ERAE Kc

AIR COOLED CHILLERS WITH SCROLL COMPRESSOR AND AXIAL FANS

COOLING CAPACITY FROM 150 to 771 kW

The images shown above are indicative and not binding.

AIR COOLED CHILLERS FOR OUTDOOR INSTALLATION WITH SCROLL COMPRESSOR, AXIAL FANS AND HEAT-EXCHANGE EXTERNAL COILS WITH MICRO-FINNED COPPER TUBES

Packaged air cooled chillers of ERAE...Kc series are suitable for outdoor installation and can be used to cool pure fluid solutions for air conditioning or in industrial applications.
Multiscroll technology allows to reach great efficiency improvements at part load, if compared to the other traditional systems for cooling capacity control.
The coupling of high-efficiency finned exchangers and the thermo physical purity of R410A refrigerant, particularly glide-free at state exchanges, allows this range to attain good nominal performances and to meet the requirements for seasonal efficiency foreseen by the (EU) Regulation 2016/2281.

These units have been designed considering limited space requirements and keeping, at the same time, high cooling performances. Such result has been attained with high-quality and up-to-date components.
All units are completely assembled and tested in the factory with specific quality procedures and are already equipped with all necessary hydraulic, refrigerant and electrical connections for a quick installation on site.
Before factory testing, cooling circuits are tested under pressure and then supplied with R410a refrigerant and a non-freezing oil charge.

Operation limits:

Standard units
Air: from -20 to 42°C; **Water** (outlet from the evaporator): from 5 to 15°C.

WA application units
Air: from +10 to 38°C; **Water** (outlet from the evaporator): from 7,1 to 18°C.

Structure
Structure made of a base and a chassis manufactured in high-thickness galvanised steel, assembled with stainless steel rivets.
All galvanised steel surfaces are powder-coated with colour RAL 7035.

Compressors
Scroll compressors with R410a refrigerant, operating on two independent circuits in tandem or trio version.
The compressors are installed on rubber isolation dampers, provided with direct-start motors cooled by suction gas and fitted with both overload protection and crankcase heaters.
They are charged with polyester oil and the terminal board is IP54.
The on-board microprocessor automatically controls the individual compressors to regulate the cooling capacity.

Evaporator
Stainless steel plate evaporator of dual circuit type, with high thickness close cell insulation and UV ray-proof.
The max operating pressure limits are 6 bar for water side and 45 bar for refrigerant side.
The evaporator is also equipped with safety water flow switch switching off the unit in case of low water flow through the evaporator.

Heat-exchange coils
Heat-exchange external coils with micro-finned copper tubes, positioned in staggered rows and mechanically expanded into an aluminium finned pack.
Fins are designed with such a shape providing the highest heat exchange efficiency.
The max operating pressure refrigerant side is 45 relative bar.

Fans
6-poles Axial Fans with electrical motor with external rotor directly coupled to the impeller and driven by a V/F inverter system which controls the condensation temperature.
Aluminum blades with wings profile are suitably designed to avoid any turbulence in the air detachment zone, granting in this way the max efficiency with the minimum noise level.
The fan is equipped with galvanized steel protection grid painted after the construction.
The fan motors are of totally closed type and have got a protection factor IP54 and protection winding-flooded thermostat.

Refrigerant circuit
Independent cooling circuits, each provided with a shut-off valve for refrigerant charge, antifreeze sensor, shut-off valves on liquid lines, sight glass, dehydrating filter, high-pressure safety device on high pressure refrigerant side and mechanical thermostatic expansion valve (electronic type from 40020 model to 59020) as well as high and low pressure switches and gauges.

Electric board
Electric board built in compliance with CE Norms, inside of which are placed the control system and the components for motors starting, wired and tested in the factory. It is made by a cabinet suitable for outdoor installation, containing power and control devices, microprocessor electronic board complete with keypad and display, for visualizing the several functions available, main switch of lock-door type, isolation transformer for auxiliary circuits, automatic switches, fuses and protection switches for compressors and fans, terminals for general alarm and remote ON/OFF, terminal board, relays for phase sequencing and possibility to interface to BMS systems.

Versions

ERAE...Kc – standard version

ERAE...U Kc – Ultra silenced version (U)
Reduced sound level in version U is realised by using condensers with larger surface areas as well as soundproofed compressor cabinets.

Applications

Warm applications version (WA)
Units CE certified in compliance with the European regulation 2016/2281 at working conditions, on the use side 23°C / 18°C.

Abroad market version (AM)
Units in compliance with the European regulation whose sales is reserved to countries out of the European Union.

Technical data - ERAE Kc serie

ERAE Kc		16020	19020	24020	28020	32020	35120
Performance data							
Cooling capacity (EN14511)	kW	153,3	194,1	240,9	277,6	312,1	355,5
Total input power (EN14511)	kW	54,2	71,2	89,4	103,2	114,2	131,3
EER	W/W	2,83	2,73	2,69	2,69	2,73	2,71
SEER (1)		3,83	3,80	3,81	3,96	3,87	4,00
ηs,c (1)		150,3	148,9	149,2	155,4	151,7	157,0
Refrigerant data R410A							
Global warming potential	GWP	2088	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	62,6	71,0	91,9	96,0	116,9	121,1
Refrigerant charge	Kg	30	34	44	46	56	58
Scroll Compressors							
Quantity/Circuits	n°/n°	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2
Nominal consumption of the unit	A	91,8	109,6	138,6	157	174,6	198,5
Max. current consumption of the unit	A	140	165	195	229	264	299
Max. starting current of the unit	A	250	310	380	429	444	559
Axial fans							
Quantity	n°	2	3	3	4	4	5
Motors power input	kW	5,0	7,4	7,4	9,9	9,9	12,4
Total condensing air flow	m^3/h	50500	80100	75950	106800	101050	133500
Electrical current consumption	A	10,3	15,5	15,5	20,6	20,6	25,8
Evaporator plate heat exchanger							
Quantity	n°	1	1	1	1	1	1
Water flow	m^3/h	26,4	33,5	41,5	47,9	53,8	61,3
Pressure drop	kPa	31,0	48,0	58,0	56,0	71,0	58,5
Sound power level (2)	dB(A)	88,0	92,5	94,5	95,0	95,0	96,0
Power supply	V/Hz/Ph	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3

ERAE Kc		40020	46020	51020	55020	59020
Performance data						
Cooling capacity (EN14511)	kW	399,5	465,4	501,4	551,8	588,1
Total input power (EN14511)	kW	144,2	171,3	187,5	198,4	215,6
EER	W/W	2,27	2,72	2,67	2,78	2,73
SEER (1)		3,87	4,16	4,12	4,15	4,12
ηs,c (1)		151,6	163,6	161,9	162,9	160,1
Refrigerant data R410A						
Global warming potential	GWP	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	154,5	187,9	187,9	221,3	225,5
Refrigerant charge	Kg	74	90	90	106	108
Scroll Compressors						
Quantity/Circuits	n°/n°	4 / 2	6 / 2	6 / 2	6 / 2	6 / 2
Nominal consumption of the unit	A	219,4	262	287,2	305	326,4
Max. current consumption of the unit	A	334	394	429	464	496
Max. starting current of the unit	A	579	539	649	669	691
Axial fans						
Quantity	n°	5	8	8	8	10
Motors power input	kW	12,4	15,5	15,5	15,5	19,4
Total condensing air flow	m^3/h	126350	169100	169100	162350	211450
Electrical current consumption	A	25,8	31,2	31,2	31,2	39,0
Evaporator plate heat exchanger						
Quantity	n°	1	1	1	1	1
Water flow	m^3/h	68,9	80,2	86,4	95,1	101,4
Pressure drop	kPa	53,5	47,5	55,0	62,0	73,0
Sound power level (2)	dB(A)	98,5	98,5	98,5	98,5	100,0
Power supply	V/Hz/Ph	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3

Performances are referred to the following conditions: ambient air temperature 35°C - water 12/7°C

(1) In accordance with (EU) 2016/2281 and relative norms part of this.

(2) Sound power level in accordance with ISO 3744.

Technical data - ERAE WA Kc serie

ERAE WA Kc		16020	19020	24020	28020	32020	35120
Performance data							
Cooling capacity (EN14511)	kW	195,3	245,8	306,1	351,7	400,6	458,9
Total input power (EN14511)	kW	62,63	84,07	103,80	118,80	133,30	149,50
EER	W/W	3,12	2,92	2,95	2,96	3,01	3,07
SEER (1)		3,96	3,90	3,89	4,04	3,84	4,08
ηs,c (1)		155,3	152,9	152,6	158,5	150,7	160,3
Refrigerant data R410A							
Global warming potential	GWP	2088	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	54,3	62,6	75,2	96,0	96,0	125,3
Refrigerant charge	Kg	26	30	36	46	46	60
Scroll Compressors							
Quantity/Circuits	n°/n°	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2
Nominal consumption of the unit	A	102,9	127,6	155,9	180,1	200,2	226
Max. current consumption of the unit	A	140	165	195	230	264	299
Max. starting current of the unit	A	260	325	395	445	464	574
Axial fans							
Quantity	n°	2	2	3	3	4	4
Motors power input	kW	5,0	5,0	7,4	7,4	9,9	9,9
Total condensing air flow	m^3/h	50500	50500	80100	80100	106800	106800
Electrical current consumption	A	10,3	10,3	15,5	15,5	20,6	20,6
Evaporator plate heat exchanger							
Quantity	n°	1	1	1	1	1	1
Water flow	m^3/h	33,8	42,7	53,1	61,1	69,3	79,7
Pressure drop	kPa	47,0	72,0	92,0	82,0	106,0	90,0
Sound power level (2)	dB(A)	88,0	91,5	94,5	95,0	95,0	96,0
Power supply	V/Hz/Ph	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3

ERAE WA Kc		40020	46020	51020	55020	59020
Performance data						
Cooling capacity (EN14511)	kW	515,7	603,0	646,4	696,2	771,5
Total input power (EN14511)	kW	169,00	199,80	219,80	235,20	245,3
EER	W/W	3,05	3,02	2,94	2,96	3,14
SEER (1)		3,87	4,22	4,15	4,30	4,23
ηs,c (1)		151,7	165,6	162,9	168,9	166,4
Refrigerant data R410A						
Global warming potential	GWP	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	125,3	167,0	183,7	192,1	221,3
Refrigerant charge	Kg	60	80	88	92	106
Scroll Compressors						
Quantity/Circuits	n°/n°	4 / 2	6 / 2	6 / 2	6 / 2	6 / 2
Nominal consumption of the unit	A	253,6	305,1	335,7	355,8	371,1
Max. current consumption of the unit	A	334	394	429	464	499
Max. starting current of the unit	A	604	569	684	709	729
Axial fans						
Quantity	n°	5	5	5	8	8
Motors power input	kW	12,4	12,4	12,4	15,5	15,5
Total condensing air flow	m^3/h	133500	133500	133500	169100	169100
Electrical current consumption	A	25,8	25,8	25,8	31,2	31,2
Evaporator plate heat exchanger						
Quantity	n°	1	1	1	1	1
Water flow	m^3/h	89,5	104,8	112,4	120,8	133,9
Pressure drop	kPa	83,0	76,0	86,0	91,5	111,0
Sound power level (2)	dB(A)	98,5	98,5	98,5	98,5	100,0
Power supply	V/Hz/Ph	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3

Performances are referred to the following conditions: ambient air temperature 35°C - water 23/18°C

(1) In accordance with (EU) 2016/2281 and relative norms part of this.

(2) Sound power level in accordance with ISO 3744.

Technical data - ERAE AM Kc serie

ERAE AM Kc		16020	19020	24020	28020	32020	35120
Performance data							
Cooling capacity (EN14511)	kW	147,7	184,9	234,0	266,4	303,5	348,0
Total input power (EN14511)	kW	56,5	73,7	93,2	105,5	118,3	132,1
EER	W/W	2,61	2,51	2,51	2,53	2,57	2,63
SEER (1)		3,34	3,40	3,55	3,51	3,38	3,58
ηs,c (1)		130,6	133,0	139,0	137,3	132,2	140,2
Refrigerant data R410A							
Global warming potential	GWP	2088	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	54,3	62,6	75,2	96,0	96,0	125,3
Refrigerant charge	Kg	26	30	36	46	46	60
Scroll Compressors							
Quantity/Circuits	n°/n°	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2
Nominal consumption of the unit	A	95,1	116	143,4	163,3	180,5	203
Max. current consumption of the unit	A	140	165	195	230	264	299
Max. starting current of the unit	A	255	315	385	435	449	559
Axial fans							
Quantity	n°	2	2	3	3	4	4
Motors power input	kW	5,0	5,0	7,4	7,4	9,9	9,9
Total condensing air flow	m^3/h	50500	50500	80100	80100	106800	106800
Electrical current consumption	A	10,3	10,3	15,5	15,5	20,6	20,6
Evaporator plate heat exchanger							
Quantity	n°	1	1	1	1	1	1
Water flow	m^3/h	25,5	31,9	40,3	45,9	52,3	60,0
Pressure drop	kPa	29,0	44,0	53,5	52,0	67,5	56,5
Sound power level (2)	dB(A)	88,0	91,5	94,5	95,0	95,0	96,0
Power supply	V/Hz/Ph	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3

ERAE AM Kc		40020	46020	51020	55020	59020
Performance data						
Cooling capacity (EN14511)	kW	390,0	455,3	488,7	529,7	582,9
Total input power (EN14511)	kW	149,3	176,1	192,9	207,9	216,1
EER	W/W	2,61	2,59	2,53	2,55	2,70
SEER (1)		3,43	3,60	3,58	3,73	3,80
ηs,c (1)		134,0	141,1	140,4	146,1	149,1
Refrigerant data R410A						
Global warming potential	GWP	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	125,3	167,0	183,7	192,1	221,3
Refrigerant charge	Kg	60	80	88	92	106
Scroll Compressors						
Quantity/Circuits	n°/n°	4 / 2	6 / 2	6 / 2	6 / 2	6 / 2
Nominal consumption of the unit	A	227	273,3	299,4	318,9	332,5
Max. current consumption of the unit	A	334	394	429	464	499
Max. starting current of the unit	A	584	544	654	679	694
Axial fans						
Quantity	n°	5	5	5	8	8
Motors power input	kW	12,4	12,4	12,4	15,5	15,5
Total condensing air flow	m^3/h	133500	133500	133500	169100	169100
Electrical current consumption	A	25,8	25,8	25,8	31,2	31,2
Evaporator plate heat exchanger						
Quantity	n°	1	1	1	1	1
Water flow	m^3/h	67,2	78,5	84,3	91,3	100,5
Pressure drop	kPa	51,0	45,5	52,5	57,5	72,5
Sound power level (2)	dB(A)	98,5	98,5	98,5	98,5	100,0
Power supply	V/Hz/Ph	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3

Performances are referred to the following conditions: ambient air temperature 35°C - water 12/7°C

(1) In accordance with (EU) 2016/2281 and relative norms part of this.

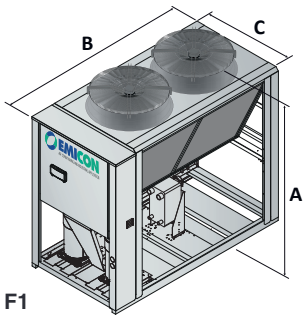
(2) Sound power level in accordance with ISO 3744.

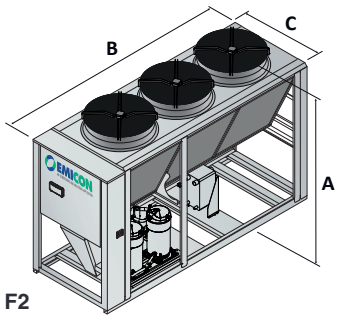
Accessories - ERAE Kc serie

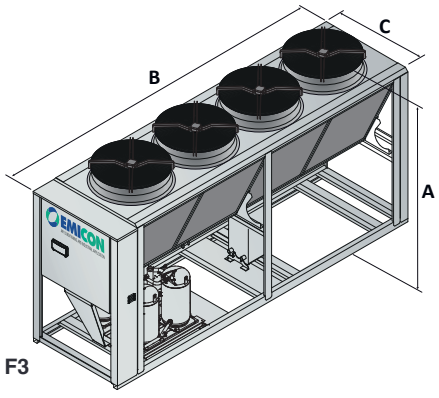
ERAE Kc		16020	19020	24020	28020	32020	35120
Amperometer	A	o	o	o	o	o	o
Low ambient temperature operation (down to -20°C)	BF	●	●	●	●	●	●
Soundproofed compressors cabinet with standard material	CF	o	o	o	o	o	o
Overall compressor and technical compartment cabinet	CFT	o	o	o	o	o	o
Compressors inrush counter	CS	o	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o	o
Anti-intrusion grid	GP2	o	o	o	o	o	o
Anti-intrusion grid with compressors cabinet	GP3	o	o	o	o	o	o
Victaulic insulation on pump side	I1	o	o	o	o	o	o
Victaulic insulation buffer tank side	I2	o	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o	o
Buffer tank module	MV	o	o	o	o	o	o
Pump group	P1	o	o	o	o	o	o
Higher available pressure pump group	P1H	o	o	o	o	o	o
Double pump group (only one working)	P2	o	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	o	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o	o
Remote display	PQ	o	o	o	o	o	o
In-line twin pump group (only one working)	PT	o	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o	o
Electronic thermostatic valve	TE	o	o	o	o	o	o
Voltmeter	V	o	o	o	o	o	o
Brine Version	VB	o	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o	o
Partial heat recovery	RP	o	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o	o
Copper/Copper coil	RR	o	o	o	o	o	o
Condensing coil with pre-painted fins	RM	o	o	o	o	o	o
Personalized frame painting in alternative RAL colour	RV	o	o	o	o	o	o

● Standard o Optional - Not available

Dimensions - ERAE Kc serie







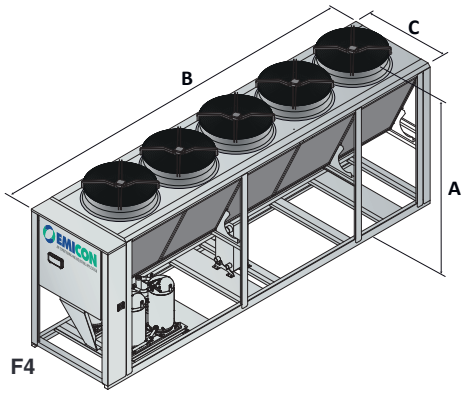
Mod.		A (mm)	B (mm)	C (mm)	Kg
16020	F1	2420	2660	1370	1166
19020	F2	2420	3700	1370	1620
24020	F2	2420	3700	1370	1776
28020	F3	2420	4740	1370	1954
32020	F3	2420	4740	1370	2066
35120	F4	2420	5780	1370	2248

Accessories - ERAE Kc serie

ERAE Kc		40020	46020	51020	55020	59020
Amperometer	A	o	o	o	o	o
Low ambient temperature operation (down to -20°C)	BF	●	●	●	●	●
Soundproofed compressors cabinet with standard material	CF	o	o	o	o	o
Overall compressor and technical compartment cabinet	CFT	o	-	-	-	-
Compressors inrush counter	CS	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o
Anti-intrusion grid	GP2	o	o	o	o	o
Anti-intrusion grid with compressors cabinet	GP3	o	o	o	o	o
Victaulic insulation on pump side	I1	o	o	o	o	o
Victaulic insulation buffer tank side	I2	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o
Buffer tank module	MV	o	o	o	o	o
Pump group	P1	o	o	o	o	o
Higher available pressure pump group	P1H	o	o	o	o	o
Double pump group (only one working)	P2	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o
Remote display	PQ	o	o	o	o	o
In-line twin pump group (only one working)	PT	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o
Electronic thermostatic valve	TE	●	●	●	●	●
Voltmeter	V	o	o	o	o	o
Brine Version	VB	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o
Partial heat recovery	RP	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o
Copper/Copper coil	RR	o	o	o	o	o
Condensing coil with pre-painted fins	RM	o	o	o	o	o
Personalized frame painting in alternative RAL colour	RV	o	o	o	o	o

● Standard o Optional - Not available

Dimensions - ERAE Kc serie



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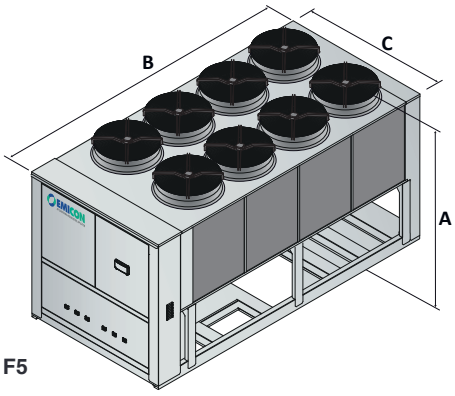

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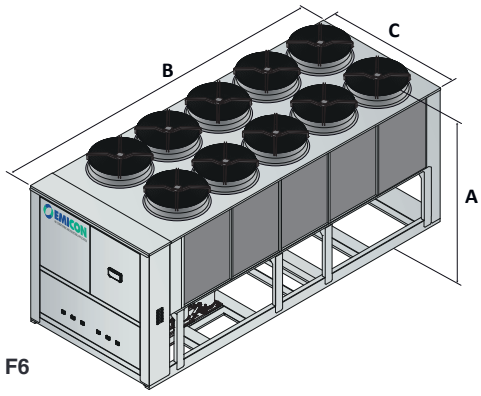


F6

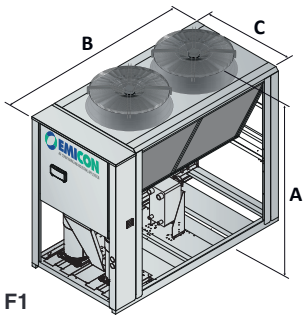
Mod.		A (mm)	B (mm)	C (mm)	Kg
40020	F4	2420	5780	1370	2410
46020	F5	2560	4750	2300	3278
51020	F5	2560	4750	2300	3368
55020	F5	2560	4750	2300	3592
59020	F6	2560	5700	2300	4038

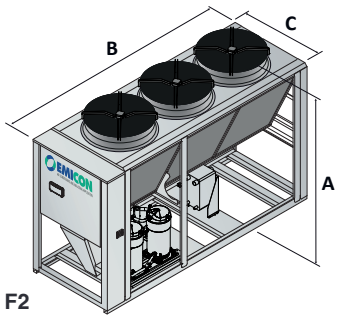
Accessories - ERAE WA Kc serie

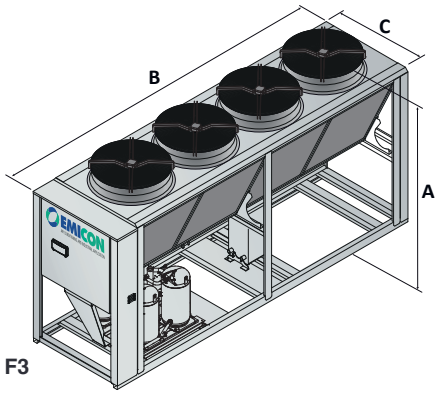
ERAE WA Kc		16020	19020	24020	28020	32020	35120
Amperometer	A	o	o	o	o	o	o
Low ambient temperature operation (down to -20°C)	BF	o	o	o	o	o	o
Soundproofed compressors cabinet with standard material	CF	o	o	o	o	o	o
Overall compressor and technical compartment cabinet	CFT	o	o	o	o	o	o
Compressors inrush counter	CS	o	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o	o
Anti-intrusion grid	GP2	o	o	o	o	o	o
Anti-intrusion grid with compressors cabinet	GP3	o	o	o	o	o	o
Victaulic insulation on pump side	I1	o	o	o	o	o	o
Victaulic insulation buffer tank side	I2	o	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o	o
Buffer tank module	MV	o	o	o	o	o	o
Pump group	P1	o	o	o	o	o	o
Higher available pressure pump group	P1H	o	o	o	o	o	o
Double pump group (only one working)	P2	o	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	o	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o	o
Remote display	PQ	o	o	o	o	o	o
In-line twin pump group (only one working)	PT	o	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o	o
Electronic thermostatic valve	TE	o	o	o	o	o	o
Voltmeter	V	o	o	o	o	o	o
Brine Version	VB	o	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o	o
Partial heat recovery	RP	o	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o	o
Copper/Copper coil	RR	o	o	o	o	o	o
Condensing coil with pre-painted fins	RM	o	o	o	o	o	o
Personalized frame painting in alternative RAL colour	RV	o	o	o	o	o	o

● Standard o Optional - Not available

Dimensions - ERAE WA Kc serie







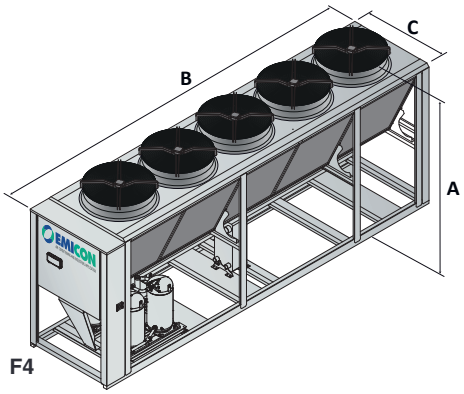
Mod.		A (mm)	B (mm)	C (mm)	Kg
16020	F1	2420	2660	1370	1110
19020	F1	2420	2660	1370	1516
24020	F2	2420	3700	1370	1690
28020	F2	2420	3700	1370	1870
32020	F3	2420	4740	1370	1954
35120	F3	2420	4740	1370	2200

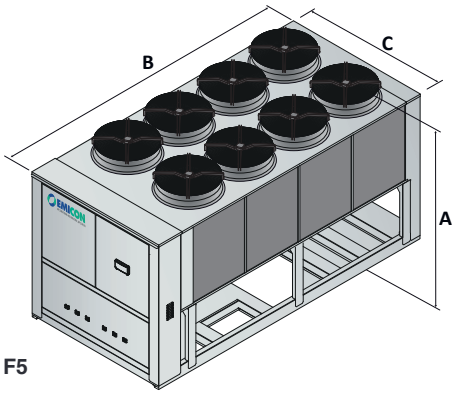
Accessories - ERAE WA Kc serie

ERAE WA Kc		40020	46020	51020	55020	59020
Amperometer	A	o	o	o	o	o
Low ambient temperature operation (down to -20°C)	BF	o	o	o	o	o
Soundproofed compressors cabinet with standard material	CF	o	o	o	o	o
Overall compressor and technical compartment cabinet	CFT	o	o	o	-	-
Compressors inrush counter	CS	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o
Anti-intrusion grid	GP2	o	o	o	o	o
Anti-intrusion grid with compressors cabinet	GP3	o	o	o	o	o
Victaulic insulation on pump side	I1	o	o	o	o	o
Victaulic insulation buffer tank side	I2	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o
Buffer tank module	MV	o	o	o	o	o
Pump group	P1	o	o	o	o	o
Higher available pressure pump group	P1H	o	o	o	o	o
Double pump group (only one working)	P2	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o
Remote display	PQ	o	o	o	o	o
In-line twin pump group (only one working)	PT	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o
Electronic thermostatic valve	TE	o	o	o	o	o
Voltmeter	V	o	o	o	o	o
Brine Version	VB	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o
Partial heat recovery	RP	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o
Copper/Copper coil	RR	o	o	o	o	o
Condensing coil with pre-painted fins	RM	o	o	o	o	o
Personalized frame painting in alternative RAL colour	RV	o	o	o	o	o

● Standard o Optional - Not available

Dimensions - ERAE WA Kc serie





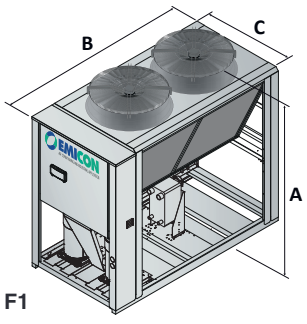
Mod.		A (mm)	B (mm)	C (mm)	Kg
40020	F4	2420	5780	1370	2270
46020	F4	2420	5780	1370	2752
51020	F4	2420	5780	1370	2982
55020	F5	2560	4750	2300	3380
59020	F5	2560	4750	2300	3592

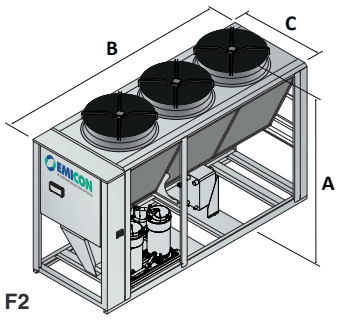
Accessories - ERAE AM Kc serie

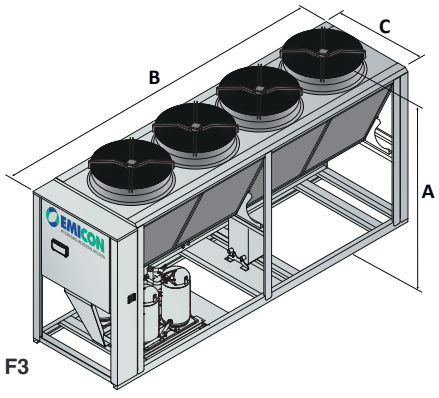
ERAE AM Kc		16020	19020	24020	28020	32020	35120
Amperometer	A	o	o	o	o	o	o
Low ambient temperature operation (down to -20°C)	BF	o	o	o	o	o	o
Soundproofed compressors cabinet with standard material	CF	o	o	o	o	o	o
Overall compressor and technical compartment cabinet	CFT	o	o	o	o	o	o
Compressors inrush counter	CS	o	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o	o
Anti-intrusion grid	GP2	o	o	o	o	o	o
Anti-intrusion grid with compressors cabinet	GP3	o	o	o	o	o	o
Victaulic insulation on pump side	I1	o	o	o	o	o	o
Victaulic insulation buffer tank side	I2	o	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o	o
Buffer tank module	MV	o	o	o	o	o	o
Pump group	P1	o	o	o	o	o	o
Higher available pressure pump group	P1H	o	o	o	o	o	o
Double pump group (only one working)	P2	o	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	o	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o	o
Remote display	PQ	o	o	o	o	o	o
In-line twin pump group (only one working)	PT	o	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o	o
Electronic thermostatic valve	TE	o	o	o	o	o	o
Voltmeter	V	o	o	o	o	o	o
Brine Version	VB	o	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o	o
Partial heat recovery	RP	o	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o	o
Copper/Copper coil	RR	o	o	o	o	o	o
Condensing coil with pre-painted fins	RM	o	o	o	o	o	o
Personalized frame painting in alternative RAL colour	RV	o	o	o	o	o	o

● Standard o Optional - Not available

Dimensions - ERAE AM Kc serie







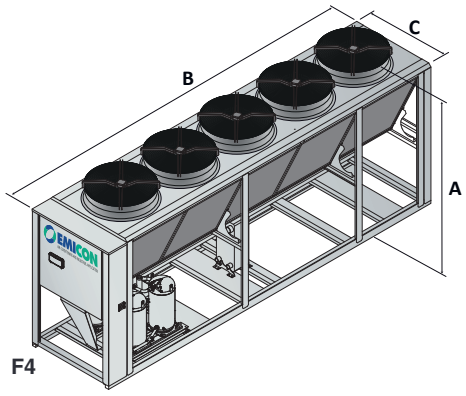
Mod.		A (mm)	B (mm)	C (mm)	Kg
16020	F1	2420	2660	1370	1110
19020	F1	2420	2660	1370	1516
24020	F2	2420	3700	1370	1690
28020	F2	2420	3700	1370	1870
32020	F3	2420	4740	1370	1954
35120	F3	2420	4740	1370	2200

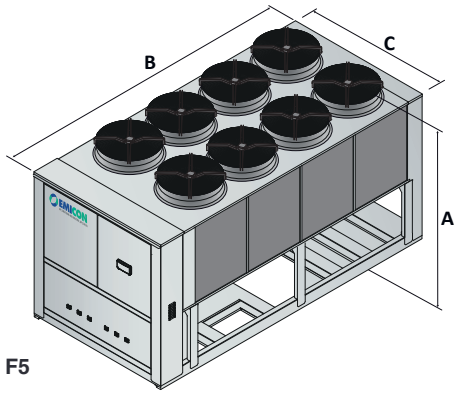
Accessories - ERAE AM Kc serie

ERAE AM Kc		40020	46020	51020	55020	59020
Amperometer	A	o	o	o	o	o
Low ambient temperature operation (down to -20°C)	BF	o	o	o	o	o
Soundproofed compressors cabinet with standard material	CF	o	o	o	o	o
Overall compressor and technical compartment cabinet	CFT	o	o	o	-	-
Compressors inrush counter	CS	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o
Anti-intrusion grid	GP2	o	o	o	o	o
Anti-intrusion grid with compressors cabinet	GP3	o	o	o	o	o
Victaulic insulation on pump side	I1	o	o	o	o	o
Victaulic insulation buffer tank side	I2	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o
Buffer tank module	MV	o	o	o	o	o
Pump group	P1	o	o	o	o	o
Higher available pressure pump group	P1H	o	o	o	o	o
Double pump group (only one working)	P2	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o
Remote display	PQ	o	o	o	o	o
In-line twin pump group (only one working)	PT	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o
Electronic thermostatic valve	TE	o	o	o	o	o
Voltmeter	V	o	o	o	o	o
Brine Version	VB	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o
Partial heat recovery	RP	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o
Copper/Copper coil	RR	o	o	o	o	o
Condensing coil with pre-painted fins	RM	o	o	o	o	o
Personalized frame painting in alternative RAL colour	RV	o	o	o	o	o

● Standard o Optional - Not available

Dimensions - ERAE AM Kc serie





Mod.		A (mm)	B (mm)	C (mm)	Kg
40020	F4	2420	5780	1370	2270
46020	F4	2420	5780	1370	2752
51020	F4	2420	5780	1370	2982
55020	F5	2560	4750	2300	3380
59020	F5	2560	4750	2300	3592

ERAE MC HE Kc

AIR COOLED CHILLERS WITH SCROLL COMPRESSORS AXIAL FANS AND MICROCHANNEL CONDENSING COILS

COOLING CAPACITY FROM 134 to 664 kW

The images shown above are indicative and not binding.

AIR COOLED CHILLERS EQUIPPED WITH SCROLL COMPRESSORS, AXIAL FANS AND MICROCHANNEL CONDENSING COILS

Packaged air cooled chillers of ERAE... MC HE Kc series are suitable for outdoor installation and can be used to cool pure fluid solutions for air conditioning or in industrial applications.

The coupling of high-efficiency microchannel condensing coils and Stainless steel plate evaporator WITH increased exchange surface area and the thermo physical purity of R410A refrigerant, particularly glide-free at state exchanges, allows this range to attain EER nominal values in class A efficiency and to meet the requirements for seasonal efficiency foreseen by the (EU) Regulation 2016/2281.

Micro channel condensing coils are totally made up of mechanically expanded aluminum alloy. In comparison to the traditional Copper-Aluminum coils, the micro channel geometry provides less resistance to the air passing. This allows to optimize the performances of the fans section and consequently to reduce the absorbed power of the fans.
Moreover the micro channel technology permits to reduce the weight of the condensing section as well as the refrigerant charge.

The cross "V" arrangement of the condensing coils makes the units of this series perfectly each other modular, granting at the same time the easiest access to the technical room both for checking operations required during the normal unit functioning and for maintenance.

All the units are totally factory assembled and tested, following specific quality procedures. Besides they are totally hydraulic, cooling and electrical connected permitting a quick installation once on site. Before the test the cooling circuits of each unit are subjected to a pressure test and then charged with Refrigerant R410A and non-freezing oil. So, once on site, the units must be only positioned and electrically and hydraulically connected.

Operation limits:
Air: da +10 a +42°C ; **Water** (outlet from the evaporator): da 5 a 15°C.

Structure
Structure made of a base and a chassis manufactured in high-thickness galvanised steel, assembled with stainless steel rivets. All galvanised steel surfaces are powder-coated with colour RAL 7035.

Compressors
Scroll compressors with R410a refrigerant, operating on one or two independent circuits in single, tandem or trio version. The compressors are installed on rubber isolation dampers, provided with direct-start motors cooled by suction gas and fitted with both overload protection and crankcase heaters. They are charged with polyester oil and the terminal board is IP54. The on-board microprocessor automatically controls the individual compressors to regulate the cooling capacity.

Evaporator
Stainless steel plate evaporator of "single" or "dual" circuit type, with high thickness close cell insulation and UV ray-proof. The max operating pressure limits are 6 bar for water side and 45 bar for refrigerant side. The evaporator is also equipped with safety water flow switch switching off the unit in case of low water flow through the evaporator.

Coils
Microchannel condensing Coils totally made up of mechanically expanded aluminum alloy to grant a perfect and continuous contact among tubes and fins optimizing the thermal exchange and reducing dimensions.
The high passivation degree of the used alloy, besides the peculiar assembling way, avoids the possibility to have galvanic corrosion phenomena. On demand it is also possible to provide the units installed in particularly aggressive environments with surface treatments against exchangers environmental corrosion. (Option ACP and PCP).

Fans
Axial fans, 6 poles electrical motor with external rotor directly coupled to the wheel, designed to work with high external air temperatures and provided with in-built overload protection. Fan is statically and dynamically balanced in order to grant, together with the peculiar wing profile, a low sound level during operation. The fan is provided with safety protection grid. On demand, it is possible to supply a condensation pressure control for low external air temperatures operation thanks to the fans speed modulation through a phase cut (Standard for sizes from 5102 to 6602) or inverter driven electronic regulator. (Option BT and BF).

Refrigerant circuit
Independent cooling circuits, each provided with a shut-off valve for refrigerant charge, antifreeze sensor, shut-off valves on liquid lines, sight glass, dehydrating filter, high-pressure safety device on high pressure refrigerant side and electronic thermostatic expansion valve, as well as high and low pressure switches and gauges.

Electrical board
Electrical board in compliance with CE Norms, contained in a suitable section protected by internal safety panel, provided with a lock-door main switch. Inside all the control and protection components are suitably placed, together with terminal board and auxiliaries. Microprocessor and relevant display are also placed inside the electrical cabinet.

Microprocessor
Electronic Microprocessor for unit management installed inside the electrical cabinet, with double evaporator in/out control of the chilled water temperature, as well as control of working parameters and equalization of compressors working hours, failures auto-detection system, alarm log, start and set point timeslot programming, possibility of remote management and supervision by enabling standard communication protocols management.

Versions

High efficiency version (HE)
Units with full load efficiency Eurovent class A EER ≥ 3.1.

Technical data - ERAE MC HE Kc serie

ERAE MC HE Kc		1301	1701	2102	2402	2702	3102	3502
Performance data								
Cooling capacity (EN14511)	kW	134,1	179,2	214,0	243,0	268,6	311,0	343,3
Total input power (EN14511)	kW	43,3	54,2	67,5	76,9	86,4	96,9	110,4
EER	W/W	3,10	3,31	3,17	3,16	3,11	3,21	3,11
SEER (1)		3,82	4,11	3,89	3,84	3,84	4,03	4,00
ηs,c (1)		149,8	161,6	152,7	150,7	150,6	158,1	157,0
Refrigerant data R410A								
Global warming potential	GWP	2088	2088	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	39,7	54,3	64,7	73,1	79,3	91,9	102,3
Refrigerant charge	Kg	19	26	31	35	38	44	49
Scroll Compressors								
Quantity/Circuits	n°/n°	2 / 1	2 / 1	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2
Nominal consumption of the unit	A	67,5	81,8	107,3	119,6	134,8	150,6	171,6
Max. current consumption of the unit	A	97	130	160	177	194	228	262
Max. starting current of the unit	A	306	351	305	358	373	419	440
Axial fans								
Quantity	n°	2	4	4	4	4	6	6
Motors power input	kW	5,0	7,8	7,8	9,9	9,9	11,6	11,6
Total condensing air flow	m^3/h	54900	86000	86000	109800	109800	129000	129000
Electrical current consumption	A	10,3	15,6	15,6	20,6	20,6	23,4	23,4
Evaporator plate heat exchanger								
Quantity	n°	1	1	1	1	1	1	1
Water flow	m^3/h	23,1	30,9	36,9	41,9	46,3	53,6	59,2
Pressure drop	kPa	31,7	36,8	49,6	50,7	48,5	62,1	57,0
Sound power level (2)	dB(A)	91,0	91,0	91,0	93,0	94,0	94,0	94,0
Power supply	V/Hz/Ph	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3

Performances are referred to the following conditions: ambient air temperature 35°C - water 12/7°C

(1) In accordance with (EU) 2016/2281 and relative norms part of this.

(2) Sound power level in accordance with ISO 3744.

Technical data - ERAE MC HE Kc serie

ERAE MC HE Kc		4002	4402	5102	5602	6302	6602
Performance data							
Cooling capacity (EN14511)	kW	396,7	442,7	522,8	565,3	624,7	664,0
Total input power (EN14511)	kW	124,7	139,7	164,9	181,2	194,0	210,8
EER	W/W	3,18	3,17	3,17	3,12	3,22	3,15
SEER (1)		3,96	4,11	4,22	4,19	4,21	4,17
ηs,c (1)		155,3	161,3	165,7	164,6	165,4	163,7
Refrigerant data R410A							
Global warming potential	GWP	2088	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	116,9	131,5	154,5	167,0	185,8	196,3
Refrigerant charge	Kg	56	63	74	80	89	94
Scroll Compressors							
Quantity/Circuits	n°/n°	4 / 2	4 / 2	6 / 2	6 / 2	6 / 2	6 / 2
Nominal consumption of the unit	A	191,5	213,6	254,1	280,5	295,2	320,8
Max. current consumption of the unit	A	296	331	393	427	462	496
Max. starting current of the unit	A	546	569	522	635	651	677
Axial fans							
Quantity	n°	6	8	8	8	10	10
Motors power input	kW	14,9	15,5	19,8	19,8	24,8	24,8
Total condensing air flow	m^3/h	164700	172000	219600	219600	274500	274500
Electrical current consumption	A	30,9	31,2	41,2	41,2	51,5	51,5
Evaporator plate heat exchanger							
Quantity	n°	1	1	1	1	1	1
Water flow	m^3/h	68,4	76,3	90,1	97,5	107,7	114,5
Pressure drop	kPa	49,8	53,5	55,8	54,5	59,7	64,5
Sound power level (2)	dB(A)	96,0	98,0	96,0	98,0	98,0	100,0
Power supply	V/Hz/Ph	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3

Performances are referred to the following conditions: ambient air temperature 35°C - water 12/7°C

(1) In accordance with (EU) 2016/2281 and relative norms part of this.

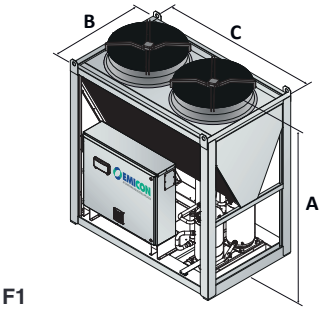
(2) Sound power level in accordance with ISO 3744.

Accessories - ERAE MC HE Kc serie

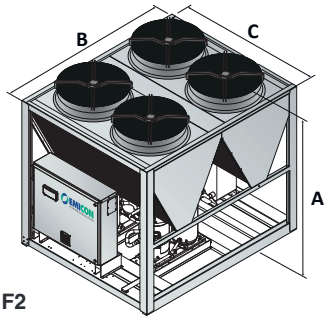
ERAE MC HE KC		1301	1701	2102	2402	2702	3102	3502
Amperometer	A	o	o	o	o	o	o	o
Anti-corrosive protection of the condensing coils (AIAX coating)	ACP	o	o	o	o	o	o	o
Electrical power supply different than standard	AE	o	o	o	o	o	o	o
Low ambient temperature operation (down to 20°C)	BT	o	o	o	o	o	o	o
Low ambient temperature operation (down to -20°C)	BF	o	o	o	o	o	o	o
Soundproofed compressors cabinet with standard material	CF	o	o	o	o	o	o	o
Overall compressor and technical compartment cabinet	CFT	o	o	o	o	o	o	o
Soundproofed compressors cabinet with polyester material	CFU	o	o	o	o	o	o	o
Compressors inrush counter	CS	o	o	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o	o	o
Anti-intrusion grid	GP1	o	o	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o	o	o
Buffer tank module	MV	-	o	o	o	o	o	o
Pump group	P1	-	o	o	o	o	o	o
Higher available pressure pump group	P1H	-	o	o	o	o	o	o
Double pump group (only one working)	P2	-	o	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	-	o	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o	o	o
Anti-corrosive protection of the condensing coils (Powder coating)	PCP	o	o	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o	o	o
Remote display	PQ	o	o	o	o	o	o	o
In-line twin pump group (only one working)	PT	-	o	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o	o	o
Power factor correction system cosfi ≥0,9	RF	o	o	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o	o	o
Voltmeter	V	o	o	o	o	o	o	o
Brine Version	VB	o	o	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o	o	o
Partial heat recovery	RP	o	o	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o	o	o
Electronic thermostatic valve	TE	●	●	●	●	●	●	●

● Standard o Optional - Not available

Dimensions - ERAE MC HE Kc serie



F1



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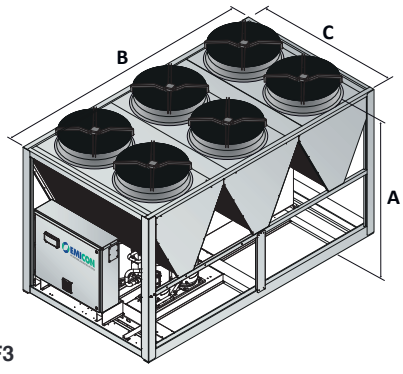


F3

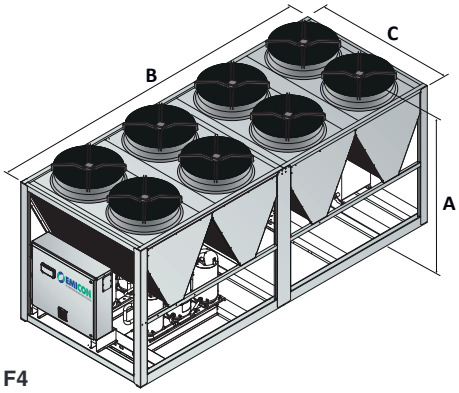
Mod.		A (mm)	B (mm)	C (mm)	Kg
1301	F1	2470	1340	2260	1174
1701	F2	2470	2680	2260	1598
2102	F2	2470	2680	2260	1871
2402	F2	2470	2680	2260	1977
2702	F2	2470	2680	2260	1988
3102	F3	2470	4020	2260	2473
3502	F3	2470	4020	2260	2478

Accessories - ERAE MC HE Kc serie

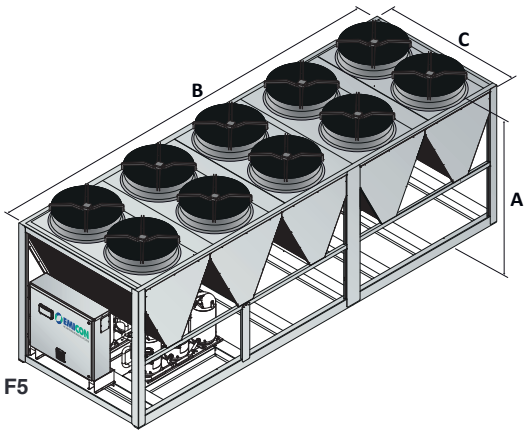
ERAE MC HE KC		4002	4402	5102	5602	6302	6602
Amperometer	A	o	o	o	o	o	o
Anti-corrosive protection of the condensing coils (AIAX coating)	ACP	o	o	o	o	o	o
Electrical power supply different than standard	AE	o	o	o	o	o	o
Low ambient temperature operation (down to 20°C)	BT	o	o	●	●	●	●
Low ambient temperature operation (down to -20°C)	BF	o	o	o	o	o	o
Soundproofed compressors cabinet with standard material	CF	o	o	o	o	o	o
Overall compressor and technical compartment cabinet	CFT	o	o	o	o	o	o
Soundproofed compressors cabinet with polyester material	CFU	o	o	o	o	o	o
Compressors inrush counter	CS	o	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o	o
Anti-intrusion grid	GP1	o	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o	o
Buffer tank module	MV	o	o	o	o	o	o
Pump group	P1	o	o	o	o	o	o
Higher available pressure pump group	P1H	o	o	o	o	o	o
Double pump group (only one working)	P2	o	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	o	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o	o
Anti-corrosive protection of the condensing coils (Powder coating)	PCP	o	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o	o
Remote display	PQ	o	o	o	o	o	o
In-line twin pump group (only one working)	PT	o	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o	o
Power factor correction system cosfi ≥0,9	RF	o	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o	o
Voltmeter	V	o	o	o	o	o	o
Brine Version	VB	o	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o	o
Partial heat recovery	RP	o	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o	o
Electronic thermostatic valve	TE	●	●	●	●	●	●

● Standard o Optional - Not available

Dimensions - ERAE MC HE Kc serie



F4



F5

Mod.		A (mm)	B (mm)	C (mm)	Kg
4002	F3	2470	4020	2260	2579
4402	F4	2470	5360	2260	2988
5102	F4	2470	5360	2260	3422
5602	F4	2470	5360	2260	3488
6302	F5	2470	6700	2260	3941
6602	F5	2470	6700	2260	3952

ERAE U Kc

AIR COOLED CHILLERS WITH SCROLL COMPRESSOR AND AXIAL FANS

COOLING CAPACITY FROM 150 to 771 kW

The images shown above are indicative and not binding.

AIR COOLED CHILLERS FOR OUTDOOR INSTALLATION WITH SCROLL COMPRESSOR, AXIAL FANS AND HEAT-EXCHANGE EXTERNAL COILS WITH MICRO-FINNED COPPER TUBES

Packaged air cooled chillers of ERAE...Kc series are suitable for outdoor installation and can be used to cool pure fluid solutions for air conditioning or in industrial applications.
Multiscroll technology allows to reach great efficiency improvements at part load, if compared to the other traditional systems for cooling capacity control.
The coupling of high-efficiency finned exchangers and the thermo physical purity of R410A refrigerant, particularly glide-free at state exchanges, allows this range to attain good nominal performances and to meet the requirements for seasonal efficiency foreseen by the (EU) Regulation 2016/2281.

These units have been designed considering limited space requirements and keeping, at the same time, high cooling performances. Such result has been attained with high-quality and up-to-date components.
All units are completely assembled and tested in the factory with specific quality procedures and are already equipped with all necessary hydraulic, refrigerant and electrical connections for a quick installation on site.
Before factory testing, cooling circuits are tested under pressure and then supplied with R410a refrigerant and a non-freezing oil charge.

Operation limits:

Standard units
Air: from -20 to 42°C; **Water** (outlet from the evaporator): from 5 to 15°C.

WA application units
Air: from +10 to 38°C; **Water** (outlet from the evaporator): from 7,1 to 18°C.

Structure
Structure made of a base and a chassis manufactured in high-thickness galvanised steel, assembled with stainless steel rivets.
All galvanised steel surfaces are powder-coated with colour RAL 7035.

Compressors
Scroll compressors with R410a refrigerant, operating on two independent circuits in tandem or trio version.
The compressors are installed on rubber isolation dampers, provided with direct-start motors cooled by suction gas and fitted with both overload protection and crankcase heaters.
They are charged with polyester oil and the terminal board is IP54.
The on-board microprocessor automatically controls the individual compressors to regulate the cooling capacity.

Evaporator
Stainless steel plate evaporator of dual circuit type, with high thickness close cell insulation and UV ray-proof.
The max operating pressure limits are 6 bar for water side and 45 bar for refrigerant side.
The evaporator is also equipped with safety water flow switch switching off the unit in case of low water flow through the evaporator.

Heat-exchange coils
Heat-exchange external coils with micro-finned copper tubes, positioned in staggered rows and mechanically expanded into an aluminium finned pack.
Fins are designed with such a shape providing the highest heat exchange efficiency.
The max operating pressure refrigerant side is 45 relative bar.

Fans
6-poles Axial Fans with electrical motor with external rotor directly coupled to the impeller and driven by a V/F inverter system which controls the condensation temperature.
Aluminum blades with wings profile are suitably designed to avoid any turbulence in the air detachment zone, granting in this way the max efficiency with the minimum noise level.
The fan is equipped with galvanized steel protection grid painted after the construction.
The fan motors are of totally closed type and have got a protection factor IP54 and protection winding-flooded thermostat.

Refrigerant circuit
Independent cooling circuits, each provided with a shut-off valve for refrigerant charge, antifreeze sensor, shut-off valves on liquid lines, sight glass, dehydrating filter, high-pressure safety device on high pressure refrigerant side and mechanical thermostatic expansion valve (electronic type from 40020 model to 59020) as well as high and low pressure switches and gauges.

Electric board
Electric board built in compliance with CE Norms, inside of which are placed the control system and the components for motors starting, wired and tested in the factory. It is made by a cabinet suitable for outdoor installation, containing power and control devices, microprocessor electronic board complete with keypad and display, for visualizing the several functions available, main switch of lock-door type, isolation transformer for auxiliary circuits, automatic switches, fuses and protection switches for compressors and fans, terminals for general alarm and remote ON/OFF, terminal board, relays for phase sequencing and possibility to interface to BMS systems.

Versions

ERAE...Kc – standard version

ERAE...U Kc – Ultra silenced version (U)
Reduced sound level in version U is realised by using condensers with larger surface areas as well as soundproofed compressor cabinets.

Applications

Warm applications version (WA)
Units CE certified in compliance with the European regulation 2016/2281 at working conditions, on the use side 23°C / 18°C.

Abroad market version (AM)
Units in compliance with the European regulation whose sales is reserved to countries out of the European Union.

Technical data - ERAE U Kc serie

ERAE U Kc		16020	19020	24020	28020	32020	35120
Performance data							
Cooling capacity (EN14511)	kW	155,6	194,3	241,2	276,6	310,6	353,8
Total input power (EN14511)	kW	53,0	69,1	88,5	100,8	114,1	128,4
EER	W/W	2,94	2,81	2,73	2,74	2,72	2,76
SEER (1)		3,96	3,84	3,86	3,97	3,82	4,01
ηs,c (1)		155,6	150,7	151,3	155,6	150,0	157,3
Refrigerant data R410A							
Global warming potential	GWP	2088	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	71,0	87,7	91,9	116,9	112,8	150,3
Refrigerant charge	Kg	34	42	44	56	54	72
Scroll Compressors							
Quantity/Circuits	n°/n°	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2
Nominal consumption of the unit	A	90,5	110,3	138,8	158,4	177,3	200,4
Max. current consumption of the unit	A	136	161	198	228	266	301
Max. starting current of the unit	A	251	311	378	428	446	556
Axial fans							
Quantity	n°	3	3	4	4	5	5
Motors power input	kW	4,7	4,7	6,3	6,3	7,9	7,9
Total condensing air flow	m^3/h	62620	58560	83450	78030	104340	97570
Electrical current consumption	A	8,7	8,7	11,6	11,6	14,5	14,5
Evaporator plate heat exchanger							
Quantity	n°	1	1	1	1	1	1
Water flow	m^3/h	26,8	33,5	41,6	47,7	53,6	61,0
Pressure drop	kPa	32,0	48,0	58,5	55,2	68,5	56,0
Sound power level (2)	dB(A)	82,5	86,0	88,5	89,0	89,5	90,0
Power supply	V/Hz/Ph	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3

ERAE U Kc		40020	46020	51020	55020	59020
Performance data						
Cooling capacity (EN14511)	kW	393,5	470,0	504,9	540,8	591,6
Total input power (EN14511)	kW	145,6	165,8	181,8	199,6	210,4
EER	W/W	2,70	2,83	2,78	2,71	2,81
SEER (1)		3,80	4,22	4,15	4,17	4,10
ηs,c (1)		148,8	165,8	162,8	163,6	160,8
Refrigerant data R410A						
Global warming potential	GWP	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	183,7	233,9	258,9	258,9	263,1
Refrigerant charge	Kg	88	112	124	124	126
Scroll Compressors						
Quantity/Circuits	n°/n°	4 / 2	6 / 2	6 / 2	6 / 2	6 / 2
Nominal consumption of the unit	A	228	261,6	286,7	310,9	328,3
Max. current consumption of the unit	A	331	397	427	463	498
Max. starting current of the unit	A	581	537	647	668	693
Axial fans						
Quantity	n°	5	8	8	10	10
Motors power input	kW	7,9	9,7	9,7	12,1	12,1
Total condensing air flow	m^3/h	91770	129030	122900	170090	161340
Electrical current consumption	A	14,5	17,8	17,8	22,3	22,3
Evaporator plate heat exchanger						
Quantity	n°	1	1	1	1	1
Water flow	m^3/h	67,8	81,0	87,1	93,2	102,0
Pressure drop	kPa	44,5	46,5	55,0	59,0	69,0
Sound power level (2)	dB(A)	92,5	92,5	92,5	92,5	94,0
Power supply	V/Hz/Ph	400/50/3+N+T	400/50/3+N+T	400/50/3+N+T	400/50/3+N+T	400/50/3+N+T

Performances are referred to the following conditions: ambient air temperature 35°C - water 12/7°C

(1) In accordance with (EU) 2016/2281 and relative norms part of this.

(2) Sound power level in accordance with ISO 3744.

Technical data - ERAE WA U Kc serie

ERAE WA U KC		16020	19020	24020	28020	32020	35120
Performance data							
Cooling capacity (EN14511)	kW	193,4	252,8	306,2	356,3	397,1	455,1
Total input power (EN14511)	kW	62,02	81,13	101,90	117,00	131,60	150,10
EER	W/W	3,12	3,12	3,00	3,05	3,02	3,03
SEER (1)		4,15	4,03	4,13	4,16	4,03	4,18
ηs,c (1)		136,0	158,3	162,0	163,5	158,3	164,1
Refrigerant data R410A							
Global warming potential	GWP	2088	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	75,2	71,0	91,9	96,0	116,9	121,1
Refrigerant charge	Kg	36	34	44	46	56	58
Scroll Compressors							
Quantity/Circuits	n°/n°	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2
Nominal consumption of the unit	A	104,5	123,8	156,9	179,1	202,7	229,9
Max. current consumption of the unit	A	139	161	196	228	263	301
Max. starting current of the unit	A	259	326	396	443	463	576
Axial fans							
Quantity	n°	2	3	3	4	4	5
Motors power input	kW	3,14	4,71	4,71	6,28	6,28	7,85
Total condensing air flow	m^3/h	33790	62620	58560	83450	78030	104340
Electrical current consumption	A	5,8	8,7	8,7	11,6	11,6	14,5
Evaporator plate heat exchanger							
Quantity	n°	1	1	1	1	1	1
Water flow	m^3/h						
Pressure drop	kPa	46,0	76,0	89,0	85,0	104,0	89,0
Sound power level (2)	dB(A)	82,5	86,0	88,5	89,0	89,5	90,0
Power supply	V/Hz/Ph	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3

ERAE WA U KC		40020	46020	51020	55020	59020
Performance data						
Cooling capacity (EN14511)	kW	512,4	598,8	661,3	709,0	754,0
Total input power (EN14511)	kW	166,60	196,00	208,2	226,60	246,30
EER	W/W	3,08	3,06	3,18	3,13	3,06
SEER (1)		4,11	4,58	4,67	4,62	4,29
ηs,c (1)		161,3	180,0	183,9	181,8	168,6
Refrigerant data R410A						
Global warming potential	GWP	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	154,5	187,9	233,9	263,1	263,1
Refrigerant charge	Kg	74	90	112	126	126
Scroll Compressors						
Quantity/Circuits	n°/n°	4 / 2	6 / 2	6 / 2	6 / 2	6 / 2
Nominal consumption of the unit	A	256,7	302,7	321,8	350,7	377,1
Max. current consumption of the unit	A	331	397	427	462	498
Max. starting current of the unit	A	606	572	687	712	728
Axial fans						
Quantity	n°	5	8	8	8	10
Motors power input	kW	7,85	9,68	9,68	9,68	12,1
Total condensing air flow	m^3/h	97570	136040	129030	122900	170090
Electrical current consumption	A	14,5	17,84	17,84	17,84	22,3
Evaporator plate heat exchanger						
Quantity	n°	1	1	1	1	1
Water flow	m^3/h					
Pressure drop	kPa	69,5	74,5	90,0	95,0	106,0
Sound power level (2)	dB(A)	92,5	92,5	92,5	92,5	94,0
Power supply	V/Hz/Ph	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3

Performances are referred to the following conditions: ambient air temperature 35°C - water 23/18°C

(1) In accordance with (EU) 2016/2281 and relative norms part of this.

(2) Sound power level in accordance with ISO 3744.

Technical data - ERAE AM U Kc serie

ERAE AM U KC		16020	19020	24020	28020	32020	35120
Performance data							
Cooling capacity (EN14511)	kW	147,1	188,1	231,5	269,5	301,1	345,3
Total input power (EN14511)	kW	55,4	71,9	91,0	104,0	116,3	132,2
EER	W/W	2,65	2,62	2,54	2,59	2,59	2,61
SEER (1)		3,54	3,50	3,58	3,63	3,58	3,68
ηs,c (1)		138,6	137,1	140,1	142,0	140,2	144,1
Refrigerant data R410A							
Global warming potential	GWP	2088	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	75,2	71,0	91,9	96,0	116,9	121,1
Refrigerant charge	Kg	36	34	44	46	56	58
Scroll Compressors							
Quantity/Circuits	n°/n°	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2	4 / 2
Nominal consumption of the unit	A	95,9	113,9	143,8	162,7	182,6	206
Max. current consumption of the unit	A	139	161	196	228	263	301
Max. starting current of the unit	A	254	316	386	433	448	561
Axial fans							
Quantity	n°	2	3	3	4	4	5
Motors power input	kW	3,14	4,71	4,71	6,28	6,28	7,85
Total condensing air flow	m^3/h	33790	62620	58560	83450	78030	104340
Electrical current consumption	A	5,8	8,7	8,7	11,6	11,6	14,5
Evaporator plate heat exchanger							
Quantity	n°	1	1	1	1	1	1
Water flow	m^3/h	25,4	32,4	39,9	46,5	51,9	59,5
Pressure drop	kPa	29,0	45,0	54,0	52,5	64,5	53,5
Sound power level (2)	dB(A)	82,5	86,0	88,5	89,0	89,5	90,0
Power supply	V/Hz/Ph	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3

ERAE AM U KC		40020	46020	51020	55020	59020
Performance data						
Cooling capacity (EN14511)	kW	387,5	450,7	500,6	537,9	573,5
Total input power (EN14511)	kW	146,3	173,4	184,0	199,6	217,6
EER	W/W	2,65	2,60	2,72	2,69	2,64
SEER (1)		3,66	3,93	4,03	3,85	3,85
ηs,c (1)		143,6	154,3	158,3	151,0	151,2
Refrigerant data R410A						
Global warming potential	GWP	2088	2088	2088	2088	2088
Equivalent CO_2 charge	t	154,5	187,9	233,9	263,1	263,1
Refrigerant charge	Kg	74	90	112	126	126
Scroll Compressors						
Quantity/Circuits	n°/n°	4 / 2	6 / 2	6 / 2	6 / 2	6 / 2
Nominal consumption of the unit	A	229	272,5	289,8	314,5	338,8
Max. current consumption of the unit	A	331	397	427	462	498
Max. starting current of the unit	A	586	542	657	677	693
Axial fans						
Quantity	n°	5	8	8	8	10
Motors power input	kW	7,85	9,68	9,68	9,68	12,1
Total condensing air flow	m^3/h	97570	136040	129030	122900	170090
Electrical current consumption	A	14,5	17,84	17,84	17,84	22,3
Evaporator plate heat exchanger						
Quantity	n°	1	1	1	1	1
Water flow	m^3/h	66,8	77,7	86,3	92,7	98,9
Pressure drop	kPa	43,5	43,0	54,5	58,5	65,0
Sound power level (2)	dB(A)	92,5	92,5	92,5	92,5	94,0
Power supply	V/Hz/Ph	400/50/3	400/50/3	400/50/3	400/50/3	400/50/3

Performances are referred to the following conditions: ambient air temperature 35°C - water 12/7°C

(1) In accordance with (EU) 2016/2281 and relative norms part of this.

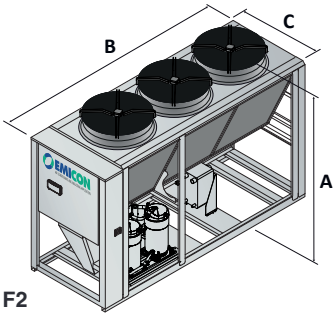
(2) Sound power level in accordance with ISO 3744.

Accessories - ERAE U Kc serie

ERAE U Kc		16020	19020	24020	28020	32020	35120
Amperometer	A	o	o	o	o	o	o
Low ambient temperature operation (down to -20°C)	BF	●	●	●	●	●	●
Soundproofed compressors cabinet with standard material	CF	●	●	●	●	●	●
Overall compressor and technical compartment cabinet	CFT	o	o	o	o	o	o
Compressors inrush counter	CS	o	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o	o
Anti-intrusion grid	GP2	o	o	o	o	o	o
Anti-intrusion grid with compressors cabinet	GP3	o	o	o	o	o	o
Victaulic insulation on pump side	I1	o	o	o	o	o	o
Victaulic insulation buffer tank side	I2	o	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o	o
Buffer tank module	MV	o	o	o	o	o	o
Pump group	P1	o	o	o	o	o	o
Higher available pressure pump group	P1H	o	o	o	o	o	o
Double pump group (only one working)	P2	o	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	o	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o	o
Remote display	PQ	o	o	o	o	o	o
In-line twin pump group (only one working)	PT	o	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o	o
Electronic thermostatic valve	TE	o	o	o	o	o	o
Voltmeter	V	o	o	o	o	o	o
Brine Version	VB	o	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o	o
Power factor correction system cosfi ≥ 0,9	RF	o	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o	o
Copper/Copper coil	RR	o	o	o	o	o	o
Condensing coil with pre-painted fins	RM	o	o	o	o	o	o
Personalized frame painting in alternative RAL colour	RV	o	o	o	o	o	o

● Standard o Optional - Not available

Dimensions - ERAE U Kc serie



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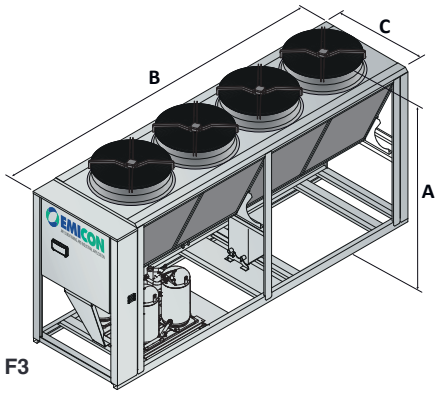

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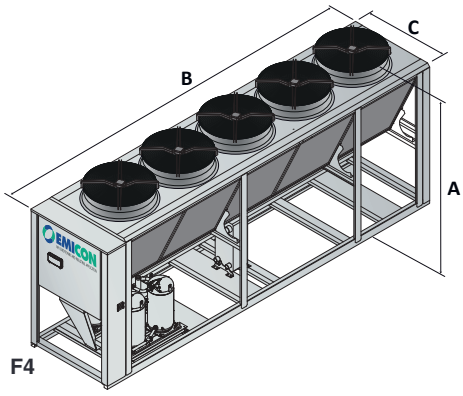


F4

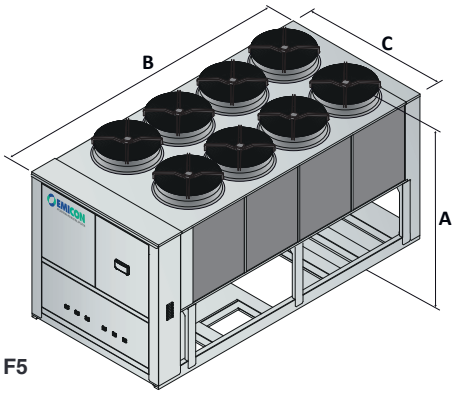
Mod.		A (mm)	B (mm)	C (mm)	Kg
16020	F2	2420	3700	1370	1400
19020	F2	2420	3700	1370	1834
24020	F3	2420	4740	1370	1990
28020	F3	2420	4740	1370	2196
32020	F4	2420	5780	1370	2244
35120	F4	2420	5780	1370	2518

Accessories - ERAE U Kc serie

ERAE U Kc		40020	46020	51020	55020	59020
Amperometer	A	o	o	o	o	o
Low ambient temperature operation (down to -20°C)	BF	●	●	●	●	●
Soundproofed compressors cabinet with standard material	CF	●	●	●	●	●
Overall compressor and technical compartment cabinet	CFT	o	-	-	-	-
Compressors inrush counter	CS	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o
Anti-intrusion grid	GP2	o	o	o	o	o
Anti-intrusion grid with compressors cabinet	GP3	o	o	o	o	o
Victaulic insulation on pump side	I1	o	o	o	o	o
Victaulic insulation buffer tank side	I2	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o
Buffer tank module	MV	o	o	o	o	o
Pump group	P1	o	o	o	o	o
Higher available pressure pump group	P1H	o	o	o	o	o
Double pump group (only one working)	P2	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o
Remote display	PQ	o	o	o	o	o
In-line twin pump group (only one working)	PT	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o
Electronic thermostatic valve	TE	●	●	●	●	●
Voltmeter	V	o	o	o	o	o
Brine Version	VB	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o
Power factor correction system cosfi ≥ 0,9	RF	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o
Copper/Copper coil	RR	o	o	o	o	o
Condensing coil with pre-painted fins	RM	o	o	o	o	o
Personalized frame painting in alternative RAL colour	RV	o	o	o	o	o

● Standard o Optional - Not available

Dimensions - ERAE U Kc serie



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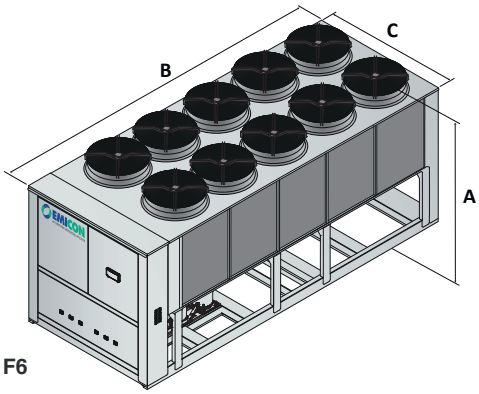


F6

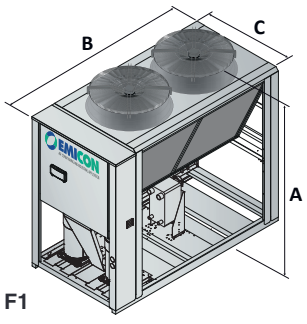
Mod.		A (mm)	B (mm)	C (mm)	Kg
40020	F4	2420	5780	1370	2686
46020	F5	2560	4750	2300	3678
51020	F5	2560	4750	2300	3996
55020	F6	2560	5720	2300	4210
59020	F6	2560	5720	2300	4482

Accessories - ERAE WA U Kc serie

ERAE WA U KC		16020	19020	24020	28020	32020	35120
Amperometer	A	o	o	o	o	o	o
Low ambient temperature operation (down to -20°C)	BF	o	o	o	o	o	o
Low ambient temperature operation (down to 20°C)	BT	o	o	o	o	o	o
Soundproofed compressors cabinet with standard material	CF	●	●	●	●	●	●
Overall compressor and technical compartment cabinet	CFT	o	o	o	o	o	o
Compressors inrush counter	CS	o	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o	o
Anti-intrusion grid	GP2	o	o	o	o	o	o
Anti-intrusion grid with compressors cabinet	GP3	o	o	o	o	o	o
Victaulic insulation on pump side	I1	o	o	o	o	o	o
Victaulic insulation buffer tank side	I2	o	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o	o
Buffer tank module	MV	o	o	o	o	o	o
Pump group	P1	o	o	o	o	o	o
Higher available pressure pump group	P1H	o	o	o	o	o	o
Double pump group (only one working)	P2	o	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	o	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o	o
Remote display	PQ	o	o	o	o	o	o
In-line twin pump group (only one working)	PT	o	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o	o
Electronic thermostatic valve	TE	o	o	o	o	o	o
Voltmeter	V	o	o	o	o	o	o
Brine Version	VB	o	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o	o
Power factor correction system cosfi ≥ 0,9	RF	o	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o	o
Copper/Copper coil	RR	o	o	o	o	o	o
Condensing coil with pre-painted fins	RM	o	o	o	o	o	o
Personalized frame painting in alternative RAL colour	RV	o	o	o	o	o	o

● Standard o Optional - Not available

Dimensions - ERAE WA U Kc serie



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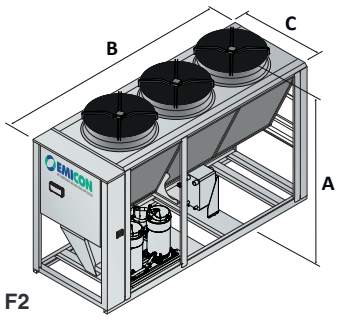

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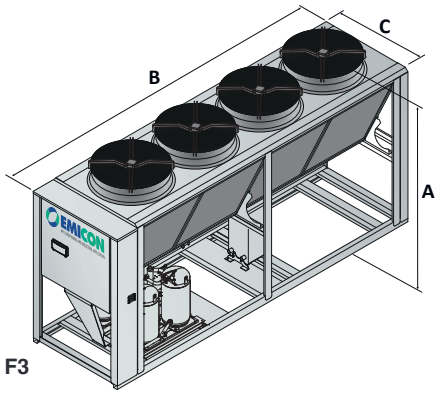


F3

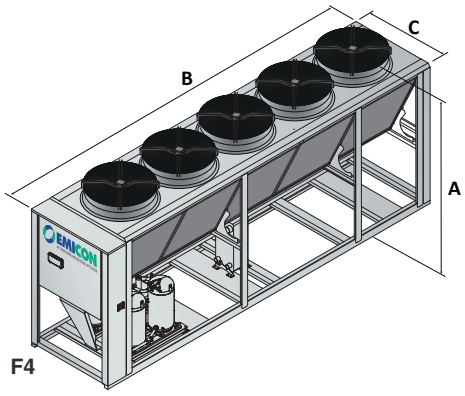
Mod.		A (mm)	B (mm)	C (mm)	Kg
16020	F1	2420	2660	1370	1324
19020	F2	2420	3700	1370	1748
24020	F2	2420	3700	1370	1904
28020	F3	2420	4740	1370	2084
32020	F3	2420	4740	1370	2196
35120	F4	2420	5780	1370	2378

Accessories - ERAE WA U Kc serie

ERAE WA U KC		40020	46020	51020	55020	59020
Amperometer	A	o	o	o	o	o
Low ambient temperature operation (down to -20°C)	BF	o	o	o	o	o
Low ambient temperature operation (down to 20°C)	BT	o	o	o	o	o
Soundproofed compressors cabinet with standard material	CF	●	●	●	●	●
Overall compressor and technical compartment cabinet	CFT	o	o	o	o	o
Compressors inrush counter	CS	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o
Anti-intrusion grid	GP2	o	o	o	o	o
Anti-intrusion grid with compressors cabinet	GP3	o	o	o	o	o
Victaulic insulation on pump side	I1	o	o	o	o	o
Victaulic insulation buffer tank side	I2	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o
Buffer tank module	MV	o	o	o	o	o
Pump group	P1	o	o	o	o	o
Higher available pressure pump group	P1H	o	o	o	o	o
Double pump group (only one working)	P2	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o
Remote display	PQ	o	o	o	o	o
In-line twin pump group (only one working)	PT	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o
Electronic thermostatic valve	TE	●	●	●	●	●
Voltmeter	V	o	o	o	o	o
Brine Version	VB	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o
Power factor correction system cosfi ≥ 0,9	RF	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o
Copper/Copper coil	RR	o	o	o	o	o
Condensing coil with pre-painted fins	RM	o	o	o	o	o
Personalized frame painting in alternative RAL colour	RV	o	o	o	o	o

● Standard o Optional - Not available

Dimensions - ERAE WA U Kc serie



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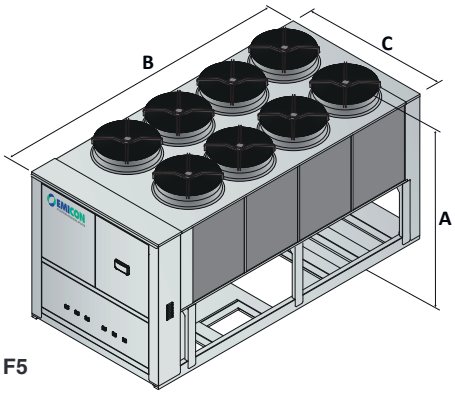

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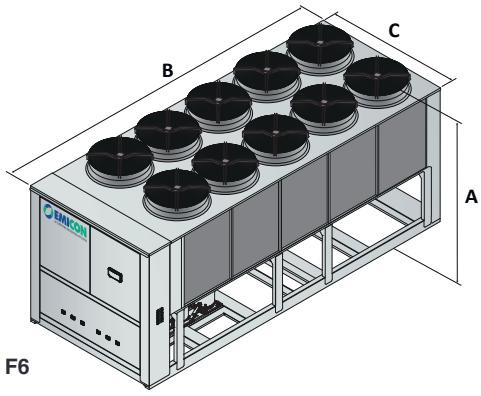


F6

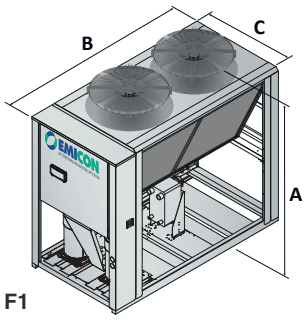
Mod.		A (mm)	B (mm)	C (mm)	Kg
40020	F4	2420	5780	1370	2540
46020	F5	2560	4750	2300	3458
51020	F5	2560	4750	2300	3768
55020	F5	2560	4750	2300	4000
59020	F6	2560	5700	2300	4236

Accessories - ERAE AM U Kc serie

ERAE AM U KC		16020	19020	24020	28020	32020	35120
Amperometer	A	o	o	o	o	o	o
Low ambient temperature operation (down to -20°C)	BF	o	o	o	o	o	o
Low ambient temperature operation (down to 20°C)	BT	o	o	o	o	o	o
Soundproofed compressors cabinet with standard material	CF	●	●	●	●	●	●
Overall compressor and technical compartment cabinet	CFT	o	o	o	o	o	o
Compressors inrush counter	CS	o	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o	o
Anti-intrusion grid	GP2	o	o	o	o	o	o
Anti-intrusion grid with compressors cabinet	GP3	o	o	o	o	o	o
Victaulic insulation on pump side	I1	o	o	o	o	o	o
Victaulic insulation buffer tank side	I2	o	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o	o
Buffer tank module	MV	o	o	o	o	o	o
Pump group	P1	o	o	o	o	o	o
Higher available pressure pump group	P1H	o	o	o	o	o	o
Double pump group (only one working)	P2	o	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	o	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o	o
Remote display	PQ	o	o	o	o	o	o
In-line twin pump group (only one working)	PT	o	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o	o
Electronic thermostatic valve	TE	o	o	o	o	o	o
Voltmeter	V	o	o	o	o	o	o
Brine Version	VB	o	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o	o
Power factor correction system cosfi ≥ 0,9	RF	o	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o	o
Copper/Copper coil	RR	o	o	o	o	o	o
Condensing coil with pre-painted fins	RM	o	o	o	o	o	o
Personalized frame painting in alternative RAL colour	RV	o	o	o	o	o	o

● Standard o Optional - Not available

Dimensions - ERAE AM U Kc serie



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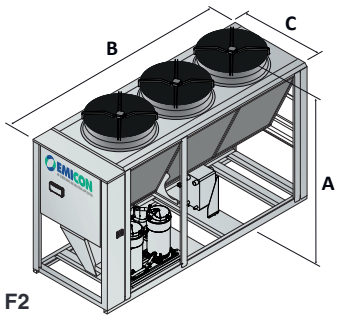

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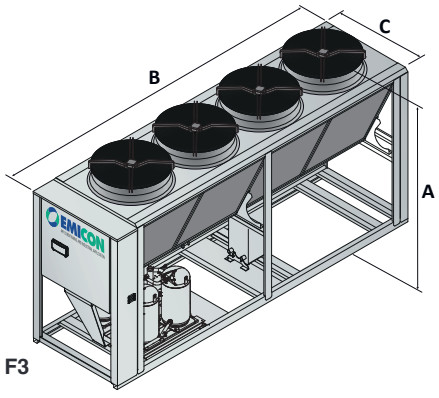


F3

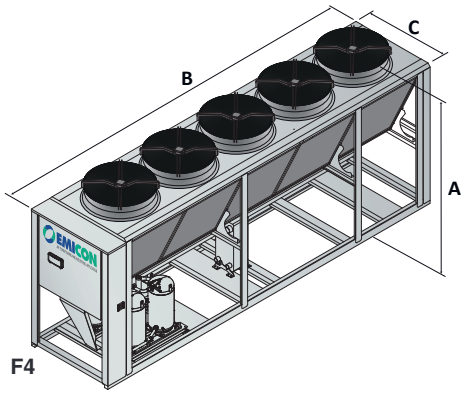
Mod.		A (mm)	B (mm)	C (mm)	Kg
16020	F1	2420	2660	1370	1324
19020	F2	2420	3700	1370	1748
24020	F2	2420	3700	1370	1904
28020	F3	2420	4740	1370	2084
32020	F3	2420	4740	1370	2196
35120	F4	2420	5780	1370	2378

Accessories - ERAE AM U Kc serie

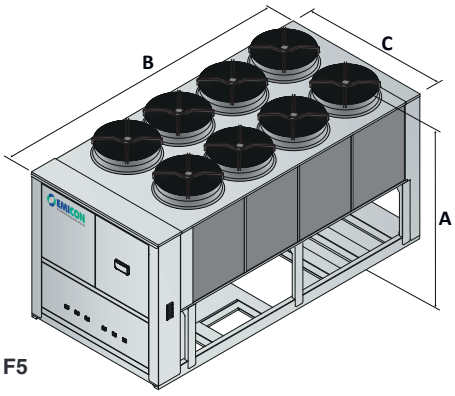
ERAE AM U KC		40020	46020	51020	55020	59020
Amperometer	A	o	o	o	o	o
Low ambient temperature operation (down to -20°C)	BF	o	o	o	o	o
Low ambient temperature operation (down to -8°C)	BT	o	o	o	o	o
Soundproofed compressors cabinet with standard material	CF	●	●	●	●	●
Overall compressor and technical compartment cabinet	CFT	o	-	-	-	-
Compressors inrush counter	CS	o	o	o	o	o
Axial fans with electronic commutated motor	EC	o	o	o	o	o
Condensing coil protection grid	GP	o	o	o	o	o
Anti-intrusion grid	GP2	o	o	o	o	o
Anti-intrusion grid with compressors cabinet	GP3	o	o	o	o	o
Victaulic insulation on pump side	I1	o	o	o	o	o
Victaulic insulation buffer tank side	I2	o	o	o	o	o
RS 485 Serial interface	IH	o	o	o	o	o
LON Protocol serial interface	IH (LON)	o	o	o	o	o
Seawood packing	IM	o	o	o	o	o
SNMP or TCP/IP Protocol serial interface	IWG	o	o	o	o	o
Phase monitor	MF	o	o	o	o	o
Buffer tank module	MV	o	o	o	o	o
Pump group	P1	o	o	o	o	o
Higher available pressure pump group	P1H	o	o	o	o	o
Double pump group (only one working)	P2	o	o	o	o	o
Higher available pressure double pump group (only one working)	P2H	o	o	o	o	o
Rubber-type vibration dampers	PA	o	o	o	o	o
Spring-type vibration dampers	PM	o	o	o	o	o
Remote display	PQ	o	o	o	o	o
In-line twin pump group (only one working)	PT	o	o	o	o	o
Anti-freeze heater on evaporator	RA	o	o	o	o	o
Shut-off valve on compressors discharge side	RD	o	o	o	o	o
Shut-off valve on compressors suction side	RH	o	o	o	o	o
Electronic thermostatic valve	TE	●	●	●	●	●
Voltmeter	V	o	o	o	o	o
Brine Version	VB	o	o	o	o	o
Solenoid valve	VS	o	o	o	o	o
Compressor overload relays	RL	o	o	o	o	o
Power factor correction system cosfi ≥ 0,9	RF	o	o	o	o	o
Total heat recovery	RT	o	o	o	o	o
Copper/Copper coil	RR	o	o	o	o	o
Condensing coil with pre-painted fins	RM	o	o	o	o	o
Personalized frame painting in alternative RAL colour	RV	o	o	o	o	o

● Standard o Optional - Not available

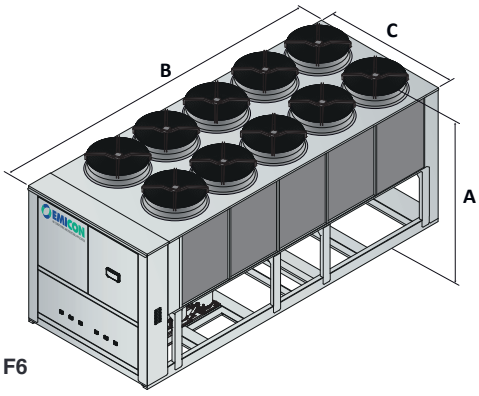
Dimensions - ERAE AM U Kc serie



F4



F5



F6

Mod.		A (mm)	B (mm)	C (mm)	Kg
40020	F4	2420	5780	1370	2540
46020	F5	2560	4750	2300	3458
51020	F5	2560	4750	2300	3768
55020	F5	2560	4750	2300	4000
59020	F6	2560	5700	2300	4236