

SECTION 5 – TECHNICAL DATA OPERATIONAL LIMITATIONS (ENGLISH)

TABLE 3 - TEMPERATURES AND FLOWS

UNIT DESIGNATION	TEMPERATURE		WATER FLOW (GPM) MIN	WATER FLOW (GPM) MAX	AIR ON CONDENSER (°F)	
	MIN ¹	MAX ²			MIN ³	MAX ⁴
STANDARD EFFICIENCY						
YLAA0070SE	40	55	60	325	0	125
YLAA0080SE	40	55	100	350	0	125
YLAA0089SE	40	55	100	400	0	125
YLAA0100SE	40	55	100	400	0	125
YLAA0120SE	40	55	150	625	0	125
YLAA0136SE	40	55	115	530	0	125
YLAA0155SE	40	55	150	625	0	125
YLAA0170SE	40	55	138	525	0	125
HIGH EFFICIENCY						
YLAA0058HE	40	55	60	325	0	125
YLAA0065HE	40	55	60	325	0	125
YLAA0081HE	40	55	115	530	0	125
YLAA0092HE	40	55	100	400	0	125
YLAA0101HE	40	55	100	400	0	125
YLAA0125HE	40	55	100	400	0	125
YLAA0142HE	40	55	150	530	0	125
YLAA0156HE	40	55	138	525	0	125
YLAA0175HE	40	55	200	650	0	125
YLAA0200HE	40	55	230	625	0	125
YLAA0230HE	40	55	220	625	0	125

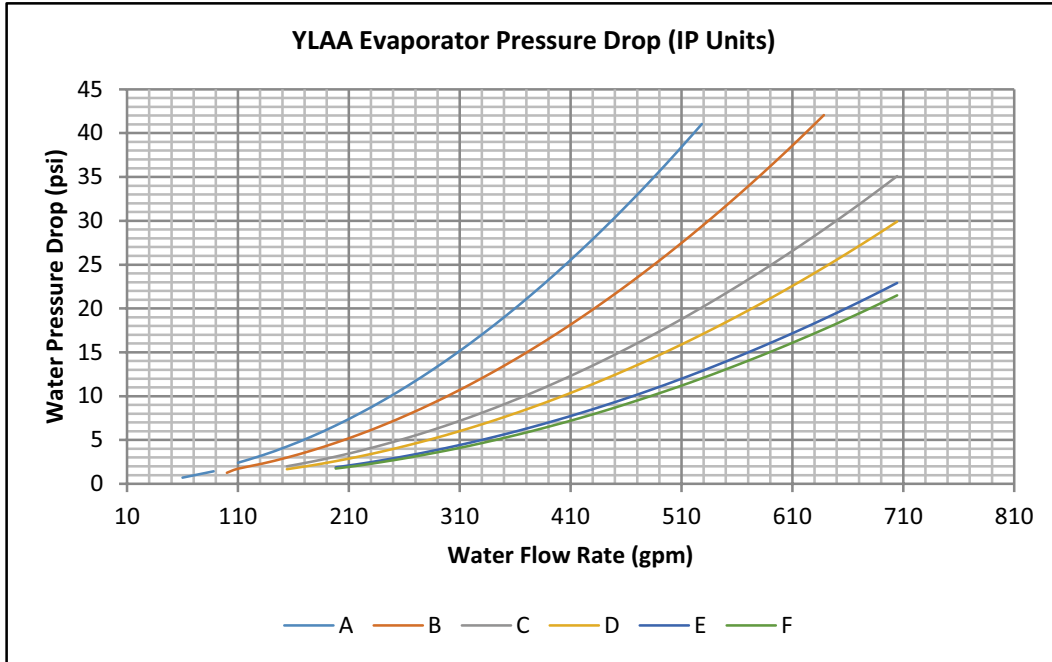
NOTES:

1. For leaving liquid temperature below 40°F (4°C) (to 10°F [-12°C]) optional low temperature glycol kit required. Contact your nearest Johnson Controls Office for application requirements.
2. For leaving liquid temperature higher than 55°F (13°C), contact the nearest Johnson Controls Office for application guidelines.
3. The evaporator is protected against freezing to -20°F (-29°C) with an electric heater as standard.
4. For operation at temperatures above 115°F (46°C), the optional High Ambient Kit will need to be installed on the system.



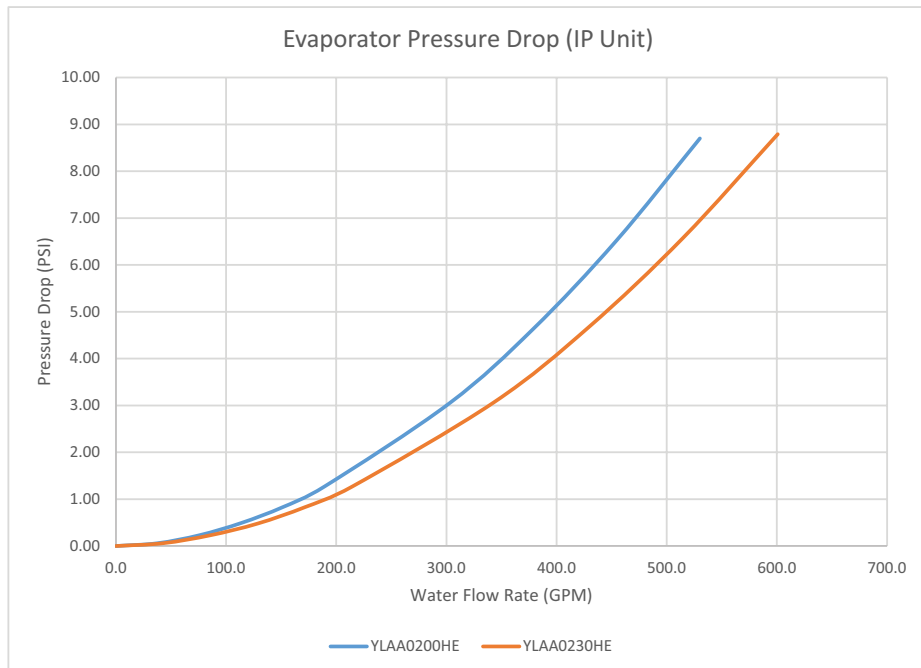
Excessive flow will cause damage to the cooler. Do not exceed maximum cooler flow. Special care should be taken when multiple chillers are fed by a single pump.

HEAT EXCHANGER FLOW, GPM



LD21182

EVAPORATOR	YLAA MODELS
A	0058HE, 0065HE, 0070SE
B	0080SE
C	0089SE, 0100SE, 0092HE, 0101HE, 0125HE
D	0081HE, 0136SE, 0170SE, 0156HE
E	0120SE, 0155SE, 0142HE
F	0175HE



LD21183a

TABLE 4 - ETHYLENE AND PROPYLENE GLYCOL CORRECTION FACTORS

ETHYLENE GLYCOL

% WEIGHT	TONS	COMPR KW	GPM F/ TON	PRESS DROP	FREEZE PT
10.0	1.0	1.0	24.3	1.0	26.2
20.0	1.0	1.0	25.1	1.1	17.9
30.0	1.0	1.0	25.9	1.2	6.7
40.0	1.0	1.0	26.9	1.4	-8.1
50.0	1.0	1.0	28.0	1.6	-28.9

PROPYLENE GLYCOL

% WEIGHT	TONS	COMPR KW	GPM F/ TON	PRESS DROP	FREEZE PT
10.0	1.0	1.0	24.0	1.0	26.0
20.0	1.0	1.0	24.3	1.1	19.0
30.0	1.0	1.0	24.9	1.3	9.0
40.0	1.0	1.0	25.6	1.4	-6.0
50.0	0.9	1.0	26.6	1.7	-28.0

NOTE: Water Pressure Drop Curves may extend past the minimum and maximum water flow ranges.

PHYSICAL DATA YLAA0058 – YLAA0230 60HZ**TABLE 5 - PHYSICAL DATA (ENGLISH) 60 HZ**

REFRIGERANT R-410A	YLAA							
	STANDARD EFFICIENCY UNITS							
	0070SE	0080SE	0089SE	0100SE	0120SE	0136SE	0155SE	0170SE
NOMINAL RATINGS³								
TONS	71.0	77.8	81.8	95.6	118.1	126.1	143.0	167.4
KW INPUT	77.5	86.3	93.0	111.5	134.6	142.6	165.0	192.1
EER	10.4	10.0	9.8	9.7	9.8	9.7	9.7	9.7
IPLV	16.1	15.6	15.8	14.5	15.0	15.8	15.8	15.6
GENERAL UNIT DATA								
Length	116.1	116.1	116.1	142.7	142.7	187.7	187.7	232.7
Width	88	88	88	88	88	88	88	88
Height	94.2	94.2	94.2	94.2	94	94.2	94.2	94.2
Number Of Refrigerant Circuits	2	2	2	2	2	2	2	2
REFRIGERANT CHARGE, OPERATING								
R-410A, CKT1/CKT2, LBS	43/43	47/44	57/57	55/58	54/62	75/71	75/70	90/87
Oil Charge, CKT1/CKT2, Gallons	2.58/2.58	3.28/2.58	3.28/2.76	3.28/3.33	3.33/3.33	4.99/2.76	4.99/3.33	4.99/4.99
Shipping Weight	3578	3898	4168	4791	5183	6148	6414	7734
Operating Weight	3623	3954	4241	4864	5293	6232	6524	7818
COMPRESSORS, SCROLL TYPE								
Compressors Per Circuit	3/3	3/3	3/3	3/2	3/2	3/3	3/2	3/3
Compressors Per Unit	6	6	6	5	4	6	5	6
NOMINAL TONS PER COMPRESSOR								
Circuit 1	13	15	15	15	32	32	32	32
Circuit 2	13	13	15	32	32	15	32	32
CONDENSER								
Total Face Area Ft ²	106.9	106.9	106.9	133.6	160.3	213.8	213.8	267.2
Number Of Rows	1	1	1	1	1	1	1	1
Fins Per Inch	20	20	20	20	20	20	20	20
CONDENSER FANS, LOW SOUND								
Number Of Fans, CKT 1/CKT 2	2/2	2/2	2/2	3/2	3/3	4/4	4/4	5/5
Fan HP	2	2	2	2	2	2	2	2
Fan RPM	1160	1160	1160	1160	1160	1160	1160	1160
Total Chiller CFM	62400	62400	62400	78000	93600	124800	124800	156000
EVAPORATOR								
Water Volume, Gallons	5.4	6.7	8.8	8.8	13.2	10.0	13.2	10.0
Maximum Water Side Pressure, PSIG	150	150	150	150	150	150	150	150
Maximum Refrigerant Side Pressure, PSIG	450	450	450	450	450	450	450	450
Minimum Chiller Water Flow Rate, GPM	60	100	140	100	150	150	150	150
Maximum Chiller Water Flow Rate, GPM	285	355	385	385	625	625	625	625
Water Connections Size, Inches	3	3	3	3	3	4*	4*	4*

NOTES:

1. kW = Compressor Input Power.
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW).
3. Rated in accordance with AHRI Standard 550/590 at an air on condenser temperature of 95°F and a leaving chilled water temperature of 44°F.
4. Additional rating information can be provided by your local Johnson Controls Sales Office.

TABLE 5 - PHYSICAL DATA (ENGLISH) 60 HZ (CONT'D)

REFRIGERANT R-410A	YLAA										
	HIGH EFFICIENCY UNITS										
	0058HE	0065HE	0081HE	0092HE	0101HE	0125HE	0142HE	0156HE	0175HE	0200HE	0230HE
NOMINAL RATINGS³											
TONS	57.0	62.3	78.8	85.7	98.3	116.0	129.5	144.5	172.5	194.5	220.6
KW INPUT	64.4	71.9	91.0	83.6	106.1	122.0	138.9	153.0	194.2	210.9	240.0
EER	10.6	10.4	10.4	11.0	10.1	10.3	10.2	10.2	9.8	10.1	10.2
IPLV	15.6	15.6	16.1	16.1	15.7	15.7	15.9	15.5	15.6	16.1	15.2
GENERAL UNIT DATA											
Length	100.2	100.2	100.2	142.7	142.7	187.7	187.7	232.7	232.7	274.4	274.4
Width	88.0	88.0	88.0	88	88	88	88	88	88	88.3	88.3
Height	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2
Number Of Refrigerant Circuits	2	2	2	2	2	2	2	2	2	2	2
REFRIGERANT CHARGE, OPERATING											
R-410A, CKT1/CKT2, LBS	43/43	43/43	44/44	59/55	45/65	75/71	83/73	90/82	94/92	95/95	100/100
Oil Charge, CKT1/CKT2, Gallons	2.58/2.58	2.89/2.58	2.58/2.58	2.76/2.76	3.28/3.33	3.33/3.33	4.99/2.76	4.99/3.33	4.99/4.99	4.2/4.2	4.99/4.99
Shipping Weight	3508	3704	4061	4718	4953	5869	6259	7344	7882	9205	9690
Operating Weight	3552	3748	4145	4791	5026	5942	6369	7428	8001	9333	9821
COMPRESSORS, SCROLL TYPE											
Compressors Per Circuit	2/2	3/2	3/3	3/3	3/2	2/2	3/3	3/2	3/3	3/3	3/3
Compressors Per Unit	4	5	6	6	5	4	6	5	6	6	6
NOMINAL TONS PER COMPRESSOR											
Circuit 1	15	13	15	15	15	32	32	32	32	35	40
Circuit 2	15	15	13	15	32	32	15	32	32	35	40
CONDENSER											
Total Face Area Ft ²	106.9	106.9	106.9	160.3	160.3	213.8	213.8	267.2	267.2	320	320.7
Number Of Rows	1	1	1	1	1	1	1	1	1	1	1
Fins Per Inch	20	20	20	20	20	20	20	20	20	20	20
CONDENSER FANS, LOW SOUND											
Number Of Fans, CKT 1/ CKT 2	2/2	2/2	2/2	3/3	4/2	4/4	5/3	6/4	5/5	6/6	6/6
Fan HP	2	2	2	2	2	2	2	2	2	2.0	2.0
Fan RPM	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160
Total Chiller CFM	62400	62400	62400	93600	93600	124800	124800	156000	156000	187200	187200
EVAPORATOR											
Water Volume, Gallons	5.4	5.4	10	8.8	8.8	8.8	13.2	10.0	14.3	12.6	14.3
Maximum Water Side Pressure, PSIG	150	150	150	150	150	150	150	150	150	150	150
Maximum Refrigerant Side Pressure, PSIG	450	450	450	450	450	450	450	450	450	450	450
Minimum Chiller Water Flow Rate, GPM	60	60	150	100	100	100	150	150	150	230	220
Maximum Chiller Water Flow Rate, GPM	285	285	625	385	385	385	625	625	625	625	625
Water Connections Size, Inches	3	3	3	3	3	4*	4*	4*	4*	5	5

NOTES:

1. kW = Compressor Input Power.
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW).
3. Rated in accordance with AHRI Standard 550/590 at an air on condenser temperature of 95°F and a leaving chilled water temperature of 44°F.
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