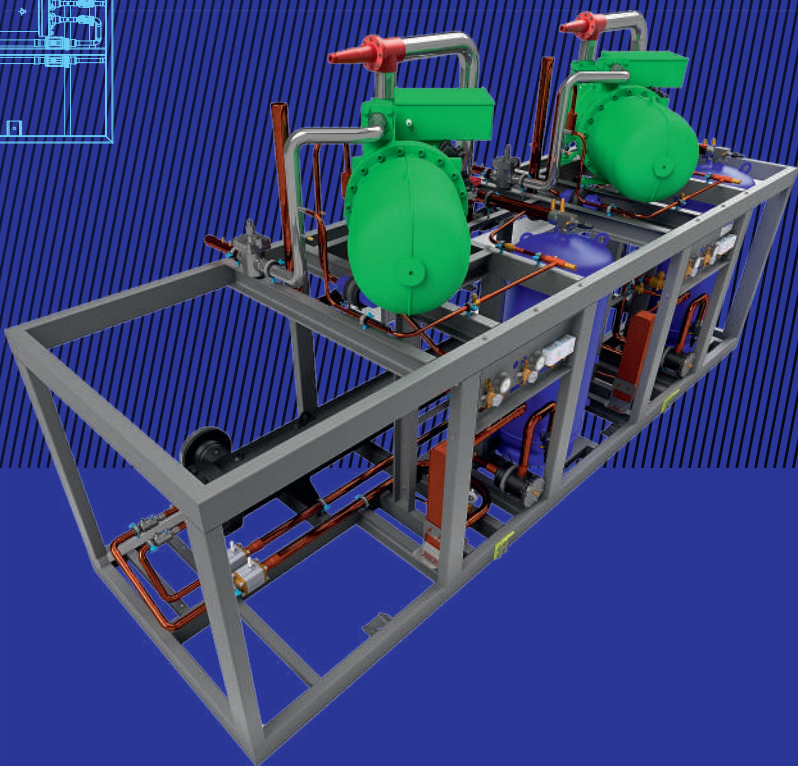
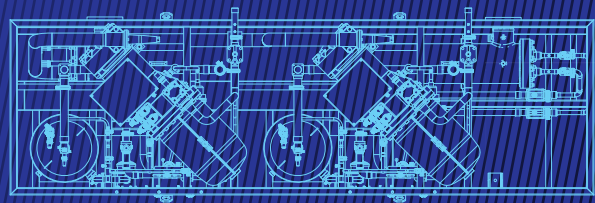
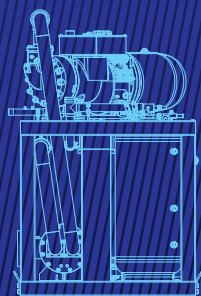
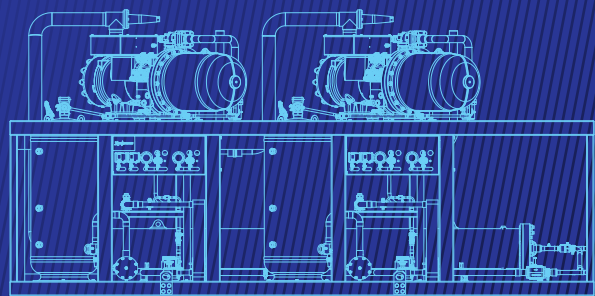
Semi-hermetic rotary screw compressor type liquid chilling systems

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Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Oil receiver chamber volume, dm	Discharge line, mm	Condensing unit drain line, mm	Liquid flow line, mm	Refrigerant input- output, mm
I-CC-H-4FE35Y	79,3	27,7	63,1	2100x900x1100	663	70	28	35	35	Дy40
I-CC-H-6HE35Y	85,7	28,5	65,4	2100x900x1100	696	70	35	35	35	Дy40
I-CC-H-6GE40Y	96,9	33,0	74,9	2100x900x1100	731	70	35	35	35	Дy50
I-CC-H-6FE50Y	117,8	41,0	97,2	2100x900x1100	768	70	35	42	42	Дy50
I-CC-H-2x2EES3Y	17,4	6,0	16,0	2200X1000X1800	380	32	16	16	16	Дy25
I-CC-H-2x2DES3Y	20,2	7,0	18,2	2200X1000X1800	398	32	16	16	16	Дy25
I-CC-H-2x2CES4Y	25,6	8,9	21,0	2200X1000X1800	418	32	16	16	16	Дy32
I-CC-H-2x4FES5Y	28,0	9,4	22,6	2200X1000X1800	439	50	22	22	22	Дy32
I-CC-H-2x4EES6Y	35,2	12,0	28,2	2200X1000X1800	461	50	22	22	22	Дy32
✓ I-CC-H-2x4DES7Y	41,2	13,9	34,0	2200X1000X1800	484	50	22	22	22	Дy40
✓ I-CC-H-2x4CES9Y	51,8	17,7	41,4	2200X1000X1800	509	50	22	22	22	Дy40
I-CC-H-2x4VES10Y	54,4	17,7	40,8	2200X1000X1800	534	50	28	28	28	Дy40
I-CC-H-2x4TES12Y	65,8	21,8	51,2	2200X1000X1800	561	50	28	28	28	Дy50
I-CC-H-2x4PES15Y	75,4	24,8	57,4	2200X1000X1800	589	50	28	28	28	Дy50
I-CC-H-2x4NES20Y	89,6	29,4	67,4	2200X1000X1800	618	50	28	28	28	Дy50
I-CC-H-2x4JE22Y	99,6	32,8	75,4	2200X1000X1800	649	80	35	35	35	Дy65
I-CC-H-2x4HE25Y	116,8	38,6	89,0	2200X1000X1800	682	80	35	35	35	Дy65
I-CC-H-2x4GE30Y	133,6	44,8	103,4	2200X1000X1800	716	80	35	35	35	Дy65
I-CC-H-2x4FE35Y	148,0	47,4	107,4	2200X1000X1800	751	100	42	42	42	Дy65
I-CC-H-2x6JE33Y	158,6	55,4	125,2	2200X1000X1800	789	100	42	42	42	Дy80
I-CC-H-2x6HE35Y	171,4	57,0	129,8	2200X1000X1800	828	100	42	42	42	Дy80
I-CC-H-2x6GE40Y	193,8	66,0	148,8	2200X1000X1800	870	100	42	42	42	Дy80
I-CC-H-2x6FE50Y	235,6	82,0	193,4	2200X1000X1800	913	100	42	42	42	Дy100
I-CC-H-3x2EES3Y	26,1	9,0	24,5	2600X1000X1800	643	50	22	22	22	Дy32
I-CC-H-3x2DES3Y	30,3	10,5	27,8	2600X1000X1800	675	50	22	22	22	Дy32
I-CC-H-3x2CES4Y	38,4	13,3	32,0	2600X1000X1800	709	50	22	22	22	Дy32
I-CC-H-3x4FES5Y	42,0	14,1	34,4	2600X1000X1800	744	50	22	22	22	Дy40
I-CC-H-3x4EES6Y	52,8	18,0	42,8	2600X1000X1800	782	50	28	28	28	Дy40
✓ I-CC-H-3x4DES7Y	61,8	20,8	51,5	2600X1000X1800	821	50	28	28	28	Дy50
✓ I-CC-H-3x4CES9Y	77,7	26,6	62,6	2600X1000X1800	862	50	28	28	28	Дy50
I-CC-H-3x4VES10Y	81,6	26,6	61,7	2600X1000X1800	905	50	28	28	28	Дy50
I-CC-H-3x4TES12Y	98,7	32,7	77,3	2600X1000X1800	950	50	28	28	28	Дy65
I-CC-H-3x4PES15Y	113,1	37,2	86,6	2600X1000X1800	998	80	35	35	35	Дy65
I-CC-H-3x4NES20Y	134,4	44,1	101,6	2600X1000X1800	1047	80	35	35	35	Дy65
I-CC-H-3x4JE22Y	149,4	49,2	113,6	2600X1000X1800	1100	100	42	42	42	Дy80
I-CC-H-3x4HE25Y	175,2	57,9	134,0	2600X1000X1800	1155	100	42	42	42	Дy80
I-CC-H-3x4GE30Y	200,4	67,2	155,6	2600X1000X1800	1212	100	42	42	42	Дy100
I-CC-H-3x4FE35Y	222,0	71,1	161,6	2600X1000X1800	1273	100	42	42	42	Дy100
I-CC-H-3x6JE33Y	237,9	83,1	188,3	2600X1000X1800	1337	100	42	42	42	Дy100
I-CC-H-3x6HE35Y	257,1	85,5	195,2	2600X1000X1800	1404	100	42	42	42	Дy100
I-CC-H-3x6GE40Y	290,7	99,0	223,7	2600X1000X1800	1474	160	54	54	54	Дy100
I-CC-H-3x6FE50Y	353,4	123,0	290,6	2600X1000X1800	1547	160	54	54	54	Дy100
I-CC-H-4x4EES6Y	70,4	24,0	56,4	2100x900x1100	875	100	28	28	28	Дy50
✓ I-CC-H-4x4DES7Y	82,4	27,8	68,0	2100x900x1100	919	100	28	28	28	Дy50
✓ I-CC-H-4x4CES9Y	103,6	35,4	82,8	2100x900x1100	965	100	35	35	35	Дy65
I-CC-H-4x4VES10Y	108,8	35,4	81,6	2100x900x1100	1013	100	35	35	35	Дy65
I-CC-H-4x4TES12Y	131,6	43,6	102,4	2100x900x1100	1064	100	35	35	35	Дy65
I-CC-H-4x4PES15Y	150,8	49,6	114,8	2100x900x1100	1117	100	35	35	35	Дy80
I-CC-H-4x4NES20Y	179,2	58,8	134,8	2100x900x1100	1173	160	42	42	42	Дy80
I-CC-H-4x4JE22Y	199,2	65,6	150,8	2100x900x1100	1231	160	42	42	42	Дy80
I-CC-H-4x4HE25Y	233,6	77,2	178,0	2100x900x1100	1293	200	54	54	54	Дy100
I-CC-H-4x4GE30Y	267,2	89,6	206,8	2100x900x1100	1357	200	54	54	54	Дy100
I-CC-H-4x4FE35Y	296,0	94,8	214,8	2100x900x1100	1425	200	54	54	54	Дy100
I-CC-H-4x6JE33Y	317,2	110,8	250,4	2100x900x1100	1497	200	54	54	54	Дy100
I-CC-H-4x6HE35Y	342,8	114,0	259,6	2100x900x1100	1571	200	54	54	54	Дy125
I-CC-H-4x6GE40Y	387,6	132,0	297,6	2100x900x1100	1650	2 x 160	Дy65	Дy65	Дy65	Дy125
I-CC-H-4x6FE50Y	471,2	164,0	386,8	2100x900x1100	1732	2 x 160	Дy65	Дy65	Дy65	Дy125

Semi-hermetic screw compressor type liquid chilling systems



Liquid chilling systems item name

I-CC – M – 2 x CSH7573Y – B1E2MVW R507A

1 2 3 4 5 6

- 1. **Unit type**
I-CC – Ingenium compressor chiller
- 2. **Temperature level**
(evaporation temperature)
L/M/H – Low/Medium/High
- 3. **Compressor units' quantity**
No number marking in case of single
- 4. **Compressor unit short name**
In case of different compressor types usage, the marking is indicated with "I"
- 5. **Options**
refer to "End-to-end options description"
- 6. **Refrigerant used**
(optional)

Semi-hermetic screw compressor type liquid chilling systems
(standard package + options)

Standard item list
Semi-hermetic screw compressor, series Compact, with shutoff valves on discharge line, engine protection gear, oil level control switch, capacity regulation system and high- and low- pressure safety switch per each compressor unit
Coolant receiver unit equipped with shutoff valves and relief damper, filter drained liquid flow line system, inspection window, shutoff valve, solenoid valve and electrically controlled TE-valve per each refrigerant circuit
Heat insulated shell-and-tube evaporator, flow switch, drainage and air exhaust service valves
Heat insulated suction duct system
Painted metal frame
Documentation set

Additional options	
Item name	Marking
Mechanically controlled TEV economizer	B1
Electrically controlled TEV economizer	B2
Refrigerant receiver LLS	D1
Refrigerant receiver HLS	D2
Control panel	E
High- and low- pressure gauges	M
UV rays shielded insulation, IP55-compliant pressure switch protection, additional compressor crankcase heating	S
Refrigerant receiver heating system	T1
Shutoff valves set	V
Condensing pressure control system on the discharge line	W

Compressor units can be equipped with extra-standard items with additional options to be provided on request

Semi-hermetic screw compressor
type liquid chilling systems

Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Oil receiver chamber volume, dm	Discharge line, mm	Condensing unit drain line, mm	Liquid flow line, mm	Refrigerant input- output, mm
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Low temperature chillers

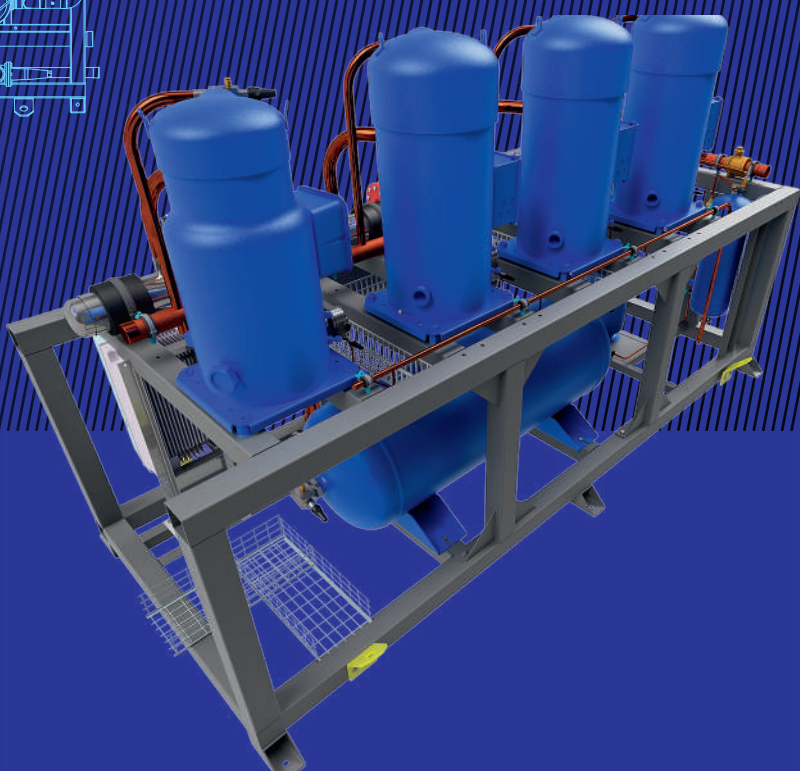
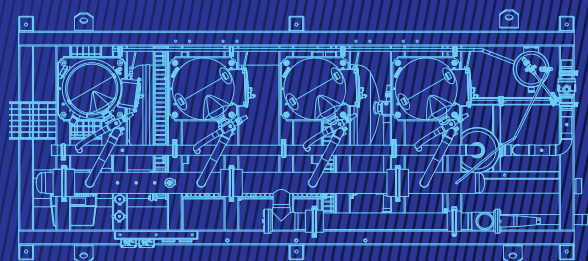
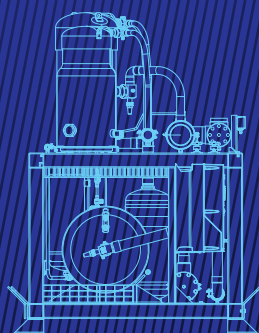
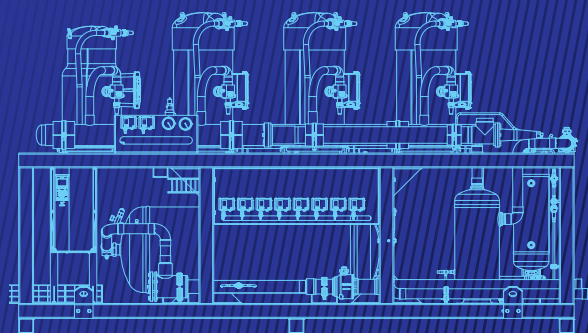
R404A/R507A, t_k = 45°C, t₀ = -17°C, SH=10K, SC=2K

I-CC-L-2xHSK6461 ECO	180,0	99,6	198,0	4200x1400x2000	2800	300	65	65	65	150
I-CC-L-2xHSK7451 ECO	215,0	125,0	250,0	4200x1400x2000	3100	300	80	80	80	150
I-CC-L-2xHSK7471 ECO	260,0	145,0	326,0	4200x1400x2000	3100	300	65	65	65	150
I-CC-L-2xHSK8551 ECO	321,0	205,0	362,0	4600x1600x2000	3750	300	80	80	80	150
I-CC-L-2xCSH8553 ECO	330,0	191,0	372,0	4600x1600x2000	3750	2 x 160	2 x 50	2 x 50	2 x 50	150
I-CC-L-2xCSH8573	315,0	210,0	494,0	4600x1600x2000	3800	2 x 160	2 x 50	2 x 50	2 x 50	150
I-CC-L-2xCSH8573 ECO	418,0	240,0	494,0	4600x1600x2000	3800	2 x 160	2 x 50	2 x 50	2 x 50	150

High temperature chillers

R404A/R507A, t_k = 45°C, t₀ = 2°C, SH=10K, SC=2K

I-CU-H-HSK5343	88,6	28,1	53,0	3500x1200x1800	850	100	35	42	42	50
I-CU-H-HSK5353	103,1	32,6	59,0	3500x1200x1800	850	100	35	42	42	65
I-CU-H-HSK5363	117,1	36,6	67,0	3500x1200x1800	850	100	35	42	42	65
I-CU-H-HSK6451	138,3	40,7	80,0	3500x1200x1800	1200	160	42	54	54	65
I-CU-H-HSK6461	164,7	51,5	99,0	3500x1200x1800	1200	160	42	54	54	80
I-CU-H-HSK7451	202,0	59,8	125,0	3700x1200x1800	1550	160	54	54	54	80
I-CU-H-HSK7461	224,0	66,7	145,0	3700x1200x1800	1550	160	54	54	54	100
I-CU-H-HSK7471	244,0	74,8	163,0	3700x1200x1800	1550	160	54	54	54	100
I-CU-H-HSK8551	313,0	99,3	181,0	3800x1200x1800	1950	160	54	54	54	100
I-CU-H-HSK8561	354,0	110,7	217,0	3800x1200x1800	1950	160	54	54	54	100
I-CU-H-HSK8571	391,0	120,7	247,0	3800x1200x1800	1950	160	65	65	65	125
I-CU-H-HSK8581	444,0	136,1	278,0	3800x1200x1800	2100	300	65	80	80	125
I-CU-H-HSK8591	503,0	153,6	331,0	3800x1200x1800	2100	300	65	80	80	125
I-CU-H-2xHSK5343	177,2	56,2	108,0	4200x1400x2000	2450	160	42	54	54	80
I-CU-H-2xHSK5353	206,2	65,2	120,0	4200x1400x2000	2450	160	42	54	54	100
I-CU-H-2xHSK5363	234,2	73,2	136,0	4200x1400x2000	2800	160	54	54	54	100
I-CU-H-2xHSK6451	276,6	81,4	162,0	4200x1400x2000	2800	200	54	54	54	100
I-CU-H-2xHSK6461	329,4	103,0	200,0	4200x1400x2000	2800	200	54	54	54	100
I-CU-H-2xHSK7451	404,0	119,6	252,0	4200x1400x2000	3100	300	65	65	65	125
I-CU-H-2xHSK7461	448,0	133,4	292,0	4200x1400x2000	3100	300	65	65	65	125
I-CU-H-2xHSK7471	488,0	149,6	328,0	4200x1400x2000	3100	300	65	65	65	125
I-CU-H-2xHSK8551	626,0	198,6	364,0	4600x1600x2000	3750	300	80	80	80	150
I-CU-H-2xHSK8561	708,0	221,4	436,0	4600x1600x2000	3800	300	80	80	80	150
I-CU-H-2xHSK8571	782,0	241,4	496,0	4600x1600x2000	3800	300	80	80	80	150
I-CU-H-2xHSK8581	888,0	272,2	558,0	4600x1600x2000	3800	300	80	80	80	200
I-CU-H-2xHSK8591	1006,0	307,2	664,0	4600x1600x2000	3800	300	80	80	80	200



Liquid chilling systems item name

I-CC – M – 4 x MLZ66T – E2LMVW R407C

1 2 3 4 5 6

- 1. Unit type**
I-CC – Ingenium compressor chiller
- 2. Temperature level**
(evaporation temperature)
L/M/H – Low/Medium/High
- 3. Compressor units' quantity**
No number marking in case of single
- 4. Compressor unit short name**
In case of different compressor types usage, the marking is indicated with "I"
- 5. Options**
refer to "End-to-end options description"
- 6. Refrigerant used** (optional)

Hermetic scroll compressor type liquid chilling systems

(standard package + options)

Standard item list
Hermetic scroll compressor with shutoff valves, crankcase heater and engine protection gear, and high- and low- pressure safety switch per each compressor unit
Discharge manifold
Refrigerant receiver unit equipped with shutoff valves and relief damper, filter drained liquid flow line system, inspection window, shutoff valve, solenoid valve and electrically controlled TE-valve
Heat insulated plate-type evaporator, flow switch, drainage and air exhaust service valves
Oil separator chamber equipped with heater, shutoff valve, filter and inspection window
Receiver unit equipped with shutoff valves, pressure differential valve and one shutoff valve separating oil receiver unit and suction manifold. Shutoff valve to be installed on the oil delivery line, and electrically operated oil level regulator to be provided for each compressor unit
Heat insulated suction manifold
Painted metal frame
Documentation set

Additional options	
Item name	Marking
Vibration isolator set per 1 compressor unit	A1
Vibrating bearings set under frame-mounted compressor unit	A2
Liquid injection system	B3
Steam injection system	B4
Discharge line reinforced check valve per 1 compressor unit	C1
Discharge line check valve following the oil separator	C2
Refrigerant receiver LLS	D1
Refrigerant receiver HLS	D2
Oil receiver LLS	D3
Oil receiver HLS	D4
Control panel	E
Heat insulated liquid separator within each compressor unit suction line	L
High- and low- pressure gauges	M
Suction and discharge manifold equipped with low- and high- pressure switches	P
One high-pressure switch to control condensing fans	P1
Two high-pressure switches to control condensing fans	P2
Three high-pressure switches to control condensing fans	P3
UV rays shielded insulation, IP55-compliant pressure switch protection, additional compressor crankcase heating	S
Shutoff valves set	V
Condensing pressure control system on the discharge line	W

Compressor units can be equipped with extra-standard items with additional options to be provided on request

Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Oil receiver chamber volume, dm	Discharge line, mm	Condensing unit drain line, mm	Liquid flow line, mm	Refrigerant input- output, mm
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Medium temperature chillers

R404A/R507A, $t_k = 45^\circ\text{C}$, $t_o = -10^\circ\text{C}$, SH=10K, SC=2K

I-CU-M-MLZ15T	3,2	1,8	8,0	1100X600X1500	263	16	10	10	10	Дy15
I-CU-M-MLZ19T	4,3	2,2	10,5	1100X600X1500	276	16	10	10	10	Дy15
I-CU-M-MLZ21T	4,6	2,3	10,5	1100X600X1500	276	16	10	10	10	Дy15
I-CU-M-MLZ26T	5,6	2,9	11,0	1100X600X1500	289	16	10	10	10	Дy15
I-CU-M-MLZ30T	6,8	3,4	14,0	1100X600X1500	304	16	10	10	10	Дy20
I-CU-M-MLZ38T	8,2	3,9	16,0	1100X600X1500	319	16	12	12	12	Дy20
I-CU-M-MLZ45T	9,9	4,9	16,0	1100X600X1500	335	16	12	12	12	Дy20
I-CU-M-MLZ48T	10,9	5,4	17,0	1100X600X1500	352	16	12	16	16	Дy20
I-CU-M-MLZ58T	12,5	6,5	21,0	1100X600X1500	352	16	12	16	16	Дy20
I-CU-M-MLZ66T	14,5	7,0	25,0	1100X600X1500	369	25	12	16	16	Дy20
I-CU-M-MLZ76T	16,7	7,9	26,0	1100X600X1500	388	25	16	16	16	Дy20
I-CU-M-SZ148-4	20,2	9,5	33,0	1100X600X1500	407	25	16	16	16	Дy20
I-CU-M-SZ161-4	21,3	11,0	33,0	1100X600X1500	407	25	16	16	16	Дy20
I-CU-M-SZ175-4	22,9	11,7	36,0	1100X600X1500	418	25	16	16	16	Дy25
I-CU-M-SZ185-4	24,6	12,5	36,0	1100X600X1500	428	25	22	22	22	Дy25

I-CU-M-2xMLZ15T	6,4	3,6	15,0	1500X600X1500	470	16	10	10	10	Дy20
I-CU-M-2xMLZ19T	8,6	4,4	20,0	1500X600X1500	540	16	12	12	12	Дy20
I-CU-M-2xMLZ21T	9,2	4,6	20,0	1500X600X1500	565,0	16	12	12	12	Дy20
I-CU-M-2xMLZ26T	11,2	5,8	21,0	1500X600X1500	593	16	12	16	16	Дy20
I-CU-M-2xMLZ30T	13,6	6,8	27,0	1500X600X1500	623	25	12	16	16	Дy20
I-CU-M-2xMLZ38T	16,4	7,8	31,0	1500X600X1500	654	25	16	16	16	Дy20
I-CU-M-2xMLZ45T	19,8	9,8	31,0	1500X600X1500	687	25	16	16	16	Дy20
I-CU-M-2xMLZ48T	21,8	10,8	33,0	1500X600X1500	721	25	16	16	16	Дy20
I-CU-M-2xMLZ58T	25,0	13,0	41,0	1500X600X1500	757	25	22	22	22	Дy25
I-CU-M-2xMLZ66T	29,0	14,0	49,0	1500X600X1500	795	50	22	22	22	Дy32
I-CU-M-2xMLZ76T	33,4	15,8	51,0	1500X600X1500	835	50	22	22	22	Дy32
I-CU-M-2xSZ148-4	40,4	19,0	65,0	1500X600X1500	744	50	22	22	22	Дy40
I-CU-M-2xSZ161-4	42,6	22,0	65,0	1500X600X1500	744	50	22	22	22	Дy40
I-CU-M-2xSZ175-4	45,8	23,4	71,0	1500X600X1500	755	50	22	22	22	Дy40
I-CU-M-2xSZ185-4	49,2	25,0	71,0	1500X600X1500	755	50	22	22	22	Дy40

I-CU-M-3xMLZ15T	9,6	5,4	22,0	2200X1000X1800	356	16	12	12	12	Дy25
I-CU-M-3xMLZ19T	12,9	6,6	29,5	2200X1000X1800	380	32	16	16	16	Дy25
I-CU-M-3xMLZ21T	13,8	6,9	29,5	2200X1000X1800	369	25	12	16	16	Дy25
I-CU-M-3xMLZ26T	16,8	8,7	31,0	2200X1000X1800	388	25	12	16	16	Дy25
I-CU-M-3xMLZ30T	20,4	10,2	40,0	2200X1000X1800	407	25	16	16	16	Дy32
I-CU-M-3xMLZ38T	24,6	11,7	46,0	2200X1000X1800	428	32	22	22	22	Дy32
I-CU-M-3xMLZ45T	29,7	14,7	46,0	2200X1000X1800	435	32	22	22	22	Дy32
I-CU-M-3xMLZ48T	32,7	16,2	49,0	2200X1000X1800	457	50	22	22	22	Дy32
I-CU-M-3xMLZ58T	37,5	19,5	61,0	2200X1000X1800	480	50	22	22	22	Дy32
I-CU-M-3xMLZ66T	43,5	21,0	73,0	2200X1000X1800	504	50	22	28	28	Дy32
I-CU-M-3xMLZ76T	50,1	23,7	76,0	2200X1000X1800	529	50	28	28	28	Дy50
I-CU-M-3xSZ148-4	60,6	28,5	97,0	2600X1000X1800	561	50	28	28	28	Дy50
I-CU-M-3xSZ161-4	63,9	33,0	97,0	2600X1000X1800	561	50	28	28	28	Дy50
I-CU-M-3xSZ175-4	68,7	35,1	106,0	2600X1000X1800	589	50	28	28	28	Дy50
I-CU-M-3xSZ185-4	73,8	37,5	106,0	2600X1000X1800	589	50	28	28	28	Дy50

I-CU-M-4xMLZ15T	12,8	7,2	30,0	3100X600X1800	380	25	16	16	16	Дy25
I-CU-M-4xMLZ19T	17,2	8,8	40,0	3100X600X1800	398	25	16	16	16	Дy25
I-CU-M-4xMLZ21T	18,4	9,2	40,0	3100X600X1800	418	25	16	16	16	Дy25
I-CU-M-4xMLZ26T	22,4	11,6	42,0	3100X600X1800	439	25	16	16	16	Дy20

Hermetic scroll compressor
type liquid chilling systems

Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Oil receiver chamber volume, dm	Discharge line, mm	Condensing unit drain line, mm	Liquid flow line, mm	Refrigerant input- output, mm
I-CU-M-4xMLZ30T	27,2	13,6	54,0	3100X600X1800	461	32	22	22	22	Ду32
I-CU-M-4xMLZ38T	32,8	15,6	62,0	3100X600X1800	484	32	22	22	22	Ду32
I-CU-M-4xMLZ45T	39,6	19,6	62,0	3100X600X1800	509	50	22	28	28	Ду32
I-CU-M-4xMLZ48T	43,6	21,6	66,0	3100X600X1800	534	50	22	28	28	Ду32
I-CU-M-4xMLZ58T	50,0	26,0	82,0	3300X600X1800	561	50	28	28	28	Ду50
I-CU-M-4xMLZ66T	58,0	28,0	98,0	3300X600X1800	589	50	28	28	28	Ду50
I-CU-M-4xMLZ76T	66,8	31,6	102,0	3300X600X1800	618	50	28	28	28	Ду50
I-CU-M-4xSZ148-4	80,8	38,0	130,0	3400X600X1800	748	50	28	28	28	Ду50
I-CU-M-4xSZ161-4	85,2	44,0	130,0	3400X600X1800	748	50	28	28	28	Ду65
I-CU-M-4xSZ175-4	91,6	46,8	142,0	3400X600X1800	785	50	28	28	28	Ду65
I-CU-M-4xSZ185-4	98,4	50,0	142,0	3400X600X1800	785	50	28	28	28	Ду65

High temperature chillers

R404A/R507A, t_k = 45°C, t_o = 2°C, SH=10K, SC=2K

I-CU-H-MLZ15T	5,1	1,7	8,0	1100X600X1500	263	16	10	10	10	Ду15
I-CU-H-MLZ19T	6,8	2,1	10,5	1100X600X1500	276	16	10	10	10	Ду15
I-CU-H-MLZ21T	7,3	2,3	10,5	1100X600X1500	276	16	10	10	10	Ду15
I-CU-H-MLZ26T	9,0	2,9	11,0	1100X600X1500	289	16	10	10	10	Ду15
I-CU-H-MLZ30T	11,0	3,3	14,0	1100X600X1500	304	16	10	10	10	Ду20
I-CU-H-MLZ38T	13,0	3,9	16,0	1100X600X1500	319	16	12	12	12	Ду20
I-CU-H-MLZ45T	16,0	4,9	16,0	1100X600X1500	335	16	12	12	12	Ду20
I-CU-H-MLZ48T	17,5	5,4	17,0	1100X600X1500	352	16	12	16	16	Ду20
I-CU-H-MLZ58T	20,3	6,2	21,0	1100X600X1500	352	16	12	16	16	Ду20
I-CU-H-MLZ66T	23,7	7,2	25,0	1100X600X1500	369	25	12	16	16	Ду20
I-CU-H-MLZ76T	26,5	8,1	26,0	1100X600X1500	388	25	16	16	16	Ду20
I-CU-H-SZ148-4	32,7	10,7	33,0	1100X600X1500	407	25	16	16	16	Ду20
I-CU-H-SZ161-4	35,2	11,0	33,0	1100X600X1500	407	25	16	16	16	Ду20
I-CU-H-SZ175-4	37,9	11,7	36,0	1100X600X1500	418	25	16	16	16	Ду25
I-CU-H-SZ185-4	40,5	12,6	36,0	1100X600X1500	428	25	22	22	22	Ду25

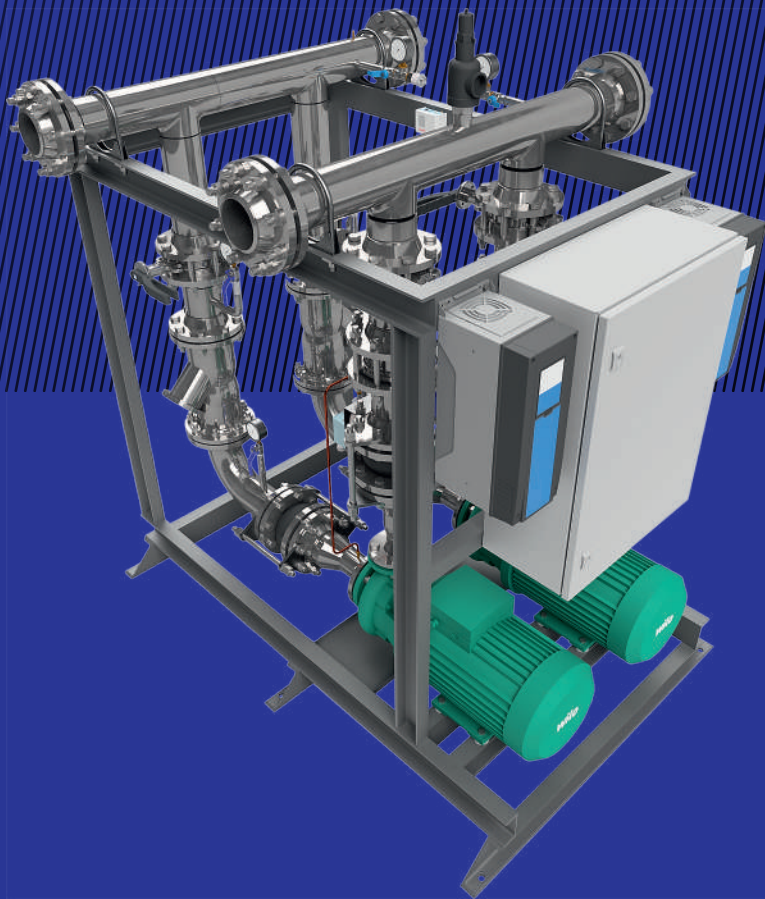
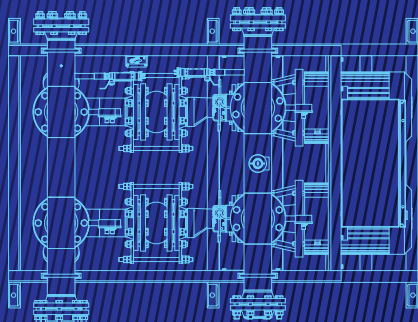
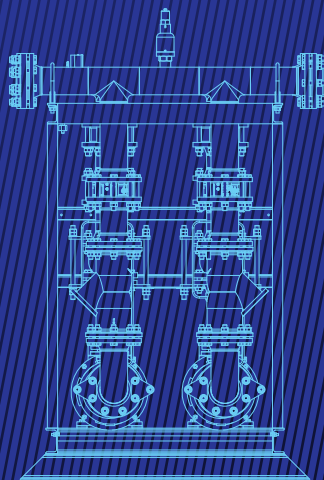
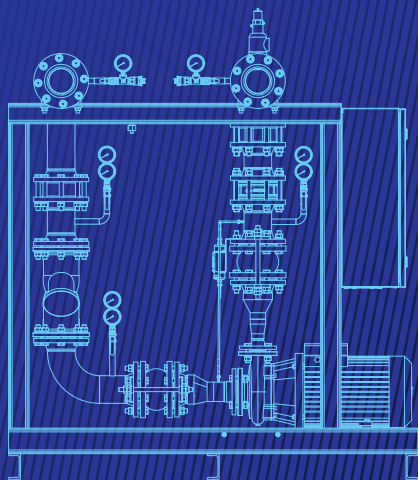
I-CU-H-2xMLZ15T	10,2	3,4	15,0	1500X600X1500	470	16	10	10	10	Ду20
I-CU-H-2xMLZ19T	13,6	4,2	20,0	1500X600X1500	540	16	12	12	12	Ду20
I-CU-H-2xMLZ21T	14,6	4,6	20,0	1500X600X1500	565,0	16	12	12	12	Ду20
I-CU-H-2xMLZ26T	18,0	5,8	21,0	1500X600X1500	593	16	12	16	16	Ду20
I-CU-H-2xMLZ30T	22,0	6,6	27,0	1500X600X1500	623	25	12	16	16	Ду20
I-CU-H-2xMLZ38T	26,0	7,8	31,0	1500X600X1500	654	25	16	16	16	Ду20
I-CU-H-2xMLZ45T	32,0	9,8	31,0	1500X600X1500	687	25	16	16	16	Ду20
I-CU-H-2xMLZ48T	35,0	10,8	33,0	1500X600X1500	721	25	16	16	16	Ду20
I-CU-H-2xMLZ58T	40,6	12,4	41,0	1500X600X1500	757	25	22	22	22	Ду25
I-CU-H-2xMLZ66T	47,4	14,4	49,0	1500X600X1500	795	50	22	22	22	Ду32
I-CU-H-2xMLZ76T	53,0	16,2	51,0	1500X600X1500	835	50	22	22	22	Ду32
I-CU-H-2xSZ148-4	65,4	21,4	65,0	1500X600X1500	744	50	22	22	22	Ду40
I-CU-H-2xSZ161-4	70,4	22,0	65,0	1500X600X1500	744	50	22	22	22	Ду40
I-CU-H-2xSZ175-4	75,8	23,4	71,0	1500X600X1500	755	50	22	22	22	Ду40
I-CU-H-2xSZ185-4	81,0	25,2	71,0	1500X600X1500	755	50	22	22	22	Ду40

I-CU-H-3xMLZ15T	15,3	5,1	23,0	2200X1000X1800	356	16	12	12	12	Ду25
I-CU-H-3xMLZ19T	20,4	6,3	30,5	2200X1000X1800	380	32	16	16	16	Ду25
I-CU-H-3xMLZ21T	21,9	6,9	30,5	2200X1000X1800	369	25	12	16	16	Ду25
I-CU-H-3xMLZ26T	27,0	8,7	32,0	2200X1000X1800	388	25	12	16	16	Ду25
I-CU-H-3xMLZ30T	33,0	9,9	41,0	2200X1000X1800	407	25	16	16	16	Ду32
I-CU-H-3xMLZ38T	39,0	11,7	47,0	2200X1000X1800	428	32	22	22	22	Ду32
I-CU-H-3xMLZ45T	48,0	14,7	47,0	2200X1000X1800	435	32	22	22	22	Ду32
I-CU-H-3xMLZ48T	52,5	16,2	50,0	2200X1000X1800	457	50	22	22	22	Ду32
I-CU-H-3xMLZ58T	60,9	18,6	62,0	2200X1000X1800	480	50	22	22	22	Ду32

**Hermetic scroll compressor
type liquid chilling systems**

Model	Cooling capacity, kW	Power consumption, kW	Maximum current rating, A	Overall dimensions, LxWxH, mm	Weight, kg	Oil receiver chamber volume, dm	Discharge line, mm	Condensing unit drain line, mm	Liquid flow line, mm	Refrigerant input- output, mm
I-CU-H-3xMLZ66T	71,1	21,6	74,0	2200X1000X1800	504	50	22	28	28	Дy32
I-CU-H-3xMLZ76T	79,5	24,3	77,0	2200X1000X1800	529	50	28	28	28	Дy50
I-CU-H-3xSZ148-4	98,1	32,1	98,0	2600X1000X1800	561	50	28	28	28	Дy50
I-CU-H-3xSZ161-4	105,6	33,0	98,0	2600X1000X1800	561	50	28	28	28	Дy50
I-CU-H-3xSZ175-4	113,7	35,1	107,0	2600X1000X1800	589	50	28	28	28	Дy50
I-CU-H-3xSZ185-4	121,5	37,8	107,0	2600X1000X1800	589	50	28	28	28	Дy50
I-CU-H-4xMLZ15T	20,4	6,8	30,0	3100X600X1800	380	25	16	16	16	Дy25
I-CU-H-4xMLZ19T	27,2	8,4	40,0	3100X600X1800	398	25	16	16	16	Дy25
I-CU-H-4xMLZ21T	29,2	9,2	40,0	3100X600X1800	418	25	16	16	16	Дy25
I-CU-H-4xMLZ26T	36,0	11,6	42,0	3100X600X1800	439	25	16	16	16	Дy20
I-CU-H-4xMLZ30T	44,0	13,2	54,0	3100X600X1800	461	32	22	22	22	Дy32
I-CU-H-4xMLZ38T	52,0	15,6	62,0	3100X600X1800	484	32	22	22	22	Дy32
I-CU-H-4xMLZ45T	64,0	19,6	62,0	3100X600X1800	509	50	22	28	28	Дy32
I-CU-H-4xMLZ48T	70,0	21,6	66,0	3100X600X1800	534	50	22	28	28	Дy32
I-CU-H-4xMLZ58T	81,2	24,8	82,0	3300X600X1800	561	50	28	28	28	Дy50
I-CU-H-4xMLZ66T	94,8	28,8	98,0	3300X600X1800	589	50	28	28	28	Дy50
I-CU-H-4xMLZ76T	106,0	32,4	102,0	3300X600X1800	618	50	28	28	28	Дy50
I-CU-H-4xSZ148-4	130,8	42,8	130,0	3400X600X1800	748	50	28	28	28	Дy50
I-CU-H-4xSZ161-4	140,8	44,0	130,0	3400X600X1800	748	50	28	28	28	Дy65
I-CU-H-4xSZ175-4	151,6	46,8	142,0	3400X600X1800	785	50	28	28	28	Дy65
I-CU-H-4xSZ185-4	162,0	50,4	142,0	3400X600X1800	785	50	28	28	28	Дy65

Pumping units



Pumping units item name

I-PU – 1/2 x BL65/170-4/2 – EQ5

1	2	3	4
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- 1. Unit type
I-PU – Ingenium pumping unit
- 2. Pumping units' quantity
Operating unit / pumping units in total
No number marking in case of single
- 3. Pumping unit short name
In case of different pump types usage, the marking is indicated with "I"
- 4. Options
refer to "End-to-end options description"

Standard item list
Centrifugal pump
Check valve, shutoff valve, heat insulated discharge line for each pumping unit
Shutoff valve, gauze filter, heat insulated suction line for each pumping unit
Pressure differential switch and drainage / air exhaust service valves per each pumping unit
Heat insulated suction and discharge manifold for one pumping unit and multi pumping units
High- and low- pressure gauge
Painted metal frame
Documentation set

Additional options	
Item name	Marking
Control panel	E
Frequency regulation unit for master pump capacity control	Q5

Pumping units can be equipped with extra-standard items with additional options to be provided on request

Pumping units

One-pump unit type

Unit model	Overall dimensions, LxWxH, mm	Refrigerant input-output, mm	Weight, kg
I-PU-0..1	700x400x1000	Дy15	40
I-PU-1..2	700x400x1000	Дy20	44
I-PU-2..4	800x500x1100	Дy25	77
I-PU-4..7	900x500x1100	Дy32	94
I-PU-7..10	1000x500x1100	Дy40	120
I-PU-10..16	1000x600x1300	Дy50	172
I-PU-16..25	1000x600x1300	Дy65	182
I-PU-25..35	1100x700x1700	Дy80	228
I-PU-35..60	1250x700x1700	Дy100	388
I-PU-60..85	1400x700x1800	Дy125	473
I-PU-85..130	1550x800x2000	Дy150	605
I-PU-130..220	1800x900x2300	Дy200	982

Two-pump unit type

Unit model	Overall dimensions, LxWxH, mm	Refrigerant input-output, mm	Weight, kg
I-PU-0..1	700x700x1000	Дy20	80
I-PU-1..2	700x700x1000	Дy32	89
I-PU-2..4	800x900x1100	Дy40	155
I-PU-4..7	900x900x1100	Дy50	190
I-PU-7..10	1000x1000x1100	Дy65	243
I-PU-10..16	1000x1100x1300	Дy80	349
I-PU-16..25	1000x1100x1300	Дy100	370
I-PU-25..35	1100x1300x1700	Дy125	465
I-PU-35..60	1250x1300x1700	Дy150	790
I-PU-60..85	1400x1300x1800	Дy200	964
I-PU-85..130	1550x1400x2100	Дy250	1232
I-PU-130..220	1800x1500x2400	Дy300	1999

Three-pump unit type

Unit model	Overall dimensions, LxWxH, mm	Refrigerant input-output, mm	Weight, kg
I-PU-0..1	700x1100x1000	Дy20	121
I-PU-1..2	700x1100x1000	Дy32	133
I-PU-2..4	800x1450x1100	Дy40	233
I-PU-4..7	900x1450x1100	Дy50	286
I-PU-7..10	1000x1700x1100	Дy65	366
I-PU-10..16	1000x2100x1300	Дy80	525
I-PU-16..25	1000x2100x1300	Дy100	558
I-PU-25..35	1100x2100x1700	Дy125	699
I-PU-35..60	1250x2100x1700	Дy150	1187
I-PU-60..85	1400x2100x1800	Дy200	1447
I-PU-85..130	1550x2200x2100	Дy250	1850
I-PU-130..220	1800x2300x2400	Дy300	2999



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