

Reach-In

REFRIGERATION DATA GUIDE

September 2016



Inspiring solutions.

Freedom Line Reach-Ins

Reach-In Freedom Line Medium Temp Model - 2, 3, 4 and 5 Innovator Doors or Innovator III Doors

	REFRIGERATION DATA PER DOOR		DEFROST DATA						CONVENTIONAL CONTROLS			
	Discharge Air (°F)	Differential	Freq Hrs	Defrost Water* (lb/Dr/day)	Electric		Gas Duration Min	Offtime Min	HPC (psig)		LPC (psig)	
					Temp Term (°F)	Fail-safe Min			Cut In	Cut Out	Cut In	Cut Out
RMN	32	-	24	0.36	-	-	-	60	320	395	15	5

	PHYSICAL DATA PER DOOR														
	Working Charge**														
	1 Door			2 Door			3 Door			4 Door			5 Door		
	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG
RMN	-	-	-	2.3	37	1.0	3.2	51	1.5	3.7	59	1.7	6.8	109	3.1

Note: This data is based on store temperature and humidity levels that do not exceed NSF guidelines.

* $\pm 15\%$ based on merchandiser configuration and product loading.

** Working charge with recommended Condensing Unit installed.

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Reach-In Freedom Line Low Temp Model – 2, 3, 4 and 5 Innovator Doors or Innovator III Doors

REFRIGERATION DATA PER DOOR										DEFROST DATA						CONVENTIONAL CONTROLS			
Discharge Air (°F)		Differential		Freq Hrs		Defrost Water* (lb/Dry/day)		Electric			Gas		Offtime Min		HPC (psig)		LPC (psig)		
								Temp (°F)	Temp (°F)	Temp (°F)	Duration Min	Gas							
FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC		Cut In	Cut Out	Cut In	Cut Out	
-5	-12	6	6	24	24	1.2	1.2	48°	48°	45	45	–	–	NR	320	395	15		5

PLN	PHYSICAL DATA PER DOOR																													
	Working Charge**																													
	1 Door						2 Door						3 Door						4 Door						5 Door					
	LB	OZ	KG				LB	OZ	KG				LB	OZ	KG				LB	OZ	KG				LB	OZ	KG			
	-	-	-			5.2	83	2.4				5.7	91	2.6				6.9	110	3.1				7.2	115					

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H. NR = Not Recommended.

* ± 15% based on merchandiser configuration and product loading.

** Working charge with recommended Condensing Unit installed.

LifeLine Premier Reach-Ins

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Reach-In LifeLine Premier Medium Temp Models – 2, 3, 4 and 5 Innovator or Innovator III Doors

REFRIGERATION DATA PER DOOR										DEFROST DATA					CONVENTIONAL CONTROLS				
Discharge Air (°F)	Evap Sizing (°F)	Unit	Btu/hr/door						Defrost Water* (lb/Dr/day)	Electric		Gas		C/CO (Temp*F)	Indoor Unit Only, Pressure Defrost Termination (Temp °F)				
			NFS Type I	NFS Type II	NFS Type I	NFS Type II	Freq Hrs	Temp (°F)/R.H.		Temp (°F)/R.H.	Temp (°F)	Failsafe Min	Duration Min			Offtime Min			
RM	32	27	25	75°/55%	80°/55%	480	505	500	525	24	0.36	NR	NR	NR	60	+20°/+10°	NR		
RMF	32	27	25	75°/55%	80°/55%	480	505	500	525	24	0.36	-	-	NR	60	+20°/+10°	NR		
RMIN	32	27	25	75°/55%	80°/55%	480	505	500	525	24	0.36	-	-	NR	60	+20°/+10°	NR		
RMT	32	27	25	75°/55%	80°/55%	580	610	610	640	24	0.36	-	-	NR	60	+20°/+10°	NR		
PHYSICAL DATA PER DOOR																			
Estimated Charge***																			
1 Door				2 Door				3 Door				4 Door				5 Door			
LB	OZ	KG		LB	OZ	KG		LB	OZ	KG		LB	OZ	KG		LB	OZ	KG	
RM	-	-	-	1.8	29	0.8	0.8	2.7	43	1.2	1.2	3.6	58	1.6	1.6	4.6	74	2.1	
RMF	-	-	-	1.8	29	0.8	0.8	2.7	43	1.2	1.2	3.6	58	1.6	1.6	4.6	74	2.1	
RMIN	-	-	-	1.8	29	0.8	0.8	2.7	43	1.2	1.2	3.6	58	1.6	1.6	4.6	74	2.1	
RMT	-	-	-	2.3	37	1.0	1.0	3.2	51	1.4	1.4	4.1	66	1.8	1.8	5.1	82	2.3	

Note: This data is based on store temperature and humidity levels that do not exceed NSF guidelines. NR = Not Recommended.

* ± 15% based on merchandiser configuration and product loading.

*** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

** Use a Temperature Pressure Chart to determine PSIG conversions.

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LifeLine Premier Reach-Ins continued

Reach-In LifeLine Premier Low Temp Models – 2, 3, 4 and 5 Innovator Doors

REFRIGERATION DATA PER DOOR										DEFROST DATA						CONVENTIONAL CONTROLS													
Discharge Air (°F)		Evap		Unit Sizing (°F)		Btu/hr/door				Freq Hrs		Defrost Water* (lb/Dr/day)		Electric			Gas		Offtime Min		C/CO (Temp°F)		Indoor Unit Only, Pressure Defrost Termination (Temp °F)						
						Parallel	FF	IC	FF					IC	Temp (°F)	Failsafe Min									Duration Min				
	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC					
RL	-5	-12	-11	-19	-14	-22	955	1065	970	1085	24	24	1.2	1.2	48°	48°	45	45	20	20	NR	-18°/-34°	-26°/-45°	NR	NR				
RLN	-5	-12	-11	-19	-14	-22	955	1065	970	1085	24	24	1.2	1.2	48°	48°	45	45	20	20	NR	-18°/-34°	-26°/-45°	NR	NR				
RLT	-5	-12	-11	-19	-14	-22	1105	1295	1130	1320	24	24	1.2	1.3	54°	54°	48	48	22	22	NR	-18°/-34°	-26°/-45°	NR	NR				
PHYSICAL DATA PER DOOR																													
Estimated Charge***																													
1 Door						2 Door						3 Door						4 Door						5 Door					
LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG			
RL	-	-	-	-	-	1.8	29	0.8	2.7	43	1.2	3.6	58	1.6	4.6	74	2.1	3.6	58	1.6	4.6	74	2.1	3.6	58	1.6	4.6	74	2.1
RLN	-	-	-	-	-	1.8	29	0.8	2.7	43	1.2	3.6	58	1.6	4.6	74	2.1	3.6	58	1.6	4.6	74	2.1	3.6	58	1.6	4.6	74	2.1
RLT	-	-	-	-	-	2.3	37	1.0	3.2	51	1.4	4.1	66	1.8	5.1	82	2.3	4.1	66	1.8	5.1	82	2.3	4.1	66	1.8	5.1	82	2.3

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H. NR = Not Recommended.
* ± 15% based on merchandiser configuration and product loading.
** Use a Temperature Pressure Chart to determine PS/G conversions.
*** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

Reach-In LifeLine Premier Low Temp Models – 2, 3, 4 and 5 Innovator Doors

REFRIGERATION DATA PER DOOR/SIDE														DEFROST DATA										CONVENTIONAL CONTROLS																					
Discharge Air (°F)				Unit Sizing (°F)		Btu/hr/door/side				Freq Hrs		Defrost Water* (lb/dr/day)				Electric				Gas		Offtime Min		C/CO (Temp °F)				Indoor Unit Only, Pressure Defrost Termination (Temp °F)																	
						Parallel		Conventional				Temp (°F)		Failsafe Min		Duration Min																													
FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC																
-5	-12	-11	-19	-14	-22	865	970	880	990	24	24	1.2	1.2	1.2	1.2	48°	48°	45	45	20	20	NR		-18°/-34°	-26°/-45°	NR																			
RLNI																																													
PHYSICAL DATA PER DOOR/SIDE																																													
Estimated Charge***																																													
1 Door										2 Door										3 Door										4 Door								5 Door							
LB		OZ		KG		LB		OZ		KG		LB		OZ		KG		LB		OZ		KG		LB		OZ		KG		LB		OZ		KG											
-		-		-		1.8		29		0.8		2.7		43		1.2		3.6		58		1.6		4.6		74		2.1		2.1		2.1													
RLNI																																													

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H. NR = Not Recommended.

* ± 15% based on merchandiser configuration and product loading.

** Use a Temperature Pressure Chart to determine PSIG conversions.

*** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

Reach-In LifeLine Premier Low Temp Models – 2, 3, 4 and 5 Innovator Doors

REFRIGERATION DATA PER CASE										DEFROST DATA										CONVENTIONAL CONTROLS					
Discharge Air (°F)			Evap		Unit Sizing (°F)		Btu/hr/case			Defrost Water* (lb/Dr/day)		Temp (°F)		Failsafe Min		Gas Duration Min		Offtime Min		C/CO (Temp°F)		Low Pressure Backup Control**			
							Parallel	Conventional																	
FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC
0	-11	-11	-19	-14	-22	7125	7350	7275	7500	24	24	48°	48°	45	45	20	20	NR	NR	-18°/-34°	-26°/-45°	NR	NR	NR	NR
RLNE																									

PHYSICAL DATA PER CASE			
Estimated Charge***			
LB	OZ		KG
RLNE	5.4	86	2.4

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H.
 Standard Defrost Thermostat – close on rise: close 48°F – open 33°F. NR = Not Recommended.

* ± 15% based on merchandiser configuration and product loading.

** Use a Temperature Pressure Chart to determine PSIG conversions.

*** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

Reach-In LifeLine Premier Low Temp Models – 2, 3, 4 and 5 Innovator III Doors

REFRIGERATION DATA PER DOOR										DEFROST DATA						CONVENTIONAL CONTROLS													
Discharge Air (°F)				Evap Sizing (°F)		Unit		Btu/hr/door				Defrost				Electric				Gas		Offtime Min		C/CO (Temp °F)		Indoor Unit Only, Pressure Defrost Termination (Temp °F)			
								Parallel		Conventional		Water* (lb/Dr/day)		Freq Hrs		Temp (°F)		Failsafe Min		Duration Min									
FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC
-5	-12	-11	-19	-14	-22	935	1035	955	1055	24	24	1.2	48°	48°	45	45	20	20	NR	-18°/-34°	-26°/-45°	NR	NR	-18°/-34°	-26°/-45°	NR	NR	-18°/-34°	-26°/-45°
-5	-12	-11	-19	-14	-22	935	1035	955	1055	24	24	1.2	48°	48°	45	45	20	20	NR	-18°/-34°	-26°/-45°	NR	NR	-18°/-34°	-26°/-45°	NR	NR	-18°/-34°	-26°/-45°
-5	-12	-11	-19	-14	-22	1100	1290	1125	1315	24	24	1.2	54°	54°	48	48	22	22	NR	-18°/-34°	-26°/-45°	NR	NR	-18°/-34°	-26°/-45°	NR	NR	-18°/-34°	-26°/-45°
PHYSICAL DATA PER DOOR																													
Estimated Charge***																													
1 Door						2 Door						3 Door						4 Door						5 Door					
LB		OZ		KG		LB		OZ		KG		LB		OZ		KG		LB		OZ		KG		LB		OZ		KG	
RL	-	-	-	-	-	1.8	29	29	0.8	2.7	43	2.7	43	2.7	43	1.2	3.6	3.6	58	58	1.6	4.6	74	4.6	74	2.1	2.1	2.1	2.1
RLN	-	-	-	-	-	1.8	29	29	0.8	2.7	43	2.7	43	2.7	43	1.2	3.6	3.6	58	58	1.6	4.6	74	4.6	74	2.1	2.1	2.1	2.1
RLT	-	-	-	-	-	2.3	37	37	1.0	3.2	51	3.2	51	3.2	51	1.4	4.1	4.1	66	66	1.8	5.1	82	5.1	82	2.3	2.3	2.3	2.3

PHYSICAL DATA PER DOOR

Estimated Charge***

	1 Door			2 Door			3 Door			4 Door			5 Door		
	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG
RL	-	-	-	1.8	29	0.8	2.7	43	1.2	3.6	58	1.6	4.6	74	2.1
RLN	-	-	-	1.8	29	0.8	2.7	43	1.2	3.6	58	1.6	4.6	74	2.1
RLT	-	-	-	2.3	37	1.0	3.2	51	1.4	4.1	66	1.8	5.1	82	2.3

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H. NR = Not Recommended.

* ± 15% based on merchandiser configuration and product loading.

** Use a Temperature Pressure Chart to determine PSIG conversions.

*** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

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Reach-In LifeLine Premier Low Temp Models – 2, 3, 4 and 5 Innovator III Doors

	REFRIGERATION DATA PER DOOR/SIDE										DEFROST DATA						CONVENTIONAL CONTROLS																										
	Discharge Air (°F)		Evap		Unit Sizing (°F)		Btu/hr/door/side				Freq Hrs		Defrost Water* (lb/dr/day)		Electric				Gas		Offtime Min		Low Pressure Backup Control**																				
															Temp (°F)				Failsafe Min								Duration Min																
	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC															
RLNI	-5	-12	-11	-19	-14	-22	815	940	830	960	24	24	1.2	1.2	1.2	48°	48°	45	45	20	20	NR			-18°/34°	-26°/45°	NR	NR															
PHYSICAL DATA PER DOOR/SIDE																																											
Estimated Charge***																																											
1 Door										2 Door										3 Door								4 Door								5 Door							
										LB		OZ		KG		LB		OZ		KG		LB		OZ		KG		LB		OZ		KG		LB		OZ		KG					
LB	-		-		-		1.8		29		0.8		2.7		43		1.2		3.6		58		1.6		4.6		74		2.1														
RLNI																																											

Reach-In LifeLine Premier Low Temp Models – 2, 3, 4 and 5 Innovator III Doors

	REFRIGERATION DATA PER CASE										DEFROST DATA								CONVENTIONAL CONTROLS							
	Discharge Air (°F)		Evap		Unit Sizing (°F)		Btu/hr/case		Parallel		Conventional		Freq Hrs		Defrost Water* (lb/Dr/day)		Electric		Gas		Offtime Min		Low Pressure Backup Control**			
																	Temp (°F)	Failsafe Min	Duration Min							
	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC		
	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC		
RLNE	0	-11	-11	-19	-14	-22	6745	7250	6890	7400	24	24	8.6	8.6	48°	48°	45	45	20	20	NR	NR	-18°/34°	-26°/45°	NR	NR

PHYSICAL DATA PER CASE		
Estimated Charge***		
LB	OZ	KG
RLNE	5.4	86
		2.4

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H.
Standard Defrost Thermostat – close on rise: close 48°F – open 33°F. NR = Not Recommended.

* ± 15% based on merchandiser configuration and product loading.

** Use a Temperature Pressure Chart to determine PSIG conversions.

*** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

Standard Reach-Ins

Reach-In Standard Medium Temp Models – 2, 3, 4 and 5 Innovator III Doors

REFRIGERATION DATA PER DOOR										DEFROST DATA					CONVENTIONAL CONTROLS				
Discharge Air (°F)	Evap Sizing (°F)	Unit Sizing (°F)	Btu/hr/door						Defrost Water* (lb/Dr/day)	Electric		Gas		Offtime Min	Low Pressure Backup Control **				
			NFS Type I Temp (°F)/R.H.	NFS Type II Temp (°F)/R.H.	NFS Parallel	NFS Type I Parallel	NFS Type II Parallel	NFS Conventional		Temp (°F)	Failsafe Min	Duration Min	C/CO (Temp °F)		Indoor Unit Only, Pressure Defrost Termination (Temp °F)				
RM	32	27	25	75°/55%	80°/55%	480	505	500	525	24	0.36	NR	NR	NR	60	+20°/+10°	NR		
RMF	32	27	25	75°/55%	80°/55%	480	505	500	525	24	0.36	-	-	NR	60	+20°/+10°	NR		
RMIN	32	27	25	75°/55%	80°/55%	480	505	500	525	24	0.36	-	-	NR	60	+20°/+10°	NR		
RMT	32	27	25	75°/55%	80°/55%	580	610	610	640	24	0.36	-	-	NR	60	+20°/+10°	NR		
PHYSICAL DATA PER DOOR																			
Estimated Charge***																			
1 Door						2 Door				3 Door				4 Door				5 Door	
LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG		
RM	-	-	1.8	29	0.8	2.7	43	1.2	3.6	57	1.6	4.6	73	2.0	4.6	73	2.0		
RMF	-	-	1.8	29	0.8	2.7	43	1.2	3.6	57	1.6	4.6	73	2.0	4.6	73	2.0		
RMIN	-	-	1.8	29	0.8	2.7	43	1.2	3.6	58	1.6	4.6	74	2.1	4.6	74	2.1		
RMT	-	-	2.3	37	1.0	3.2	51	1.4	4.1	66	1.8	5.1	82	2.3	5.1	82	2.3		

Note: This data is based on store temperature and humidity levels that do not exceed NSF guidelines. NR = Not Recommended.

* ± 15% based on merchandiser configuration and product loading.

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** Use a Temperature Pressure Chart to determine PSIG conversions.

Reach-In Standard Low Temp Models – 2, 3, 4 and 5 Innovator Doors

REFRIGERATION DATA PER DOOR												DEFROST DATA								CONVENTIONAL CONTROLS											
Discharge Air (°F)				Evap		Unit Sizing (°F)		Btu/hr/door				Freq Hrs		Defrost Water* (lb/Dr/day)		Electric				Gas		Offtime Min	C/CO (Temp°F)			Low Pressure Backup Control**			Indoor Unit Only, Pressure Defrost Termination (Temp °F)		
								Parallel		Conventional						Temp Term (°F)	Failsafe Min	Duration Min													
FF	IC	FF	IC	FF	IC	FF	IC					FF	IC	FF	IC				FF	IC	FF	IC	FF	IC	FF	IC					
RL	-5	-12	-11	-19	-14	-22	955	1065	970	1085	24	24	1.2	1.2	48°	48°	45	45	20	20	NR	-18°/34°	-26°/45°	NR	NR	NR	NR	NR	NR		
	-5	-12	-11	-19	-14	-22	955	1065	970	1085	24	24	1.2	1.2	48°	48°	45	45	20	20	NR	-18°/34°	-26°/45°	NR	NR	NR	NR	NR	NR		
RLT	-5	-12	-11	-19	-14	-22	1105	1295	1130	1320	24	24	1.2	1.3	54°	54°	48	48	22	22	NR	-18°/34°	-26°/45°	NR	NR	NR	NR	NR	NR		
RLTI	-5	-12	-11	-19	-14	-22	995	1060	1010	1085	24	24	1.2	1.2	54°	54°	48	48	22	22	NR	-18°/34°	-26°/45°	NR	NR	NR	NR	NR	NR		

PHYSICAL DATA PER DOOR																													
Estimated Charge***																													
1 Door						2 Door						3 Door						4 Door						5 Door					
LB		OZ		KG		LB		OZ		KG		LB		OZ		KG		LB		OZ		KG		LB		OZ		KG	
RL	See Page 21					1.8		29		0.8		2.7		43		1.2		3.6		58		1.6		4.6		74		2.1	
	-	-	-	-	-	1.8		29		0.8		2.7		43		1.2		3.6		58		1.6		4.6		74		2.1	
RLN	-	-	-	-	-	2.3		37		1.0		3.2		51		1.4		4.1		66		1.8		5.1		82		2.3	
RLT	-	-	-	-	-	2.3		37		1.0		3.2		51		1.4		4.1		66		1.8		5.1		82		2.3	
RLTI	-	-	-	-	-	2.3		37		1.0		3.2		51		1.4		4.1		66		1.8		5.1		82		2.3	

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H. NR = Not Recommended.

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Reach-In Standard Low Temp Models – 2, 3, 4 and 5 Innovator Doors

REFRIGERATION DATA PER DOOR/SIDE										DEFROST DATA						CONVENTIONAL CONTROLS													
Discharge Air (°F)				Evap Sizing (°F)		Unit Sizing (°F)		Btu/hr/door/side				Freq Hrs		Defrost Water* (lb/hr/day)		Electric			Gas		Offtime Min		C/CO (Temp°F)		Indoor Unit Only, Pressure Defrost Termination (Temp °F)				
								Parallel		Conventional						Temp (°F)	Failsafe Min	Duration Min											
FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC		
-5	-12	-11	-19	-14	-22	865	970	880	990	24	24	1.2	1.2	48°	48°	45	45	20	20	NR		-18°/-34°	-26°/-45°	NR					
RLNI																													
PHYSICAL DATA PER DOOR/SIDE																													
Estimated Charge***																													
1 Door						2 Door						3 Door						4 Door						5 Door					
LB		OZ		KG		LB		OZ		KG		LB		OZ		KG		LB		OZ		KG		LB		OZ		KG	
-		-		-		1.8		29		0.8		2.7		43		1.2		3.6		58		1.6		4.6		74		2.1	
RLNI																													

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H. NR = Not Recommended.
 * ± 15% based on merchandiser configuration and product loading.
 ** Use a Temperature Pressure Chart to determine PSIG conversions.
 *** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

Reach-In Standard Low Temp Models – 2, 3, 4 and 5 Innovator Doors

	REFRIGERATION DATA PER CASE										DEFROST DATA						CONVENTIONAL CONTROLS				
	Discharge Air (°F)		Evap		Unit Sizing (°F)		Btu/hr/case		Freq Hrs		Defrost Water* (lb/Dr/day)		Electric Temp (°F)		Failsafe Min		Gas Duration Min		Offtime Min		
	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	
RLNIE	0	-11	-11	-19	-14	-22	7125	7350	7275	7500	24	24	8.6	8.6	48°	48°	45	45	20	20	NR
																					NR

PHYSICAL DATA PER CASE		
Estimated Charge***		
LB	OZ	KG
RLNIE	5.4	73
		2.45

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H.
Standard Defrost Thermostat – close on rise; close 48°F – open 33°F. NR = Not Recommended.

* ± 15% based on merchandiser configuration and product loading.

** Use a Temperature Pressure Chart to determine PSIG conversions.

*** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

Reach-In Standard Low Temp Models – 2, 3, 4 and 5 Innovator II Doors

REFRIGERATION DATA PER DOOR										DEFROST DATA								CONVENTIONAL CONTROLS					
Discharge Air (°F)		Evap		Unit Sizing (°F)		Btu/hr/door				Defrost Water* (lb/lb/day)		Temp (°F)		Electric		Gas		Offtime Min	C/CO (Temp°F)		Indoor Unit Only, Pressure Defrost Termination (Temp °F)		
						Parallel		Conventional				Min	Max	Min	Max	Min	Max						
FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC		
-5	-12	-9	-17	-12	-20	830	900	845	920	24	24	48°	48°	45	45	20	20	NR	NR	-18°/-34°	-26°/-45°	NR	NR
RL	-5	-12	-9	-17	-12	830	900	845	920	24	24	48°	48°	45	45	20	20	NR	NR	-18°/-34°	-26°/-45°	NR	NR

PHYSICAL DATA PER DOOR																														
Estimated Charge***																														
	1 Door						2 Door						3 Door						4 Door						5 Door					
	LB	OZ	KG		LB	OZ	KG		LB	OZ	KG		LB	OZ	KG		LB	OZ	KG		LB	OZ	KG		LB	OZ	KG			
RL	-	-	-	-	1.8	29	0.8		2.7	43	1.2		3.6	57	1.6		4.6	73	2.0		4.6	73	2.0		4.6	73	2.0			
RLN	-	-	-	-	1.8	29	0.8		2.7	43	1.2		3.6	57	1.6		4.6	73	2.0		4.6	73	2.0		4.6	73	2.0			

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H. NR = Not Recommended.

* ± 15% based on merchandiser configuration and product loading.

** Use a Temperature Pressure Chart to determine PSIG conversions.

*** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

Reach-In **Standard Low Temp** Models – 2, 3, 4 and 5 *Innovator II* Doors

REFRIGERATION DATA PER DOOR/SIDE												DEFROST DATA								CONVENTIONAL CONTROLS															
Discharge Air (°F)				Evap		Unit Sizing (°F)		Btu/hr/door/side				Freq Hrs		Defrost Water* (lb/dr/day)		Electric				Gas		Offtime Min		C/CO (Temp °F)				Low Pressure Backup Control**				Indoor Unit Only, Pressure Defrost Termination (Temp °F)			
								Parallel		Conventional						Temp (°F)		Failsafe Min		Duration Min															
FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC		
-5	-12	-9	-17	-12	-20	745	800	765	825	24	24	1.2	1.2	48°	48°	45	45	20	20	NR	-18°/-34°	-26°/-45°	NR	NR											
RLNI																																			

PHYSICAL DATA PER DOOR/SIDE																															
Estimated Charge***																															
1 Door				2 Door				3 Door				4 Door				5 Door															
LB	OZ	KG		LB	OZ	KG		LB	OZ	KG		LB	OZ	KG		LB	OZ	KG		LB	OZ	KG		LB	OZ	KG		LB	OZ	KG	
-	-	-	-	1.8	29	0.8	2.7	43	1.2	3.6	57	1.6	4.6	73	2.0																
RLNI																															

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H. NR = Not Recommended.
 * ± 15% based on merchandiser configuration and product loading.
 ** Use a Temperature Pressure Chart to determine PSIG conversions.
 *** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

Reach-In Standard Low Temp Models – 2, 3, 4 and 5 Innovator II Doors

REFRIGERATION DATA PER CASE												DEFROST DATA								CONVENTIONAL CONTROLS									
Discharge Air (°F)				Evap		Unit Sizing (°F)		Btu/hr/case				Freq Hrs		Defrost Water* (lb/Dr/day)		Electric			Gas		Offtime Min		C/CO (Temp °F)		Low Pressure Backup Control**				
								Parallel		Conventional						Temp (°F)	Failsafe Min	Duration Min											
FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC
1	-11	-9	-17	-12	-20	6175	6400	6325	6550	24	24	8.6	8.6	48°	48°	45	45	20	20	NR		-18°/-34°	-26°/45°	NR		NR		NR	
RLNIE																													

PHYSICAL DATA PER CASE		
Estimated Charge***		
LB	OZ	KG
5.4	86	2.4
RLNIE		

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H.
 Standard Defrost Thermostat – close on rise; close 48°F – open 33°F. NR = Not Recommended.

* ± 15% based on merchandiser configuration and product loading.

** Use a Temperature Pressure Chart to determine PSIG conversions.

*** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

Reach-In Standard Low Temp Models – 2, 3, 4 and 5 Innovator III Doors

REFRIGERATION DATA PER DOOR												DEFROST DATA								CONVENTIONAL CONTROLS														
Discharge Air (°F)		Evap		Unit Sizing (°F)		Btu/hr/door				Freq Hrs		Defrost Water* (lb/Dr/day)		Electric				Gas Duration Min		Offtime Min		C/CO (Temp°F)				Low Pressure Backup Control**				Indoor Unit Only, Pressure Defrost Termination (Temp °F)				
						Parallel	FF	IC	FF					IC	Temp Term (°F)	Failsafe Min	FF																	IC
RL	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC
	-5	-12	-11	-19	-14	-22	935	1035	955	1055	24	24	1.2	1.2	48°	48°	45	45	20	20	NR	-18°/-34°	-26°/-45°	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
RLN	-5	-12	-11	-19	-14	-22	935	1035	955	1055	24	24	1.2	1.2	48°	48°	45	45	20	20	NR	-18°/-34°	-26°/-45°	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
RLT	-5	-12	-11	-19	-14	-22	1100	1290	1125	1315	24	24	1.2	1.3	54°	54°	48	48	22	22	NR	-18°/-34°	-26°/-45°	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	

PHYSICAL DATA PER DOOR																													
Estimated Charge***																													
1 Door						2 Door						3 Door						4 Door						5 Door					
LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG
See Page 22						1.8	29	0.8	2.7	43	1.2	3.6	58	1.6	4.6	74	2.1	3.6	58	1.6	4.6	74	2.1	3.6	58	1.6	4.6	74	2.1
RL	-	-	-	-	-	1.8	29	0.8	2.7	43	1.2	3.6	58	1.6	4.6	74	2.1	3.6	58	1.6	4.6	74	2.1	3.6	58	1.6	4.6	74	2.1
RLN	-	-	-	-	-	1.8	29	0.8	2.7	43	1.2	3.6	58	1.6	4.6	74	2.1	3.6	58	1.6	4.6	74	2.1	3.6	58	1.6	4.6	74	2.1
RLT	-	-	-	-	-	2.3	37	1.0	3.2	51	1.4	4.1	66	1.8	5.1	82	2.3	4.1	66	1.8	5.1	82	2.3	4.1	66	1.8	5.1	82	2.3

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H. NR = Not Recommended.
 * ± 15% based on merchandiser configuration and product loading.
 ** Use a Temperature Pressure Chart to determine PSIG conversions.
 *** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).



Reach-In Standard Low Temp Models – 2, 3, 4 and 5 Innovator III Doors

REFRIGERATION DATA PER DOOR/SIDE										DEFROST DATA						CONVENTIONAL CONTROLS						
Discharge Air (°F)		Evap		Unit Sizing (°F)		Btu/hr/door				Defrost Water* (lb/hr/day)		Electric		Gas		Offtime Min		C/CO (Temp°F)		Indoor Unit Only, Pressure Defrost Termination (Temp °F)		
						Parallel		Conventional				Temp (°F)	Failsafe Min	Duration Min								
FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	
-5	-12	-11	-19	-14	-22	815	940	830	960	24	24	1.2	48°	48°	45	45	20	20	-18°/-34°	-26°/-45°	NR	NR
-5	-12	-11	-19	-14	-22	985	1055	1005	1080	24	24	1.2	54°	54°	48	48	22	22	-18°/-34°	-26°/-45°	NR	NR

PHYSICAL DATA PER DOOR/SIDE																												
Estimated Charge***																												
1 Door						2 Door						3 Door						4 Door						5 Door				
LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG		
RLNI	-	-	-	-	-	1.8	29	0.8	2.7	43	1.2	3.6	58	1.6	4.6	74	2.1	5.1	82	2.3	5.1	82	2.3	5.1	82	2.3		
RLTI	-	-	-	-	-	2.3	37	1.0	3.2	51	1.4	4.1	66	1.8	5.1	82	2.3	5.1	82	2.3	5.1	82	2.3	5.1	82	2.3		

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H. NR = Not Recommended.

* ± 15% based on merchandiser configuration and product loading.

** Use a Temperature Pressure Chart to determine PSIG conversions.

*** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

Reach-In Standard Low Temp Models – 2, 3, 4 and 5 Innovator III Doors

REFRIGERATION DATA PER CASE										DEFROST DATA										CONVENTIONAL CONTROLS					
Discharge Air (°F)		Evap (°F)		Unit Sizing (°F)		Btu/hr/case		Freq Hrs	Defrost Water* (lb/Dr/day)		Electric			Gas		Offtime Min	CONVENTIONAL CONTROLS								
						Parallel	Conventional		Temp (°F)	Failsafe Min	Duration Min														
FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC		C/CO (Temp°F)	Indoor Unit Only, Pressure Defrost Termination (Temp °F)							
0	-11	-11	-19	-14	-22	6745	7250	6890	7400	24	24	8.6	8.6	48°	48°	45	45	20	20	NR	NR	-18°/34°	-26°/45°	NR	NR
RLNIE																									

PHYSICAL DATA PER CASE		
Estimated Charge***		
LB	OZ	KG
5.4	73	2.45
RLNIE		

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H.
Standard Defrost Thermostat – close on rise, close 48°F – open 33°F. NR = Not Recommended.

* ± 15% based on merchandiser configuration and product loading.

** Use a Temperature Pressure Chart to determine PSIG conversions.

*** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

Reach-In Standard Low Temp Model – One Innovator Door

	REFRIGERATION DATA										DEFROST DATA						CONVENTIONAL CONTROLS										
	Discharge Air (°F)		Evap		Unit Sizing (°F)		Btu/hr/door		Freq Hrs		Defrost Water*		Electric			Gas			Overtime Min		Low Pressure Backup Control**						
													Temp Term (°F)	Failsafe Min	Duration Min												
	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC				FF	IC	FF	IC	FF	IC	FF	IC				
RL	2	-5	-11	-19	-14	-22	1095	1200	1115	1225	24	24	1.2	1.2	1.2	48°	48°	45	45	20	20	-	-	-18°/-34°	-28°/-45°	-	-

PHYSICAL DATA																												
Estimated Charge***																												
1 Door						2 Door						3 Door						4 Door						5 Door				
LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG					
0.9	14	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
RL																												

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H. NR = Not Recommended.
* ± 15% based on merchandiser configuration and product loading.
** Use a Temperature Pressure Chart to determine PSIG conversions.
*** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

Reach-In Standard Low Temp Model – One Innovator III Door

REFRIGERATION DATA										DEFROST DATA								CONVENTIONAL CONTROLS							
Discharge Air (°F)		Evap		Unit Sizing (°F)		Btu/hr/door		Freq Hrs		Defrost Water* (lb/Dr/day)		Electric		Gas Duration Min		Offtime Min		Low Pressure Backup Control**							
						Parallel	Conventional					Temp (°F)	Failsafe Min									C/CO (Temp°F)	Indoor Unit Only, Pressure Defrost Termination (Temp °F)		
FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC	FF	IC				
2	-5	-11	-19	-14	-22	1075	1165	1100	1190	24	24	1.2	1.2	48°	48°	45	45	20	20	NR	NR	-18°/-34°	-26°/-45°	NR	NR
RL																									

PHYSICAL DATA																					
Estimated Charge ***																					
1 Door						2 Door				3 Door				4 Door				5 Door			
	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG	LB	OZ	KG			
RL	0.9	14	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

Note: This data is based on store temperature and humidity levels that do not exceed 75°F and 55% R.H. NR = Not Recommended.

* ± 15% based on merchandiser configuration and product loading.

*** This is an average for all refrigerant types. Actual refrigerant charge may vary by approximately half a pound (8oz/0.2kg).

** Use a Temperature Pressure Chart to determine PSIG conversions.



Temperature Pressure Charts

TEMP		REFRIGERANT			
°F	R-22	R-404A	R-507	R-134A	R-744
-50	6.1	0.2	0.9	18.6	103.4
-45	2.7	2.3	3.1	16.7	116.6
-40	0.6	4.6	5.5	14.7	131.0
-38	1.4	5.6	6.5	13.8	137.0
-36	2.2	6.6	7.6	12.8	143.3
-34	3.1	7.7	8.7	11.8	149.7
-32	4.0	8.8	9.9	10.8	156.3
-30	4.9	9.9	11.1	9.7	163.1
-28	5.9	11.1	12.4	8.6	170.1
-26	6.9	12.4	13.7	7.4	177.3
-24	8.0	13.6	15.0	6.2	184.8
-22	9.1	15.0	16.4	4.9	192.4
-20	10.2	16.3	17.8	3.6	200.2
-18	11.4	17.8	19.3	2.2	208.3
-16	12.6	19.2	20.9	0.7	216.5
-14	13.9	20.8	22.5	0.4	225.0
-12	15.2	22.3	24.1	1.2	233.8
-10	16.5	24.0	25.8	2.0	242.7
-8	17.9	25.7	27.6	2.8	251.9
-6	19.4	27.4	29.4	3.7	261.3
-4	20.9	29.2	31.3	4.6	271.0
-2	22.4	31.1	33.2	5.5	280.9

TEMP		REFRIGERANT			
°F	R-22	R-404A	R-507	R-134A	R-744
0	24.0	33.0	35.2	6.5	291.0
1	24.8	34.0	36.2	7.0	296.2
2	25.7	34.9	37.3	7.5	301.5
3	26.5	36.0	38.3	8.0	306.8
4	27.4	37.0	39.4	8.6	312.1
5	28.3	38.0	40.5	9.1	317.6
6	29.1	39.1	41.6	9.7	323.1
7	30.0	40.2	42.7	10.2	328.6
8	31.0	41.3	43.8	10.8	334.2
9	31.9	42.4	45.0	11.4	339.9
10	32.8	43.5	46.2	12.0	345.7
11	33.8	44.6	47.3	12.6	351.5
12	34.8	45.8	48.5	13.2	357.4
13	35.8	47.0	49.8	13.8	363.4
14	36.8	48.1	51.0	14.4	369.5
15	37.8	49.4	52.2	15.1	375.6
16	38.8	50.6	53.5	15.7	381.8
17	39.9	51.8	54.8	16.4	388.0
18	40.9	53.1	56.1	17.1	394.3
19	42.0	54.4	57.4	17.7	400.7
20	43.1	55.7	58.8	18.4	407.2
21	44.2	57.0	60.1	19.2	413.8

Temperature Pressure Charts *continued*

TEMP	REFRIGERANT				
	R-22	R-404A	R-507	R-134A	R-744
22	45.3	58.3	61.5	19.9	420.4
23	46.5	59.7	62.9	20.6	427.1
24	47.6	61.1	64.3	21.4	433.8
25	48.8	62.4	65.8	22.1	440.7
26	50.0	63.9	67.2	22.9	447.6
27	51.2	65.3	68.7	23.7	454.6
28	52.4	66.7	70.2	24.5	461.7
29	53.7	68.2	71.7	25.3	468.8
30	54.9	69.7	73.3	26.1	476.1
31	56.2	71.2	74.8	26.9	483.4
32	57.5	72.7	76.4	27.8	490.8
33	58.8	74.3	78.0	28.6	498.3
34	60.2	75.6	79.6	29.5	505.8
35	61.5	77.4	81.3	30.4	513.4
36	62.9	79.1	82.9	31.3	521.2
37	64.3	80.7	84.6	32.2	529.0
38	65.7	82.4	86.3	33.1	536.9
39	67.1	84.0	88.1	34.1	544.8
40	68.6	85.7	89.8	35.0	552.9
42	71.5	89.2	93.4	37.0	569.3
44	74.5	92.7	97.0	39.0	586.0
46	77.6	96.4	100.8	41.1	603.1

TEMP	REFRIGERANT				
	R-22	R-404A	R-507	R-134A	R-744
48	80.8	100.1	104.6	43.2	620.5
50	84.1	104.0	108.6	45.4	638.3
52	87.4	109.5	112.6	47.7	656.5
54	90.8	113.5	116.7	50.0	675.0
56	94.4	117.7	121.0	52.4	694.0
58	98.0	121.9	125.3	54.9	713.3
60	101.6	126.3	129.8	57.4	733.1
62	105.4	130.7	134.3	60.0	753.2
64	109.3	135.3	139.0	62.7	773.8
66	113.3	139.9	143.7	65.4	794.8
68	117.3	144.7	148.6	68.2	816.2
70	121.5	149.6	153.6	71.1	838.1
72	125.7	154.5	158.7	74.1	860.5
74	130.0	159.6	163.9	77.1	883.3
76	134.5	164.9	169.3	80.2	906.7
78	139.0	170.2	174.7	83.4	930.5
80	143.7	175.6	180.3	86.7	954.9
82	148.4	181.2	186.0	90.0	979.8
84	153.3	186.9	191.9	93.5	1005.4
86	158.2	192.7	197.8	97.0	1031.6
88	163.3	198.6	203.9	100.6	NA
90	168.4	204.7	210.2	104.3	NA

TEMP		REFRIGERANT				
°F	R-22	R-404A	R-507	R-134A	R-744	
92	173.7	210.8	216.6	108.1	NA	
94	179.1	217.2	223.1	112.0	NA	
96	184.6	223.6	229.8	115.9	NA	
98	190.2	230.2	236.6	120.0	NA	
100	196.0	236.9	243.5	124.1	NA	
102	201.8	243.8	250.6	128.4	NA	
104	207.8	250.7	257.9	132.7	NA	
106	213.9	257.9	265.3	137.2	NA	
108	220.1	265.1	272.9	141.7	NA	
110	226.4	272.6	280.7	146.4	NA	

Vacuum - *Italic Figures* Gauge Pressure - **Bold Figures**

TEMP		REFRIGERANT				
°F	R-22	R-404A	R-507	R-134A	R-744	
112	232.9	280.1	288.6	151.1	NA	
114	239.5	287.8	296.6	155.9	NA	
116	246.2	295.7	304.9	160.9	NA	
118	253.1	303.7	313.3	166.0	NA	
120	260.0	311.9	321.9	171.1	NA	
125	278.1	333.0	344.3	184.5	NA	
130	297.0	355.2	367.8	198.7	NA	
135	316.8	399.6	392.6	213.5	NA	
140	337.5	402.6	418.7	229.2	NA	



High Glide Temperature Pressure Charts

TEMP		R-407A	
°F		Dew	Bubble
-40		3.9	<i>1</i>
-35		6.4	1
-30		9.2	3.3
-25		12.2	5.8
-20		15.6	8.5
-15		19.2	11.5
-10		23.2	14.9
-5		27.5	18.5
0		32.2	22.5
5		37.3	26.9
10		42.8	31.6
15		48.7	36.7
20		55.1	42.3
25		62	48.3
30		69.3	54.8
35		77.2	61.8
40		85.6	69.4
45		94.6	77.4
50		104	86.1
55		114	95.3
60		125	105
65		137	116

TEMP		R-407A	
°F		Dew	Bubble
70		149	127
75		162	139
80		175	152
85		190	165
90		205	179
95		221	194
100		238	210
105		255	227
110		274	245
115		293	264
120		314	284
125		335	305
130		358	327
135		382	350
140		406	375
145		432	401
150		459	428

TEMP		R-427A	
°F		Dew	Bubble
-40		2.2	<i>5.1</i>
-35		4.5	<i>1.5</i>
-30		7.0	1.3
-25		9.7	3.5
-20		12.8	6.0
-15		16.1	8.7
-10		19.7	11.7
-5		23.6	15
0		27.9	18.7
5		32.6	22.6
10		37.6	26.9
15		43	31.5
20		48.8	36.6
25		55	42.1
30		61.7	48
35		68.9	54.3
40		76.6	61.2
45		84.8	68.5
50		93.6	76.4
55		102.9	84.8
60		112.8	93.8
65		123.3	103.4

TEMP		R-427A	
°F		Dew	Bubble
70		134.4	113.7
75		158.6	136.1
80		158.6	136.1
85		171.8	148.4
90		185.7	161.5
95		200.3	175.3
100		215.8	189.9
105		232	205
110		249.1	221.7
115		276	238.9
120		285.8	257.1
125		305.5	276.3
130		326.2	296.5
135		347.8	317.8
140		170.5	346.3
145		394.1	363.9
150		418.9	388.8

High Glide Temp Pressure Charts *continued*

TEMP °F	R-448A	
	Dew	Bubble
-50	0.27	7.58
-48	1.09	6.26
-46	1.94	4.89
-44	2.83	3.44
-42	3.76	1.94
-40	4.72	0.36
-38	5.72	0.63
-36	6.77	1.47
-34	7.85	2.35
-32	8.98	3.27
-30	10.15	4.22
-28	11.37	5.21
-26	12.63	6.25
-24	13.93	7.32
-22	15.29	8.44
-20	16.70	9.60
-18	18.15	10.81
-16	19.66	12.06
-14	21.22	13.36
-12	22.83	14.71
-10	24.50	16.11
-8	26.23	17.57

TEMP °F	R-448A	
	Dew	Bubble
-6	28.01	19.07
-4	29.86	20.63
-2	31.76	22.24
0	33.72	23.91
2	35.75	25.63
4	37.84	27.42
6	40.00	29.26
8	42.23	31.17
10	44.52	33.14
12	46.88	35.17
14	49.31	37.28
16	51.82	39.44
18	54.40	41.68
20	57.05	43.99
22	59.78	46.36
24	62.59	48.82
26	65.47	51.34
28	68.44	53.94
30	71.49	56.62
32	74.62	59.38
34	77.84	62.22
36	81.14	65.14

TEMP °F	R-448A	
	Dew	Bubble
38	84.53	68.14
40	88.01	71.24
42	91.58	74.41
44	95.24	77.68
46	99.00	81.03
48	102.85	84.48
50	106.79	88.02
52	110.84	91.66
54	114.98	95.39
56	119.23	99.22
58	123.58	103.16
60	128.03	107.19
62	132.59	111.33
64	137.25	115.57
66	142.02	119.93
68	146.91	124.39
70	151.90	128.96
72	157.01	133.65
74	162.23	138.45
76	167.57	143.37
78	173.03	148.40
80	178.61	153.56

TEMP °F	R-448A	
	Dew	Bubble
82	184.31	158.84
84	190.13	164.25
86	196.08	169.78
88	202.15	175.45
90	208.36	181.24
92	214.69	187.17
94	221.15	193.23
96	227.75	199.44
98	234.48	205.78
100	241.34	212.27
102	248.35	218.90
104	255.50	225.68
106	262.78	232.61
108	270.22	239.69
110	277.79	246.93
112	285.52	254.33
114	293.39	261.88
116	301.41	269.61
118	309.59	277.50
120	317.92	285.56
122	326.41	293.79
124	335.06	302.20

TEMP	R-448A	
°F	Dew	Bubble
126	343.86	310.79
128	352.83	319.56
130	361.96	328.52
132	371.26	337.67
134	380.73	347.02
136	390.37	356.57
138	400.18	366.32
140	410.16	376.28
142	420.32	386.45
144	430.66	396.84
146	441.17	407.46
148	451.87	418.31
150	462.75	429.40

Vacuum - *Italic Figures* Gauge Pressure - **Bold Figures**

Notes:

High Glide Temp Pressure Charts *continued*

TEMP °F	R-449A	
	Dew	Bubble
-50	0.31	7.39
-48	1.12	6.06
-46	1.98	4.67
-44	2.87	3.22
-42	3.80	1.70
-40	4.76	0.12
-38	5.76	0.75
-36	6.81	1.60
-34	7.89	2.48
-32	9.02	3.40
-30	10.19	4.36
-28	11.41	5.36
-26	12.67	6.40
-24	13.98	7.48
-22	15.33	8.61
-20	16.74	9.77
-18	18.20	10.99
-16	19.70	12.25
-14	21.26	13.55
-12	22.88	14.91
-10	24.55	16.31
-8	26.27	17.77

TEMP °F	R-449A	
	Dew	Bubble
-6	28.06	19.28
-4	29.90	20.84
-2	31.80	22.46
0	33.77	24.14
2	35.79	25.87
4	37.88	27.66
6	40.04	29.51
8	42.26	31.42
10	44.55	33.40
12	46.91	35.44
14	49.35	37.55
16	51.85	39.72
18	54.43	41.96
20	57.08	44.28
22	59.81	46.66
24	62.61	49.12
26	65.49	51.65
28	68.46	54.25
30	71.51	56.94
32	74.63	59.70
34	77.85	62.55
36	81.15	65.47

TEMP °F	R-449A	
	Dew	Bubble
38	84.54	68.48
40	88.01	71.58
42	91.58	74.76
44	95.24	78.03
46	98.99	81.39
48	102.83	84.84
50	106.78	88.38
52	110.82	92.02
54	114.96	95.76
56	119.20	99.59
58	123.54	103.52
60	127.99	107.56
62	132.54	111.70
64	137.20	115.95
66	141.96	120.30
68	146.84	124.76
70	151.83	129.33
72	156.93	134.02
74	162.15	138.82
76	167.48	143.73
78	172.93	148.77
80	178.50	153.92

TEMP °F	R-449A	
	Dew	Bubble
82	184.19	159.20
84	190.00	164.60
86	195.94	170.13
88	202.01	175.79
90	208.20	181.58
92	214.52	187.50
94	220.97	193.56
96	227.56	199.76
98	234.28	206.09
100	241.13	212.57
102	248.13	219.19
104	255.26	225.96
106	262.53	232.88
108	269.95	239.95
110	277.51	247.18
112	285.22	254.57
114	293.08	262.11
116	301.09	269.82
118	309.25	277.69
120	317.57	285.74
122	326.04	293.96
124	334.67	302.35

TEMP	R-449A	
°F	Dew	Bubble
126	343.45	310.92
128	352.40	319.68
130	361.52	328.62
132	370.80	337.75
134	380.24	347.08
136	389.86	356.61
138	399.65	366.33
140	409.61	376.27
142	419.74	386.42
144	430.06	396.79
146	440.55	407.39
148	451.22	418.22
150	462.08	429.28

Vacuum - *Italic Figures* Gauge Pressure - **Bold Figures**

Notes:

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