

# KKT Water Chiller for

MAGNETOM AVANTO  
MAGNETOM ESPREE  
MAGNETOM Trio, A Tim System



Siemens Medical Solutions AG

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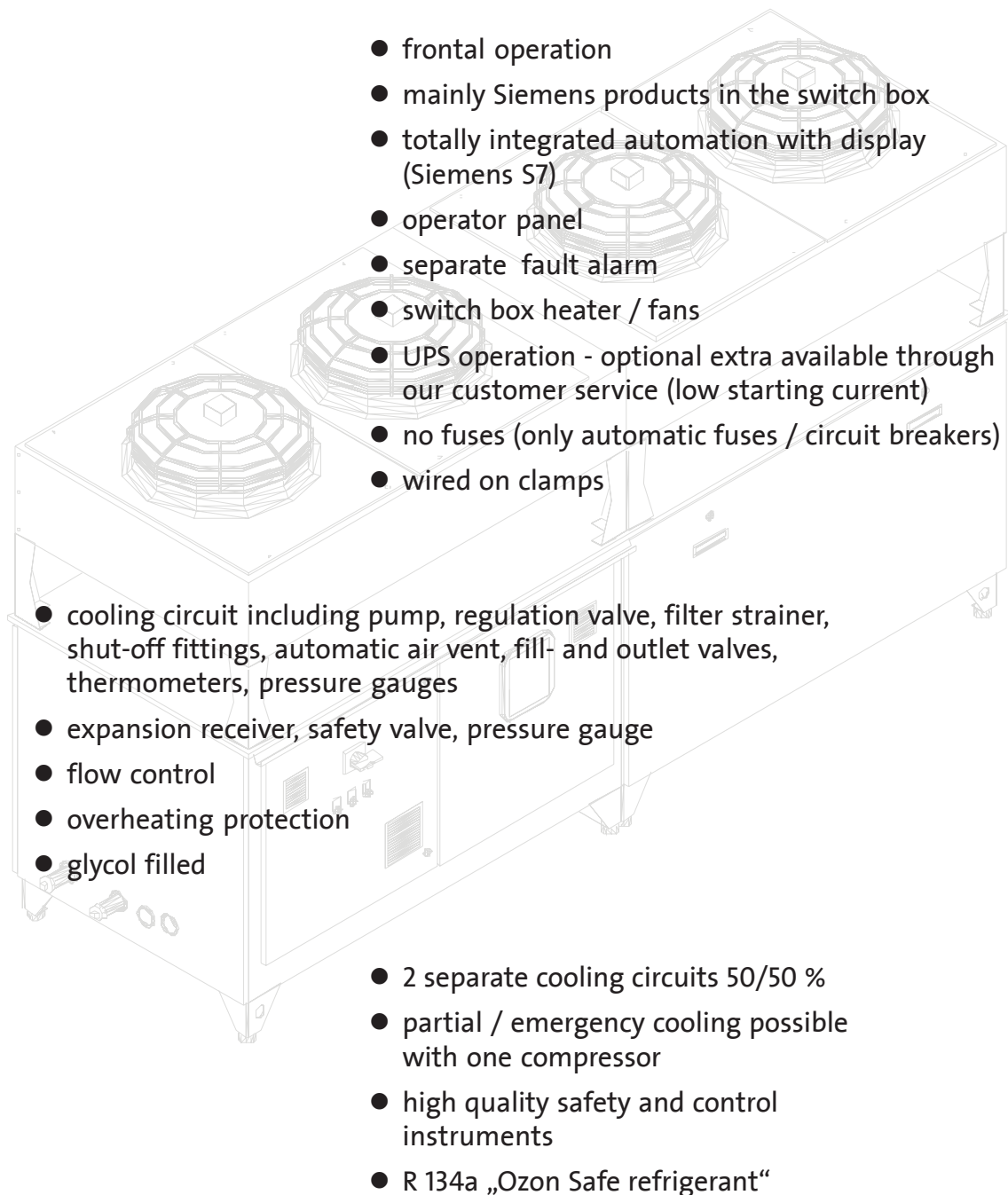
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## description KKT Waterchiller - Outdoor Version

The KKT Waterchillers are conceived, developed and produced as a compact system for the MAGNETOM AVANTO / ESPREE / TRIO. They are suitable for outdoor installations. Power supplies of 380V - 480V/50-60Hz. UL approved version is 480V/60Hz. Ambient temperatures up to 118.4° F [48°] C. Installation up to 6,562 feet [2,000 m] above sea level possible.

Produced and tested in accordance with Siemens Medical Engineering specifications.



# nameplate KCC 215-L-U/S

	<b>KKT KRAUS</b> <sup>®</sup>	Industriestraße 23a D-91207 Lauf Tel. +49(0)9123/174-01 Fax +49(0)9123/824-41	
	REFRIGERATION & AIR CONDITIONING		0036
 <b>LISTED</b> <b>COMMERCIAL PROCESSING WATER COOLER</b> <b>22DA</b> <b>Outdoor Use</b>			
Manufacturer	KKT Kraus Klimatechnik GmbH		
Model	KCC 215-L-U/S		
Produce-No.			
Date of manufacture			
Electrical rating	480V/60Hz/3		
Minimum supply circuit ampacity	47 A		
Overcurrent protective device	62 A		
	Amp Rating	Quantity	
Compressor	16.0 A	2	
Condenser Fan Motor	1.6 A	4	
Water Pump	5.4 A	1	
Refrigerant	R134a		
System 1	12 Kg	26.0lb	
System 2	12 Kg	26.0lb	
Design pressure			
High side	14.2bar	206psig	
Low side	6.3bar	92psig	
High Pressure switch off	19.0bar	275psig	

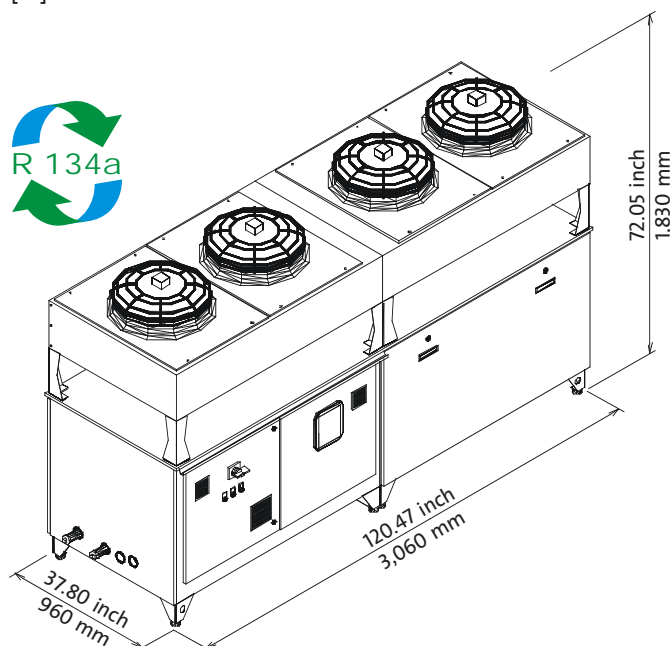
# technical data

Waterchiller Typ KCC 215-L-U/S outdoor use  
 designed for MAGNETOM AVANTO / ESPREE / Trio, A Tim System



standard device	standard construction	note
nominal cooling capacity (Btu/hr [kW])	205,000	[60.0]
refrigeration medium	R 134a	
quantity of compressors	2	
compressor capacity (HP [kW])	18.2	[13.4] Fabr.: DWM Type: ZR 16
volume of condenser airflow (m³/s [m³/h])	10.0	[36,000]
number of axial fans (piece)	4	
condenser fan motor (HP [kW])	1.54	[1.15]
max. ambient air temperature (°F [°C])	+118	+48
min. ambient air temperature (°F [°C])	-4.0	[-20]
cooling medium	PCW/AFN	PKW/AFN AFN = 38% ethylene glycol rate
min. cooling medium out (°F [°C])	+66.2	[+19.0]
max. cooling medium out (°F [°C])	+71.6	[+22.0]
temperature stability (K)	±0.8	
min. volume of cooling medium (gpm [l/min])	34.34	[130.0]
ext. pump pressure (psig [bar])	58.0	[4.0] Fabr.: Speck Type: IN-V10-50
pump power (HP [kW])	4.0	[3.0]
noise level (dB[A])	61	abt. 32.8 ft [10m] distance/ 118°F [48°C]
	55	abt. 32.8 ft [10m] distance/ 90°F [32°C]
	50	abt. 32.8 ft [10m] distance/ 70°F [21°C]
power supply (V/Ph/Hz)	480/3/60	tolerance -14/+10%V/±1 Hz
control voltage (VDC)	24	
full load amps (A)	58.5	
form of protection	IP 54	
internal piping volume (gals. [l])	4.49	[17.0]
plumbing	2"	
shipping weight (lbs [kg])	3,527 [1,600]	
operation weight (lbs [kg])	2,425 [1,100]	



[...] = alternate units



**Warning:**  
 The 38% glycol rate depends  
 not on the local ambient  
 temperature !!!

**Do not use propylene glycol or  
 automotive antifreeze.**

# nameplate KCC 215-L-S

	<b>KKT KRAUS</b> <sup>®</sup> REFRIGERATION & AIR CONDITIONING	Industriestraße 23a D-91207 Lauf Tel. +49(0)9123/174-01 Fax+49(0)9123/824-41	
0036			
<b>COMMERCIAL PROCESSING WATER COOLER OUTDOOR USE</b>			
Manufacturer	KKT Kraus Klimatechnik GmbH		
Model	KCC 215-L-S		
Produce-No.			
Date of manufacture			
Electrical rating	380-480V/50Hz/3		
Minimum supply circuit ampacity	55 A		
Overcurrent protective device	75 A		
Refrigerant	R134a		
System 1	12.0kg	26.5lb	
System 2	12.0kg	26.5lb	
High pressure switch off	19.0bar	275psig	



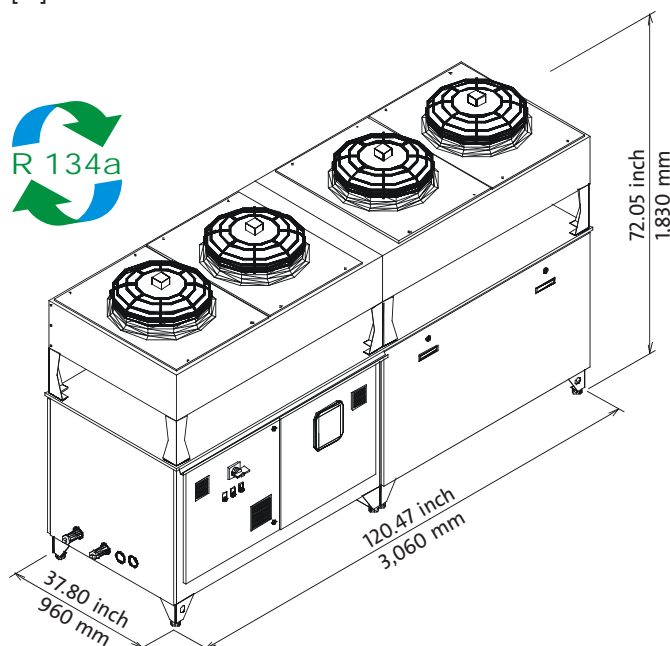
# technical data

Waterchiller Typ KCC 215-L-S outdoor use  
 designed for MAGNETOM AVANTO / ESPREE / Trio, A Tim System



standard device	standard construction		note
nominal cooling capacity (Btu/hr [kW])	205,000	[60.0]	
refrigeration medium	R 134a		
quantity of compressors	2		
compressor capacity (HP [kW])	21.7	[16.0]	Fabr.: DWM Type: ZR 19
volume of condenser airflow (m³/s [m³/h])	10.0	[36,000]	
number of axial fans (piece)	4		
condenser fan motor (HP [kW])	1.54	[1.15]	
max. ambient air temperature (°F [°C])	+118	+48	
min. ambient air temperature (°F [°C])	-4.0	[-20]	
cooling medium	PCW/AFN	PKW/AFN	AFN = 38% ethylene glycol rate
min. cooling medium out (°F [°C])	+66.2	[+19.0]	
max. cooling medium out (°F [°C])	+71.6	[+22.0]	
temperature stability (K)	±0.8		
min. volume of cooling medium (gpm [l/min])	34.34	[130.0]	
ext. pump pressure (psig [bar])	58.0	[4.0]	Fabr.: Speck Type: IN-V10-70
pump power (HP [kW])	4.0	[3.0]	
noise level (dB[A])	61		abt. 32.8 ft [10m] distance/ 118°F [48°C]
	55		abt. 32.8 ft [10m] distance/ 90°F [32°C]
	50		abt. 32.8 ft [10m] distance/ 70°F [21°C]
power supply (V/Ph/Hz)	380-480/3/50		tolerance -14/+10%V/±1 Hz
control voltage (VDC)	24		
full load amps (A)	55.0		
form of protection	IP 54		
internal piping volume (gals. [l])	4.49	[17.0]	
plumbing	2"		
shipping weight (lbs [kg])	3,638 [1,650]		
operation weight (lbs [kg])	2,535 [1,150]		

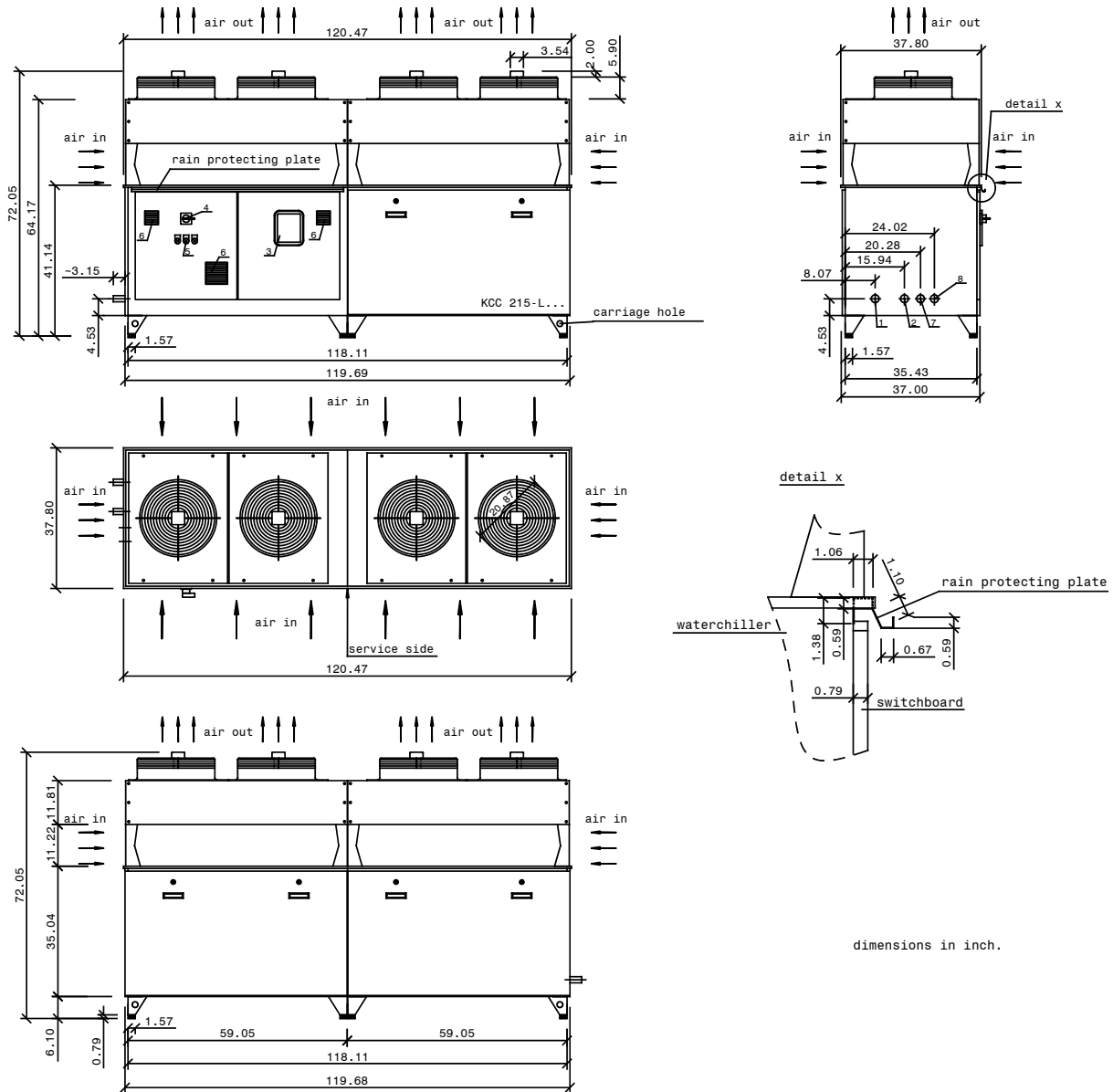
[...] = alternate units



**Warning:**  
 The 38% glycol rate depends  
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 automotive antifreeze.**

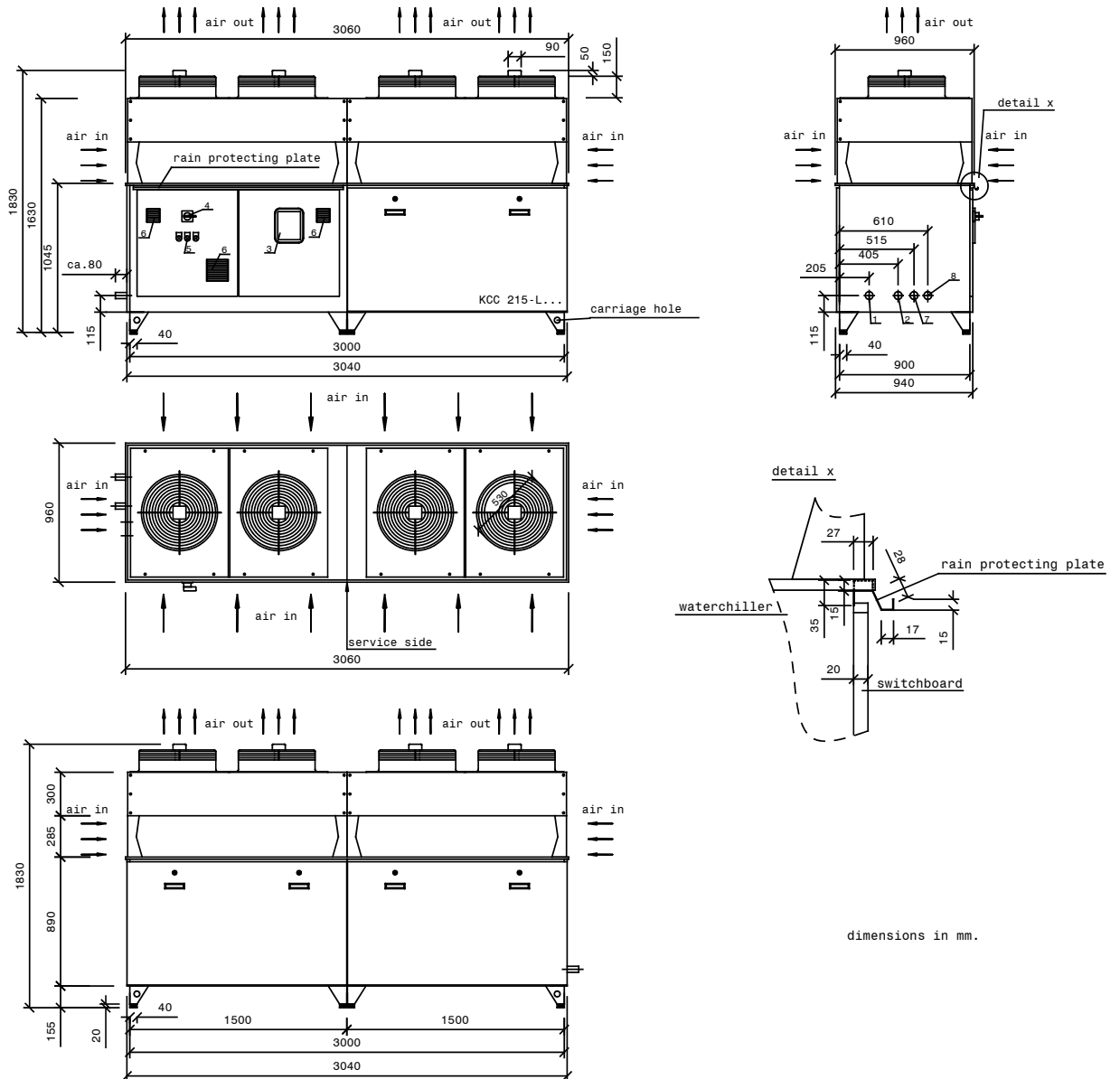
# dimensions KCC 215 (inch)



dimensions in inch.

- |                                       |   |
|---------------------------------------|---|
| 1 = water return from IFP (2") female | 5 = controll lamps                      |
| 2 = water supply to IFP (2") female   | 6 = switchboard ventilation             |
| 3 = DDC-display                       | 7 = cable passage "main power"          |
| 4 = main switch                       | 8 = cable passage "data transfer cable" |

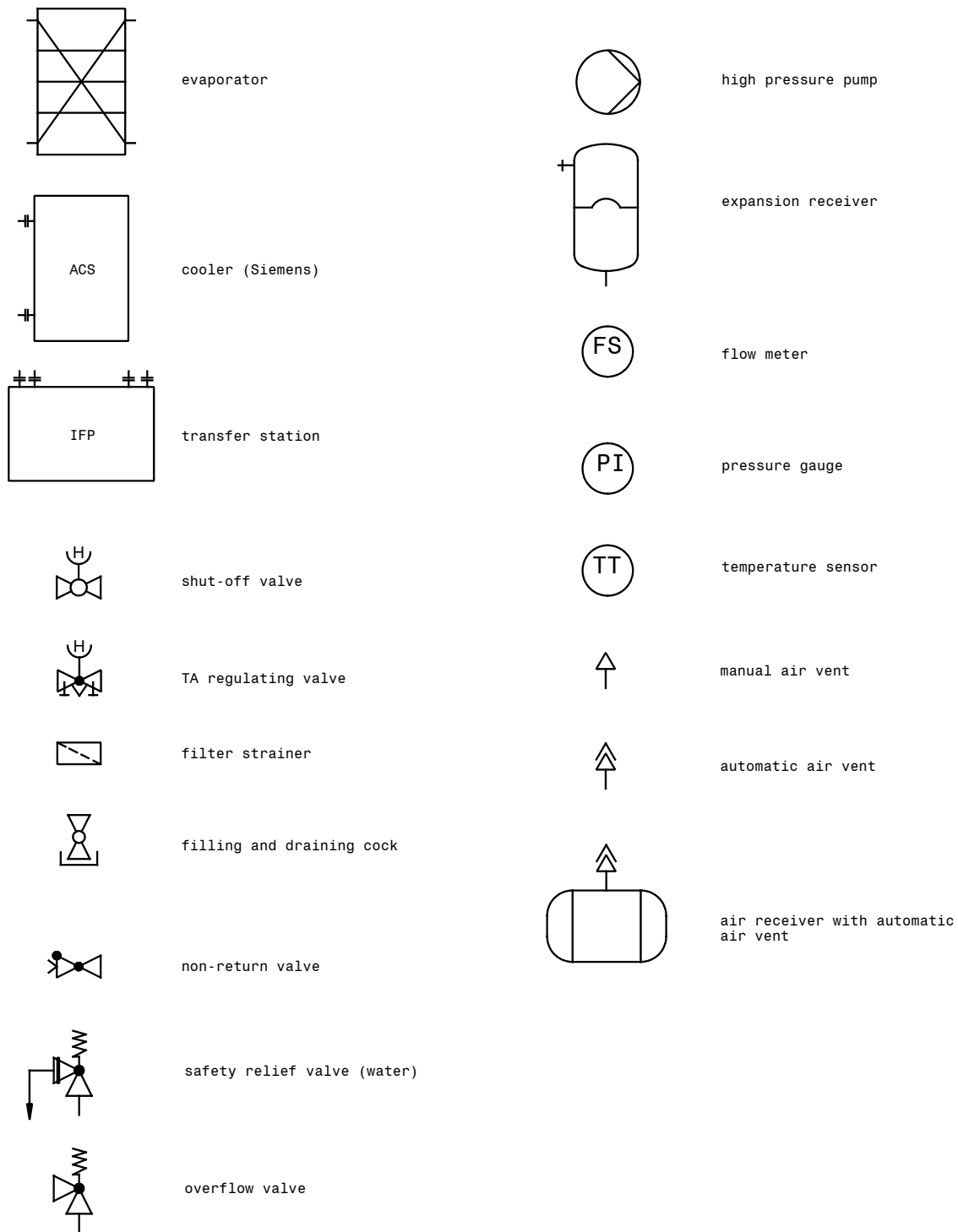
# dimensions KCC 215 (mm)



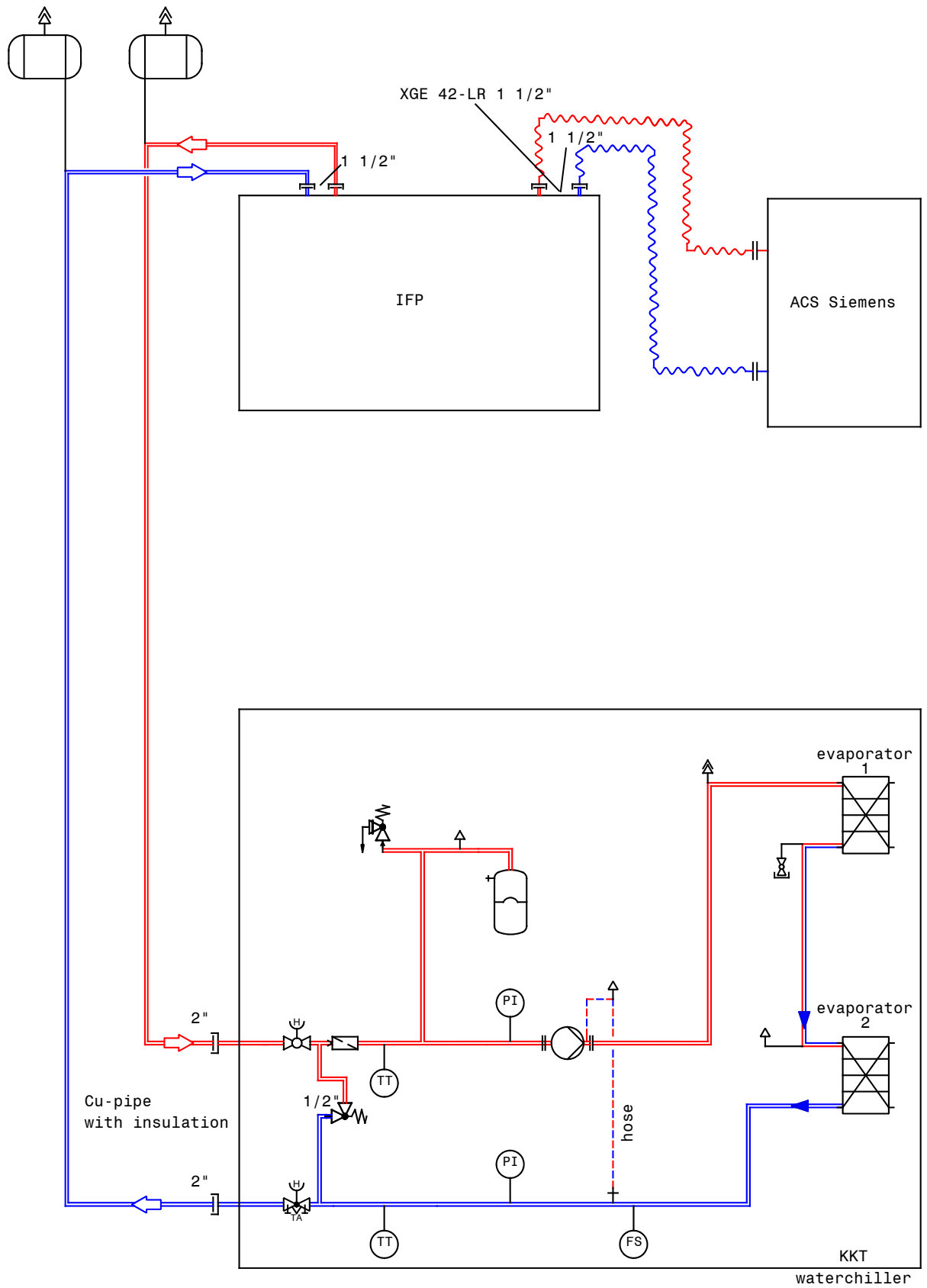
dimensions in mm.

- |                                       |   |
|---------------------------------------|---|
| 1 = water return from IFP (2") female | 5 = controll lamps                      |
| 2 = water supply to IFP (2") female   | 6 = switchboard ventilation             |
| 3 = DDC-display                       | 7 = cable passage "main power"          |
| 4 = main switch                       | 8 = cable passage "data transfer cable" |

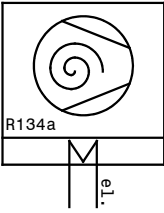

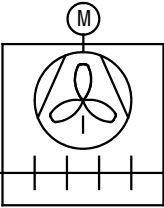

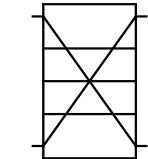
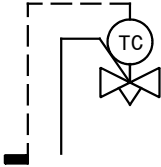



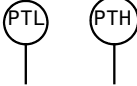










# key: cold water- / glycol diagram



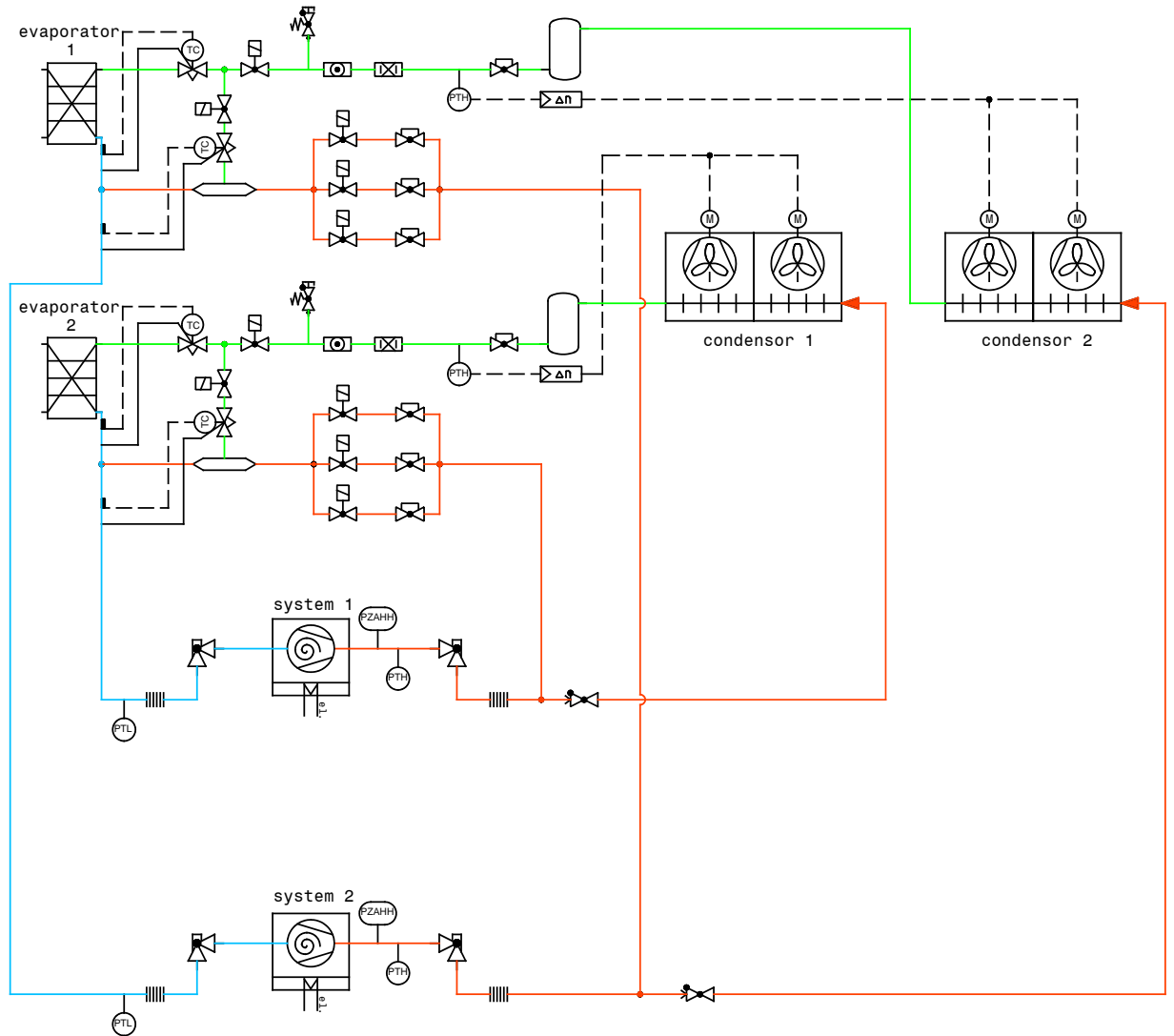
# cold water- / glycol diagram



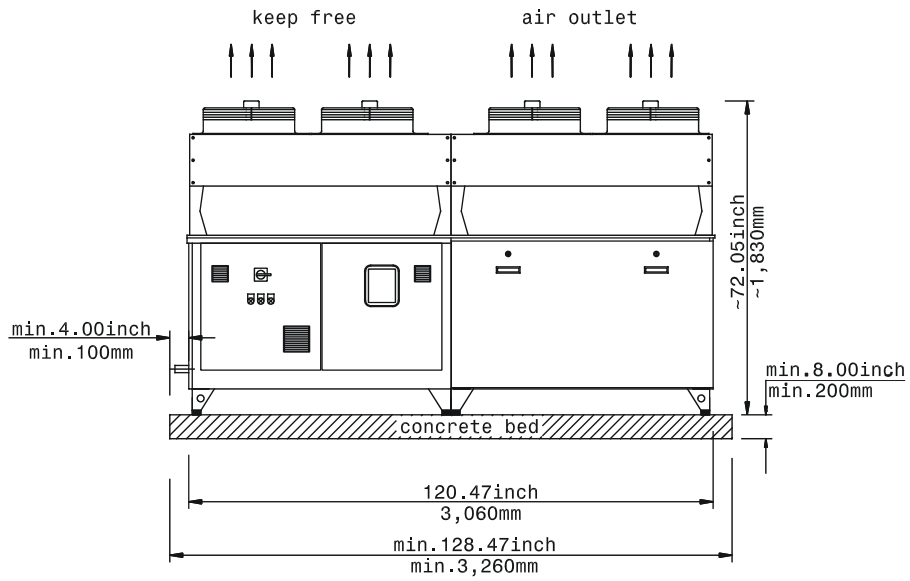
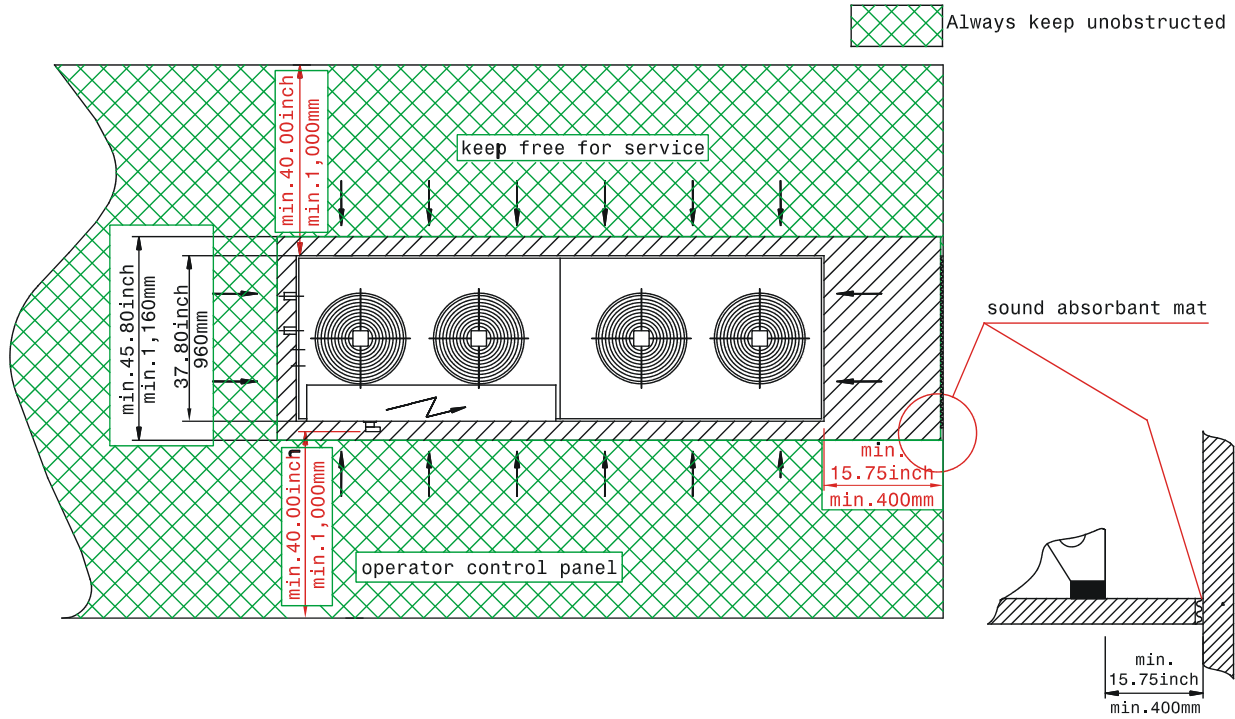
# key: refrigerant diagram

	<p>compressor with crank-tub-heater</p>		<p>Rotalock valve</p>
	<p>condenser with fan</p>		<p>solenoid valve</p>
	<p>evaporator</p>		<p>thermostatic expansion valve</p>
	<p>refrigerant shut-off valve with cap</p>		<p>speed controller</p>
	<p>vibration absorber</p>		<p>low-/high pressure receiver</p>
	<p>refrigerant non-return valve</p>		<p>high pressure switch</p>
	<p>refrigerant dehydrator</p>		<p>pipe mixing section</p>
	<p>inspection gauge with moisture indicator</p>		<p>hot gas line</p>
	<p>receiver</p>		<p>liquid line</p>
	<p>Schrader valve</p>		<p>suction gas line</p>

# refrigerant diagram



# waterchiller installation / I

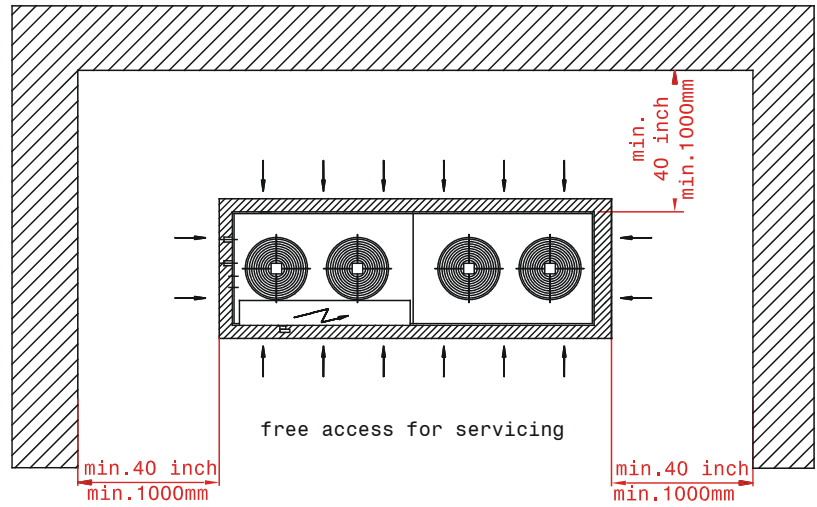


Dimensions for the concrete bed should be adjusted according to local circumstances.

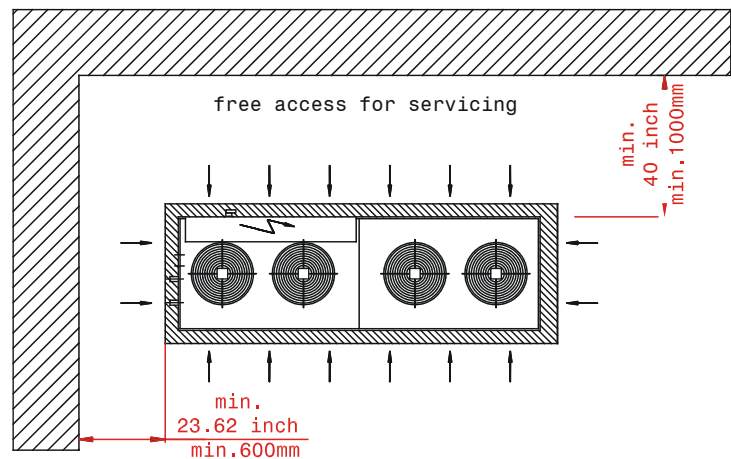


# waterchiller installation / II

installation example A

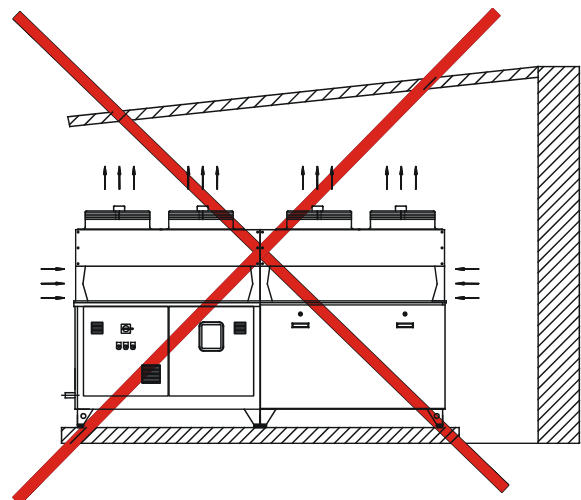


installation example B

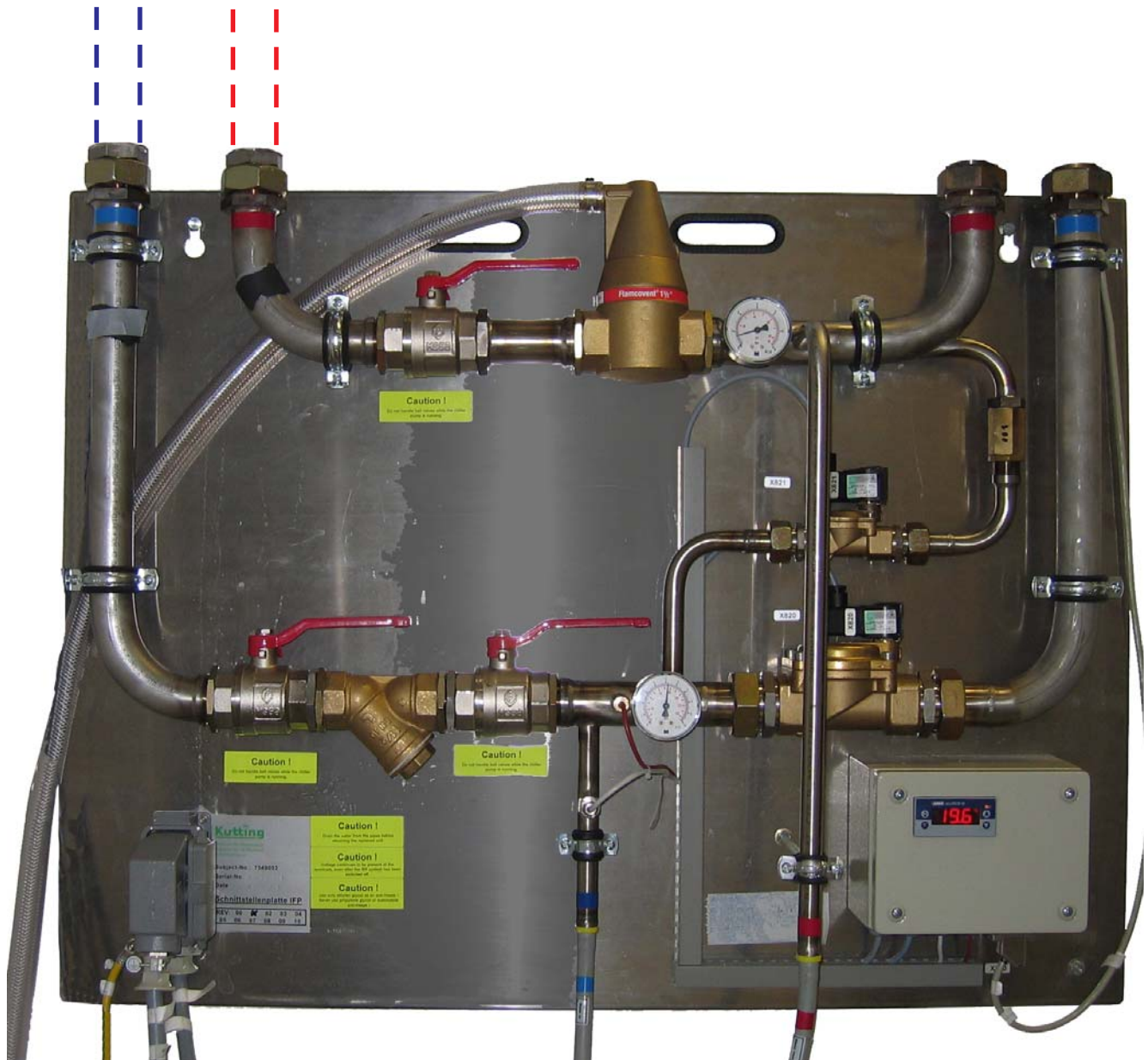


installation example C

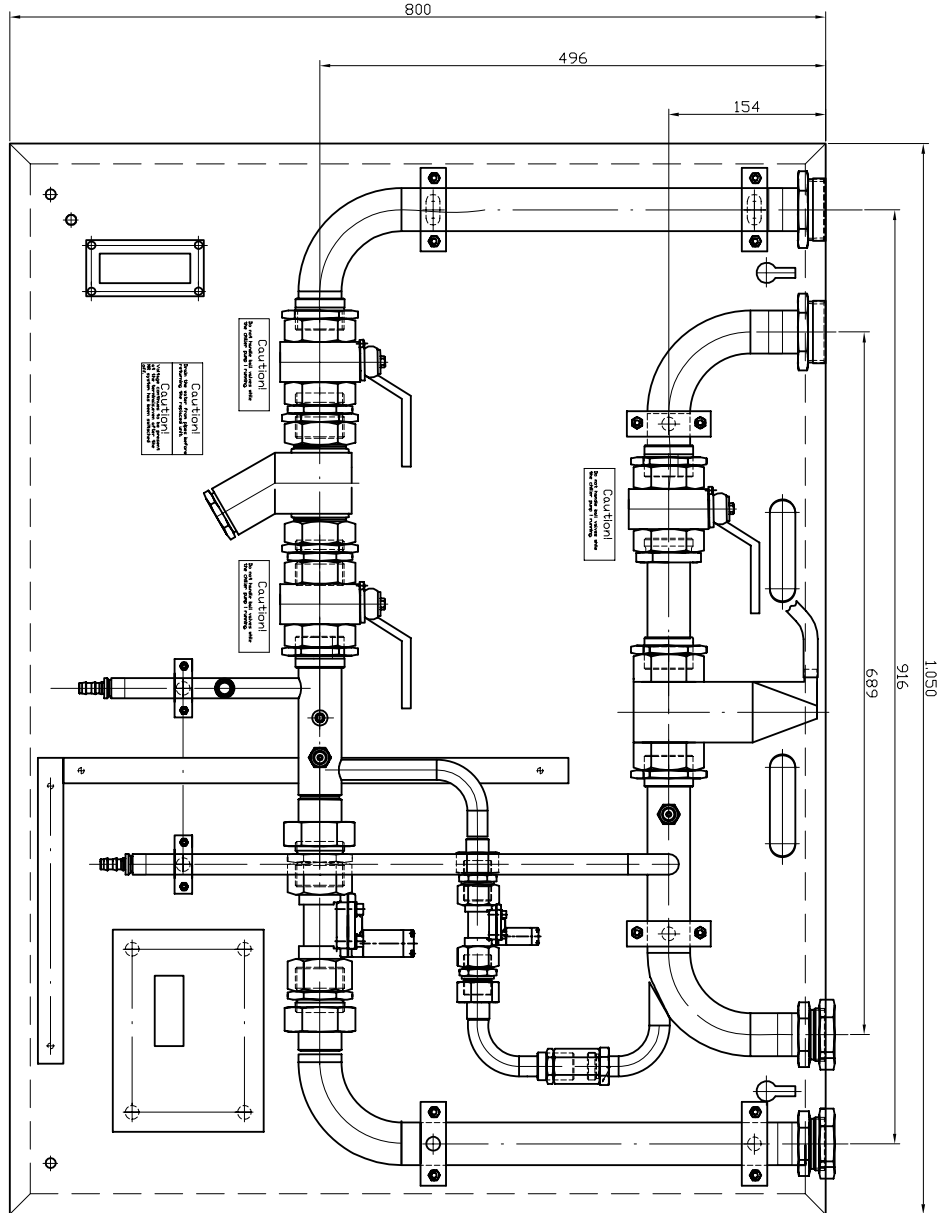
Air outlet keep free!



connector fittings  
located inside KKT-Chiller

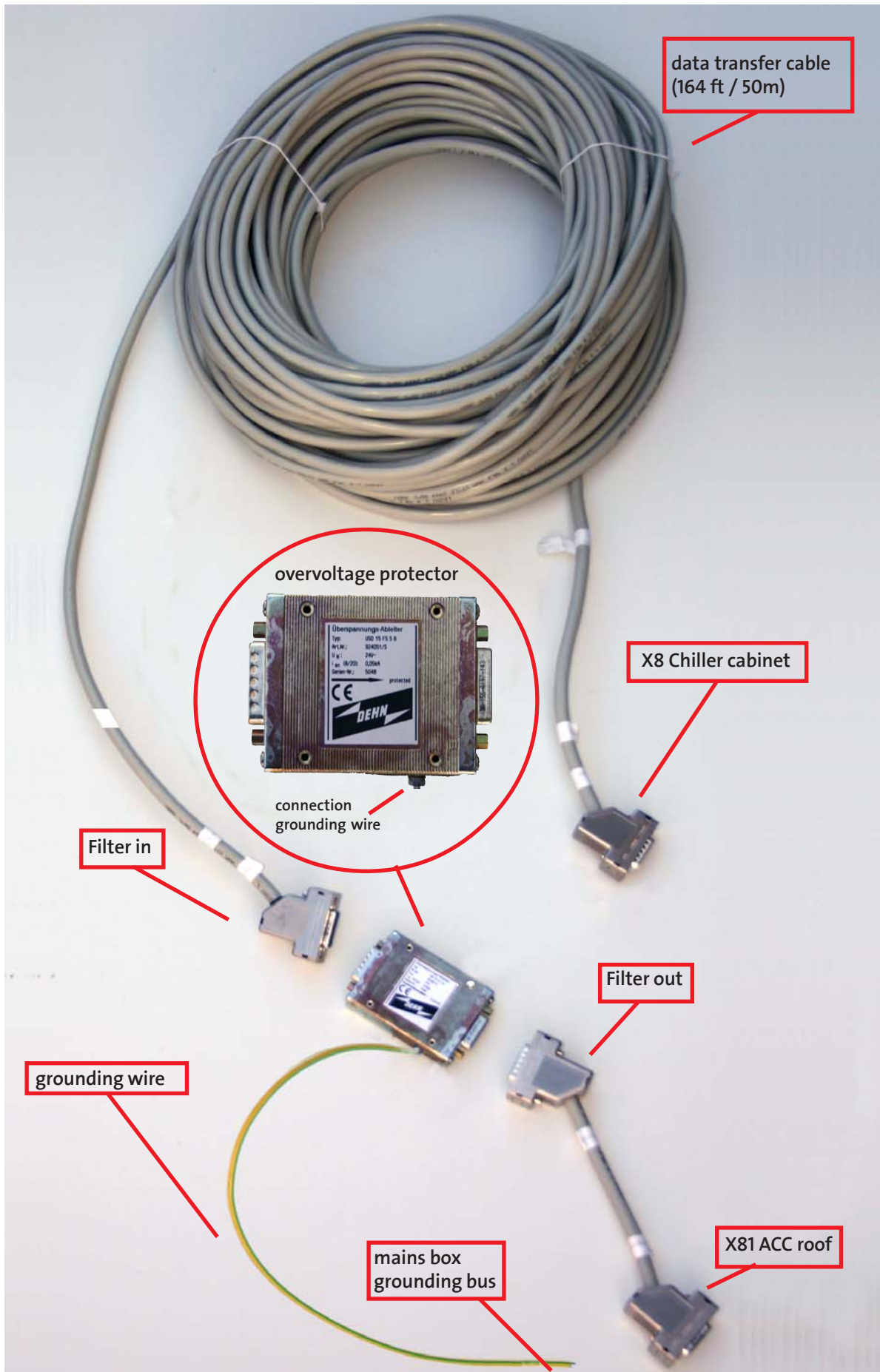


for further information contact **Siemens Customer Support**

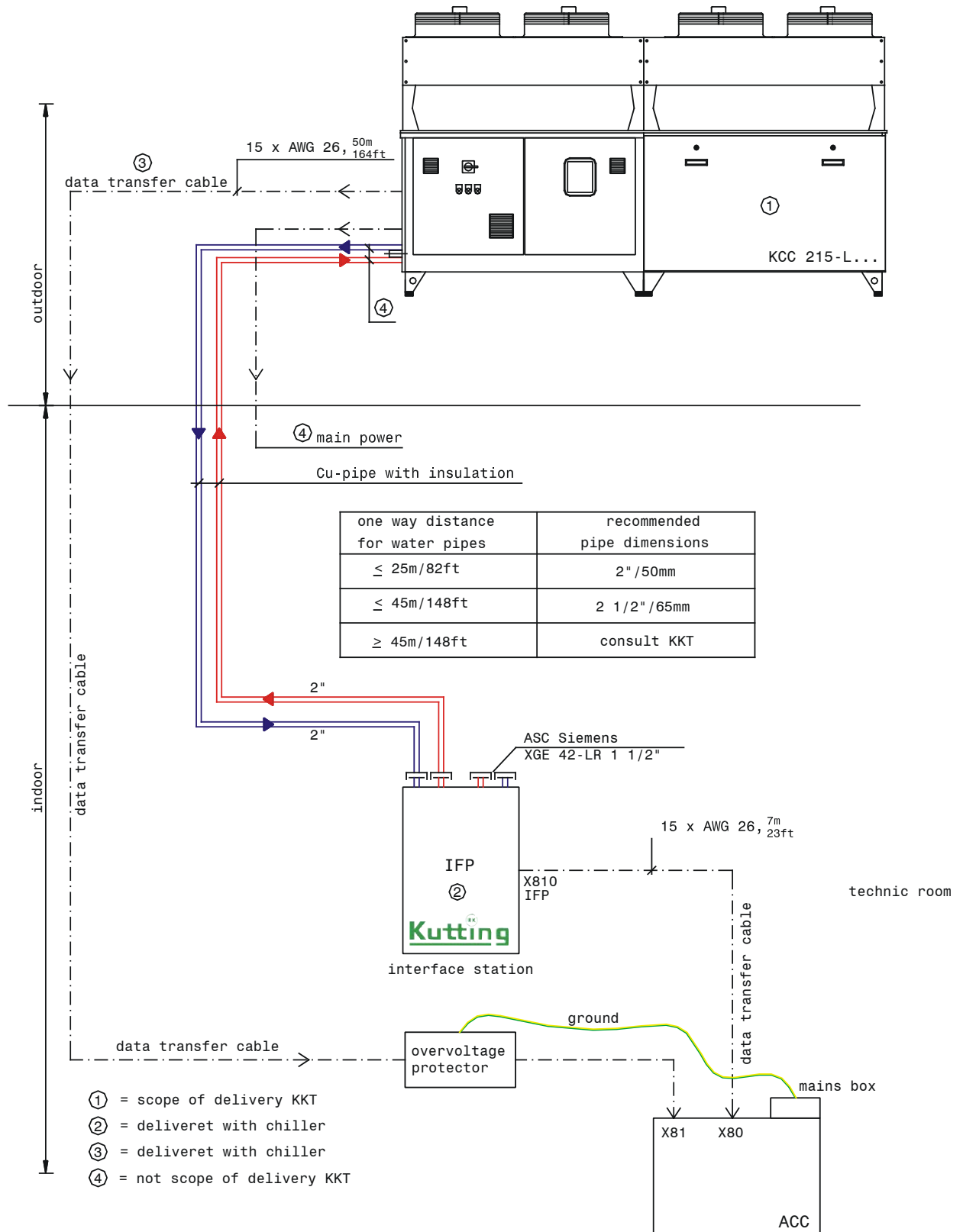


Zugehörige Stückliste		Maßstab: 1:4		Blatt 1	
Allgemeine Bezeichnung 15 25 30 35 40	Datum	Unger- Feld nach DIN 15	Bezeichnung 754.9053 REV 01	Zu- / Teilnummer: HS754.9053	
	10.09.03	MOSER	Schnittstellenplatte IFP	Zeichnung / Teilnummer: HS754.9053	
				Kundenanfrage / Zeichnungs-Schein / HS754.9053.dwg	
				Zust. / Änderung	
				Kundenanfrage / Änderung	
				Datum / Name	
				22.02.05 / Moser	

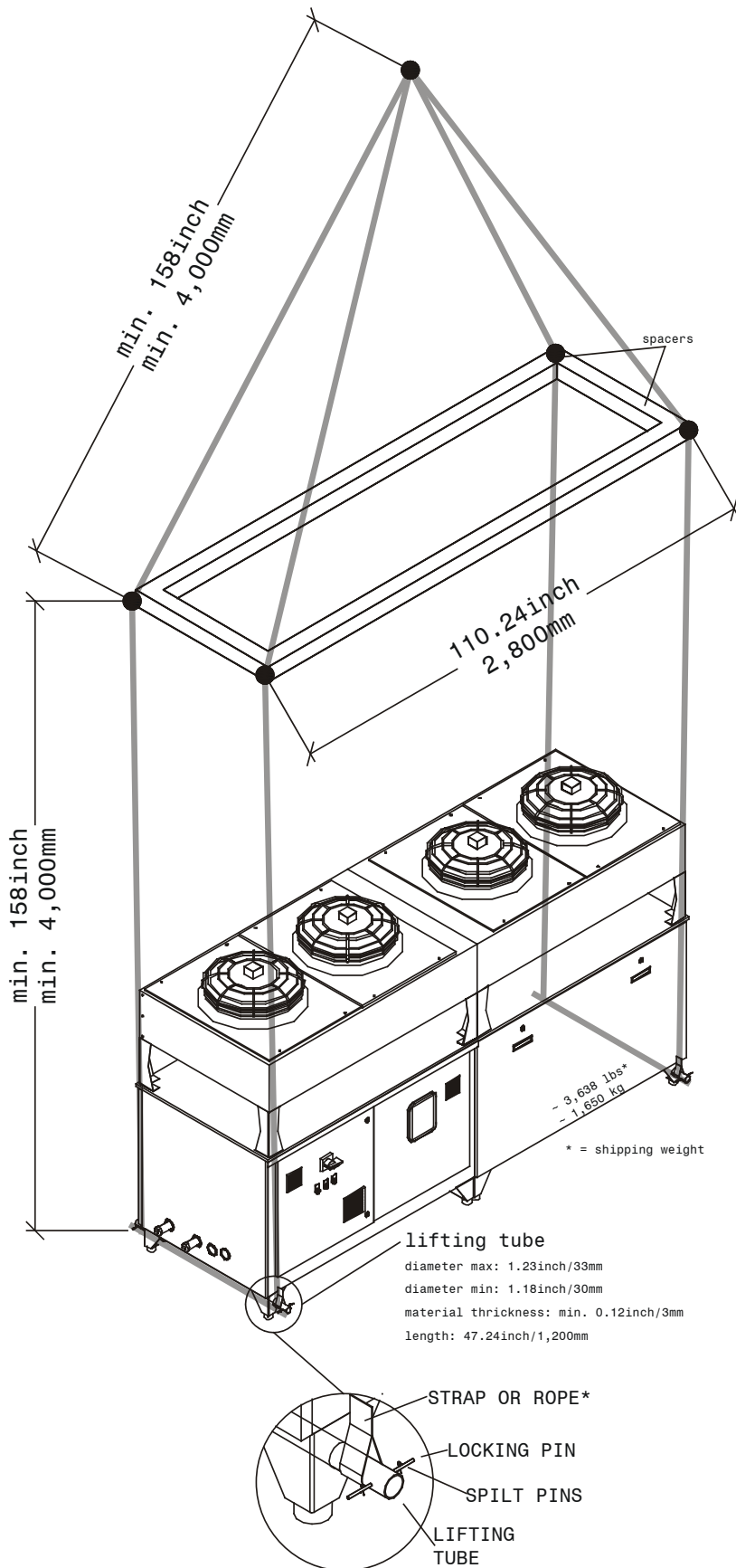
# overvoltage protection



# overview of waterchiller transfer station / remote control panel



# transport



**\*Attention: don't use metal rope !!**



Technical development  
may cause changes of configuration

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