

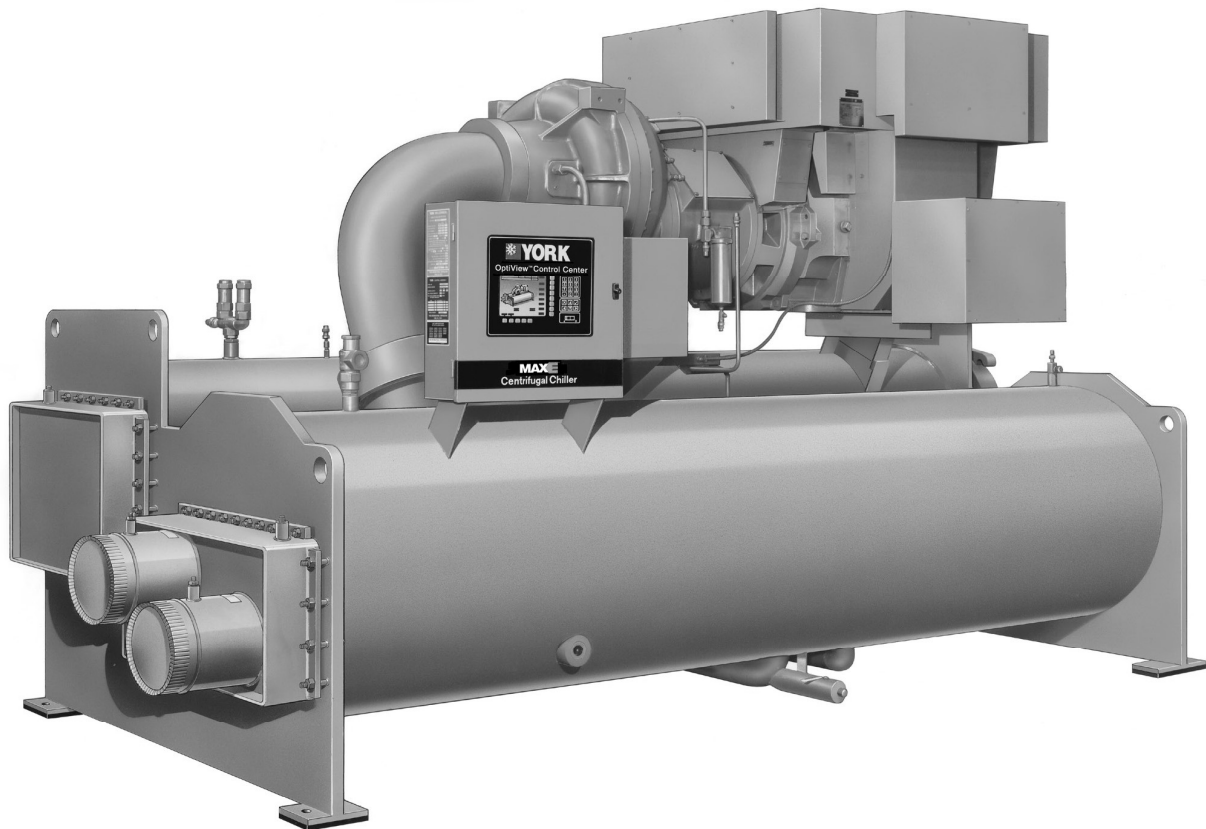
Model #: YKKQK3H9-CYG
Serial #: SLWM735290

FORM 160.75-EG1 (410)

2010



BY JOHNSON CONTROLS



Model YK Centrifugal Liquid Chillers

Design Level G

L: 16' 8 1/2"

W: 7' 6 1/2"

H: 10' 6"

Shipping Weight: 28,530 lbs
Operating Weight: 36,000 lbs

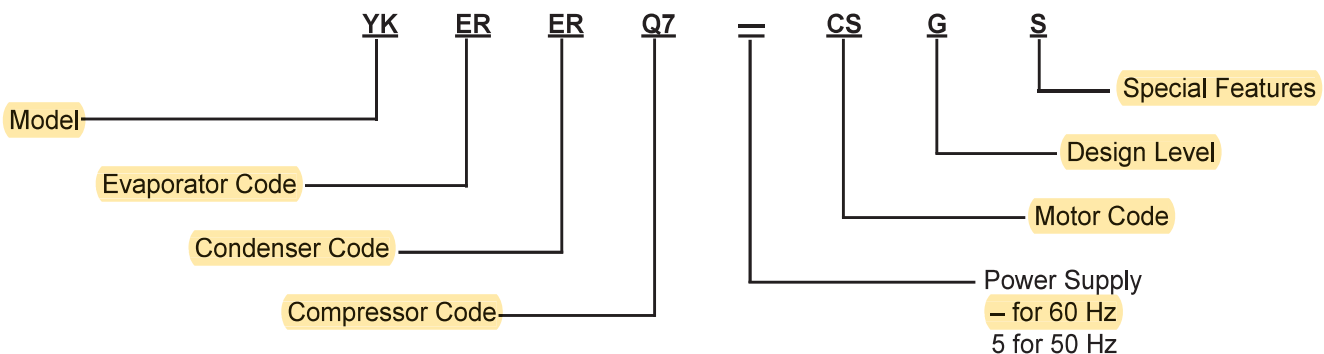
250 THROUGH 3000 TONS
(879 through 10,500 kW)
Utilizing HFC-134a
Heat Recovery

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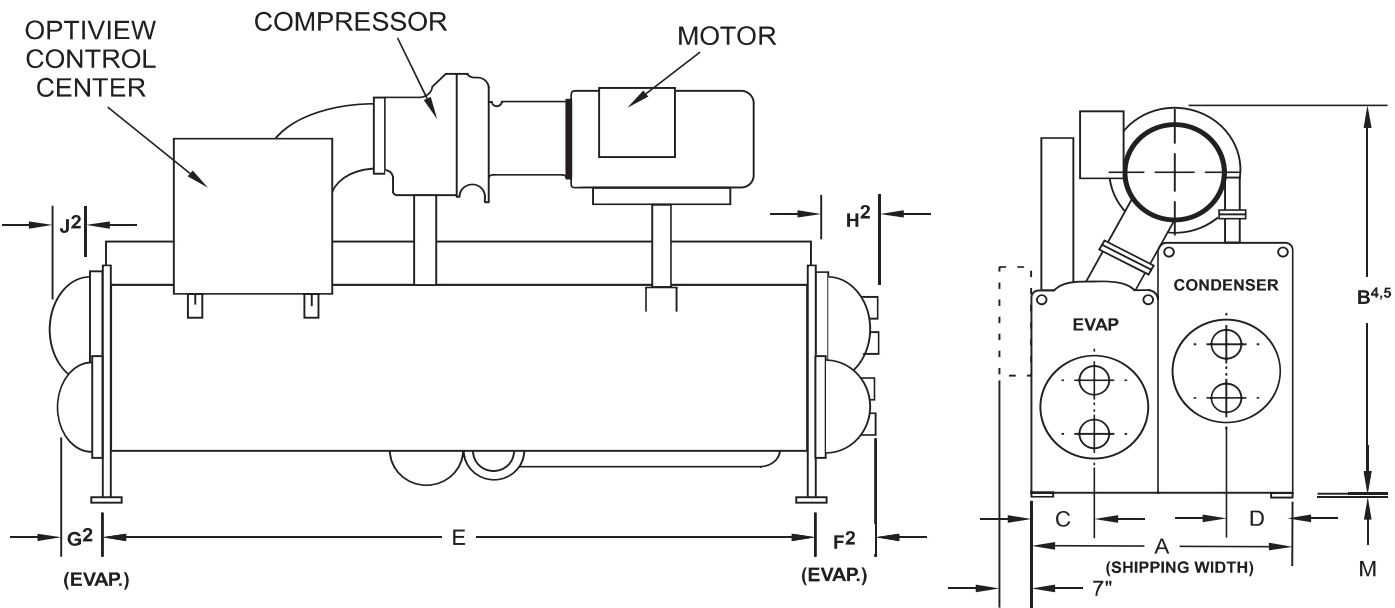
YK KQ K3 H9 - CY G

NOMENCLATURE



Dimensions (Ft. - In.) - Unit

H COMPRESSOR UNITS

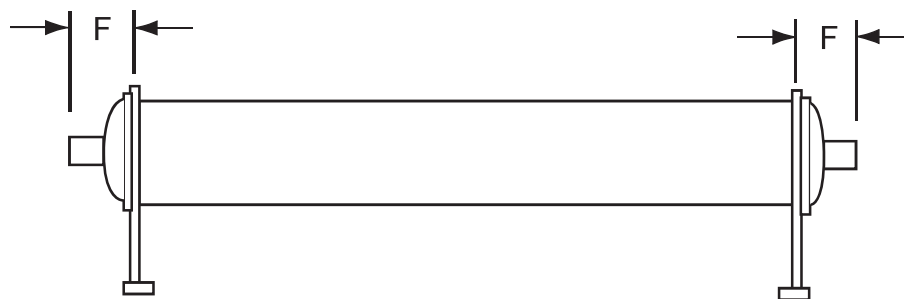


ADDITIONAL OPERATING HEIGHT CLEARANCE TO FLOOR	
TYPE OF CHILLER MOUNTING	M
NEOPRENE PAD ISOLATORS	1-3/4"
SPRING ISOLATORS 1" DEFLECTION	1"
DIRECT MOUNT	3/4"

H9 COMPRESSORS			
EVAP.-COND. SHELL CODES			
	K-K	K-O	M-M
A	7'-6 1/2"	8'-9 1/4"	8'-7"
B	10'-4"	10'-7 5/8"	10'-10 1/2"
C	2'-1 1/4"	2'-1 1/4"	2'-4 1/2"
D	1'-8"	2'-3 3/8"	1'-11"
E	14'-0"	14'-0"	14'-0"

- NOTES:**
- 1. All dimensions are approximate. Certified dimensions are available on request.
 - 2. For all water boxes (compact shown above), determine overall unit length by adding water box depth to tube sheet length.
 - 3. Water nozzles can be located on either end of unit. Add 1/2" to nozzle length for flanged connections.
 - 4. To determine overall height, add dimension "M" for the appropriate isolator type.
 - 5. Use of motors with motor hoods may increase overall unit dimensions.

Dimensions (Ft. - In.) - Evap Compact Waterboxes



DIM.	ONE PASS EVAPORATORS, CODES									
	A	C,D	E,F	G,H	J,K,L	M,N	P,Q	QT,QV	R,S,W	X,Z
F	1'-2 1/4"	1'-3"	1'-3 1/2"	1'-3 3/4"	1'-5 1/2"	1'-10 1/4"	1'-11 5/8"	2'-0 1/8"	1'-11 5/8"	2'-1"



DIM.	TWO PASS EVAPORATORS, CODES									
	A	C,D	E,F	G,H	J,K,L	M,N	P,Q	QT,QV	R,S,W	X,Z
F	1'-2 1/4"	1'-3"	1'-3 1/2"	1'-3 3/4"	1'-5 1/2"	1'-10 1/4"	1'-11 5/8"	2'-0 1/8"	1'-11 5/8"	2'-1"
G	0'-6 1/2"	0'-7"	0'-7 1/2"	0'-7 3/4"	0'-9 1/2"	1'-2 3/8"	1'-3 3/8"	1'-3 3/8"	1'-4 3/8"	1'-6 1/4"

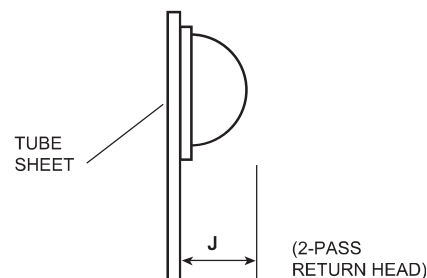
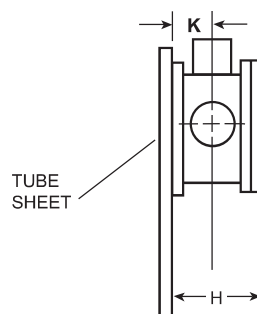


DIM.	THREE PASS EVAPORATORS, CODES									
	A	C,D	E,F	G,H	J,K,L	M,N	P,Q	QT,QV	R,S,W	X,Z
F	1'-2 1/4"	1'-3"	1'-3 1/2"	1'-3 3/4"	1'-5 1/2"	1'-10 1/4"	1'-11 5/8"	2'-0 1/8"	1'-11 5/8"	2'-1"

See Notes on page 41.

Dimensions (Ft. - In.) - Nozzle Arrangements

CONDENSER	
1-PASS	
IN	OUT
11	16
16	11



CONDENSER	
2-PASS	
IN	OUT
12	13
17	18

CONDENSER	
3-PASS	
IN	OUT
15	20
19	14

COND SHELL CODE	1-PASS		2-PASS			3-PASS	
	H	K	H	J	K	H	K
A	1'-9"	0'-9 7/8"	1'-4 3/4"	0'-6"	0'-7 3/4"	1'-4 3/4"	0'-7 3/4"
B ⁶	1'-10 1/2"	0'-10 1/2"	1'-8"	0'-10 1/2"	0'-9 1/4"	1'-8"	0'-9 1/4"
C,D	2'-0"	0'-11 1/8"	1'-7 1/2"	0'-6 3/8"	0'-9"	1'-7 1/2"	0'-9"
E,F	2'-0 1/2"	0'-11 1/2"	1'-10 1/4"	0'-7"	0'-9 7/8"	1'-10 1/4"	0'-9 7/8"
I ⁶	2'-3"	1'-0 3/4"	1'-10 1/2"	0'-11 1/2"	0'-10 1/2"	1'-10 1/2"	0'-10 1/2"
J,K,L	2'-3"	1'-0 1/2"	1'-11"	0'-7 1/2"	0'-10 1/4"	1'-11"	0'-10 1/4"
M,N	2'-8"	1'-2 7/8"	2'-2"	0'-8"	1'-0"	2'-2"	1'-0"
O ⁶	2'-6 1/4"	1'-2 1/4"	2'-1 3/4"	1'-1 1/2"	1'-0"	2'-1 3/4"	1'-0"
P,Q	2'-8"	1'-2 1/2"	2'-4"	0'-9 1/2"	1'-0 1/2"	2'-4"	1'-0 1/2"
R,S	2'-8"	1'-2 1/2"	2'-6"	1'-0"	1'-1 1/2"	2'-6"	1'-1 1/2"
T,V,W	3'-0"	1'-4 1/2"	2'-6"	0'-11"	1'-1 1/2"	2'-6"	1'-1 1/2"
U ⁶	2'-8"	1'-3"	2'-4"	1'-2 1/4"	1'-1"	2'-4"	1'-1"
X,Z	3'-0"	1'-4 5/8"	2'-8"	0'-11"	1'-2 5/8"	2'-8"	1'-2"
Y ⁶	3'-4 3/4"	1'-7 1/4"	3'-0 1/4"	1'-8 3/4"	1'-5"	3'-0 1/4"	1'-5"

NOTES:

1. All dimensions are approximate. Certified dimensions are available upon request.
2. Standard water nozzles are Schedule 40 pipe size, furnished as welding stub-outs with ANSI/ASME C-606 grooves, allowing the option of welding, flanges, or use of ANSI/ASME C-606 couplings. Factory-installed, class 150 (ANSI B16.5, round slip-on, forged carbon steel with 1/16" raised face), water flanged nozzles are optional (add 1/2" to nozzle length). Companion flanges, nuts, bolts, and gaskets are not furnished.
3. One-, two-, and three-pass nozzle arrangements are available only in pairs shown and for all shell codes. Any pair of evaporator nozzles may be used in combination with any pair of condenser nozzles. Compact water boxes on one heat exchanger may be used with Marine Water Boxes on the other heat exchanger.
4. Condenser water must enter the water box through the bottom connection for proper operation of the sub-cooler to achieve rated performance.
5. Add dimension "M" as shown on pages per unit dimensions page for the appropriate isolator type.
6. Heat recovery units offer marine water box option for tower (lower) bundle only.

Weights - English

TABLE 8 – APPROXIMATE UNIT WEIGHT INCLUDING MOTOR*

SHELLS	COMPRESSOR	SHIPPING WEIGHT (LBS.)	OPERATING WEIGHT (LBS.)	EST. REFRIGERANT CHARGE (LBS.) ¹
A-A	Q3	13,100	15,000	828
C-B	Q4	18,023	22,323	1,525
C-C	Q3, Q4	14,920	17,940	1,221
C-C	Q5	15,330	18,350	1,221
D-D	Q3, Q4	17,215	21,100	1,628
D-D	Q5	17,625	21,510	1,628
E-E	Q3, Q4	17,950	22,160	1,710
E-E	Q5, Q6, Q7, P7	18,360	22,570	1,710
E-I	Q7	23,567	29,384	1,805
F-F	Q5, Q6, Q7, P7	18,720	23,880	2,175
G-E	P8	20,300	24,200	1,990
H-F	P8, P9	23,100	28,000	2,610
J-J	P8, P9	24,000	29,100	2,550
L-L	P8, P9	27,400	33,900	3,165
K-K	H9	28,530	36,000	2,925
K-K	K1	31,100	36,200	3,248
K-O	H9	34,483	44,776	3,260
M-M	H9	34,200	43,600	3,665
M-M	K1, K2	38,300	47,100	3,665
M-U	K2	45,178	58,017	3,540
N-N	K1, K2	40,893	50,800	4,225
N-N	K3	48,000	54,100	4,225
P-P	K1, K2	41,500	51,900	3,855
Q-Q	K1, K2	45,300	56,800	4,255
Q-Q	K3	46,000	60,200	4,255
R-R	K3	52,800	70,300	4,600
R-R	K4	53,000	70,600	4,600
S-S	K4	59,000	76,300	4,815
S-V	K4	60,100	81,300	5,467
X-T	K4	59,200	80,000	5,338
X-X	K4	66,000	87,000	5,875
W-W	K7	79,500	104,000	8,002
Z-Y	K7	95,230	123,015	7,175
Z-Z	K7	80,500	105,000	6,984

¹Refrigerant charge quantity and weights will vary based on tube count.

* Refer to product drawings for detailed weight information.