

IEC series

EVAPORATIVE CONDENSER

engineering data
and specifications



FULLY HOT-DIPPED GALVANIZED AFTER FABRICATION

1.5-2X the protective zinc layer vs. G235 mil galvanized.

ALL NUT AND BOLT CONSTRUCTION

No unnecessary penetrations in the enclosure or basin.

STAINLESS STEEL OPTIONS

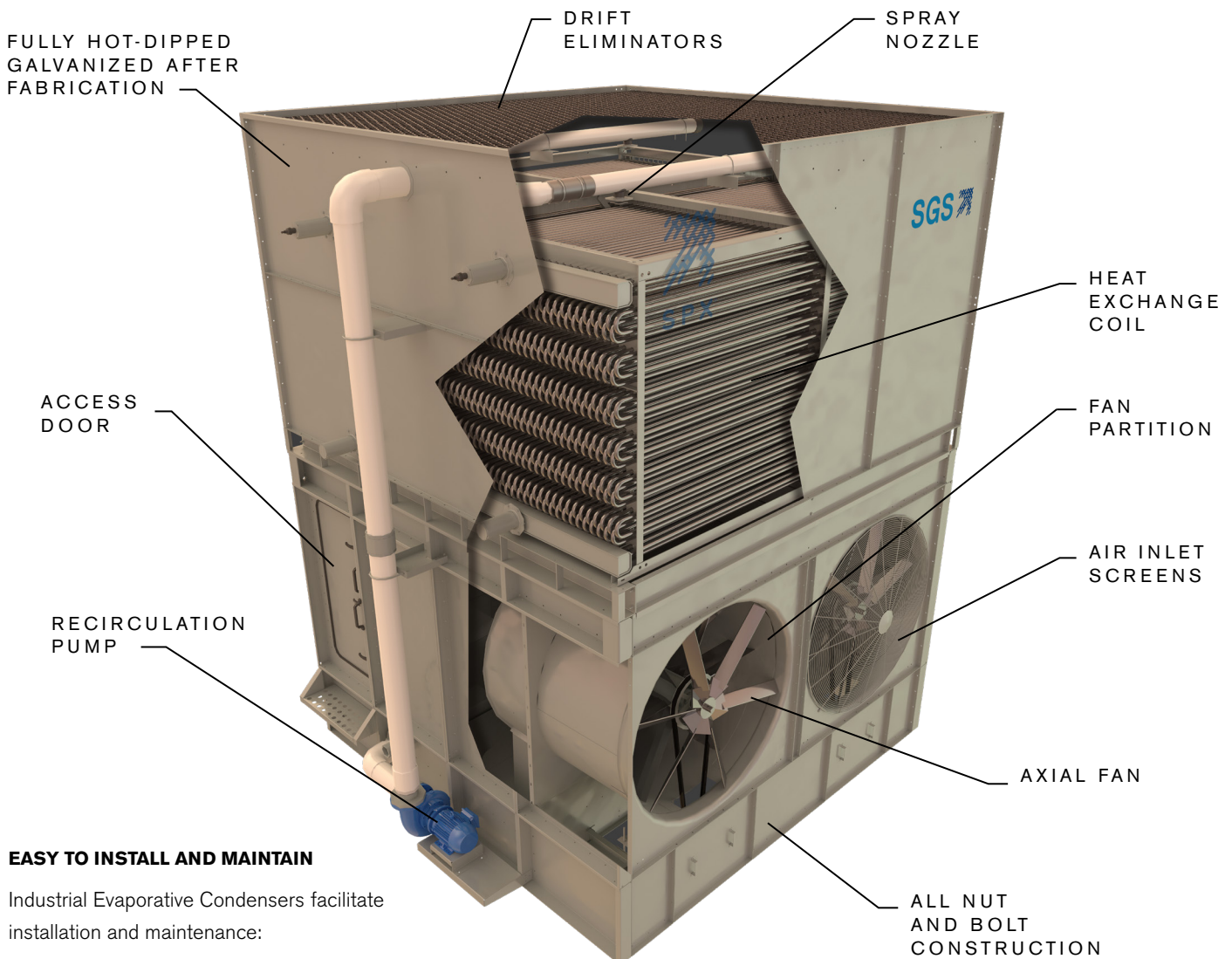
When environmental and design conditions dictate, heavy gauge stainless steel water collection basins and other structural components may be specified.

CLOG-RESISTANT WATER DISTRIBUTION SYSTEM

Self-draining spray headers and large orifice spray nozzles help prevent debris build-up and clogging. Self-draining spray headers limit potential ice buildup when not operational; spray nozzles mount to the bottom of the spray pipes.

LARGE ACCESS DOORS

Located on opposite walls, the rectangular doors provide easy access to the inside of the unit.



EASY TO INSTALL AND MAINTAIN

Industrial Evaporative Condensers facilitate installation and maintenance:

- Self-aligning top and bottom modules require only four bolt connections to speed up field installation.
- Pre-assembled platform options have welded guardrails.
- Coil sections have integrated lift points and fewer connection points to the basin – faster installation.

Access Platforms

Condenser-supported upper access platforms are available in a variety of configurations. Platforms can be configured on one or more faces of the condenser, excluding coil/pipe connection face(s). Corner connectors can be selected to connect platforms on adjacent sides of the condenser, enabling ladder consolidation. Platform surfaces are surrounded by a guardrail, kneerail and toeboard designed according to OSHA guidelines. Partial factory assembled platforms are available to simplify field installation. Available platform accessories include ladder(s), ladder extension(s), safety cage(s) and safety gate(s).

One Motor - Two Fans

The standard IEC drive arrangement incorporates a single NEMA premium efficiency TEFC inverter duty motor driving each fan through a system of belts and pulleys. For replacement applications where extensive electrical service modifications are not practical, the fan drive system can be optionally configured to drive two fans from a single motor.

Vibration Switch

A mechanical vibration switch may be factory mounted for wiring to the shutdown circuit of the fan motor(s) starter or VFD. The switch is designed to interrupt control power voltage to a safety circuit in the event of excessive vibration causing the starter or VFD equipment to de-energize the motor(s).

Stainless Steel Construction

When an enhanced level of corrosion protection is desired, condensers may be configured with varying levels of stainless steel construction. Stainless steel collection basins, welded and factory-water tested to reduce the potential for leaks, are a commonly selected upgrade. Units with stainless steel collection basin and casing are also available.

Electronic Water Level Control

An electronic water level control system consisting of a NEMA 4X control panel, water level probes and probe stilling chamber may be selected to monitor the water level in the collection basin to determine level events used for makeup, high/low alarm(s), and/or pump shutdown.

Water Level Standpipe

An external water level standpipe is available to allow visual determination of the basin water level from the exterior of the unit while in operation.

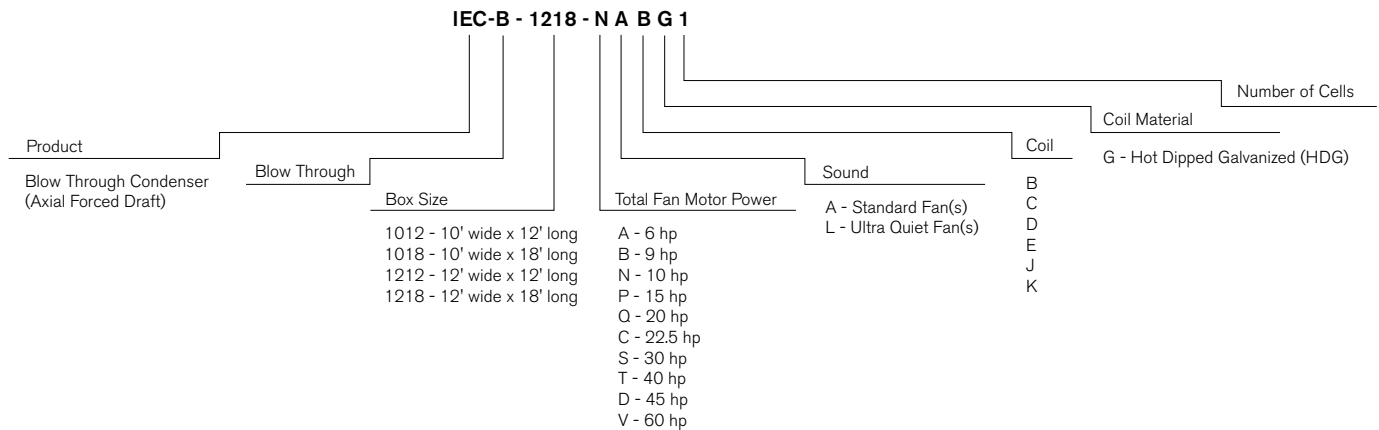
Pump Heat Trace

When an electric basin heater package is selected, the recirculating pump(s) may be fitted with electric heat trace cable and insulated to protect the water retained in the pump from freezing during periods of shutdown or standby operation.

Basin Sweeper Piping

As an option to augment an external filtration system, the collection basin may be equipped with a factory-installed, corrosion-resistant sweeper piping system designed to force dirt and debris towards a dedicated drain in the depressed section of the collection basin.

Model Nomenclature



Condenser Recirculating Water

When the ambient air temperature falls below 32°F, the recirculating water within the condenser can freeze. *Marley Technical Report #H-003 "Cooling Towers and Freezing Weather"* describes how to prevent freezing during operation. Ask your sales representative for a copy or download a copy at spxcooling.com.

During shutdown, water collects in the basin and may freeze solid. You can prevent freezing by adding heat to the water left in the basin or, you can drain the condenser basin and all exposed pipework at shutdown.

Remote Sump Application

With this type of system, recirculating water used by the condenser for evaporative heat rejection is pumped to the condenser spray system from a remote tank and flows by gravity from the condenser back to the tank. At shutdown, all exposed water drains into the tank, located in a heated space, where it is safe from freezing. The amount of water needed to successfully operate the system depends on condenser size and volume of water contained in the piping system. Select a tank large enough to contain those combined volumes, plus a level sufficient to maintain a flooded suction on the pump. Control makeup water according to the level where the tank stabilizes during operation. For applications with remote sump, the condenser recirculating water pump and piping are removed and an outlet connection is added in the collection basin.

System Cleanliness

The IEC can be a very effective air washer. Atmospheric dust and particulates able to pass through the relatively small louver or screen openings will enter the recirculating water system. Increased concentrations can intensify systems maintenance by clogging screens and strainers—and smaller particulates can coat system heat transfer surfaces. In areas of low flow velocity, such as the collection basin, sedimentary deposits can provide a breeding ground for bacteria.

In areas prone to dust and particulates, consider installing some means for keeping the collection basin clean. Typical devices include basin sweeper piping in conjunction with side stream filters and a variety of filtration media.

Blowdown

Blowdown or bleed-off is the continuous removal of a small portion of the water from the open recirculating system. Blowdown is used to prevent the dissolved solids from concentrating to the point where they will form scale. The amount of blowdown required depends on the heat load and the composition of the makeup water. The IEC is equipped with a blowdown line with metering valve connected directly to the overflow. Specific blowdown adjustment instructions and additional blowdown information can be found in the applicable *IEC User Manual*.

Water Treatment

To control the buildup of dissolved solids resulting from water evaporation, as well as airborne impurities and biological contaminants including Legionella, an effective, consistent water treatment program is required. Simple blowdown may be adequate to control corrosion and scale, but biological contamination can only be controlled with biocides. An acceptable water treatment program must be compatible with the variety of materials incorporated in the condenser. Ideally the pH of the recirculating water should fall between 6.5 and 9.0. Batch feeding of the chemicals directly into the condenser is not recommended since localized damage is possible. Specific startup instructions and additional water quality recommendations can be found in the *IEC User Manual* which accompanies the condenser and also is available from your sales representative.

Air Circulation

Considering the air path entering and exiting the condenser is critical to ensure the condenser operates as designed. Obstructions near the air inlet(s) and discharge should be located a sufficient distance away so as not to impede airflow. If the condenser is to be located in an enclosure or near tall barriers, the air discharge should be positioned at an elevation higher than the top of the barriers to discourage recirculation of the hot discharge air. The condenser must be located at such distance and direction to avoid the possibility of contaminated discharge air being drawn into building fresh air intake ducts.

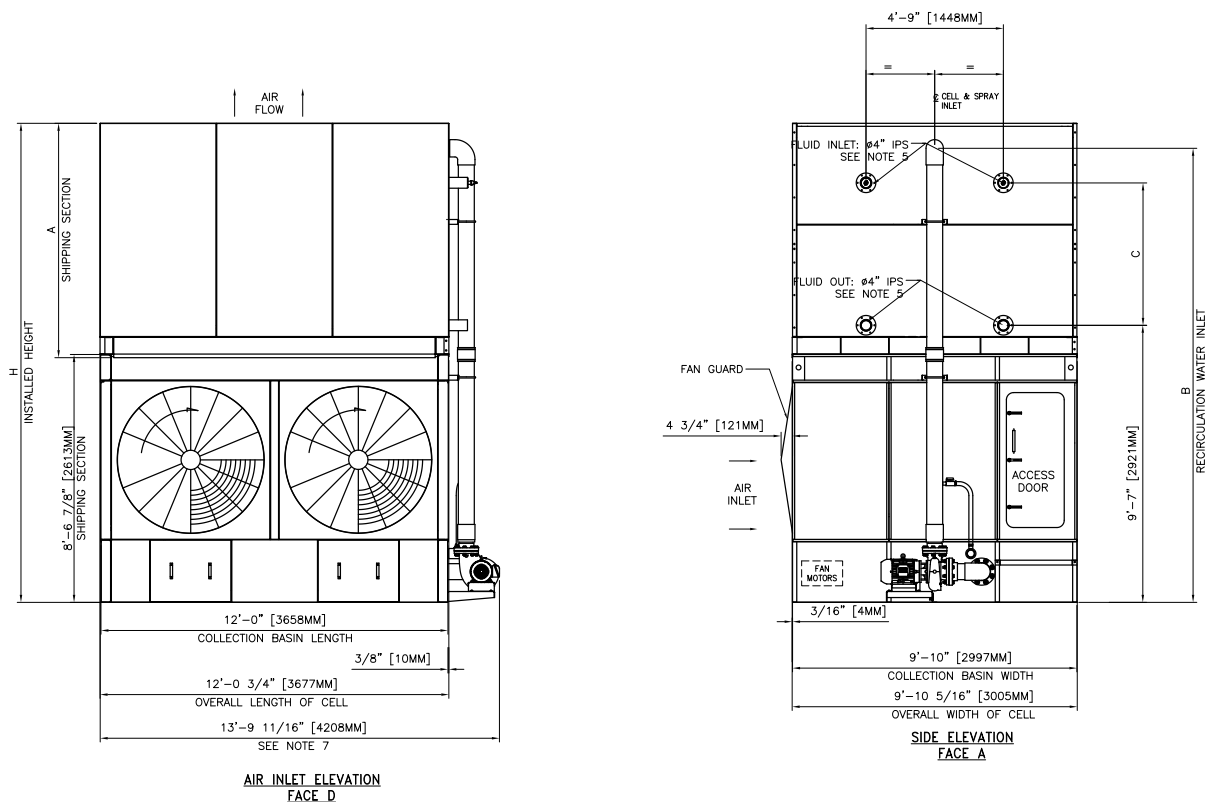
Piping

Always follow accepted engineering practices during design and installation of condenser piping. All piping must be supported independent of the condenser—no loads are to be supported by the condenser coil connections or condenser structure. Precautions must be taken to protect the condenser from excess heat generated during welding.

10' x 12' Single Cell 187-363 Tons R717

Model	H	A	B	C
IEC1012XXB	14'-3 ³ / ₁₆ "	5'-10 ¹ / ₄ "	13'-5 ⁷ / ₁₆ "	2'-8 ¹ / ₈ "
IEC1012XXC	15'-0 ¹³ / ₁₆ "	6'-7 ¹ / ₄ "	14'-2 ⁷ / ₁₆ "	3'-5 ¹ / ₈ "
IEC1012XXD	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1012XXJ	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1012XXE	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "
IEC1012XXK	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "

SelectSGS selection software provides IEC model recommendations based on customer's specific design requirements.



NOTES

- The equipment must be installed level to insure maximum thermal performance and to avoid racking.
- Air inlet faces must have an adequate air supply. If obstructions exist, consult your sales representative.
- For tower support requirements, weights, loads, and multi-cell spacing, refer to the "suggested supporting steel arrangement" drawing.
- Motor quantities and position vary depending on options selected. Refer to the "conduit location" and "collection basin details" drawings for additional details.
- Coils are capped and charged with nitrogen at the factory. Upon installation, coil connections require cutting to dimension shown and beveling for welding. Fluid risers by others. Risers to be self supporting and must not add extra weight to the equipment. Precautions must be taken to protect tower from excess heat during welding.
- All piping shall be supported independent of the tower. Piping, supports, design of piping and supports, and restraint of lateral piping loads shall be supplied by others.
- Pump dimension is based on a standard scot 59 frame 60 Hz pump. Other pump models, 50 Hz frames, or other options may increase dimension.
- Routine maintenance does not require workers to use the top of the tower as a work platform. Spray nozzle inspection can be done from a portable ladder, stair, or scaffold. Take adequate safety precautions when using portable ladders.
For added safety and convenience, SPX Cooling Tech, LLC offers an optional spray platform for improved access for spray nozzle maintenance. Detail drawings for this and other tower options are available from your sales representative.
- Assembly tolerance is $\pm 1/8"$ [$\pm 3\text{mm}$]. Consult suppliers of supporting structure for construction tolerance.

10' x 12' Single Cell

Model note 1	R717 Capacity tons - note 2	R717 Charge lb - note 3	Internal Coil Volume ft ³	Fan Motor hp	Airflow Rate cfm	Shipping Weight lb		Design Operating Weight lb
						Weight/Cell	Heaviest Section	
IEC-B-1012-AAB1	187	384	36	2 x 3	45,567	13,170	8,070	16,625
IEC-B-1012-NAB1	213	384	36	2 x 5	51,045	13,170	8,070	16,625
IEC-B-1012-PAB1	235	384	36	2 x 7.5	58,371	13,170	8,070	16,625
IEC-B-1012-QAB1	251	384	36	2 x 10	63,466	13,170	8,070	16,625
IEC-B-1012-NAC1	241	478	45	2 x 5	50,341	14,670	9,570	18,125
IEC-B-1012-PAC1	266	478	45	2 x 7.5	57,877	14,670	9,570	18,125
IEC-B-1012-QAC1	285	478	45	2 x 10	64,685	14,670	9,570	18,125
IEC-B-1012-PAD1	270	572	54	2 x 7.5	58,679	16,170	11,070	19,625
IEC-B-1012-QAD1	289	572	54	2 x 10	64,342	16,170	11,070	19,625
IEC-B-1012-NAJ1	268	636	60	2 x 5	50,726	17,620	12,220	21,075
IEC-B-1012-PAJ1	285	636	60	2 x 7.5	57,826	17,620	12,220	21,075
IEC-B-1012-QAJ1	305	636	60	2 x 10	63,940	17,620	12,220	21,075
IEC-B-1012-SLJ1	335	636	60	2 x 15	70,822	17,620	12,220	21,075
IEC-B-1012-PAE1	291	667	63	2 x 7.5	58,221	17,670	12,570	21,125
IEC-B-1012-QAE1	311	667	63	2 x 10	63,998	17,670	12,570	21,125
IEC-B-1012-NAK1	279	741	70	2 x 5	49,790	19,270	13,870	22,725
IEC-B-1012-PAK1	307	741	70	2 x 5	57,067	19,270	13,870	22,725
IEC-B-1012-QAK1	328	741	70	2 x 10	63,361	19,270	13,870	22,725
IEC-B-1012-SLK1	363	741	70	2 x 15	70,382	19,270	13,870	22,725

Pump Motor hp	Recirculating Flow Rate gpm	Remote Sump Application	
		Bottom Outlet Diameter	Volume gal
5	520	8"	470

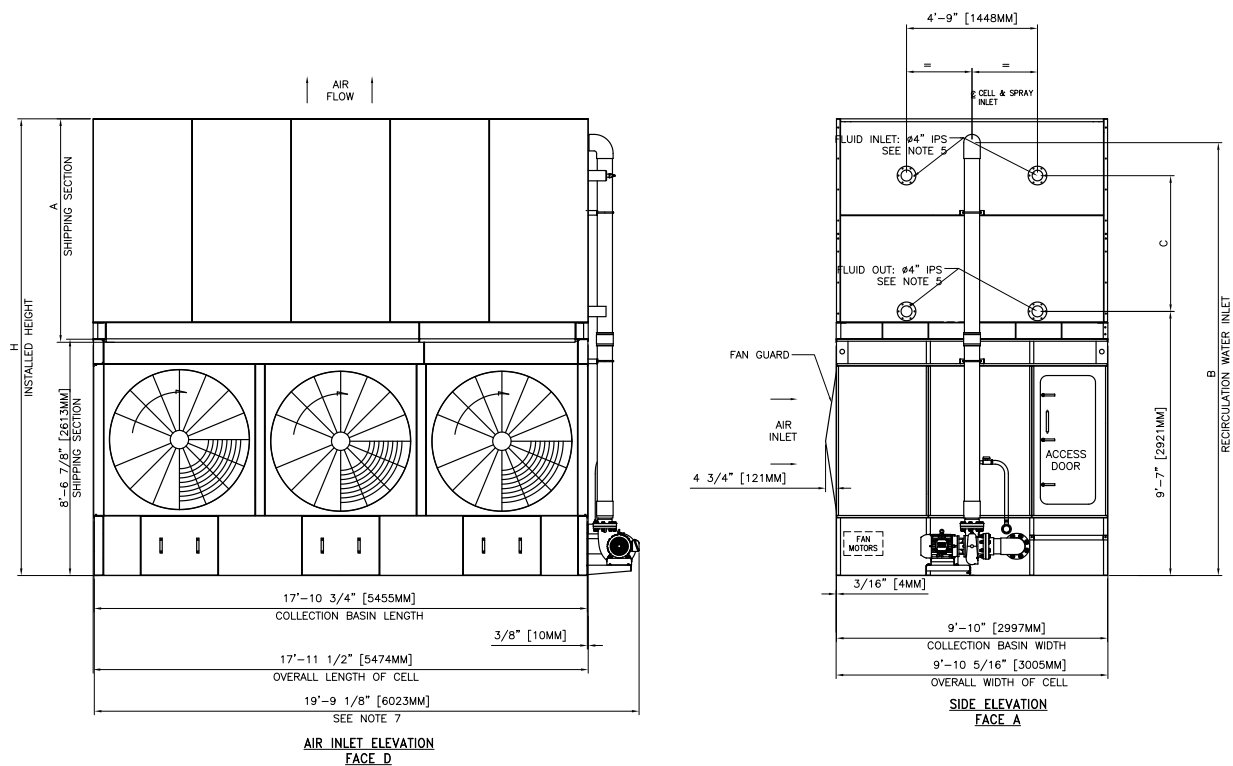
NOTE

- The last digit of the model number shown represents the number of cells.
- R717 tons are at 96.3°F condensing temperature, a 20°F suction temperature and a 78°F entering wet-bulb temperature.
- For R134a charge, multiply by 1.98. For R22 charge multiply by 1.93. For R404A or R507A charge multiply by 1.65.
- Use this bulletin for preliminary layouts only.** Obtain current drawings from your sales representative.

10' x 18' Single Cell 287-552 Tons R717

Model	H	A	B	C
IEC1018XXB	14'-3 ¹³ / ₁₆ "	5'-10 ¹ / ₄ "	13'-5 ⁷ / ₁₆ "	2'-8 ¹ / ₈ "
IEC1018XXC	15'-0 ¹³ / ₁₆ "	6'-7 ¹ / ₄ "	14'-2 ⁷ / ₁₆ "	3'-5 ¹ / ₈ "
IEC1018XXD	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1018XXJ	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1018XXE	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "
IEC1018XXK	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "

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NOTES

- The equipment must be installed level to insure maximum thermal performance and to avoid racking.
- Air inlet faces must have an adequate air supply. If obstructions exist, consult your sales representative.
- For tower support requirements, weights, loads, and multi-cell spacing, refer to the "suggested supporting steel arrangement" drawing.
- Motor quantities and position vary depending on options selected. Refer to the "conduit location" and "collection basin details" drawings for additional details.
- Coils are capped and charged with nitrogen at the factory. Upon installation, coil connections require cutting to dimension shown and beveling for welding. Fluid risers by others. Risers to be self supporting and must not add extra weight to the equipment. Precautions must be taken to protect tower from excess heat during welding.
- All piping shall be supported independent of the tower. Piping, supports, design of piping and supports, and restraint of lateral piping loads shall be supplied by others.
- Pump dimension is based on a standard scot 59 frame 60 Hz pump. Other pump models, 50 Hz frames, or other options may increase dimension.
- Routine maintenance does not require workers to use the top of the tower as a work platform. Spray nozzle inspection can be done from a portable ladder, stair, or scaffold. Take adequate safety precautions when using portable ladders.
For added safety and convenience, SPX Cooling Tech, LLC offers an optional spray platform for improved access for spray nozzle maintenance. Detail drawings for this and other tower options are available from your sales representative.
- Assembly tolerance is $\pm 1/8"$ [$\pm 3\text{mm}$]. Consult suppliers of supporting structure for construction tolerance.

10' x 18' Single Cell

Model note 1	R717 Capacity tons - note 2	R717 Charge lb - note 3	Internal Coil Volume ft ³	Fan Motor hp	Airflow Rate cfm	Shipping Weight lb		Design Operating Weight lb
						Weight/Cell	Heaviest Section	
IEC-B-1018-BAB1	287	573	54	3 x 3	69,607	19,755	11,670	25,017
IEC-B-1018-PAB1	326	573	54	3 x 5	78,172	19,755	11,670	25,017
IEC-B-1018-CAB1	359	573	54	3 x 7.5	91,148	19,755	11,670	25,017
IEC-B-1018-SLB1	385	573	54	3 x 10	99,476	19,755	11,670	25,017
IEC-B-1018-PAC1	361	714	67	3 x 5	80,371	22,055	13,870	27,267
IEC-B-1018-CAC1	397	714	67	3 x 7.5	90,459	22,055	13,870	27,267
IEC-B-1018-SLC1	425	714	67	3 x 10	98,945	22,055	13,870	27,267
IEC-B-1018-CAD1	414	855	80	3 x 7.5	89,758	24,255	16,070	29,517
IEC-B-1018-SAD1	439	855	80	3 x 10	98,417	24,255	16,070	29,517
IEC-B-1018-PAJ1	406	951	89	3 x 5	77,548	26,430	17,670	31,692
IEC-B-1018-CAJ1	431	951	89	3 x 7.5	88,428	26,430	17,670	31,692
IEC-B-1018-SLJ1	463	951	89	3 x 10	97,767	26,430	17,670	31,692
IEC-B-1018-DAJ1	515	951	89	3 x 15	10,8399	26,430	17,670	31,692
IEC-B-1018-CAE1	445	996	93	3 x 7.5	89,048	26,505	18,270	31,767
IEC-B-1018-SAE1	475	996	93	3 x 10	97,887	26,505	18,270	31,767
IEC-B-1018-PAK1	413	1,108	103	3 x 5	73,875	28,905	20,120	34,167
IEC-B-1018-CAK1	461	1,108	103	3 x 7.5	87,279	28,905	20,120	34,167
IEC-B-1018-SLK1	501	1,108	103	3 x 10	96,887	28,905	20,120	34,167
IEC-B-1018-DAK1	552	1,108	103	3 x 15	10,7730	28,905	20,120	34,167

Pump Motor hp	Recirculating Flow Rate gpm	Remote Sump Application	
		Bottom Outlet Diameter	Volume gal
7.5	790	10"	660

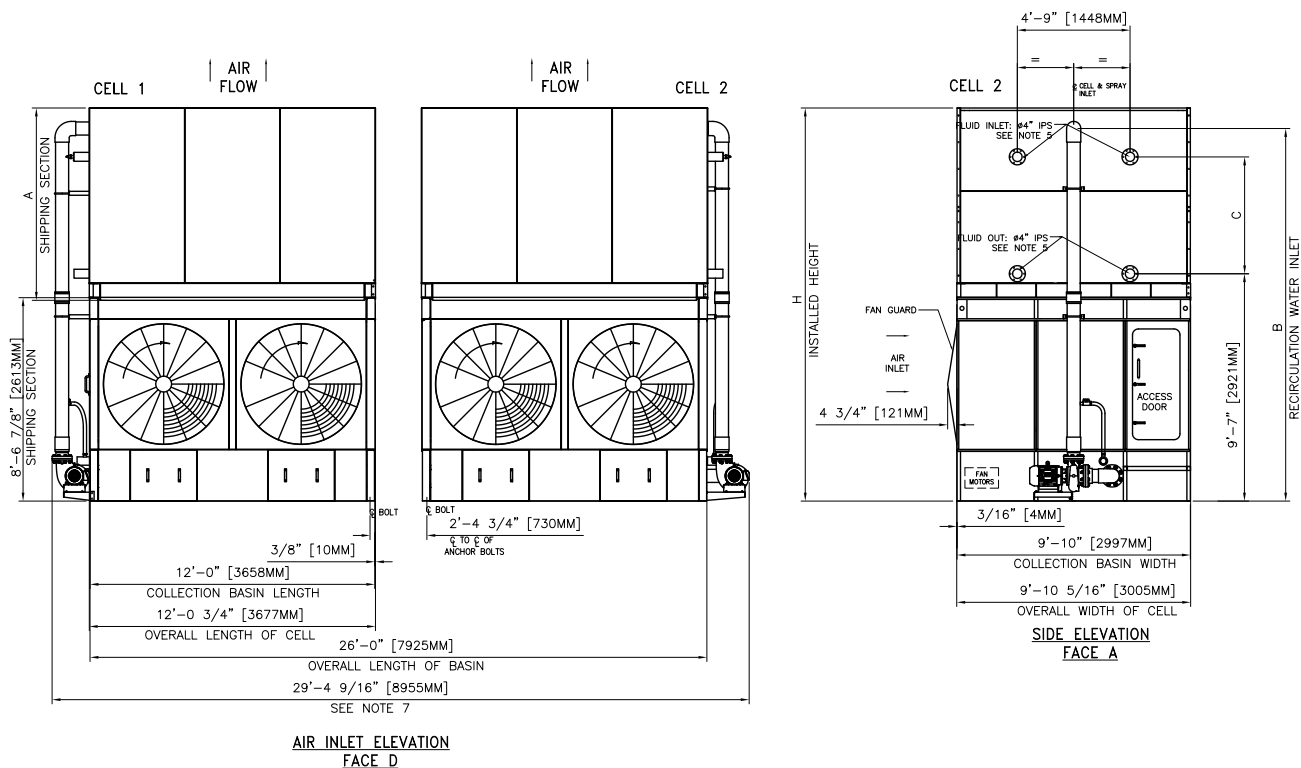
NOTE

- The last digit of the model number shown represents the number of cells.
- R717 tons are at 96.3°F condensing temperature, a 20°F suction temperature and a 78°F entering wet-bulb temperature.
- For R134a charge, multiply by 1.98. For R22 charge multiply by 1.93. For R404A or R507A charge multiply by 1.65.
- Use this bulletin for preliminary layouts only.** Obtain current drawings from your sales representative.

10' x 24' Two Cell 373-727 Tons R717

Model	H	A	B	C
IEC1012XXB	14'-3 ¹³ / ₁₆ "	5'-10 ¹ / ₄ "	13'-5 ⁵ / ₁₆ "	2'-8 ¹ / ₈ "
IEC1012XXC	15'-0 ¹³ / ₁₆ "	6'-7 ¹ / ₄ "	14'-2 ⁷ / ₁₆ "	3'-5 ¹ / ₈ "
IEC1012XXD	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1012XXJ	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1012XXE	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "
IEC1012XXK	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "

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NOTES

- The equipment must be installed level to insure maximum thermal performance and to avoid racking.
- Air inlet faces must have an adequate air supply. If obstructions exist, consult your sales representative.
- For tower support requirements, weights, loads, and multi-cell spacing, refer to the "suggested supporting steel arrangement" drawing.
- Motor quantities and position vary depending on options selected. Refer to the "conduit location" and "collection basin details" drawings for additional details.
- Coils are capped and charged with nitrogen at the factory. Upon installation, coil connections require cutting to dimension shown and beveling for welding. Fluid risers by others. Risers to be self supporting and must not add extra weight to the equipment. Precautions must be taken to protect tower from excess heat during welding.
- All piping shall be supported independent of the tower. Piping, supports, design of piping and supports, and restraint of lateral piping loads shall be supplied by others.
- Pump dimension is based on a standard scot 59 frame 60 Hz pump. Other pump models, 50 Hz frames, or other options may increase dimension.
- Routine maintenance does not require workers to use the top of the tower as a work platform. Spray nozzle inspection can be done from a portable ladder, stair, or scaffold. Take adequate safety precautions when using portable ladders.
For added safety and convenience, SPX Cooling Tech, LLC offers an optional spray platform for improved access for spray nozzle maintenance. Detail drawings for this and other tower options are available from your sales representative.
- Assembly tolerance is $\pm 1/8"$ [$\pm 3\text{mm}$]. Consult suppliers of supporting structure for construction tolerance.

10' x 24 Two Cell

Model note 1	R717 Capacity tons - note 2	R717 Charge lb - note 3	Internal Coil Volume ft ³	Fan Motor hp	Airflow Rate cfm	Shipping Weight lb		Design Operating Weight lb
						Weight/Cell	Heaviest Section	
IEC-B-1012-AAB2	373	768	72	4 x 3	91,134	26,340	16,140	33,250
IEC-B-1012-NAB2	425	768	72	4 x 5	102,090	26,340	16,140	33,250
IEC-B-1012-PAB2	469	768	72	4 x 7.5	116,742	26,340	16,140	33,250
IEC-B-1012-QAB2	501	768	72	4 x 10	126,932	26,340	16,140	33,250
IEC-B-1012-NAC2	481	956	90	4 x 5	100,682	29,340	19,140	36,250
IEC-B-1012-PAC2	531	956	90	4 x 7.5	115,754	29,340	19,140	36,250
IEC-B-1012-QAC2	569	956	90	4 x 10	129,370	29,340	19,140	36,250
IEC-B-1012-PAD2	539	1,144	107	4 x 7.5	117,358	32,340	22,140	39,250
IEC-B-1012-QAD2	577	1,144	107	4 x 10	128,684	32,340	22,140	39,250
IEC-B-1012-NAJ2	536	1,272	119	4 x 5	101,452	35,240	24,440	42,150
IEC-B-1012-PAJ2	569	1,272	119	4 x 7.5	115,652	35,240	24,440	42,150
IEC-B-1012-QAJ2	609	1,272	119	4 x 10	127,880	35,240	24,440	42,150
IEC-B-1012-SLJ2	671	1,272	119	4 x 15	141,644	35,240	24,440	42,150
IEC-B-1012-PAE2	581	1,334	125	4 x 7.5	116,442	35,340	25,140	42,250
IEC-B-1012-QAE2	623	1,334	125	4 x 10	127,996	35,340	25,140	42,250
IEC-B-1012-NAK2	557	1,482	139	4 x 5	99,580	38,540	27,740	45,450
IEC-B-1012-PAK2	613	1,482	139	4 x 5	114,134	38,540	27,740	45,450
IEC-B-1012-QAK2	657	1,482	139	4 x 10	126,722	38,540	27,740	45,450
IEC-B-1012-SLK2	727	1,482	139	4 x 15	140,764	38,540	27,740	45,450

Pump Motor hp	Recirculating Flow Rate gpm	Remote Sump Application	
		Bottom Outlet Diameter	Volume gal
10	1,040	2 x 8"	940

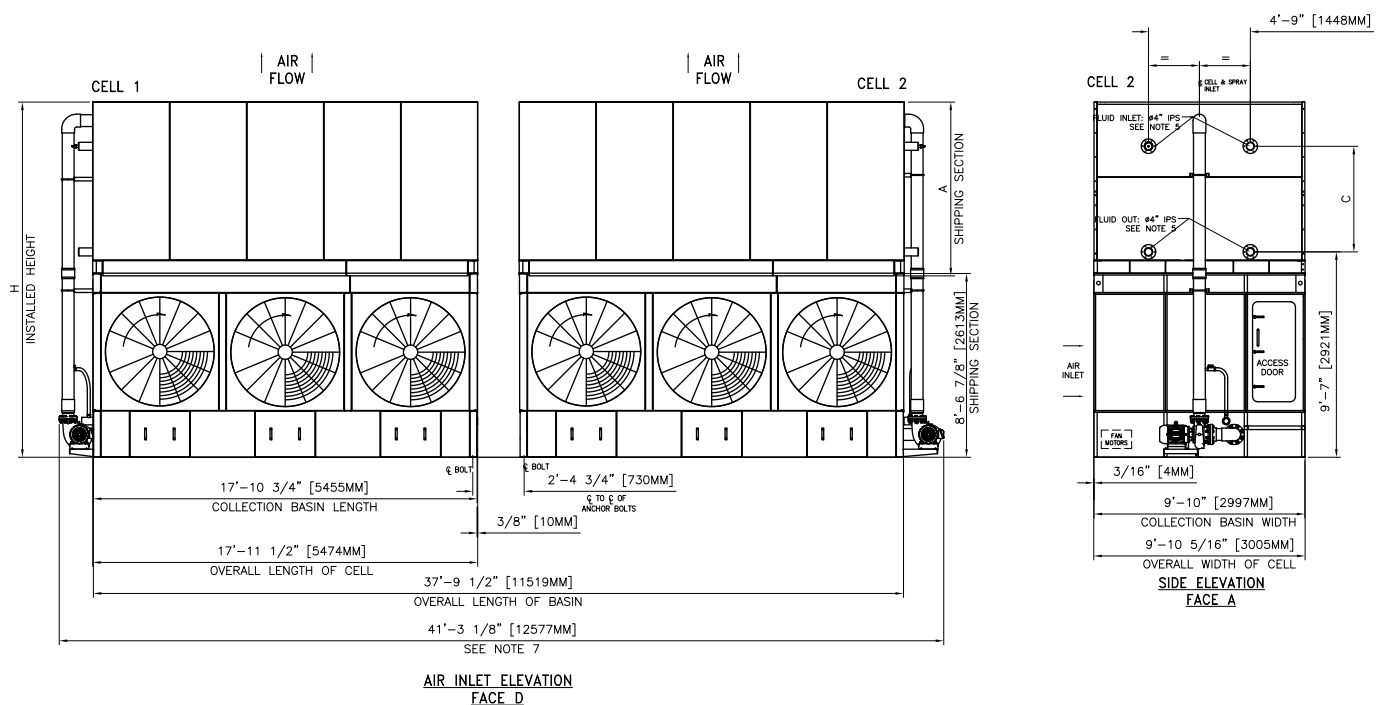
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10' x 36' Two Cell 573-1,104 Tons R717

Model	H	A	B	C
IEC1018XXB	14'-3 ¹³ / ₁₆ "	5'-10 ¹ / ₄ "	13'-5 ⁵ / ₁₆ "	2'-8 ¹ / ₈ "
IEC1018XXC	15'-0 ¹³ / ₁₆ "	6'-7 ¹ / ₄ "	14'-2 ⁷ / ₁₆ "	3'-5 ¹ / ₈ "
IEC1018XXD	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1018XXJ	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1018XXE	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "
IEC1018XXK	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "

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- Coils are capped and charged with nitrogen at the factory. Upon installation, coil connections require cutting to dimension shown and beveling for welding. Fluid risers by others. Risers to be self supporting and must not add extra weight to the equipment. Precautions must be taken to protect tower from excess heat during welding.
- All piping shall be supported independent of the tower. Piping, supports, design of piping and supports, and restraint of lateral piping loads shall be supplied by others.
- Pump dimension is based on a standard scot 59 frame 60 Hz pump. Other pump models, 50 Hz frames, or other options may increase dimension.
- Routine maintenance does not require workers to use the top of the tower as a work platform. Spray nozzle inspection can be done from a portable ladder, stair, or scaffold. Take adequate safety precautions when using portable ladders.
For added safety and convenience, SPX Cooling Tech, LLC offers an optional spray platform for improved access for spray nozzle maintenance. Detail drawings for this and other tower options are available from your sales representative.
- Assembly tolerance is $\pm 1/8"$ [$\pm 3\text{mm}$]. Consult suppliers of supporting structure for construction tolerance.

10' x 36' Two Cell

Model note 1	R717 Capacity tons - note 2	R717 Charge lb - note 3	Internal Coil Volume ft ³	Fan Motor hp	Airflow Rate cfm	Shipping Weight lb		Design Operating Weight lb
						Weight/Cell	Heaviest Section	
IEC-B-1018-BAB2	573	1,146	108	6 x 3	139,214	39,510	23,340	50,034
IEC-B-1018-PAB2	653	1,146	108	6 x 5	156,344	39,510	23,340	50,034
IEC-B-1018-CAB2	719	1,146	108	6 x 7.5	182,296	39,510	23,340	50,034
IEC-B-1018-SLB2	771	1,146	108	6 x 10	198,952	39,510	23,340	50,034
IEC-B-1018-PAC2	723	1,428	134	6 x 5	160,742	44,110	27,740	54,534
IEC-B-1018-CAC2	795	1,428	134	6 x 7.5	180,918	44,110	27,740	54,534
IEC-B-1018-SLC2	851	1,428	134	6 x 10	197,890	44,110	27,740	54,534
IEC-B-1018-CAD2	829	1,710	160	6 x 7.5	179,516	48,510	32,140	59,034
IEC-B-1018-SAD2	879	1,710	160	6 x 10	196,834	48,510	32,140	59,034
IEC-B-1018-PAJ2	813	1,902	178	6 x 5	155,096	52,860	35,340	63,384
IEC-B-1018-CAJ2	863	1,902	178	6 x 7.5	176,856	52,860	35,340	63,384
IEC-B-1018-SLJ2	927	1,902	178	6 x 10	195,534	52,860	35,340	63,384
IEC-B-1018-DAJ2	1,030	1,902	178	6 x 15	216,798	52,860	35,340	63,384
IEC-B-1018-CAE2	891	1,992	186	6 x 7.5	178,096	53,010	36,540	63,534
IEC-B-1018-SAE2	950	1,992	186	6 x 10	195,774	53,010	36,540	63,534
IEC-B-1018-PAK2	827	2,216	206	6 x 5	147,750	57,810	40,240	68,334
IEC-B-1018-CAK2	923	2,216	206	6 x 7.5	174,558	57,810	40,240	68,334
IEC-B-1018-SLK2	1,002	2,216	206	6 x 10	193,774	57,810	40,240	68,334
IEC-B-1018-DAK2	1,104	2,216	206	6 x 15	215,460	57,810	40,240	68,334

Pump Motor hp	Recirculating Flow Rate gpm	Remote Sump Application	
		Bottom Outlet Diameter	Volume gal
15	1,580	2 x 10"	1,320

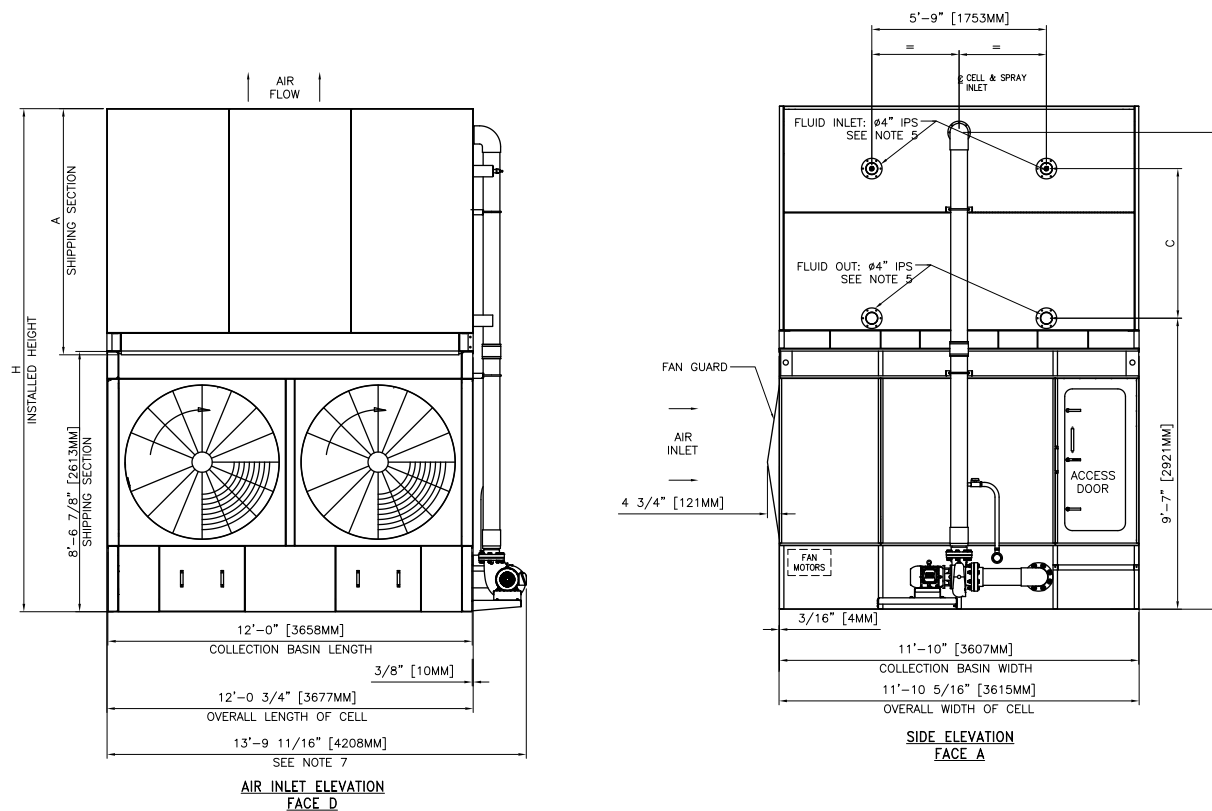
NOTE

- The last digit of the model number shown represents the number of cells.
- R717 tons are at 96.3°F condensing temperature, a 20°F suction temperature and a 78°F entering wet-bulb temperature.
- For R134a charge, multiply by 1.98. For R22 charge multiply by 1.93. For R404A or R507A charge multiply by 1.65.
- Use this bulletin for preliminary layouts only.** Obtain current drawings from your sales representative.

12' x 12' Single Cell 214-443 Tons R717

Model	H	A	B	C
IEC1212XXB	14'-3 ¹³ / ₁₆ "	5'-10 ¹ / ₄ "	13'-5 ⁵ / ₁₆ "	2'-8 ¹ / ₈ "
IEC1212XXC	15'-0 ¹³ / ₁₆ "	6'-7 ¹ / ₄ "	14'-2 ⁷ / ₁₆ "	3'-5 ¹ / ₈ "
IEC1212XXD	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1212XXJ	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1212XXE	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "
IEC1212XXK	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "

SelectSGS selection software provides IEC model recommendations based on customer's specific design requirements.



NOTES

- The equipment must be installed level to insure maximum thermal performance and to avoid racking.
- Air inlet faces must have an adequate air supply. If obstructions exist, consult your sales representative.
- For tower support requirements, weights, loads, and multi-cell spacing, refer to the "suggested supporting steel arrangement" drawing.
- Motor quantities and position vary depending on options selected. Refer to the "conduit location" and "collection basin details" drawings for additional details.
- Coils are capped and charged with nitrogen at the factory. Upon installation, coil connections require cutting to dimension shown and beveling for welding. Fluid risers by others. Risers to be self supporting and must not add extra weight to the equipment. Precautions must be taken to protect tower from excess heat during welding.
- All piping shall be supported independent of the tower. Piping, supports, design of piping and supports, and restraint of lateral piping loads shall be supplied by others.
- Pump dimension is based on a standard scot 59 frame 60 Hz pump. Other pump models, 50 Hz frames, or other options may increase dimension.
- Routine maintenance does not require workers to use the top of the tower as a work platform. Spray nozzle inspection can be done from a portable ladder, stair, or scaffold. Take adequate safety precautions when using portable ladders.
For added safety and convenience, SPX Cooling Tech, LLC offers an optional spray platform for improved access for spray nozzle maintenance. Detail drawings for this and other tower options are available from your sales representative.
- Assembly tolerance is $\pm 1/8"$ [$\pm 3\text{mm}$]. Consult suppliers of supporting structure for construction tolerance.

12' x 12' Single Cell

Model note 1	R717 Capacity tons - note 2	R717 Charge lb - note 3	Internal Coil Volume ft ³	Fan Motor hp	Airflow Rate cfm	Shipping Weight lb		Design Operating Weight lb
						Weight/Cell	Heaviest Section	
IEC-B-1212-AAB1	214	472	44	2 x 3	49,858	15,310	9,860	19,428
IEC-B-1212-NAB1	242	472	44	2 x 5	56,935	15,310	9,860	19,428
IEC-B-1212-PAB1	267	472	44	2 x 7.5	65,485	15,310	9,860	19,428
IEC-B-1212-QAB1	286	472	44	2 x 10	71,592	15,310	9,860	19,428
IEC-B-1212-NAC1	270	587	54	2 x 5	58,119	16,990	11,540	21,108
IEC-B-1212-PAC1	297	587	54	2 x 7.5	66,015	16,990	11,540	21,108
IEC-B-1212-QAC1	319	587	54	2 x 10	72,561	16,990	11,540	21,108
IEC-B-1212-PAD1	311	703	65	2 x 7.5	65,419	18,970	13,220	23,088
IEC-B-1212-QAD1	334	703	65	2 x 10	72,105	18,970	13,220	23,088
IEC-B-1212-SAD1	363	703	65	2 x 15	80,214	18,970	13,220	23,088
IEC-B-1212-QAJ1	348	779	72	2 x 10	71,233	20,270	14,520	24,388
IEC-B-1212-SLJ1	383	779	72	2 x 15	79,877	20,270	14,520	24,388
IEC-B-1212-TLJ1	411	779	72	2 x 20	86,859	20,270	14,520	24,388
IEC-B-1212-PAE1	335	818	75	2 x 7.5	64,815	20,650	14,900	24,768
IEC-B-1212-QAE1	360	818	75	2 x 10	71,642	20,650	14,900	24,768
IEC-B-1212-SAE1	392	818	75	2 x 15	79,864	20,650	14,900	24,768
IEC-B-1212-QAK1	380	907	83	2 x 10	70,485	22,150	16,400	26,268
IEC-B-1212-SLK1	414	907	83	2 x 15	79,292	22,150	16,400	26,268
IEC-B-1212-TLK1	443	907	83	2 x 20	86,403	22,150	16,400	26,268

Pump Motor hp	Recirculating Flow Rate gpm	Remote Sump Application	
		Bottom Outlet Diameter	Volume gal
5	620	10"	540

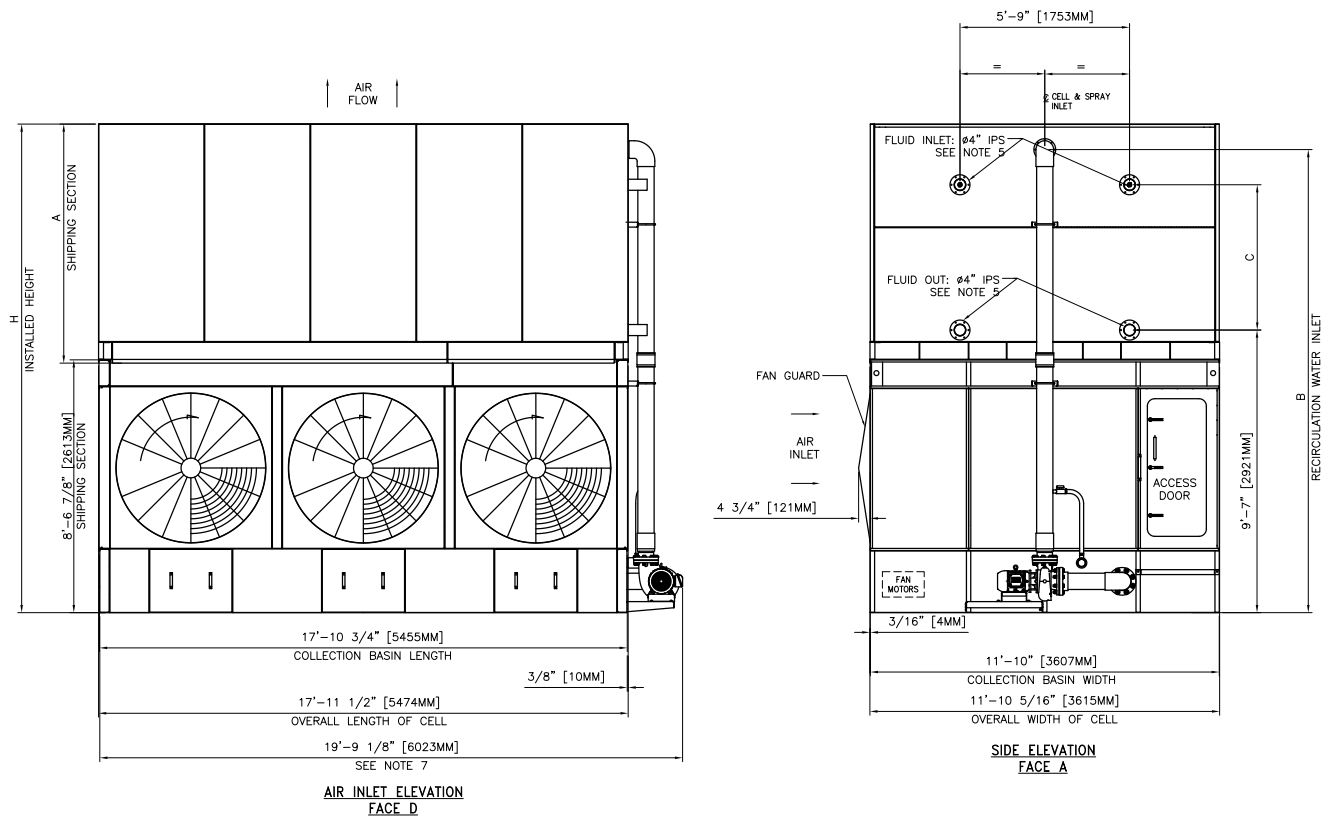
NOTE

- The last digit of the model number shown represents the number of cells.
- R717 tons are at 96.3°F condensing temperature, a 20°F suction temperature and a 78°F entering wet-bulb temperature.
- For R134a charge, multiply by 1.98. For R22 charge multiply by 1.93. For R404A or R507A charge multiply by 1.65.
- Use this bulletin for preliminary layouts only.** Obtain current drawings from your sales representative.

12' x 18' Single Cell 348-678 Tons R717

Model	H	A	B	C
IEC1218XXB	14'-3 ³ / ₁₆ "	5'-10 ¹ / ₄ "	13'-5 ⁵ / ₁₆ "	2'-8 ¹ / ₈ "
IEC1218XXC	15'-0 ¹³ / ₁₆ "	6'-7 ¹ / ₄ "	14'-2 ⁷ / ₁₆ "	3'-5 ¹ / ₈ "
IEC1218XXD	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1218XXJ	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1218XXE	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "
IEC1218XXK	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "

SelectSGS selection software provides IEC model recommendations based on customer's specific design requirements.



NOTES

- The equipment must be installed level to insure maximum thermal performance and to avoid racking.
- Air inlet faces must have an adequate air supply. If obstructions exist, consult your sales representative.
- For tower support requirements, weights, loads, and multi-cell spacing, refer to the "suggested supporting steel arrangement" drawing.
- Motor quantities and position vary depending on options selected. Refer to the "conduit location" and "collection basin details" drawings for additional details.
- Coils are capped and charged with nitrogen at the factory. Upon installation, coil connections require cutting to dimension shown and beveling for welding. Fluid risers by others. Riser to be self supporting and must not add extra weight to the equipment. Precautions must be taken to protect tower from excess heat during welding.
- All piping shall be supported independent of the tower. Piping, supports, design of piping and supports, and restraint of lateral piping loads shall be supplied by others.
- Pump dimension is based on a standard scot 59 frame 60 Hz pump. Other pump models, 50 Hz frames, or other options may increase dimension.
- Routine maintenance does not require workers to use the top of the tower as a work platform. Spray nozzle inspection can be done from a portable ladder, stair, or scaffold. Take adequate safety precautions when using portable ladders.
For added safety and convenience, SPX Cooling Tech, LLC offers an optional spray platform for improved access for spray nozzle maintenance. Detail drawings for this and other tower options are available from your sales representative.
- Assembly tolerance is $\pm 1/8"$ [$\pm 3\text{mm}$]. Consult suppliers of supporting structure for construction tolerance.

12' x 18' Single Cell

Model note 1	R717 Capacity tons - note 2	R717 Charge lb - note 3	Internal Coil Volume ft ³	Fan Motor hp	Airflow Rate cfm	Shipping Weight lb		Design Operating Weight lb
						Weight/Cell	Heaviest Section	
IEC-B-1218-BAB1	348	703	65	3 x 3	75,808	22,965	14,259	29,319
IEC-B-1218-PAB1	373	703	65	3 x 5	86,708	22,965	14,259	29,319
IEC-B-1218-CAB1	411	703	65	3 x 7.5	99,725	22,965	14,259	29,319
IEC-B-1218-SLB1	441	703	65	3 x 10	109,054	22,965	14,259	29,319
IEC-B-1218-PAC1	412	883	81	3 x 5	85,408	25,485	16,725	31,839
IEC-B-1218-CAC1	455	883	81	3 x 7.5	98,747	25,485	16,725	31,839
IEC-B-1218-SLC1	487	883	81	3 x 10	108,271	25,485	16,725	31,839
IEC-B-1218-CAD1	470	1,049	96	3 x 7.5	97,748	28,455	19,191	34,809
IEC-B-1218-SAD1	504	1,049	96	3 x 10	109,724	28,455	19,191	34,809
IEC-B-1218-DAD1	556	1,049	96	3 x 15	122,216	28,455	19,191	34,809
IEC-B-1218-SLJ1	531	1,165	107	3 x 10	108,353	30,405	20,996	36,759
IEC-B-1218-DAJ1	586	1,165	107	3 x 15	121,633	30,405	20,996	36,759
IEC-B-1218-VAJ1	628	1,165	107	3 x 20	132,331	30,405	20,996	36,759
IEC-B-1218-CAE1	507	1,223	112	3 x 7.5	98,605	30,975	21,657	37,329
IEC-B-1218-SAE1	544	1,223	112	3 x 10	109,007	30,975	21,657	37,329
IEC-B-1218-DAE1	600	1,223	112	3 x 15	121,673	30,975	21,657	37,329
IEC-B-1218-SLK1	575	1,357	125	3 x 10	107,204	33,225	23,790	39,579
IEC-B-1218-DAK1	634	1,357	125	3 x 15	120,732	33,225	23,790	39,579
IEC-B-1218-VAK1	678	1,357	125	3 x 20	131,642	33,225	23,790	39,579

Pump Motor hp	Recirculating Flow Rate gpm	Remote Sump Application	
		Bottom Outlet Diameter	Volume gal
8	900	10"	760

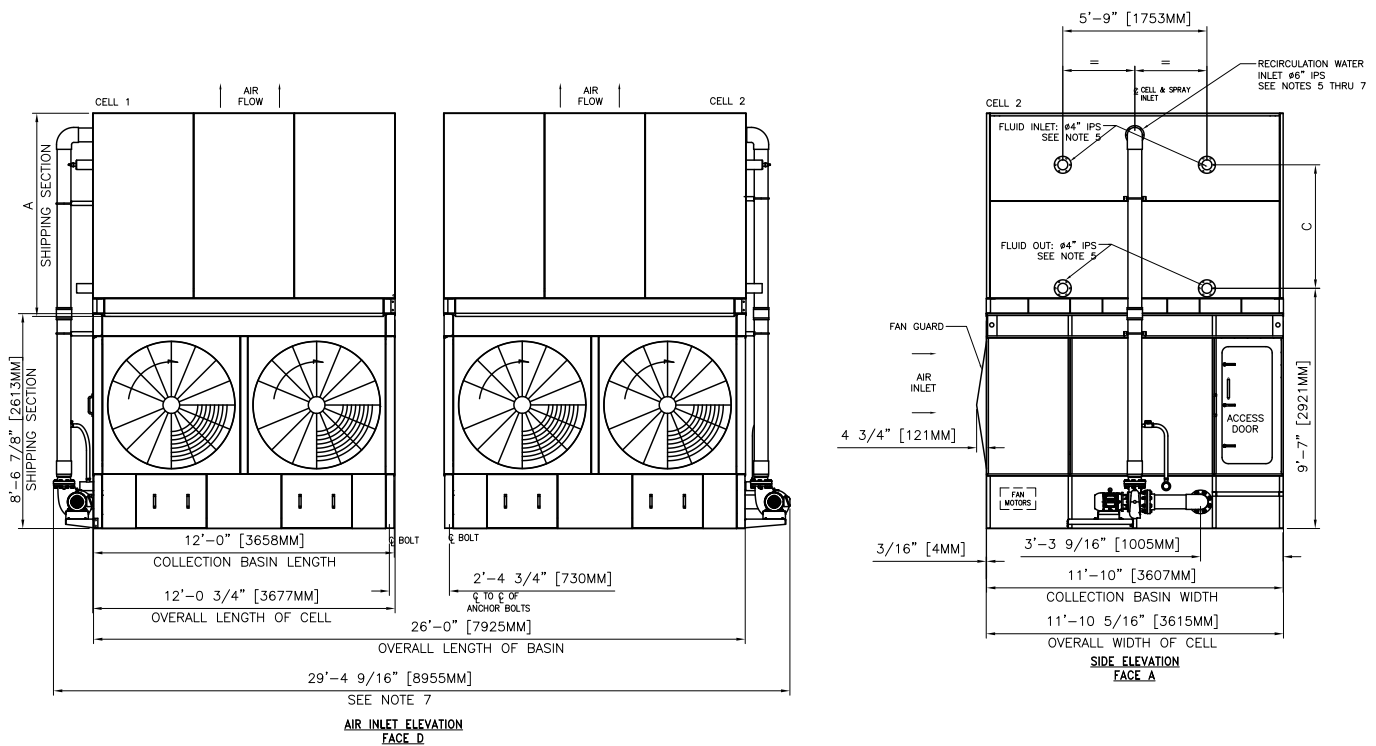
NOTE

1. The last digit of the model number shown represents the number of cells.
2. R717 tons are at 96.3°F condensing temperature, a 20°F suction temperature and a 78°F entering wet-bulb temperature.
3. For R134a charge, multiply by 1.98. For R22 charge multiply by 1.93. For R404A or R507A charge multiply by 1.65.
4. **Use this bulletin for preliminary layouts only.** Obtain current drawings from your sales representative.

12' x 24' Two Cell 428-887 Tons R717

Model	H	A	B	C
IEC1212XXB	14'-3 ¹³ / ₁₆ "	5'-10 ¹ / ₄ "	13'-5 ⁵ / ₁₆ "	2'-8 ¹ / ₈ "
IEC1212XXC	15'-0 ¹³ / ₁₆ "	6'-7 ¹ / ₄ "	14'-2 ⁷ / ₁₆ "	3'-5 ⁵ / ₁₆ "
IEC1212XXD	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1212XXJ	15'-9 ¹³ / ₁₆ "	7'-4 ¹ / ₄ "	14'-11 ⁷ / ₁₆ "	4'-2 ¹ / ₈ "
IEC1212XXE	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "
IEC1212XXK	16'-6 ¹³ / ₁₆ "	8'-1 ¹ / ₄ "	15'-8 ⁷ / ₁₆ "	4'-11 ¹ / ₈ "

SelectSGS selection software provides IEC model recommendations based on customer's specific design requirements.



NOTES

- The equipment must be installed level to insure maximum thermal performance and to avoid racking.
- Air inlet faces must have an adequate air supply. If obstructions exist, consult your sales representative.
- For tower support requirements, weights, loads, and multi-cell spacing, refer to the "suggested supporting steel arrangement" drawing.
- Motor quantities and position vary depending on options selected. Refer to the "conduit location" and "collection basin details" drawings for additional details.
- Coils are capped and charged with nitrogen at the factory. Upon installation, coil connections require cutting to dimension shown and beveling for welding. Fluid risers by others. Risers to be self supporting and must not add extra weight to the equipment. Precautions must be taken to protect tower from excess heat during welding.
- All piping shall be supported independent of the tower. Piping, supports, design of piping and supports, and restraint of lateral piping loads shall be supplied by others.
- Pump dimension is based on a standard scot 59 frame 60 Hz pump. Other pump models, 50 Hz frames, or other options may increase dimension.
- Routine maintenance does not require workers to use the top of the tower as a work platform. Spray nozzle inspection can be done from a portable ladder, stair, or scaffold. Take adequate safety precautions when using portable ladders.
For added safety and convenience, SPX Cooling Tech, LLC offers an optional spray platform for improved access for spray nozzle maintenance. Detail drawings for this and other tower options are available from your sales representative.
- Assembly tolerance is $\pm 1/8"$ [$\pm 3\text{mm}$]. Consult suppliers of supporting structure for construction tolerance.

12' x 24' Two Cell

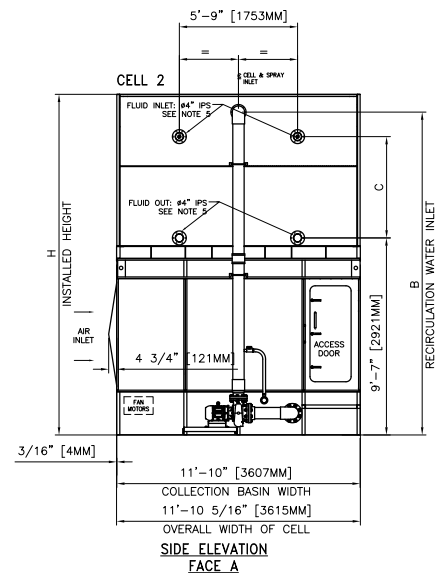
Model note 1	R717 Capacity tons - note 2	R717 Charge lb - note 3	Internal Coil Volume ft ³	Fan Motor hp	Airflow Rate cfm	Shipping Weight lb		Design Operating Weight lb
						Weight/Cell	Heaviest Section	
IEC-B-1212-AAB2	428	944	88	4 x 3	99,716	30,620	19,720	38,856
IEC-B-1212-NAB2	484	944	88	4 x 5	113,870	30,620	19,720	38,856
IEC-B-1212-PAB2	534	944	88	4 x 7.5	130,970	30,620	19,720	38,856
IEC-B-1212-QAB2	572	944	88	4 x 10	143,184	30,620	19,720	38,856
IEC-B-1212-NAC2	540	1,174	108	4 x 5	116,238	33,980	23,080	42,216
IEC-B-1212-PAC2	595	1,174	108	4 x 7.5	132,030	33,980	23,080	42,216
IEC-B-1212-QAC2	639	1,174	108	4 x 10	145,122	33,980	23,080	42,216
IEC-B-1212-PAD2	621	1,406	130	4 x 7.5	130,838	37,940	26,440	46,176
IEC-B-1212-QAD2	667	1,406	130	4 x 10	144,210	37,940	26,440	46,176
IEC-B-1212-SAD2	727	1,406	130	4 x 15	160,428	37,940	26,440	46,176
IEC-B-1212-QAJ2	695	1,558	144	4 x 10	142,466	40,540	29,040	48,776
IEC-B-1212-SLJ2	766	1,558	144	4 x 15	159,754	40,540	29,040	48,776
IEC-B-1212-TLJ2	822	1,558	144	4 x 40	173,718	40,540	29,040	48,776
IEC-B-1212-PAE2	671	1,636	150	4 x 7.5	129,630	41,300	29,800	49,536
IEC-B-1212-QAE2	721	1,636	150	4 x 10	143,284	41,300	29,800	49,536
IEC-B-1212-SAE2	785	1,636	150	4 x 15	159,728	41,300	29,800	49,536
IEC-B-1212-QAK2	761	1,814	166	4 x 10	140,970	44,300	32,800	52,536
IEC-B-1212-SLK2	829	1,814	166	4 x 15	158,584	44,300	32,800	52,536
IEC-B-1212-TLK2	887	1,814	166	4 x 40	172,806	44,300	32,800	52,536

Pump Motor hp	Recirculating Flow Rate gpm	Remote Sump Application	
		Bottom Outlet Diameter	Volume gal
10	1,240	2 x 10"	1,080

NOTE

1. The last digit of the model number shown represents the number of cells.
2. R717 tons are at 96.3°F condensing temperature, a 20°F suction temperature and a 78°F entering wet-bulb temperature.
3. For R134a charge, multiply by 1.98. For R22 charge multiply by 1.93. For R404A or R507A charge multiply by 1.65.
4. **Use this bulletin for preliminary layouts only.** Obtain current drawings from your sales representative.

SelectSGS selection software provides IEC model recommendations based on customer's specific design requirements.



1. The equipment must be installed level to insure maximum thermal performance and to avoid racking.
2. Air inlet faces must have an adequate air supply. If obstructions exist, consult your sales representative.
3. For tower support requirements, weights, loads, and multi-cell spacing, refer to the "suggested supporting steel arrangement" drawing.
4. Motor quantities and position vary depending on options selected. Refer to the "conduit location" and "collection basin details" drawings for additional details.
5. Coils are capped and charged with nitrogen at the factory. Upon installation, coil connections require cutting to dimension shown and beveling for welding. Fluid risers by others. Risers to be self supporting and must not add extra weight to the equipment. Precautions must be taken to protect tower from excess heat during welding.

6. All piping shall be supported independent of the tower. Piping, supports, design of piping and supports, and restraint of lateral piping loads shall be supplied by others.
7. Pump dimension is based on a standard scot 59 frame 60 Hz pump. Other pump models, 50 Hz frames, or other options may increase dimension.
8. Routine maintenance does not require workers to use the top of the tower as a work platform. Spray nozzle inspection can be done from a portable ladder, stair, or scaffold. Take adequate safety precautions when using portable ladders.

For added safety and convenience, SPX Cooling Tech, LLC offers an optional spray platform for improved access for spray nozzle maintenance. Detail drawings for this and other tower options are available from your sales representative.
9. Assembly tolerance is $\pm 1/8"$ [$\pm 3\text{mm}$]. Consult suppliers of supporting structure for construction tolerance.

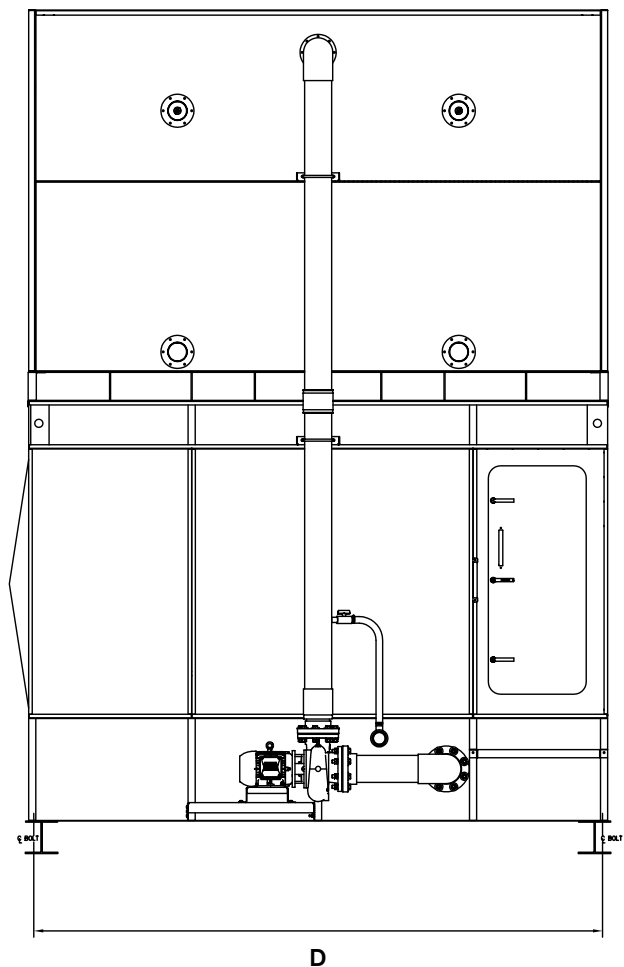
12' x 36' Two Cell

Model note 1	R717 Capacity tons - note 2	R717 Charge lb - note 3	Internal Coil Volume ft ³	Fan Motor hp	Airflow Rate cfm	Shipping Weight lb		Design Operating Weight lb
						Weight/Cell	Heaviest Section	
IEC-B-1218-BAB2	697	1,406	130	6 x 3	151,616	45,930	28,518	58,638
IEC-B-1218-PAB2	745	1,406	130	6 x 5	173,416	45,930	28,518	58,638
IEC-B-1218-CAB2	823	1,406	130	6 x 7.5	199,450	45,930	28,518	58,638
IEC-B-1218-SLB2	882	1,406	130	6 x 10	218,108	45,930	28,518	58,638
IEC-B-1218-PAC2	824	1,766	162	6 x 5	170,816	50,970	33,450	63,678
IEC-B-1218-CAC2	909	1,766	162	6 x 7.5	197,494	50,970	33,450	63,678
IEC-B-1218-SLC2	975	1,766	162	6 x 10	216,542	50,970	33,450	63,678
IEC-B-1218-CAD2	940	2,098	192	6 x 7.5	195,496	56,910	38,382	69,618
IEC-B-1218-SAD2	1,007	2,098	192	6 x 10	219,448	56,910	38,382	69,618
IEC-B-1218-DAD2	1,112	2,098	192	6 x 15	244,432	56,910	38,382	69,618
IEC-B-1218-SLJ2	1,062	2,330	214	6 x 10	216,706	60,810	41,992	73,518
IEC-B-1218-DAJ2	1,171	2,330	214	6 x 15	243,266	60,810	41,992	73,518
IEC-B-1218-VAJ2	1,256	2,330	214	6 x 20	264,662	60,810	41,992	73,518
IEC-B-1218-CAE2	1,014	2,446	224	6 x 7.5	197,210	61,950	43,314	74,658
IEC-B-1218-SAE2	1,088	2,446	224	6 x 10	218,014	61,950	43,314	74,658
IEC-B-1218-DAE2	1,200	2,446	224	6 x 15	243,346	61,950	43,314	74,658
IEC-B-1218-SLK2	1,150	2,714	250	6 x 10	214,408	66,450	47,580	79,158
IEC-B-1218-DAK2	1,268	2,714	250	6 x 15	241,464	66,450	47,580	79,158
IEC-B-1218-VAK2	1,355	2,714	250	6 x 20	263,284	66,450	47,580	79,158

Pump Motor hp	Recirculating Flow Rate gpm	Remote Sump Application	
		Bottom Outlet Diameter	Volume gal
15	1,800	2 x 10"	1,520

NOTE

1. The last digit of the model number shown represents the number of cells.
2. R717 tons are at 96.3°F condensing temperature, a 20°F suction temperature and a 78°F entering wet-bulb temperature.
3. For R134a charge, multiply by 1.98. For R22 charge multiply by 1.93. For R404A or R507A charge multiply by 1.65.
4. **Use this bulletin for preliminary layouts only.** Obtain current drawings from your sales representative.



Model	D	Maximum Deflection
IEC-B-1012	9'-7½"	¾"
IEC-B-1018	9'-7½"	¾"
IEC-B-1212	11'-7½"	½"
IEC-B-1218	11'-7½"	½"

NOTE

1. The recommended supporting steel arrangement for the IEC consists of parallel I-beams running the full length of the unit.

2. Supporting steel is to be designed, constructed and furnished by others.

3. The top surface of the supporting steel must be framed flush and level.

4. If vibration isolators are used, they must be placed underneath the supporting steel beams.
5. Consider provisions for access to the condenser if the supporting steel is elevated above grade.

6. **Use this bulletin for preliminary layouts only.** Obtain current drawings from your sales representative.

The purpose of a basin heater is to prevent recirculating water from freezing in the collection basin during periods of shutdown or standby operation. Heater systems are sized according to tower model and ambient temperature to give maximum protection against freezing in the collection basin. They are not intended to protect the coil and other components from icing.

An automatic basin water heater system consists of the following components:

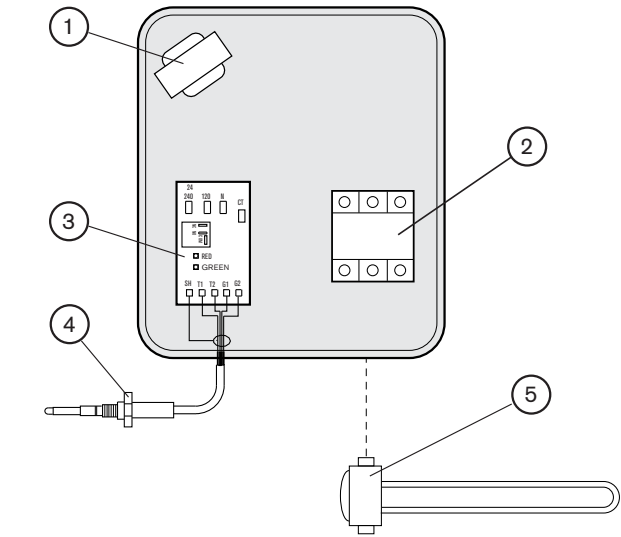
- Stainless steel electric immersion heater(s). Threaded couplings are provided in the side of the collection basin.
- NEMA 4 enclosure containing:
 - Transformer to convert power supply to 24 volts for control circuit.
 - Magnetic contactor to energize heater.
 - Solid state circuit board for temperature and low-water cutoff.
 - The enclosure may be mounted on the side of the condenser.
- Control probe in the collection basin to monitor water temperature and level.

Heater components are typically shipped separately for installation by others.

Heat trace and insulation of the pump may be optionally selected.



Heater Size kW			
Model	0°F Ambient	-20°F Ambient	-40°F Ambient
IEC-B-1012	6.0	9.0	12.0
IEC-B-1018	12.0	2 x 7.5	2 x 12
IEC-B-1212	9.0	2 x 7.5	2 x 9
IEC-B-1218	2 x 7.5	2 x 9	2 x 12



1. Transformer
2. Contactor
3. Solid State Relay Card
4. Sensor Probe
5. Heater Element(s)

Furnish and install a forced draft, counterflow, evaporative condenser with a condensing capacity of _____ MBH heat rejection while operating with _____ refrigerant at _____°F condensing temperature and _____°F entering wet-bulb temperature.

Unit shall consist of _____ cell(s), as shown on plans. The limiting overall dimensions of the condenser shall be _____ft wide, _____ft long, and _____ft high. Total operating power of all fans shall not exceed _____ hp, consisting of _____@ _____ hp motor(s). Tower shall be similar and equal in all aspects to IEC Model _____.

Collection Basin and Casing: The collection basin and casing shall be hot dip galvanized steel. To reduce potential for leaks, bolts shall be used in all submerged areas; self-tapping screws are not permitted. A factory-installed, float operated, mechanical make-up valve shall be included. An overflow and drain connection shall be provided in each cell. The basin floor shall slope towards the drain to allow complete flushing of debris. The collection basin shall be tested for leaks at the factory.

Fan Motor: Fan motor(s) shall be NEMA Premium Efficiency, TEFC, 1.15 service factor, variable torque, inverter ready and insulated for cooling tower duty, with each motor serving a single fan drive assembly. Motors shall be nameplated for 3 phase, 60 Hz, _____ volt operation.

Fan: Fan(s) shall be dual stage propeller-type, incorporating aluminum alloy blades. Fan(s) shall be driven through an industrial grade system of V-belts, pulleys, and tapered roller bearings designed for 150% of nameplate power. Bearings shall be rated at an L_{10} life of 100,000 hours or greater, with extended lubrication lines for easy maintenance. Fan sections shall be separated by a partition wall extending to the back of the unit.

Pump: Recirculation pump(s) shall be centrifugal with mechanical seal, mounted to the collection basin in conjunction with a suction assembly, and close-coupled with a _____hp TEFC pump motor nameplated for 3 phase, 60 Hz, _____volt operation. Recirculation piping shall be schedule 40 PVC. A blowdown line with metering valve shall be connected directly to the evaporative condenser overflow.

Heat Transfer Coil: Condenser coil(s) shall be constructed of continuous serpentine circuits assembled into fully welded headers and hot dip galvanized after fabrication. Each coil shall be tested at 375 psig air pressure under water. Coil tubes shall be sloped for free drainage of fluid. An optional coil design to comply with Canadian Standard B51-14 - Boiler, pressure vessel, and pressure piping code is available.

Water Distribution: A pressurized spray system shall distribute water evenly over the coil surface with large-orifice, clog resistant spray nozzles that are threaded for easy removal. The distribution header shall be self-draining, with removable corrosion-resistant PVC branch arms.

Drift Eliminators: Drift eliminators shall be 17 mil thick PVC with a minimum of three changes in air direction, and shall limit drift losses to 0.001% or less of the design recirculating water flow rate. Eliminators shall be easily removable for inspection.

Access: Large rectangular access doors with minimum 24" wide and 48" tall opening shall be located on exterior ends of the unit.



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IEC series

ENGINEERING DATA AND SPECIFICATIONS

