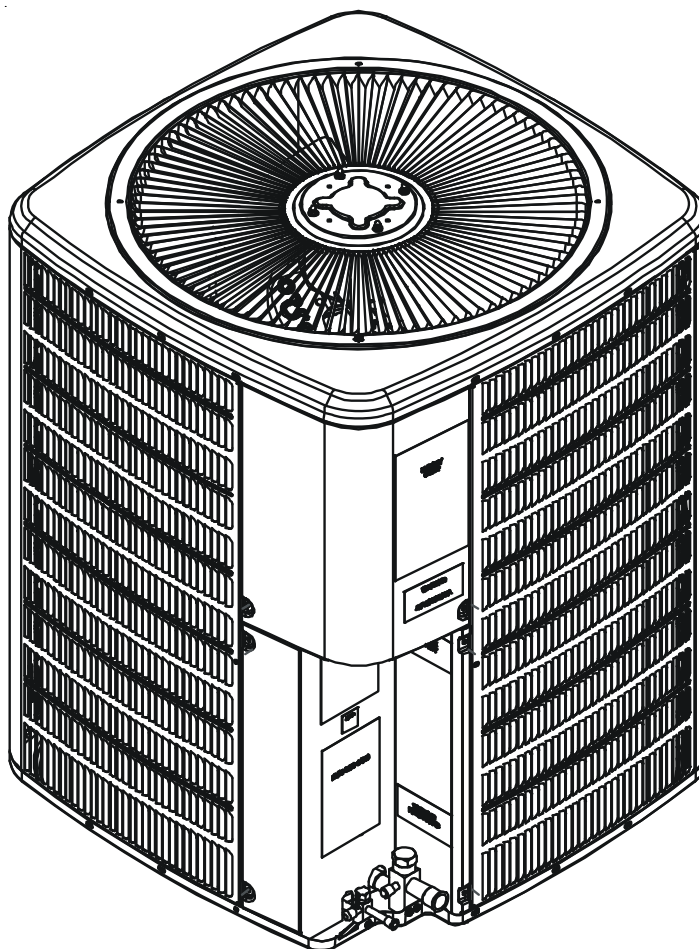


# **Goodman**<sup>®</sup> TECHNICAL MANUAL

## **GSX 16 SEER Condensing Units**

- Refer to Service Manual RS6200006 for installation, operation, and troubleshooting information.
- All safety information must be followed as provided in the Service Manual.
- Refer to the appropriate Parts Catalog for part number information.
- Models listed on page 3.

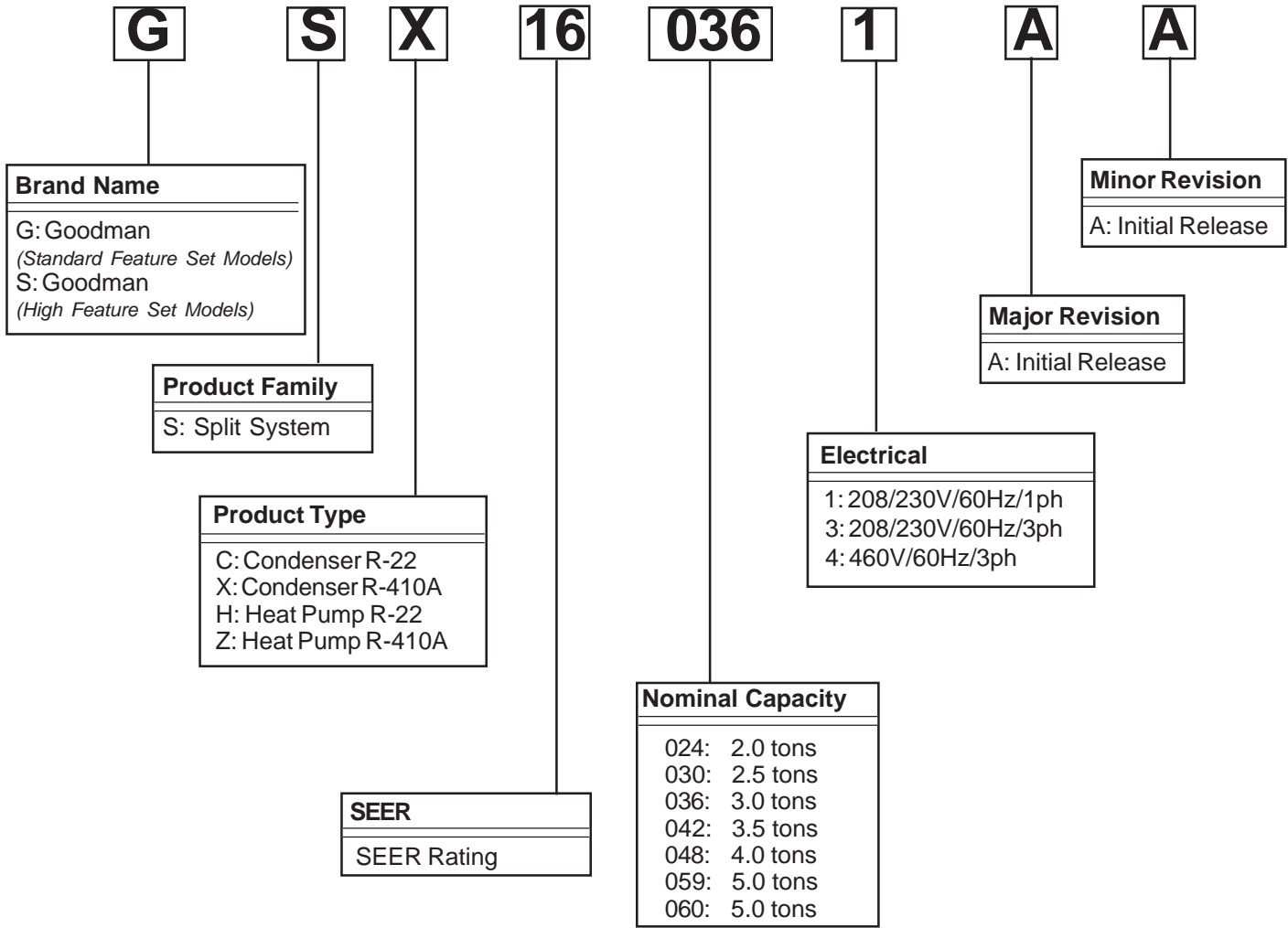



This manual is to be used by qualified, professionally trained HVAC technicians only. Goodman does not assume any responsibility for property damage or personal injury due to improper service procedures or services performed by an unqualified person.


RT6114008r2  
February 2014


# PRODUCT IDENTIFICATION

The model number is used for positive identification of component parts used in manufacturing. Please use this number when requesting service or parts information.



 **WARNING** **HIGH VOLTAGE!** Disconnect ALL power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury or death. 

 **WARNING** Goodman will not be responsible for any injury or property damage arising from improper service or service procedures. If you install or perform service on this unit, you assume responsibility for any personal injury or property damage which may result. Many jurisdictions require a license to install or service heating and air conditioning equipment.

 **WARNING** ONLY individuals meeting (at a minimum) the requirements of an "entry level technician" as specified by the Air Conditioning, Heating, and Refrigeration Institute (AHRI) may use this information. Attempting to install or repair this unit without such background may result in product damage, personal injury or death.

# PRODUCT IDENTIFICATION

The model number is used for positive identification of component parts used in manufacturing. Please use this number when requesting service or parts information.

GSX160181F\*  
GSX160241F\*  
GSX160301F\*  
GSX160361F\*  
GSX160421F\*  
GSX160481F\*  
GSX160601F\*  
GSX106611F\*

*\* Indicates minor revision & is not used for order entry or inventory management*



The United States Environmental Protection Agency (“EPA”) has issued various regulations regarding the introduction and disposal of refrigerants introduced into this unit. Failure to follow these regulations may harm the environment and can lead to the imposition of substantial fines. These regulations may vary by jurisdiction. Should questions arise, contact your local EPA office.



Do not connect or use any device that is not design certified by Goodman for use with this unit. Serious property damage, personal injury, reduced unit performance and/or hazardous conditions may result from the use of such non-approved devices.



To prevent the risk of property damage, personal injury, or death, do not store combustible materials or use gasoline or other flammable liquids or vapors in the vicinity of this appliance.

# PRODUCT DESIGN

GSX16 models are available in 1.5, 2, 2.5, 3, 3.5, 4 and 5 ton sizes and use R-410A refrigerant. They are designed for 208/230 volt single phase applications.

The condenser air is pulled through the condenser coil by a direct drive propeller fan. This condenser air is then discharged out of the top of the cabinet.

These units are designed for free air discharge, so no additional resistance like duct work shall be attached.

The suction and liquid line connections on present models are of the sweat type for field piping with refrigerant type copper. Front seating valves are factory installed to accept the field run copper. The total refrigerant charge for a normal installation is factory installed in the condensing unit. GSX units are charged for the matching evaporator coil and a 15 foot refrigerant line set.

Systems should be properly sized by heat gain and loss calculations made according to methods of the Air Conditioning Contractors Association (ACCA) or equivalent. It is the contractors responsibility to ensure the system has adequate capacity to heat or cool the conditioned space.

GSX16 models use the Copeland Scroll "Ultratech" Series compressors which are specifically designed for R-410A refrigerant. There are a number of design characteristics which are different from the traditional reciprocating and/or scroll compressors.

"Ultratech" Series scroll compressors will not have a discharge thermostat, some of the early model scroll compressors required discharge thermostats.

Due to their design Scroll compressors are inherently more tolerant of small quantities of liquid refrigerant.

**NOTE:** Even though the compressor section of a Scroll compressor is more tolerant of liquid refrigerant, continued floodback or flooded start conditions may wash oil from the bearing surfaces causing premature bearing failure.

"Ultratech" Series scroll compressors use "POE" or polyolester oil which is **NOT** compatible with mineral oil based lubricants like 3GS. "POE" oil must be used if additional oil is required.

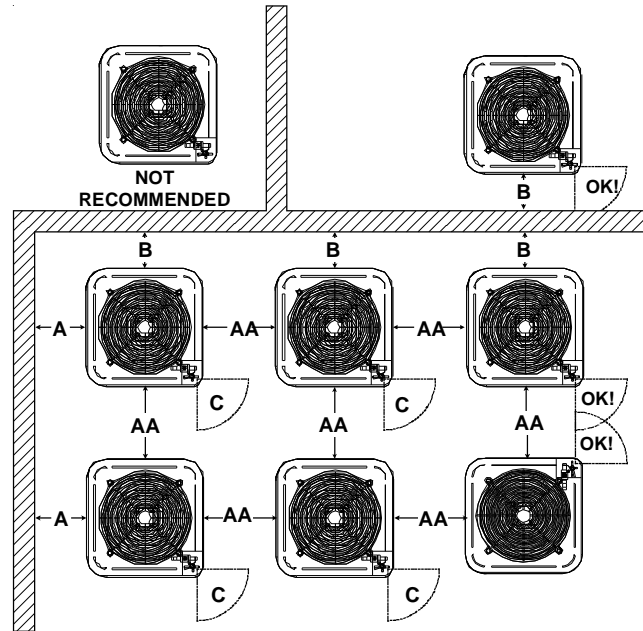
Operating pressures and amp draws may differ from standard reciprocating and/or scroll compressors. This information may be found in the "Cooling Performance Data" section.

**the obstruction(s).** The specified dimensions meet requirements for air circulation only. Consult all appropriate regulatory codes prior to determining final clearances.

Another important consideration in selecting a location for the unit(s) is the angle to obstructions. Either side adjacent the valves can be placed toward the structure provided the side away from the structure maintains minimum service clearance. Corner installations are strongly discouraged.

**DO NOT** locate the unit:

- Directly under a vent termination for a gas appliance.
- Within 3 feet of a clothes dryer vent.
- Where the refreezing of defrost water would create a hazard.
- Where water may rise into the unit.



Model Type	A	B	C	AA
Residential	10"	10"	18"	20"
Light Commercial	12"	12"	18"	24"

Model	Dimensions - W x D x H
GSX160181F*	29 x 29 x 32 1/4
GSX160241F*	29 x 29 x 32 1/4
GSX160301F*	29 x 29 x 36 1/4
GSX160361F*	29 x 29 x 38 1/4
GSX160421F*	35 1/2 x 35 1/2 x 36 1/4
GSX160481F* GSX160601F* GSX160611F*	35 1/2 x 35 1/2 x 38 1/4

**⚠ WARNING**

**To avoid possible injury, explosion or death, practice safe handling of refrigerants.**

Special consideration must be given to location of the condensing unit(s) in regard to structures, obstructions, other units, and any/all other factors that may interfere with air circulation. Where possible, the top of the unit should be completely unobstructed; however, if vertical conditions require placement beneath an obstruction **there should be a minimum of 60 inches between the top of the unit and**

# CONDENSING UNIT SPECIFICATIONS

## GSX160181F\* - GSX160361F\*

	GSX160181FA	GSX160241FA	GSX160301FA	GSX160361FA
Cooling Capacity, BTUH	18,000	24,000	30,000	36,000
Decibels	73.5	73.5	73.5	73.5
Compressor				
R.L. Amps	9.0	13.5	12.8	14.1
L.R. Amps	46.0	58.3	64.0	77.0
Condenser Fan Motor				
Horsepower	1/6	1/6	1/6	1/6
F.L. Amps	1.10	1.10	1.10	1.10
Liquid Line, Inches O.D.*	3/8"	3/8"	3/8"	3/8"
Suction Line, Inches O.D.*	7/8"	3/4"	3/4"	7/8"
Liquid Valve Connection, Inches O.D.*	3/8"	3/8"	3/8"	3/8"
Suction Valve Connection, Inches O.D.*	7/8"	3/4"	3/4"	3/4"
Valve Connection Type	Sweat	Sweat	Sweat	Sweat
Refrigerant Charge	80.0	89.0	105.0	115.0
Power Supply	208/230-60-1	208/230-60-1	208/230-60-1	208/230-60-1
Minimum Circuit Ampacity <sup>(1)</sup>	12.4	18.0	17.1	18.7
Maximum Overcurrent Device <sup>(2)</sup>	20	30	30	30
Min/Max Volts	197 / 253	197 / 253	197 / 253	197 / 253
Electrical Conduit Size				
Power Supply (Inches)	1/2 or 3/4	1/2 or 3/4	1/2 or 3/4	1/2 or 3/4
Approximate Shipping Weight	163	160	167	180

\* Up to 24' in equivalent line length

<sup>(1)</sup> Wire size should be determined in accordance with National Electrical Codes; extensive wire runs will require larger wire sizes.

<sup>(2)</sup> Maximum Overcurrent Protection Device: **MUST** use Time Delay Fuse or HACR type Circuit Breaker of the same size as noted.

### NOTES:

- Always check the S & R plate for electrical data on the unit being installed.
- Installer will need to supply 7/8" to 1-1/8" adapters for suction line connections (4 & 5 ton units).
- Unit is charged with refrigerant for 15' of 3/8" liquid line. System charge must be adjusted per Installation Instructions Final Charge Procedure.
- Installation of these units requires the specified TXV Kit to be installed on the indoor coil. THE SPECIFIED TXV IS DETERMINED BY THE OUTDOOR UNIT, NOT THE INDOOR COIL.

NOTE: This data is provided as a guide, it is important to electrically connect the unit and properly size fuses/circuit breakers and wires in accordance with all national and/or local electrical codes. Use copper wire only.

Unit specifications are subject to change without notice. **ALWAYS** refer to the unit's serial plate for the most up-to-date general and electrical information.

# CONDENSING UNIT SPECIFICATIONS

GSX160421F\* - GSX160611F\*

	GSX160421FA	GSX160481FA	GSX160601FA	GSX160611FA
Cooling Capacity, BTUH	42,000	48,000	60,000	57,000
Decibels	75.0	75.0	75.0	75.0
Compressor				
R.L. Amps	17.9	17.9	21.4	25.0
L.R. Amps	112.0	112.0	135.0	134.0
Condenser Fan Motor				
Horsepower	1/6	1/4	1/3	1/4
F.L. Amps	1.10	1.50	2.80	1.50
Liquid Line, Inches O.D.*	3/8"	3/8"	3/8"	3/8"
Suction Line, Inches O.D.*	7/8"	7/8"	7/8"	7/8"
Liquid Valve Connection, Inches O.D.*	3/8"	3/8"	3/8"	3/8"
Suction Valve Connection, Inches O.D.*	3/4"	7/8"	7/8"	7/8"
Valve Connection Type	Sweat	Sweat	Sweat	Sweat
Refrigerant Charge	130.0	152.0	290.0	134.0
Power Supply	208/230-60-1	208/230-60-1	208/230-60-1	208/230-60-1
Minimum Circuit Ampacity <sup>(1)</sup>	23.9	23.9	29.6	32.8
Maximum Overcurrent Device <sup>(2)</sup>	40	40	50	50
Min/Max Volts	197 / 253	197 / 253	197 / 253	197 / 253
Electrical Conduit Size				
Power Supply (Inches)	1/2 or 3/4	1/2 or 3/4	1/2 or 3/4	1/2 or 3/4
Approximate Shipping Weight	228	241	301	314

\* Up to 24' in equivalent line length

<sup>(1)</sup> Wire size should be determined in accordance with National Electrical Codes; extensive wire runs will require larger wire sizes.

<sup>(2)</sup> Maximum Overcurrent Protection Device: **MUST** use Time Delay Fuse or HACR type Circuit Breaker of the same size as noted.

## NOTES:

- Always check the S & R plate for electrical data on the unit being installed.
- Installer will need to supply 7/8" to 1-1/8" adapters for suction line connections (4 & 5 ton units).
- Unit is charged with refrigerant for 15' of 3/8" liquid line. System charge must be adjusted per Installation Instructions Final Charge Procedure.
- Installation of these units requires the specified TXV Kit to be installed on the indoor coil. THE SPECIFIED TXV IS DETERMINED BY THE OUTDOOR UNIT, NOT THE INDOOR COIL.

NOTE: This data is provided as a guide, it is important to electrically connect the unit and properly size fuses/circuit breakers and wires in accordance with all national and/or local electrical codes. Use copper wire only.

Unit specifications are subject to change without notice. **ALWAYS** refer to the unit's serial plate for the most up-to-date general and electrical information.



# COOLING PERFORMANCE DATA

# GSX160181F\*

## MODEL: GSX160181F\*-CA\*F3636\*6D\*-TXV EXPANDED PERFORMANCE DATA

COOLING OPERATION  
3/4/2013

IDB*	Airflow	Outdoor Ambient Temperature																							
		65				75				85				95				105				115			
		59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71
80	NetCap	16.4	16.7	17.9	19.1	16.0	16.3	17.4	18.6	15.6	15.9	17.0	18.2	15.2	15.6	16.6	17.8	14.5	14.8	15.8	16.9	13.4	13.7	14.6	15.6
	S/T	0.85	0.80	0.65	0.49	0.88	0.83	0.67	0.50	0.91	0.85	0.69	0.52	0.93	0.88	0.71	0.53	0.97	0.91	0.74	0.55	0.98	0.92	0.75	0.56
	Delta T	2.4	2.3	2.0	1.6	2.5	2.4	2.1	1.6	2.5	2.4	2.1	1.6	2.5	2.4	2.1	1.7	2.5	2.4	2.0	1.6	2.3	2.2	1.9	1.5
	System KW	1.20	1.22	1.25	1.28	1.27	1.30	1.33	1.37	1.34	1.37	1.40	1.44	1.40	1.43	1.47	1.51	1.45	1.48	1.52	1.57	1.49	1.52	1.57	1.61
	OD amps	4.3	4.4	4.6	4.7	4.6	4.7	4.9	5.1	5.0	5.1	5.3	5.5	5.3	5.5	5.6	5.8	5.7	5.8	6.0	6.2	6.0	6.1	6.3	6.5
	HI PR	203	219	231	241	228	245	259	270	259	279	295	307	295	318	336	346	332	358	378	394	367	395	417	435
	LO PR	104	110	120	128	109	116	127	135	114	121	132	141	119	127	139	148	125	133	145	155	129	138	150	160
	NetCap	17.7	18.1	19.4	20.7	17.3	17.7	18.9	20.2	16.9	17.3	18.5	19.7	16.5	16.8	18.0	19.2	15.7	16.0	17.1	18.3	14.5	14.8	15.8	16.9
	S/T	0.88	0.83	0.67	0.50	0.92	0.86	0.70	0.52	0.94	0.88	0.72	0.54	0.97	0.91	0.74	0.55	1.00	0.94	0.77	0.57	1.00	0.95	0.77	0.58
	Delta T	2.2	2.1	1.8	1.5	2.2	2.1	1.9	1.5	2.2	2.2	1.9	1.5	2.3	2.2	1.9	1.5	2.2	2.1	1.9	1.5	2.1	2.0	1.7	1.4
System KW	1.22	1.24	1.28	1.31	1.30	1.32	1.36	1.40	1.37	1.40	1.43	1.48	1.43	1.46	1.50	1.54	1.48	1.51	1.56	1.60	1.53	1.56	1.60	1.65	
OD amps	4.4	4.5	4.7	4.8	4.8	4.9	5.0	5.2	5.1	5.3	5.4	5.6	5.5	5.6	5.8	6.0	5.8	5.9	6.1	6.4	6.1	6.3	6.5	6.7	
HI PR	209	225	238	248	235	253	267	279	267	288	304	317	304	328	346	361	343	369	389	406	378	407	430	449	
LO PR	107	114	124	132	113	120	131	140	117	125	136	145	123	131	143	152	129	137	150	160	133	142	155	165	
NetCap	17.7	18.1	19.4	20.7	17.3	17.7	18.9	20.2	16.9	17.3	18.5	19.7	16.5	16.8	18.0	19.2	15.7	16.0	17.1	18.3	14.5	14.8	15.8	16.9	
S/T	0.88	0.83	0.67	0.50	0.92	0.86	0.70	0.52	0.94	0.88	0.72	0.54	0.97	0.91	0.74	0.55	1.00	0.94	0.77	0.57	1.00	0.95	0.77	0.58	
Delta T	2.1	2.0	1.8	1.4	2.2	2.1	1.8	1.4	2.2	2.1	1.8	1.4	2.2	2.1	1.8	1.4	2.1	2.1	1.8	1.4	2.0	1.9	1.7	1.3	
System KW	1.22	1.24	1.28	1.31	1.30	1.32	1.36	1.40	1.37	1.40	1.43	1.48	1.43	1.46	1.50	1.54	1.48	1.51	1.56	1.60	1.53	1.56	1.60	1.65	
OD amps	4.4	4.5	4.7	4.8	4.8	4.9	5.0	5.2	5.1	5.3	5.4	5.6	5.5	5.6	5.8	6.0	5.8	5.9	6.1	6.4	6.1	6.3	6.5	6.7	
HI PR	209	225	238	248	235	253	267	279	267	288	304	317	304	328	346	361	343	369	389	406	378	407	430	449	
LO PR	107	114	124	132	113	120	131	140	117	125	136	145	123	131	143	152	129	137	150	160	133	142	155	165	
NetCap	18.0	18.4	19.3	20.5	17.6	18.0	18.8	20.1	17.2	17.5	18.4	19.6	16.8	17.1	17.9	19.1	15.9	16.2	17.0	18.2	14.8	15.0	15.8	16.8	
S/T	0.93	0.89	0.81	0.65	0.96	0.93	0.84	0.68	0.98	0.95	0.86	0.70	1.00	0.98	0.89	0.72	1.00	1.00	0.92	0.75	1.00	1.00	0.93	0.75	
Delta T	2.4	2.3	2.2	1.9	2.4	2.4	2.2	1.9	2.4	2.4	2.2	1.9	2.4	2.4	2.2	1.9	2.3	2.3	2.2	1.9	2.1	2.1	2.1	1.8	
System KW	1.23	1.25	1.29	1.32	1.31	1.33	1.37	1.41	1.38	1.41	1.44	1.49	1.44	1.47	1.51	1.55	1.49	1.52	1.57	1.61	1.54	1.57	1.62	1.66	
OD amps	4.5	4.6	4.7	4.9	4.8	4.9	5.1	5.2	5.2	5.3	5.5	5.7	5.5	5.7	5.8	6.0	5.9	6.0	6.2	6.4	6.2	6.3	6.5	6.8	
HI PR	212	228	240	251	237	255	270	281	270	291	307	320	308	331	349	364	346	372	393	410	382	411	434	453	
LO PR	108	115	125	133	114	121	132	141	118	126	137	146	124	132	144	154	130	139	151	161	135	143	157	167	
NetCap	18.0	18.4	19.3	20.5	17.6	18.0	18.8	20.1	17.2	17.5	18.4	19.6	16.8	17.1	17.9	19.1	15.9	16.2	17.0	18.2	14.8	15.0	15.8	16.8	
S/T	0.93	0.89	0.81	0.65	0.96	0.93	0.84	0.68	0.98	0.95	0.86	0.70	1.00	0.98	0.89	0.72	1.00	1.00	0.92	0.75	1.00	1.00	0.93	0.75	
Delta T	2.3	2.2	2.1	1.8	2.3	2.3	2.1	1.9	2.3	2.3	2.1	1.9	2.3	2.3	2.2	1.9	2.2	2.2	2.1	1.8	2.0	2.0	2.0	1.7	
System KW	1.23	1.25	1.29	1.32	1.31	1.33	1.37	1.41	1.38	1.41	1.44	1.49	1.44	1.47	1.51	1.55	1.49	1.52	1.57	1.61	1.54	1.57	1.62	1.66	
OD amps	4.5	4.6	4.7	4.9	4.8	4.9	5.1	5.2	5.2	5.3	5.5	5.7	5.5	5.7	5.8	6.0	5.9	6.0	6.2	6.4	6.2	6.3	6.5	6.8	
HI PR	212	228	240	251	237	255	270	281	270	291	307	320	308	331	349	364	346	372	393	410	382	411	434	453	
LO PR	108	115	125	133	114	121	132	141	118	126	137	146	124	132	144	154	130	139	151	161	135	143	157	167	

\* Entering Indoor Dry Bulb Temperature

NOTE: Shaded area is AHRI Rating Conditions

Goodman Manufacturing Company, L.P. reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring



# COOLING PERFORMANCE DATA

# GSX160241F\*

MODEL: GSX160241F\*-CA\*F3636\*6D\*+TXV EXPANDED PERFORMANCE DATA  
 COOLING OPERATION  
 3/4/2013

IDB* Airflow	Outdoor Ambient Temperature																																																					
	65					75					85					95					105					115																												
	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75	59	63	67	71	75																								
700	NetCap	22.1	22.9	25.1	-	21.6	22.4	24.5	-	21.1	21.9	23.9	-	20.6	21.3	23.4	-	19.5	20.3	22.2	-	18.1	18.8	20.6	-	0.69	0.58	0.40	-	0.74	0.61	0.43	-	0.76	0.63	0.44	-	0.79	0.66	0.46	-	0.80	0.66	0.46	-									
	ST	20	17	13	-	20	18	13	-	20	18	13	-	21	18	13	-	21	18	13	-	20	18	13	-	19	16	12	-	Delta T	20	17	13	-	20	18	13	-	21	18	13	-	20	18	13	-	19	16	12	-				
	System KW	1.54	1.57	1.61	-	1.64	1.67	1.72	-	1.74	1.77	1.82	-	1.82	1.86	1.91	-	1.89	1.93	1.99	-	1.95	1.99	2.05	-	OD amps	5.7	5.8	6.0	-	6.1	6.3	6.5	-	6.6	6.8	7.0	-	7.1	7.3	7.5	-	7.5	7.7	8.0	-	8.0	8.2	8.4	-				
	HI PR	205	221	233	-	230	248	262	-	262	282	298	-	298	321	339	-	336	361	381	-	371	399	421	-	LO PR	103	109	119	-	109	116	126	-	113	120	131	-	119	126	138	-	124	132	144	-	129	137	149	-				
	NetCap	22.5	23.3	25.5	-	21.9	22.7	24.9	-	21.4	22.2	24.3	-	20.9	21.6	23.7	-	19.8	20.6	22.5	-	18.4	19.1	20.9	-	ST	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	19	16	12	-								
	Delta T	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	19	16	12	-	System KW	1.56	1.59	1.63	-	1.66	1.70	1.75	-	1.76	1.79	1.85	-	1.84	1.88	1.94	-	1.91	1.95	2.01	-	1.98	2.02	2.08	-
750	HI PR	209	225	237	-	234	252	266	-	267	287	303	-	304	327	345	-	342	368	388	-	377	406	429	-	LO PR	105	111	122	-	111	118	128	-	115	122	133	-	121	128	140	-	126	135	147	-	131	139	152	-				
	NetCap	23.2	24.1	26.4	-	22.7	23.5	25.8	-	22.2	23.0	25.2	-	21.6	22.4	24.5	-	20.5	21.3	23.3	-	19.0	19.7	21.6	-	ST	18	16	12	-	18	16	12	-	18	16	12	-	18	16	12	-	17	15	11	-								
	Delta T	18	16	12	-	18	16	12	-	18	16	12	-	18	16	12	-	18	16	12	-	18	16	12	-	17	15	11	-	System KW	1.58	1.61	1.65	-	1.69	1.72	1.77	-	1.78	1.82	1.87	-	1.87	1.91	1.97	-	1.94	1.98	2.04	-	2.01	2.05	2.11	-
	OD amps	5.9	6.0	6.2	-	6.3	6.5	6.7	-	6.9	7.0	7.3	-	7.3	7.5	7.7	-	7.8	8.0	8.2	-	8.2	8.4	8.7	-	HI PR	213	229	242	-	239	257	272	-	272	293	309	-	310	333	352	-	348	375	396	-	385	414	437	-				
	LO PR	107	114	124	-	113	120	131	-	117	125	136	-	123	131	143	-	129	137	150	-	133	142	155	-	75	NetCap	22.8	23.5	25.4	27.3	22.3	23.0	24.9	26.7	21.8	22.4	24.3	26.0	21.2	21.9	23.7	25.4	20.2	20.8	22.5	24.1	18.7	19.2	20.8	22.4			
	ST	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	Delta T	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12				
	System KW	1.57	1.60	1.64	1.69	1.68	1.71	1.76	1.81	1.77	1.81	1.86	1.92	1.86	1.89	1.95	2.01	1.93	1.97	2.03	2.09	1.99	2.03	2.09	2.16	OD amps	5.8	6.0	6.1	6.4	6.3	6.4	6.6	6.9	6.8	7.0	7.2	7.5	7.3	7.4	7.7	8.0	7.7	7.9	8.2	8.5	8.2	8.4	8.6	9.0				
	HI PR	211	227	240	250	237	255	269	281	289	290	306	319	307	330	348	363	345	371	392	409	381	410	433	452	LO PR	106	112	123	131	112	119	130	138	116	123	135	144	122	130	142	151	128	136	148	158	132	141	153	163				
	NetCap	23.6	24.3	26.3	28.3	23.1	23.8	25.7	27.6	22.5	23.2	25.1	27.0	22.0	22.6	24.5	26.3	20.9	21.5	23.3	25.0	19.3	19.9	21.6	23.1	ST	21	19	16	11	21	19	16	11	21	19	16	11	21	19	16	11	21	19	16	11								
	Delta T	21	19	16	11	21	19	16	11	21	20	16	11	21	20	16	11	21	20	16	11	21	20	16	11	20	18	15	10	System KW	1.59	1.62	1.67	1.72	1.70	1.73	1.79	1.84	1.80	1.83	1.89	1.95	1.88	1.92	1.98	2.04	1.96	2.00	2.06	2.12	2.02	2.06	2.13	2.19
	OD amps	5.9	6.1	6.3	6.5	6.4	6.5	6.7	7.0	6.9	7.1	7.3	7.6	7.4	7.6	7.8	8.1	7.9	8.0	8.3	8.6	8.3	8.5	8.8	9.1	HI PR	215	232	245	255	241	260	274	286	275	296	312	326	313	337	355	371	352	379	400	417	389	418	442	461				
	LO PR	108	115	125	133	114	121	132	141	118	126	137	146	124	132	144	154	130	139	151	161	135	143	157	167																													

\* Entering Indoor Dry Bulb Temperature  
 NOTE: Shaded area is ACCA (TVA) conditions  
 Goodman Manufacturing Company, L.P. reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring



# COOLING PERFORMANCE DATA

# GSX160301F\*

## EXPANDED PERFORMANCE DATA

MODEL: GSX160301F\*-CA\*F3743\*6D\*-TXV  
3/4/2013

EXPANDED PERFORMANCE DATA  
COOLING OPERATION

IDB*	Airflow	Outdoor Ambient Temperature																															
		65								75								85								95							
		59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71								
70	875	NetCap	2.55	26.4	28.9	-	24.9	25.8	28.2	-	24.3	25.2	27.6	-	23.7	24.6	26.9	-	22.5	23.3	25.6	-	20.8	21.6	23.7	-							
		S/T	0.70	0.59	0.41	-	0.73	0.61	0.42	-	0.75	0.62	0.43	-	0.77	0.64	0.45	-	0.80	0.67	0.46	-	0.81	0.67	0.47	-							
		Delta T	19	19	12	-	19	16	12	-	19	16	13	-	19	17	13	-	19	16	12	-	18	15	12	-							
		System kW	1.87	1.90	1.96	-	2.00	2.04	2.10	-	2.11	2.15	2.22	-	2.21	2.26	2.32	-	2.30	2.34	2.41	-	2.37	2.42	2.49	-							
		OD amps	6.8	6.9	7.1	-	7.3	7.5	7.7	-	7.9	8.1	8.4	-	8.5	8.7	9.0	-	9.0	9.2	9.5	-	9.5	9.8	10.1	-							
		HI PR	214	230	243	-	240	258	272	-	272	293	310	-	310	334	353	-	349	376	397	-	386	415	438	-							
		LO PR	104	110	120	-	109	116	127	-	114	121	132	-	119	127	139	-	125	133	145	-	130	138	150	-							
		NetCap	27.6	28.6	31.3	-	28.9	27.9	30.6	-	26.3	27.3	29.9	-	25.7	26.6	29.1	-	24.4	25.3	27.7	-	22.6	23.4	25.6	-							
S/T	0.73	0.61	0.42	-	0.75	0.63	0.44	-	0.77	0.65	0.45	-	0.80	0.67	0.46	-	0.83	0.69	0.48	-	0.84	0.70	0.48	-									
Delta T	18	16	12	-	19	16	12	-	19	16	12	-	19	16	12	-	19	16	12	-	17	15	11	-									
System kW	1.91	1.95	2.00	-	2.04	2.08	2.14	-	2.16	2.20	2.27	-	2.26	2.31	2.38	-	2.35	2.40	2.47	-	2.43	2.48	2.55	-									
OD amps	6.9	7.1	7.3	-	7.5	7.7	7.9	-	8.2	8.3	8.6	-	8.7	8.9	9.2	-	9.3	9.5	9.8	-	9.8	10.1	10.4	-									
HI PR	220	237	250	-	247	266	281	-	281	302	319	-	320	344	364	-	360	387	409	-	398	428	452	-									
LO PR	107	114	124	-	113	120	131	-	117	125	136	-	123	131	143	-	129	137	150	-	134	142	155	-									
NetCap	28.4	29.5	32.3	-	27.8	28.8	31.5	-	27.1	28.1	30.8	-	26.4	27.4	30.0	-	25.1	26.0	28.5	-	23.3	24.1	26.4	-									
S/T	0.76	0.64	0.44	-	0.79	0.66	0.46	-	0.81	0.68	0.47	-	0.84	0.70	0.48	-	0.87	0.73	0.50	-	0.88	0.73	0.51	-									
Delta T	18	15	12	-	18	16	12	-	18	16	12	-	18	16	12	-	18	15	12	-	17	14	11	-									
System kW	1.92	1.96	2.02	-	2.06	2.10	2.16	-	2.18	2.22	2.29	-	2.28	2.33	2.40	-	2.37	2.42	2.49	-	2.45	2.50	2.57	-									
OD amps	7.0	7.2	7.4	-	7.6	7.8	8.0	-	8.2	8.4	8.7	-	8.8	9.0	9.3	-	9.4	9.6	9.9	-	9.9	10.1	10.5	-									
HI PR	222	239	253	-	249	268	283	-	284	305	322	-	323	348	367	-	364	391	413	-	402	432	456	-									
LO PR	108	115	125	-	114	121	132	-	118	126	138	-	124	132	145	-	130	139	151	-	135	143	157	-									
NetCap	28.1	28.9	31.3	33.6	27.4	28.2	30.5	32.8	26.8	27.5	29.8	32.0	26.1	26.9	29.1	31.2	24.8	25.5	27.6	29.7	23.0	23.6	25.6	27.5									
S/T	0.83	0.74	0.56	0.36	0.86	0.77	0.58	0.37	0.88	0.79	0.60	0.38	0.91	0.81	0.61	0.40	0.94	0.84	0.64	0.41	0.95	0.85	0.64	0.41									
Delta T	21	20	16	11	22	20	16	11	22	20	16	11	22	20	16	11	21	20	16	11	20	18	15	10									
System kW	1.92	1.96	2.02	2.08	2.06	2.10	2.16	2.22	2.18	2.22	2.29	2.36	2.28	2.33	2.40	2.47	2.37	2.42	2.49	2.57	2.45	2.50	2.57	2.66									
OD amps	7.0	7.2	7.4	7.7	7.6	7.8	8.0	8.3	8.2	8.4	8.7	9.0	8.8	9.0	9.3	9.7	9.4	9.6	9.9	10.3	9.9	10.2	10.5	10.9									
HI PR	222	239	253	264	250	269	284	296	284	305	322	336	323	348	367	383	364	391	413	431	402	432	457	476									
LO PR	108	115	125	133	114	121	132	141	118	126	138	147	124	132	145	154	130	139	151	161	135	144	157	167									
NetCap	28.9	29.8	32.2	34.6	28.2	29.1	31.5	33.8	27.6	28.4	30.7	33.0	26.9	27.7	30.0	32.2	25.5	26.3	28.5	30.5	23.7	24.4	26.4	28.3									
S/T	0.87	0.78	0.59	0.38	0.90	0.80	0.61	0.39	0.92	0.82	0.62	0.40	0.95	0.85	0.64	0.41	0.99	0.88	0.67	0.43	1.00	0.89	0.67	0.43									
Delta T	20	19	15	11	21	19	16	11	21	19	16	11	21	19	16	11	21	19	16	11	19	18	15	10									
System kW	1.94	1.97	2.03	2.09	2.07	2.11	2.18	2.24	2.19	2.24	2.30	2.37	2.30	2.35	2.42	2.49	2.39	2.44	2.51	2.59	2.47	2.52	2.60	2.68									
OD amps	7.1	7.2	7.5	7.8	7.6	7.8	8.1	8.4	8.3	8.5	8.8	9.1	8.9	9.1	9.4	9.7	9.4	9.7	10.0	10.4	10.0	10.2	10.6	11.0									
HI PR	225	242	255	266	252	271	286	299	287	308	326	340	326	351	371	387	367	395	417	435	406	437	461	481									
LO PR	109	116	127	135	115	122	134	142	120	127	139	148	126	134	146	155	132	140	153	163	136	145	158	169									

\* Entering Indoor Dry Bulb Temperature  
NOTE: Shaded area is ACCA (IVA) conditions  
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MODEL: GSX160301F\*-CA\*F3743\*6D\*-TXV EXPANDED PERFORMANCE DATA COOLING OPERATION

3/4/2013

IDB*	Airflow	Outdoor Ambient Temperature																																			
		65						75						85						95						105						115					
		59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79	59	63	67	71	75	79						
80	NetCap	26.4	26.9	28.8	30.8	25.7	26.3	28.1	30.0	25.1	25.7	27.4	29.3	24.5	25.1	26.8	28.6	23.3	23.8	25.4	27.2	21.6	22.0	23.6	25.2												
	S/T	0.88	0.82	0.67	0.50	0.91	0.85	0.69	0.52	0.93	0.87	0.71	0.53	0.96	0.90	0.73	0.55	1.00	0.93	0.76	0.57	1.00	0.94	0.77	0.57												
	Delta T	24	23	20	16	25	24	20	16	25	24	20	16	25	24	21	16	24	23	20	16	23	22	19	15												
	System kW	1.90	1.93	1.99	2.04	2.03	2.07	2.13	2.19	2.14	2.19	2.25	2.32	2.25	2.29	2.36	2.43	2.33	2.38	2.45	2.53	2.41	2.46	2.53	2.61												
	OD amps	6.9	7.0	7.3	7.5	7.4	7.6	7.9	8.2	8.1	8.3	8.5	8.9	8.6	8.8	9.1	9.5	9.2	9.4	9.7	10.1	9.7	10.0	10.3	10.7												
	HI PR	218	234	248	258	244	263	278	290	278	299	316	330	317	341	360	375	356	383	405	422	394	424	447	467												
	LO PR	106	112	123	131	112	119	130	138	116	123	135	144	122	130	142	151	122	136	148	158	132	141	154	163												
	NetCap	28.6	29.2	31.2	33.3	27.9	28.5	30.5	32.6	27.2	27.8	29.7	31.8	26.6	27.1	29.0	31.0	25.2	25.8	27.6	29.5	23.4	23.9	25.5	27.3												
	S/T	0.91	0.85	0.69	0.52	0.94	0.88	0.72	0.54	0.96	0.90	0.74	0.55	1.00	0.93	0.76	0.57	1.00	0.97	0.79	0.59	1.00	0.98	0.80	0.59												
	Delta T	24	23	20	16	24	23	20	16	24	23	20	16	24	23	20	16	24	23	20	16	21	21	19	15												
	System kW	1.94	1.97	2.03	2.09	2.07	2.11	2.18	2.24	2.19	2.24	2.30	2.37	2.30	2.35	2.42	2.49	2.39	2.44	2.51	2.59	2.47	2.52	2.60	2.68												
	OD amps	7.1	7.2	7.5	7.8	7.6	7.8	8.1	8.4	8.3	8.5	8.8	9.1	8.9	9.1	9.4	9.7	9.4	9.7	10.0	10.4	10.0	10.2	10.6	11.0												
HI PR	225	242	255	266	252	271	286	299	287	308	326	340	326	351	371	387	367	395	417	435	406	437	461	481													
LO PR	109	116	127	135	115	123	134	142	120	127	139	148	126	134	146	155	132	140	153	163	136	145	158	169													
NetCap	29.4	30.1	32.1	34.3	28.7	29.4	31.4	33.5	28.0	28.7	30.6	32.7	27.4	28.0	29.9	31.9	26.0	26.6	28.4	30.3	24.1	24.6	26.3	28.1													
S/T	0.95	0.89	0.73	0.54	1.00	0.93	0.75	0.56	1.00	0.95	0.77	0.58	1.00	1.00	0.80	0.60	1.00	1.00	0.83	0.62	1.00	1.00	0.83	0.62													
Delta T	23	22	19	15	23	22	19	15	23	22	19	15	22	23	19	16	21	22	19	15	20	20	18	14													
System kW	1.95	1.99	2.05	2.11	2.09	2.13	2.19	2.26	2.21	2.25	2.32	2.39	2.32	2.36	2.44	2.51	2.41	2.46	2.53	2.61	2.48	2.54	2.62	2.70													
OD amps	7.1	7.3	7.5	7.8	7.7	7.9	8.2	8.5	8.4	8.6	8.9	9.2	9.0	9.2	9.5	9.8	9.5	9.8	10.1	10.5	10.1	10.3	10.7	11.1													
HI PR	227	244	258	269	255	274	289	302	290	312	329	343	330	355	375	391	371	399	422	440	410	441	466	486													
LO PR	110	117	128	136	116	124	135	144	121	129	140	150	127	135	147	157	133	142	155	165	138	146	160	170													
85	NetCap	26.8	27.3	28.6	30.5	26.2	26.7	28.0	29.8	25.6	26.1	27.3	29.1	24.9	25.4	26.6	28.4	23.7	24.2	25.3	27.0	22.0	22.4	23.4	25.0												
	S/T	0.92	0.89	0.80	0.65	0.95	0.92	0.83	0.67	0.98	0.94	0.85	0.69	1.00	0.97	0.88	0.71	1.00	1.00	0.91	0.74	1.00	1.00	0.92	0.74												
	Delta T	26	25	24	21	26	26	24	21	26	26	24	21	26	26	25	21	25	25	24	21	23	24	23	20												
	System kW	1.91	1.95	2.00	2.06	2.04	2.08	2.14	2.21	2.16	2.20	2.27	2.34	2.26	2.31	2.38	2.45	2.35	2.40	2.47	2.55	2.43	2.48	2.55	2.63												
	OD amps	6.9	7.1	7.3	7.6	7.5	7.7	7.9	8.2	8.1	8.3	8.6	8.9	8.7	8.9	9.2	9.6	9.3	9.5	9.8	10.2	9.8	10.1	10.4	10.8												
	HI PR	220	237	250	261	247	266	281	293	281	302	319	333	320	344	363	379	360	387	409	426	398	428	452	471												
	LO PR	107	114	124	132	113	120	131	140	117	125	136	145	123	131	143	152	129	137	150	160	133	142	155	165												
	NetCap	29.1	29.6	31.0	33.1	28.4	28.9	30.3	32.3	27.7	28.2	29.6	31.6	27.0	27.6	28.9	30.8	25.7	26.2	27.4	29.2	23.8	24.2	25.4	27.1												
	S/T	0.95	0.92	0.83	0.67	0.99	0.95	0.86	0.70	1.00	0.98	0.88	0.71	1.00	1.00	0.91	0.74	1.00	1.00	0.94	0.77	1.00	1.00	0.95	0.77												
	Delta T	25	25	24	20	26	25	24	21	25	25	24	21	25	25	24	21	24	24	24	21	22	22	22	19												
	System kW	1.95	1.99	2.05	2.11	2.09	2.13	2.19	2.26	2.21	2.25	2.32	2.39	2.32	2.36	2.44	2.51	2.41	2.46	2.53	2.61	2.48	2.54	2.62	2.70												
	OD amps	7.1	7.3	7.5	7.8	7.7	7.9	8.2	8.5	8.4	8.6	8.9	9.2	9.0	9.2	9.5	9.8	9.5	9.8	10.1	10.5	10.1	10.3	10.7	11.1												
HI PR	227	244	258	269	255	274	289	302	290	312	329	343	330	355	375	391	371	399	422	440	410	441	466	486													
LO PR	110	117	128	136	116	124	135	144	121	129	140	150	127	135	147	157	133	142	155	165	138	146	160	170													
87.5	NetCap	29.9	30.5	31.9	34.1	29.2	29.8	31.2	33.3	28.5	29.1	30.5	32.5	27.8	28.4	29.7	31.7	26.4	27.0	28.2	30.1	24.5	25.0	26.2	27.9												
	S/T	1.00	0.96	0.87	0.70	1.00	1.00	0.90	0.73	1.00	1.00	0.92	0.75	1.00	1.00	0.95	0.77	1.00	1.00	0.99	0.80	1.00	1.00	0.95	0.81												
	Delta T	24	24	23	20	24	24	23	20	23	24	23	20	23	23	23	20	22	22	23	20	20	20	21	18												
	System kW	1.97	2.00	2.06	2.12	2.10	2.15	2.21	2.28	2.23	2.27	2.34	2.41	2.33	2.38	2.45	2.53	2.43	2.48	2.55	2.63	2.50	2.56	2.64	2.72												
	OD amps	7.2	7.4	7.6	7.9	7.8	8.0	8.2	8.5	8.5	8.7	8.9	9.3	9.0	9.3	9.6	9.9	9.6	9.9	10.2	10.6	10.2	10.4	10.8	11.2												
	HI PR	229	247	260	272	257	277	292	305	292	315	332	347	333	358	378	395	375	403	426	444	414	445	470	491												
	LO PR	111	118	129	138	117	125	136	145	122	130	142	151	128	136	149	159	134	143	156	166	139	148	161	172												

\* Entering Indoor Dry Bulb Temperature      NOTE: Shaded area is AHRI Rating Conditions      Goodman Manufacturing Company, L.P. reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring

# COOLING PERFORMANCE DATA

# GSX160361F\*

## MODEL: GSX160361F\*-CA\*F4860\*6D\*+TXV EXPANDED PERFORMANCE DATA

## COOLING OPERATION

3/4/2013

IDB*	Airflow	Outdoor Ambient Temperature																																									
		65							75							85							95							105							115						
		59	63	67	71	75	79	83	59	63	67	71	75	79	83	59	63	67	71	75	79	83	59	63	67	71	75	79	83	59	63	67	71	75	79	83							
70	1050	NetCap	30.6	31.7	34.7	-	29.8	30.9	33.9	-	29.1	30.2	33.1	-	28.4	29.5	32.3	-	27.0	28.0	30.7	-	25.0	25.9	28.4	-	27.0	28.0	30.7	-	25.0	25.9	28.4	-									
		S/T	0.71	0.59	0.41	-	0.74	0.62	0.43	-	0.76	0.63	0.44	-	0.78	0.65	0.45	-	0.81	0.68	0.47	-	0.82	0.68	0.47	-	0.81	0.68	0.47	-	0.82	0.68	0.47	-									
		Delta T	19	16	13	-	19	17	13	-	19	17	13	-	19	17	13	-	19	17	13	-	18	15	12	-	19	17	13	-	18	15	12	-									
		System kW	2.23	2.27	2.34	-	2.39	2.44	2.51	-	2.53	2.58	2.66	-	2.65	2.70	2.79	-	2.75	2.81	2.90	-	2.84	2.90	2.99	-	2.75	2.81	2.90	-	2.84	2.90	2.99	-									
		OD amps	8.1	8.3	8.5	-	8.7	8.9	9.2	-	9.5	9.7	10.0	-	10.1	10.4	10.7	-	10.8	11.1	11.4	-	11.5	11.7	12.1	-	10.8	11.1	11.4	-	11.5	11.7	12.1	-									
		HI PR	219	236	249	-	246	265	280	-	280	301	318	-	319	343	362	-	359	386	407	-	396	426	450	-	359	386	407	-	396	426	450	-									
	1200	LO PR	103	109	120	-	109	116	126	-	113	120	131	-	119	126	138	-	124	132	144	-	129	137	149	-	124	132	144	-	129	137	149	-									
		NetCap	33.1	34.3	37.6	-	32.3	33.5	36.7	-	31.6	32.7	35.8	-	30.8	31.9	35.0	-	29.3	30.3	33.2	-	27.1	28.1	30.8	-	29.3	30.3	33.2	-	27.1	28.1	30.8	-									
		S/T	0.74	0.62	0.43	-	0.76	0.64	0.44	-	0.78	0.65	0.45	-	0.81	0.68	0.47	-	0.84	0.70	0.49	-	0.85	0.71	0.49	-	0.84	0.70	0.49	-	0.85	0.71	0.49	-									
		Delta T	19	16	12	-	19	16	12	-	19	16	12	-	19	17	13	-	19	16	12	-	18	15	12	-	19	16	12	-	18	15	12	-									
		System kW	2.28	2.33	2.39	-	2.44	2.49	2.57	-	2.59	2.64	2.72	-	2.71	2.77	2.85	-	2.82	2.88	2.97	-	2.91	2.97	3.07	-	2.82	2.88	2.97	-	2.91	2.97	3.07	-									
		OD amps	8.3	8.5	8.8	-	9.0	9.2	9.5	-	9.8	10.0	10.3	-	10.4	10.7	11.1	-	11.1	11.4	11.8	-	11.8	12.1	12.5	-	11.1	11.4	11.8	-	11.8	12.1	12.5	-									
1350	1050	HI PR	226	243	257	-	254	273	288	-	288	310	328	-	329	354	373	-	370	398	420	-	408	440	464	-	370	398	420	-	408	440	464	-									
		LO PR	106	113	123	-	112	119	130	-	116	124	135	-	122	130	142	-	128	136	149	-	133	141	154	-	142	150	163	-	133	141	154	-									
		NetCap	34.1	35.3	38.7	-	33.3	34.5	37.8	-	32.5	33.7	36.9	-	31.7	32.9	36.0	-	30.1	31.2	34.2	-	27.9	28.9	31.7	-	30.1	31.2	34.2	-	27.9	28.9	31.7	-									
		S/T	0.77	0.65	0.45	-	0.80	0.67	0.46	-	0.82	0.69	0.48	-	0.85	0.71	0.49	-	0.88	0.74	0.51	-	0.89	0.74	0.51	-	0.88	0.74	0.51	-	0.89	0.74	0.51	-									
		Delta T	18	16	12	-	18	16	12	-	18	16	12	-	18	16	12	-	18	16	12	-	17	15	11	-	18	16	12	-	17	15	11	-									
		System kW	2.30	2.34	2.41	-	2.46	2.51	2.59	-	2.61	2.66	2.74	-	2.73	2.79	2.88	-	2.84	2.90	2.99	-	2.94	3.00	3.09	-	2.84	2.90	2.99	-	2.94	3.00	3.09	-									
	1200	OD amps	8.4	8.6	8.9	-	9.1	9.3	9.6	-	9.9	10.1	10.4	-	10.5	10.8	11.2	-	11.2	11.5	11.9	-	11.9	12.2	12.6	-	11.2	11.5	11.9	-	11.9	12.2	12.6	-									
		HI PR	222	238	252	263	249	267	282	295	283	304	321	335	322	346	366	382	362	390	412	429	400	431	455	474	362	390	412	429	400	431	455	474									
		LO PR	104	111	121	129	110	117	128	136	114	121	133	141	120	128	139	148	126	134	146	155	130	138	151	161	148	155	163	171	130	138	151	161									
		NetCap	33.7	34.7	37.5	40.3	32.9	33.9	36.6	39.3	32.1	33.1	35.8	38.4	31.3	32.2	34.9	37.5	29.8	30.6	33.2	35.6	27.6	28.4	30.7	33.0	30.6	33.2	35.6	38.0	27.6	28.4	30.7	33.0									
		S/T	0.84	0.75	0.57	0.37	0.87	0.78	0.59	0.38	0.89	0.80	0.60	0.39	0.92	0.82	0.62	0.40	0.95	0.85	0.65	0.42	0.96	0.86	0.65	0.42	0.62	0.40	0.96	0.86	0.65	0.42	0.96	0.86	0.65	0.42							
		Delta T	22	20	16	11	22	20	17	11	22	20	17	11	22	20	17	11	22	20	16	11	20	19	15	11	17	11	22	20	16	11	20	19	15	11							
1350	System kW	2.30	2.34	2.41	2.48	2.46	2.51	2.59	2.67	2.61	2.66	2.74	2.83	2.73	2.79	2.88	2.97	2.84	2.90	2.99	3.09	2.94	3.00	3.09	3.19	2.97	2.84	2.90	2.99	3.09	3.09	2.94	3.00	3.09	3.19								
	OD amps	8.4	8.6	8.9	9.2	9.1	9.3	9.6	10.0	9.9	10.1	10.4	10.8	10.5	10.8	11.2	11.6	11.2	11.5	11.9	12.3	11.9	12.2	12.6	13.1	11.6	11.2	11.5	11.9	12.3	11.9	12.2	12.6	13.1	13.7								
	HI PR	228	246	260	271	256	276	291	304	291	314	331	345	332	357	377	393	373	402	424	443	413	444	469	489	393	373	402	424	443	413	444	469	489	519								
	LO PR	107	114	124	133	113	120	131	140	118	125	137	146	124	131	144	153	130	138	150	160	134	143	156	166	153	130	138	150	160	134	143	156	166	176								
	NetCap	34.7	35.7	38.6	41.5	33.9	34.9	37.7	40.5	33.1	34.0	36.9	39.6	32.3	33.2	36.0	38.6	30.6	31.6	34.2	36.7	28.4	29.2	31.6	34.0	38.6	30.6	31.6	34.2	36.7	28.4	29.2	31.6	34.0	37.0								
	S/T	0.88	0.79	0.60	0.38	0.91	0.81	0.62	0.40	0.93	0.84	0.63	0.41	0.96	0.86	0.65	0.42	1.00	0.90	0.68	0.44	1.00	0.90	0.68	0.44	0.42	1.00	0.90	0.68	0.44	1.00	0.90	0.68	0.44	0.44								

\* Entering Indoor Dry Bulb Temperature

NOTE: Shaded area is ACCA (IVA) conditions

Goodman Manufacturing Company, L.P. reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring



# COOLING PERFORMANCE DATA

# GSX160421F\*

## MODEL: GSX160421F\*-CA\*F4860\*6D\*+TXV EXPANDED PERFORMANCE DATA

COOLING OPERATION

3/4/2013

IDB*	Airflow	Outdoor Ambient Temperature																							
		65				75				85				95				105				115			
		59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71
70	NetCap	36.9	38.2	41.9	-	36.0	37.3	40.9	-	35.2	36.4	39.9	-	34.3	35.6	39.0	-	32.6	33.8	37.0	-	30.2	31.3	34.3	-
	S/T	0.70	0.89	0.41	-	0.73	0.61	0.42	-	0.75	0.62	0.43	-	0.77	0.64	0.45	-	0.80	0.67	0.46	-	0.81	0.67	0.47	-
	Delta T	19	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	20	17	13	-	18	16	12	-
	System KW	2.70	2.76	2.83	-	2.89	2.95	3.03	-	3.06	3.12	3.21	-	3.20	3.27	3.37	-	3.33	3.39	3.50	-	3.43	3.50	3.61	-
	OD amps	9.9	10.1	10.4	-	10.7	10.9	11.3	-	11.6	11.8	12.2	-	12.3	12.6	13.1	-	13.1	13.4	13.9	-	13.9	14.2	14.7	-
	HI PR	220	237	250	-	247	265	280	-	281	302	319	-	320	344	363	-	359	387	409	-	397	427	451	-
	LO PR	102	109	119	-	108	115	125	-	112	119	130	-	118	125	137	-	124	131	143	-	128	136	148	-
	NetCap	40.0	41.4	45.4	-	39.0	40.5	44.3	-	38.1	39.5	43.3	-	37.2	38.5	42.2	-	36.3	36.6	40.1	-	32.7	33.9	37.1	-
	S/T	0.73	0.61	0.42	-	0.75	0.63	0.44	-	0.77	0.65	0.45	-	0.80	0.67	0.46	-	0.83	0.69	0.48	-	0.84	0.70	0.48	-
	Delta T	19	17	13	-	19	17	13	-	19	17	13	-	19	17	13	-	19	17	13	-	18	16	12	-
System KW	2.78	2.84	2.92	-	2.98	3.04	3.13	-	3.15	3.21	3.31	-	3.30	3.37	3.47	-	3.43	3.50	3.61	-	3.54	3.62	3.73	-	
OD amps	10.2	10.5	10.8	-	11.0	11.3	11.7	-	12.0	12.3	12.7	-	12.8	13.1	13.6	-	13.6	14.0	14.4	-	14.4	14.8	15.3	-	
HI PR	229	246	260	-	257	276	292	-	292	314	332	-	333	358	378	-	374	403	425	-	414	445	470	-	
LO PR	106	113	124	-	112	120	131	-	117	124	136	-	123	131	143	-	129	137	149	-	133	142	155	-	
75	NetCap	37.5	38.6	41.8	44.9	36.6	37.7	40.8	43.8	35.8	36.8	39.9	42.8	34.9	35.9	38.9	41.7	33.1	34.1	36.9	39.6	30.7	31.6	34.2	36.7
	S/T	0.80	0.71	0.54	0.35	0.83	0.74	0.56	0.36	0.85	0.76	0.57	0.37	0.88	0.78	0.59	0.38	0.91	0.81	0.62	0.40	0.92	0.82	0.62	0.40
	Delta T	22	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	23	21	17	12	21	19	16	11
	System KW	2.72	2.78	2.86	2.94	2.91	2.97	3.06	3.15	3.08	3.14	3.23	3.33	3.23	3.29	3.39	3.50	3.35	3.42	3.53	3.64	3.46	3.53	3.64	3.76
	OD amps	10.0	10.2	10.5	10.9	10.8	11.0	11.4	11.8	11.7	11.9	12.3	12.8	12.5	12.8	13.2	13.7	13.3	13.6	14.0	14.6	14.0	14.4	14.9	15.4
	HI PR	222	239	252	263	249	268	283	295	283	305	322	336	323	347	367	383	363	391	413	430	401	432	456	476
	LO PR	103	110	120	128	109	116	127	135	113	121	132	140	119	127	138	147	125	133	145	154	129	137	150	160
	NetCap	40.6	41.8	45.3	48.6	39.7	40.9	44.2	47.5	38.7	39.9	43.2	46.3	37.8	38.9	42.1	45.2	36.9	37.0	40.0	43.0	33.3	34.2	37.1	39.8
	S/T	0.83	0.74	0.56	0.36	0.86	0.77	0.58	0.37	0.88	0.79	0.60	0.38	0.91	0.81	0.61	0.40	0.94	0.84	0.64	0.41	0.95	0.85	0.64	0.41
	Delta T	22	20	17	12	22	21	17	12	22	21	17	12	23	21	17	12	22	20	17	12	21	19	16	11
System KW	2.78	2.84	2.92	3.01	2.98	3.04	3.13	3.22	3.15	3.21	3.31	3.41	3.30	3.37	3.47	3.58	3.43	3.50	3.61	3.72	3.54	3.62	3.73	3.85	
OD amps	10.2	10.5	10.8	11.2	11.0	11.3	11.7	12.1	12.0	12.3	12.7	13.2	12.8	13.1	13.6	14.1	13.6	14.0	14.4	15.0	14.4	14.8	15.3	15.9	
HI PR	229	246	260	271	257	276	292	305	292	314	332	346	333	358	378	394	374	403	425	444	414	445	470	490	
LO PR	106	113	124	132	112	120	131	139	117	124	136	145	123	131	143	152	129	137	149	159	133	142	155	165	
NetCap	41.9	43.1	46.6	50.1	40.9	42.1	45.6	48.9	39.9	41.1	44.5	47.7	38.9	40.1	43.4	46.6	37.0	38.1	41.2	44.2	34.3	35.3	38.2	41.0	
S/T	0.87	0.78	0.59	0.38	0.90	0.80	0.61	0.39	0.92	0.82	0.62	0.40	0.95	0.85	0.64	0.41	0.99	0.88	0.67	0.43	1.00	0.89	0.67	0.43	
Delta T	21	20	16	11	21	20	16	11	21	20	16	11	22	20	16	11	21	20	16	11	20	18	15	10	
System KW	2.80	2.86	2.94	3.03	3.00	3.06	3.15	3.25	3.17	3.24	3.34	3.44	3.33	3.40	3.50	3.61	3.46	3.53	3.64	3.75	3.57	3.65	3.76	3.88	
OD amps	10.3	10.6	10.9	11.3	11.1	11.4	11.8	12.2	12.1	12.4	12.8	13.3	12.9	13.2	13.7	14.2	13.8	14.1	14.6	15.1	14.6	14.9	15.4	16.0	
HI PR	231	249	263	274	259	279	295	308	295	318	335	350	336	362	382	398	378	407	430	448	418	450	475	495	
LO PR	107	114	125	133	114	121	132	140	118	126	137	146	124	132	144	153	130	138	151	161	134	143	156	166	

\* Entering Indoor Dry Bulb Temperature  
 NOTE: Shaded areas ACCA (TVA) conditions  
 Goodman Manufacturing Company, L.P. reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring

# COOLING PERFORMANCE DATA

# GSX160421F\*

## MODEL: GSX160421F\*-CA\*F4860\*6D\*+TXV EXPANDED PERFORMANCE DATA

COOLING OPERATION  
3/4/2013

IDB* Airflow	Outdoor Ambient Temperature																								
	65				75				85				95				105				115				
	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	
1225	Net Cap	38.2	39.0	41.7	44.5	37.3	38.1	40.7	43.5	36.4	37.2	39.7	42.5	35.5	36.3	38.8	41.4	33.7	34.5	36.8	39.4	31.2	31.9	34.1	36.5
	S/T	0.88	0.82	0.67	0.50	0.91	0.85	0.69	0.52	0.93	0.87	0.71	0.53	0.96	0.90	0.73	0.55	1.00	0.93	0.76	0.57	1.00	0.94	0.77	0.57
	Delta T	25	24	21	17	25	24	21	17	25	24	21	17	26	25	21	17	25	24	21	17	24	23	20	16
	System KW	2.74	2.80	2.88	2.96	2.93	2.99	3.08	3.17	3.10	3.17	3.26	3.36	3.25	3.32	3.42	3.52	3.38	3.45	3.55	3.66	3.49	3.56	3.67	3.79
	OD amps	10.0	10.3	10.6	11.0	10.8	11.1	11.5	11.9	11.8	12.1	12.5	12.9	12.6	12.9	13.3	13.8	13.4	13.7	14.2	14.7	14.2	14.5	15.0	15.6
	HI PR	224	241	255	266	252	271	286	298	286	308	325	339	326	351	371	386	367	395	417	435	405	436	461	480
	LO PR	104	111	121	129	110	117	128	136	114	122	133	142	120	128	140	149	126	134	146	156	130	139	151	161
	Net Cap	41.4	42.3	45.2	48.3	40.4	41.3	44.1	47.1	39.4	40.3	43.1	46.0	38.5	39.3	42.0	44.9	36.5	37.3	39.9	42.7	33.9	34.6	37.0	39.5
	S/T	0.91	0.85	0.69	0.52	0.94	0.88	0.72	0.54	0.96	0.90	0.74	0.55	1.00	0.93	0.76	0.57	1.00	0.97	0.79	0.59	1.00	0.98	0.80	0.59
	Delta T	25	24	21	16	25	24	21	17	25	24	21	17	25	24	21	17	24	24	21	17	22	22	19	15
	System KW	2.80	2.86	2.94	3.03	3.00	3.06	3.15	3.25	3.18	3.24	3.34	3.44	3.33	3.40	3.50	3.61	3.46	3.53	3.64	3.75	3.57	3.65	3.76	3.88
	OD amps	10.3	10.6	10.9	11.3	11.1	11.4	11.8	12.2	12.1	12.4	12.8	13.3	12.9	13.2	13.7	14.2	13.8	14.1	14.6	15.1	14.6	14.9	15.4	16.0
HI PR	231	249	263	274	260	279	295	308	295	318	335	350	336	362	382	398	378	407	430	448	418	450	475	495	
LO PR	107	114	125	133	114	121	132	140	118	126	137	146	124	132	144	153	130	138	151	161	134	143	156	166	
Net Cap	42.6	43.5	46.5	49.7	41.6	42.5	45.4	48.6	40.6	41.5	44.3	47.4	39.6	40.5	43.3	46.2	37.6	38.5	41.1	43.9	34.9	35.6	38.1	40.7	
S/T	0.95	0.89	0.73	0.54	1.00	0.93	0.75	0.56	1.00	0.95	0.77	0.58	1.00	1.00	0.80	0.60	1.00	1.00	0.83	0.62	1.00	1.00	0.83	0.62	
Delta T	24	23	20	16	24	23	20	16	24	23	20	16	23	24	20	16	22	22	20	16	20	21	19	15	
System KW	2.82	2.88	2.96	3.05	3.02	3.08	3.17	3.27	3.20	3.26	3.36	3.47	3.35	3.42	3.53	3.64	3.49	3.56	3.67	3.78	3.60	3.67	3.79	3.91	
OD amps	10.4	10.7	11.0	11.4	11.2	11.5	11.9	12.3	12.2	12.5	12.9	13.4	13.0	13.4	13.8	14.3	13.9	14.2	14.7	15.2	14.7	15.1	15.6	16.2	
HI PR	234	251	265	277	262	282	298	311	298	321	339	353	340	365	386	402	382	411	434	453	422	454	480	500	
LO PR	109	116	127	136	115	122	133	142	119	127	138	147	125	133	145	155	131	140	152	162	136	144	158	168	
Net Cap	43.3	44.2	46.3	49.4	42.3	43.2	45.2	48.2	41.3	42.1	44.1	47.1	40.3	41.1	43.0	45.9	38.3	39.0	40.9	43.6	35.5	36.2	37.9	40.4	
S/T	1.00	0.96	0.87	0.70	1.00	1.00	0.90	0.73	1.00	1.00	0.92	0.75	1.00	1.00	0.95	0.77	1.00	1.00	0.99	0.80	1.00	1.00	1.00	0.81	
Delta T	25	25	23	20	25	25	24	21	24	25	24	21	24	24	24	21	22	23	24	20	21	21	22	19	
System KW	2.85	2.90	2.98	3.07	3.05	3.11	3.20	3.30	3.22	3.29	3.39	3.49	3.38	3.45	3.55	3.67	3.51	3.59	3.70	3.81	3.63	3.70	3.82	3.94	
OD amps	10.5	10.8	11.1	11.5	11.3	11.6	12.0	12.4	12.3	12.6	13.0	13.5	13.2	13.5	13.9	14.5	14.0	14.3	14.8	15.4	14.8	15.2	15.7	16.3	
HI PR	236	254	268	280	265	285	301	314	301	324	342	357	343	369	390	406	386	415	438	457	426	459	484	505	
LO PR	110	117	127	136	116	123	135	143	120	128	140	149	126	135	147	156	133	141	154	164	137	146	159	170	

\* Entering Indoor Dry Bulb Temperature

NOTE: Shaded area is AHRI Rating Conditions

Goodman Manufacturing Company, L.P. reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring





COOLING PERFORMANCE DATA

GSX160481F\*

MODEL: GSX160481F\*-CA\*F4961\*6D\*\*TXV EXPANDED PERFORMANCE DATA

COOLING OPERATION

3/4/2013

Main data table with columns for IDB\* Airflow, Outdoor Ambient Temperature (65, 75, 85), Entering Indoor Wet Bulb Temperature (59, 63, 67, 71), and various performance metrics like Net Cap, S/T, Delta T, System KW, OD amps, HI PR, LO PR.

\* Entering Indoor Dry Bulb Temperature. NOTE: Shaded area is A HRI Rating Conditions. Goodman Manufacturing Company, L.P. reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring...





# COOLING PERFORMANCE DATA

# GSX160611F\*

## EXPANDED PERFORMANCE DATA

### COOLING OPERATION

MODEL: GSX160611F\* / CA\*F4961D\*6A\* + TXV / Design Subcooling @ ARI 95°F Conditions, 7° ±2°F @ the Serv. Viv.

IDB* Airflow	Outdoor Ambient Temperature																				
	65			75			85			95			105			115					
	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71	
70	MBh	54.2	56.2	61.6	-	53.0	54.9	60.1	-	51.7	53.6	58.7	-	50.4	52.3	57.3	-	47.9	49.7	54.4	-
	S/T	0.66	0.55	0.38	-	0.68	0.57	0.39	-	0.70	0.58	0.40	-	0.72	0.60	0.42	-	0.75	0.62	0.43	-
	Delta T	21	18	14	-	21	19	14	-	21	19	14	-	22	19	14	-	21	18	14	-
	KW	3.75	3.83	3.95	-	4.04	4.13	4.27	-	4.31	4.40	4.55	-	4.54	4.64	4.79	-	4.73	4.84	5.00	-
	AMPS	13.4	13.8	14.3	-	14.6	15.0	15.5	-	16.0	16.4	17.0	-	17.2	17.6	18.3	-	18.4	18.8	19.5	-
	H1PR	227	244	248	-	257	276	280	-	292	314	318	-	333	358	363	-	359	386	392	-
	LO PR	113	116	127	-	116	120	131	-	120	124	135	-	123	127	139	-	126	130	141	-
	MBh	55.9	57.9	63.4	-	54.6	56.5	62.0	-	53.3	55.2	60.5	-	52.0	53.9	59.0	-	49.4	51.2	56.1	-
	S/T	0.69	0.58	0.40	-	0.71	0.60	0.41	-	0.73	0.61	0.42	-	0.76	0.63	0.44	-	0.78	0.66	0.45	-
	Delta T	20	18	13	-	20	18	13	-	20	18	13	-	21	18	14	-	20	18	13	-
KW	3.78	3.86	3.99	-	4.08	4.17	4.31	-	4.34	4.44	4.59	-	4.57	4.68	4.83	-	4.77	4.88	5.05	-	
AMPS	13.6	13.9	14.4	-	14.8	15.1	15.7	-	16.1	16.6	17.2	-	17.3	17.8	18.4	-	18.5	19.0	19.7	-	
H1PR	229	247	250	-	259	279	283	-	295	317	322	-	336	361	366	-	363	390	396	-	
LO PR	114	117	128	-	117	121	132	-	121	125	136	-	124	128	140	-	127	131	143	-	
MBh	56.1	58.2	63.7	-	54.8	56.8	62.3	-	53.5	55.5	60.8	-	52.2	54.1	59.3	-	49.6	51.4	56.3	-	
S/T	0.70	0.58	0.40	-	0.72	0.60	0.42	-	0.74	0.62	0.43	-	0.77	0.64	0.44	-	0.80	0.66	0.46	-	
Delta T	18	16	12	-	18	16	12	-	18	16	12	-	18	16	12	-	18	16	12	-	
KW	3.81	3.89	4.02	-	4.11	4.20	4.34	-	4.38	4.48	4.63	-	4.61	4.72	4.88	-	4.81	4.92	5.09	-	
AMPS	13.7	14.1	14.6	-	14.9	15.3	15.8	-	16.3	16.7	17.3	-	17.5	18.0	18.6	-	18.7	19.2	19.9	-	
H1PR	232	249	253	-	262	282	286	-	298	320	325	-	339	365	370	-	366	394	400	-	
LO PR	115	119	129	-	118	122	133	-	122	126	138	-	126	130	141	-	128	132	144	-	
75	MBh	55.1	56.8	61.5	66.0	53.9	55.5	60.0	64.4	52.6	54.1	58.6	62.9	51.3	52.8	57.2	61.4	48.7	50.2	54.3	58.3
	S/T	0.75	0.67	0.51	0.33	0.77	0.69	0.52	0.34	0.79	0.71	0.54	0.35	0.82	0.73	0.55	0.36	0.85	0.76	0.58	0.37
	Delta T	24	23	18	13	25	23	19	13	25	23	19	13	25	23	19	13	25	23	19	13
	KW	3.75	3.83	3.95	4.08	4.04	4.13	4.27	4.41	4.31	4.40	4.55	4.70	4.54	4.64	4.79	4.96	4.73	4.84	5.00	5.18
	AMPS	13.4	13.8	14.3	14.8	14.6	15.0	15.5	16.2	16.0	16.4	17.0	17.7	17.2	17.6	18.3	19.0	18.4	18.8	19.5	20.3
	H1PR	227	244	248	253	257	276	280	286	292	314	318	326	333	358	363	371	359	386	392	400
	LO PR	113	116	127	135	116	120	131	139	120	124	135	144	123	127	139	148	126	130	141	151
	MBh	56.8	58.5	63.3	67.9	55.5	57.1	61.8	66.4	54.2	55.8	60.4	64.8	52.8	54.4	58.9	63.2	50.2	51.7	55.9	60.0
	S/T	0.78	0.70	0.53	0.34	0.81	0.73	0.55	0.35	0.83	0.74	0.56	0.36	0.86	0.77	0.58	0.37	0.89	0.80	0.60	0.39
	Delta T	23	22	18	12	24	22	18	12	24	22	18	12	24	22	18	12	24	22	18	12
KW	3.78	3.86	3.99	4.12	4.08	4.17	4.31	4.45	4.34	4.44	4.59	4.74	4.57	4.68	4.83	5.00	4.77	4.88	5.05	5.22	
AMPS	13.6	13.9	14.4	15.0	14.8	15.1	15.7	16.3	16.1	16.6	17.2	17.9	17.3	17.8	18.4	19.2	18.5	19.0	19.7	20.5	
H1PR	229	247	250	256	259	279	283	289	295	317	322	329	336	361	366	374	363	390	396	404	
LO PR	114	117	128	137	117	121	132	141	121	125	136	145	124	128	140	149	127	131	143	152	
MBh	57.1	58.8	63.6	68.3	55.8	57.4	62.1	66.7	54.4	56.0	60.7	65.1	53.1	54.7	59.2	63.5	50.4	51.9	56.2	60.3	
S/T	0.79	0.71	0.54	0.35	0.82	0.74	0.56	0.36	0.84	0.75	0.57	0.37	0.87	0.78	0.59	0.38	0.90	0.81	0.61	0.39	
Delta T	21	19	16	11	21	19	16	11	21	19	16	11	21	19	16	11	21	19	16	11	
KW	3.81	3.89	4.02	4.15	4.11	4.20	4.34	4.49	4.38	4.48	4.63	4.78	4.61	4.72	4.88	5.04	4.81	4.92	5.09	5.26	
AMPS	13.7	14.1	14.6	15.1	14.9	15.3	15.8	16.5	16.3	16.7	17.3	18.0	17.5	18.0	18.6	19.4	18.7	19.2	19.9	20.7	
H1PR	232	249	253	258	262	282	286	292	298	320	325	332	339	365	370	378	366	394	400	408	
LO PR	115	119	129	138	118	122	133	142	122	126	138	147	126	130	141	151	128	132	144	154	

\* Entering Indoor Dry Bulb Temperature  
NOTE: Shaded area is ACCA (TVA) conditions

# COOLING PERFORMANCE DATA

# GSX160611F\*

## EXPANDED PERFORMANCE DATA

### COOLING OPERATION

MODEL: GSX160611F\* / CA\*F4961D\*6A\* + TXV / Design Subcooling @ ARI 95°F Conditions, 7° ±2°F @ the Serv. Viv.

IDB*	Airflow	Outdoor Ambient Temperature																								
		65				75				85				95				105				115				
80	1550	MBh	56.1	57.4	61.3	65.5	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71			
		ST	0.82	0.77	0.63	0.47	0.85	0.80	0.65	0.48	0.87	0.82	0.66	0.50	0.90	0.84	0.69	0.51	0.93	0.87	0.71	0.53	0.94	0.88	0.72	0.54
		Delta T	27	26	23	18	28	26	23	18	28	26	23	18	28	27	23	19	27	26	23	18	26	25	21	17
		KW	3.75	3.83	3.95	4.08	4.04	4.13	4.27	4.41	4.31	4.40	4.55	4.70	4.54	4.64	4.79	4.96	4.73	4.84	5.00	5.18	4.90	5.01	5.18	5.36
		AMPS	13.4	13.8	14.3	14.8	14.6	15.0	15.5	16.2	16.0	16.4	17.0	17.7	17.2	17.6	18.3	19.0	18.4	18.8	19.5	20.3	19.5	20.0	20.8	21.6
		HI/PR	227	244	248	253	257	276	280	286	292	314	318	326	333	358	363	371	359	386	392	400	426	458	464	475
	LO/PR	113	116	127	135	116	120	131	139	120	124	135	144	123	127	139	148	126	130	141	151	129	133	145	154	
	MBh	57.8	59.1	63.1	67.5	66.5	57.7	61.6	65.9	55.1	56.3	60.2	64.3	53.8	55.0	58.7	62.8	51.1	52.2	55.8	59.6	47.3	48.4	51.7	55.2	
	ST	0.86	0.81	0.66	0.49	0.89	0.84	0.68	0.51	0.91	0.86	0.70	0.52	0.94	0.88	0.72	0.54	1.00	0.92	0.75	0.56	1.00	0.93	0.75	0.56	
	Delta T	26	25	22	17	26	25	22	18	26	25	22	18	27	26	22	18	27	25	22	17	25	24	20	16	
	KW	3.78	3.86	3.99	4.12	4.08	4.17	4.31	4.45	4.34	4.44	4.59	4.74	4.57	4.68	4.83	5.00	4.77	4.88	5.05	5.22	4.94	5.06	5.23	5.41	
	AMPS	13.6	13.9	14.4	15.0	14.8	15.1	15.7	16.3	16.1	16.6	17.2	17.9	17.3	17.8	18.4	19.2	18.5	19.0	19.7	20.5	19.7	20.2	21.0	21.8	
HI/PR	229	247	250	256	259	279	283	289	295	317	322	329	336	361	366	374	363	390	396	404	430	462	469	479		
LO/PR	114	117	128	137	117	121	132	141	121	125	136	145	124	128	140	149	127	131	143	152	130	134	146	156		
MBh	58.1	59.4	63.4	67.8	56.7	58.0	61.9	66.2	55.4	56.6	60.5	64.6	54.0	55.2	59.0	63.1	51.3	52.5	56.0	59.9	47.6	48.6	51.9	55.5		
ST	0.87	0.82	0.66	0.50	0.90	0.85	0.69	0.51	0.93	0.87	0.71	0.53	0.96	0.90	0.73	0.55	1.00	0.93	0.76	0.57	1.00	0.94	0.76	0.57		
Delta T	23	22	19	15	24	23	20	16	24	23	20	16	24	23	20	16	24	22	19	16	22	21	18	15		
KW	3.81	3.89	4.02	4.15	4.11	4.20	4.34	4.49	4.38	4.48	4.63	4.78	4.61	4.72	4.88	5.04	4.81	4.92	5.09	5.26	4.98	5.10	5.27	5.46		
AMPS	13.7	14.1	14.6	15.1	14.9	15.3	15.8	16.5	16.3	16.7	17.3	18.0	17.5	18.0	18.6	19.4	18.7	19.2	19.9	20.7	19.9	20.4	21.2	22.0		
HI/PR	232	249	253	258	262	282	286	292	298	320	325	332	339	365	370	378	366	394	400	408	434	467	474	484		
LO/PR	115	119	129	138	118	122	133	142	122	126	138	147	126	130	141	151	128	132	144	154	131	135	148	157		
85	1550	MBh	57.1	58.2	61.0	65.0	71	59	63	67	71	59	63	67	71	59	63	67	71	59	63	67	71			
		ST	0.86	0.83	0.75	0.61	0.89	0.86	0.78	0.63	0.91	0.88	0.80	0.65	0.94	0.91	0.82	0.67	0.98	0.94	0.85	0.69	0.99	0.95	0.86	0.70
		Delta T	29	29	27	23	29	29	27	24	29	29	27	24	30	29	28	24	29	29	27	24	27	27	25	22
		KW	3.75	3.83	3.95	4.08	4.04	4.13	4.27	4.41	4.31	4.40	4.55	4.70	4.54	4.64	4.79	4.96	4.73	4.84	5.00	5.18	4.90	5.01	5.18	5.36
		AMPS	13.4	13.8	14.3	14.8	14.6	15.0	15.5	16.2	16.0	16.4	17.0	17.7	17.2	17.6	18.3	19.0	18.4	18.8	19.5	20.3	19.5	20.0	20.8	21.6
		HI/PR	227	244	248	253	257	276	280	286	292	314	318	326	333	358	363	371	359	386	392	400	426	458	464	475
	LO/PR	113	116	127	135	116	120	131	139	120	124	135	144	123	127	139	148	126	130	141	151	129	133	145	154	
	MBh	58.8	60.0	62.8	67.0	57.5	58.6	61.3	65.4	56.1	57.2	60.9	63.9	54.7	55.8	58.4	62.3	52.0	53.0	56.5	59.2	48.2	49.1	51.4	54.8	
	ST	0.90	0.87	0.78	0.64	0.93	0.90	0.81	0.66	0.96	0.92	0.83	0.68	0.99	0.95	0.86	0.70	1.00	0.99	0.89	0.72	1.00	1.00	0.90	0.73	
	Delta T	28	27	26	22	28	28	26	23	28	28	26	23	28	28	26	23	27	28	26	23	25	26	24	21	
	KW	3.78	3.86	3.99	4.12	4.08	4.17	4.31	4.45	4.34	4.44	4.59	4.74	4.57	4.68	4.83	5.00	4.77	4.88	5.05	5.22	4.94	5.06	5.23	5.41	
	AMPS	13.6	13.9	14.4	15.0	14.8	15.1	15.7	16.3	16.1	16.6	17.2	17.9	17.3	17.8	18.4	19.2	18.5	19.0	19.7	20.5	19.7	20.2	21.0	21.8	
HI/PR	229	247	250	256	259	279	283	289	295	317	322	329	336	361	366	374	363	390	396	404	430	462	469	479		
LO/PR	114	117	128	137	117	121	132	141	121	125	136	145	124	128	140	149	127	131	143	152	130	134	146	156		
MBh	59.1	60.3	63.1	67.3	57.7	58.8	61.6	65.8	56.4	57.4	60.2	64.2	55.0	56.0	58.7	62.6	52.2	53.2	56.8	59.5	48.4	49.3	51.7	55.1		
ST	0.91	0.88	0.80	0.65	0.95	0.91	0.82	0.67	0.97	0.94	0.84	0.69	1.00	0.97	0.87	0.71	1.00	1.00	0.91	0.73	1.00	1.00	0.91	0.74		
Delta T	25	24	23	20	25	25	23	20	25	25	23	20	25	25	23	20	24	24	23	20	22	23	22	19		
KW	3.81	3.89	4.02	4.15	4.11	4.20	4.34	4.49	4.38	4.48	4.63	4.78	4.61	4.72	4.88	5.04	4.81	4.92	5.09	5.26	4.98	5.10	5.27	5.46		
AMPS	13.7	14.1	14.6	15.1	14.9	15.3	15.8	16.5	16.3	16.7	17.3	18.0	17.5	18.0	18.6	19.4	18.7	19.2	19.9	20.7	19.9	20.4	21.2	22.0		
HI/PR	232	249	253	258	262	282	286	292	298	320	325	332	339	365	370	378	366	394	400	408	434	467	474	484		
LO/PR	115	119	129	138	118	122	133	142	122	126	138	147	126	130	141	151	128	132	144	154	131	135	148	157		

\* Entering Indoor Dry Bulb Temperature

NOTE: Shaded area is ARI Rating Conditions

# PERFORMANCE DATA

# GSX160[18-36]1F\*

Model: GSX160181F*/CA*F3636*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 650 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	18,900	13,986	4,914	1,360
80°	18,700	13,838	4,862	1,395
85°	18,500	13,690	4,810	1,430
90°	18,250	13,505	4,745	1,465
<b>95°</b>	<b>18,000</b>	<b>13,320</b>	<b>4,680</b>	<b>1,500</b>
100°	17,550	12,987	4,563	1,530
105°	17,100	12,654	4,446	1,560
110°	16,450	12,173	4,277	1,580
115°	15,800	11,692	4,108	1,600

Model: GSX160241F*/CA*F3636*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 750 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	24,800	18,600	6,200	1,770
80°	24,500	18,375	6,125	1,825
85°	24,200	18,150	6,050	1,880
90°	23,900	17,925	5,975	1,925
<b>95°</b>	<b>23,600</b>	<b>17,700</b>	<b>5,900</b>	<b>1,970</b>
100°	23,000	17,250	5,750	2,005
105°	22,400	16,800	5,600	2,040
110°	21,600	16,200	5,400	2,110
115°	20,800	15,600	5,200	2,180

Model: GSX160301F*/CA*F3743*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 1000 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	30,500	23,180	7,320	2,180
80°	30,100	22,876	7,224	2,240
85°	29,700	22,572	7,128	2,300
90°	29,350	22,306	7,044	2,360
<b>95°</b>	<b>29,000</b>	<b>22,040</b>	<b>6,960</b>	<b>2,420</b>
100°	28,300	21,508	6,792	2,465
105°	27,600	20,976	6,624	2,510
110°	26,550	20,178	6,372	2,550
115°	25,500	19,380	6,120	2,600

Model: GSX160361F*/CA*F4860*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 1200 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	36,500	28,105	8,395	2,610
80°	36,100	27,797	8,303	2,685
85°	35,700	27,489	8,211	2,760
90°	35,250	27,143	8,108	2,830
<b>95°</b>	<b>34,800</b>	<b>26,796</b>	<b>8,004</b>	<b>2,900</b>
100°	33,950	26,142	7,809	2,960
105°	33,100	25,487	7,613	3,020
110°	32,900	25,333	7,567	3,070
115°	32,700	25,179	7,521	3,120

# PERFORMANCE DATA

# GSX160[42-61]1F\*

Model: GSX160421F*/CA*F4860*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 1400 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	44,100	33,516	10,584	3,150
80°	43,600	33,136	10,464	3,230
85°	43,100	32,756	10,344	3,340
90°	42,550	32,338	10,212	3,420
<b>95°</b>	<b>42,000</b>	<b>31,920</b>	<b>10,080</b>	<b>3,500</b>
100°	40,950	31,122	9,828	3,570
105°	39,900	30,324	9,576	3,640
110°	38,450	29,222	9,228	3,705
115°	37,000	28,120	8,880	3,760

Model: GSX160481F*/CA*F4961*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 1500 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	47,800	36,328	11,472	3,410
80°	47,200	35,872	11,328	3,510
85°	46,600	35,416	11,184	3,610
90°	46,050	34,998	11,052	3,690
<b>95°</b>	<b>45,500</b>	<b>34,580</b>	<b>10,920</b>	<b>3,790</b>
100°	44,350	33,706	10,644	3,865
105°	43,200	32,832	10,368	3,940
110°	41,600	31,616	9,984	4,005
115°	40,000	30,400	9,600	4,070

Model: GSX160601F*/CA*F4961*6D+TXV+EEP				
Conditions: 80F/60F IWB @ 1625 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	56,700	43,092	13,608	3,880
80°	56,050	42,598	13,452	3,995
85°	55,400	42,104	13,296	4,110
90°	54,700	41,572	13,128	4,165
<b>95°</b>	<b>54,000</b>	<b>41,040</b>	<b>12,960</b>	<b>4,320</b>
100°	52,650	40,014	12,636	4,410
105°	51,300	38,988	12,312	4,500
110°	49,400	37,544	11,856	4,575
115°	47,500	36,100	11,400	4,650

Model: GSX160611F*/CA*F4961*6D+TXV+EEP				
Conditions: 80F/67F IWB @ 1550 CFM				
Outdoor Temp F°	Total Btuh	Sensible Btuh	Latent Btuh	Total Watts
75°	59,900	41,331	18,569	4,270
80°	59,150	40,814	18,337	4,410
85°	58,400	40,296	18,104	4,550
90°	57,700	39,813	17,887	4,650
<b>95°</b>	<b>57,000</b>	<b>39,330</b>	<b>17,670</b>	<b>4,750</b>
100°	55,600	38,364	17,236	4,875
105°	54,200	37,398	16,802	5,000
110°	52,200	36,018	16,182	5,090
115°	50,200	34,638	15,562	5,180

## PERFORMANCE TEST

All data based upon listed indoor dry bulb temperature. .00 inches external static pressure on coil of outdoor section. Indoor air cubic feet per minute (CFM) as listed in the Performance Data Sheets:

If conditions vary from this, results will change as follows:

- As indoor dry bulb temperatures increase, a slight increase will occur in indoor air temperature drop (Delta T). Low and high side pressures and power will not change.
- As indoor CFM decreases, a slight increase will occur in indoor temperature drop (Delta T). A slight decrease will occur in low and high side pressures and power.

A properly operating unit should be within plus or minus **2 degrees** of the subcooling value shown in the installation instructions.

A properly operating unit should be within plus or minus **3 degrees** of the typical (Delta T) value shown.

A properly operating unit should be within plus or minus **10 PSIG** of the **HI PR** shown.

A properly operating unit should be within plus or minus **5 PSIG** of the **LO PR** shown.

A properly operating unit should be within plus or minus **3 Amps** of the typical value shown.

*NOTE: Pressures are measures at the liquid and suction service valve ports.*



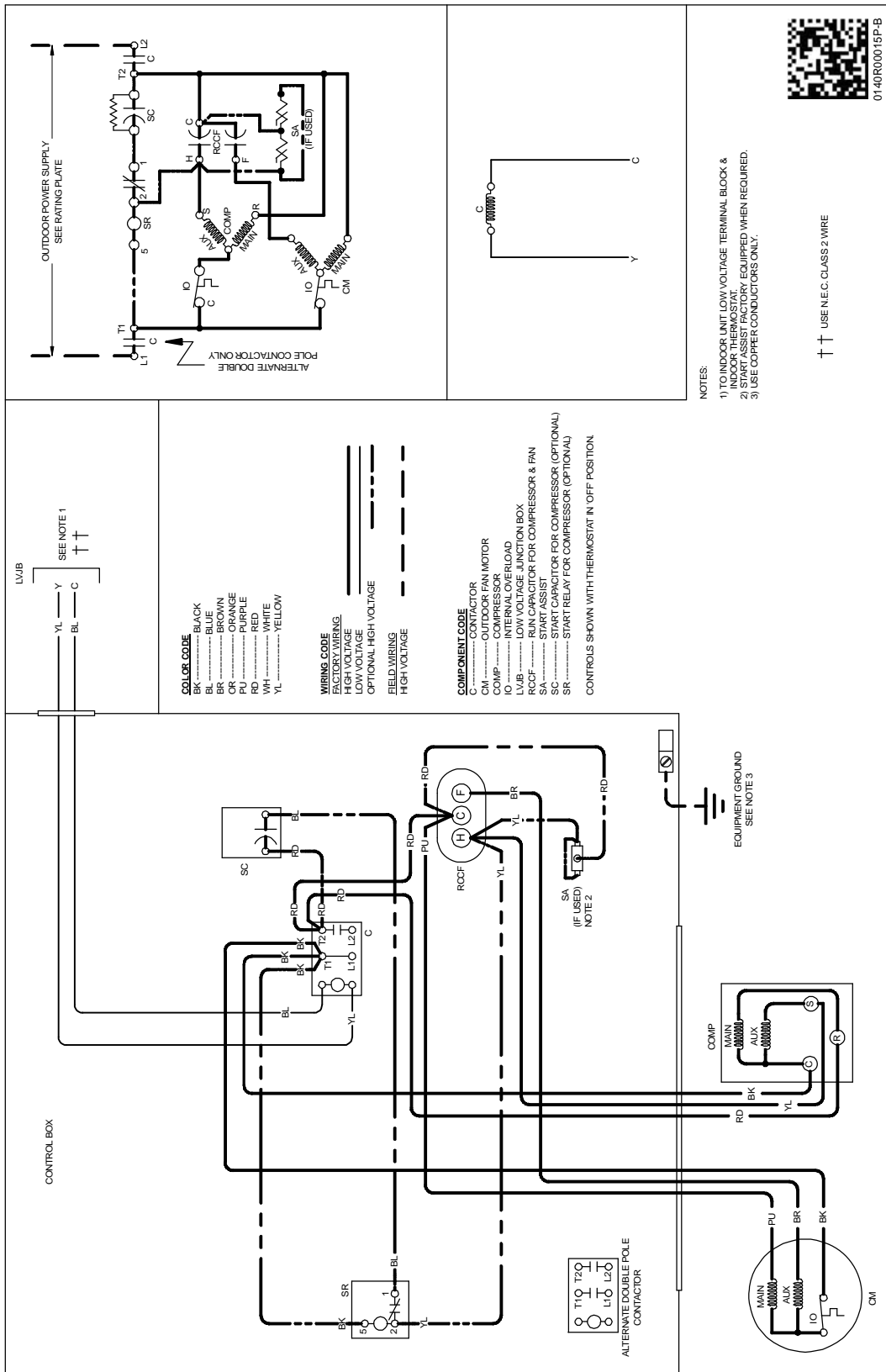
# WIRING DIAGRAMS

# GSX160[18-48]1F\*



**WARNING**

**HIGH VOLTAGE!**  
**DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.**

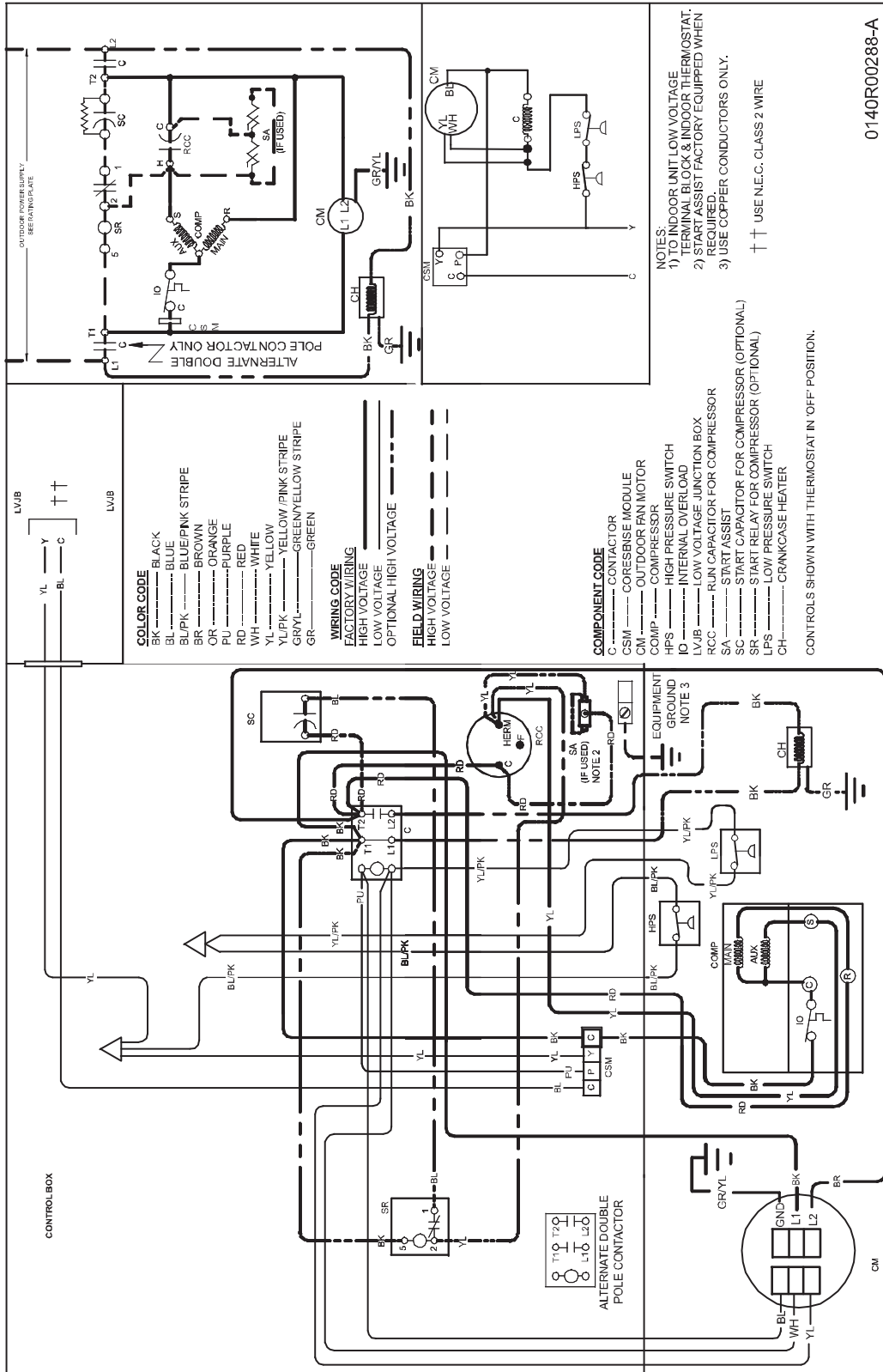


Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



## WARNING

**HIGH VOLTAGE!**  
**DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.**



- COLOR CODE**
- BK ----- BLACK
  - BL ----- BLUE
  - BL/PK ----- BLUE/PINK STRIPE
  - BR ----- BROWN
  - OR ----- ORANGE
  - PU ----- PURPLE
  - RD ----- RED
  - WH ----- WHITE
  - YL/PK ----- YELLOW/PINK STRIPE
  - YL ----- YELLOW
  - GR/YL ----- GREEN/YELLOW STRIPE
  - GR ----- GREEN
- WIRING CODE**
- FACTORY WIRING**
- HIGH VOLTAGE
  - LOW VOLTAGE
  - OPTIONAL HIGH VOLTAGE
- FIELD WIRING**
- HIGH VOLTAGE
  - LOW VOLTAGE

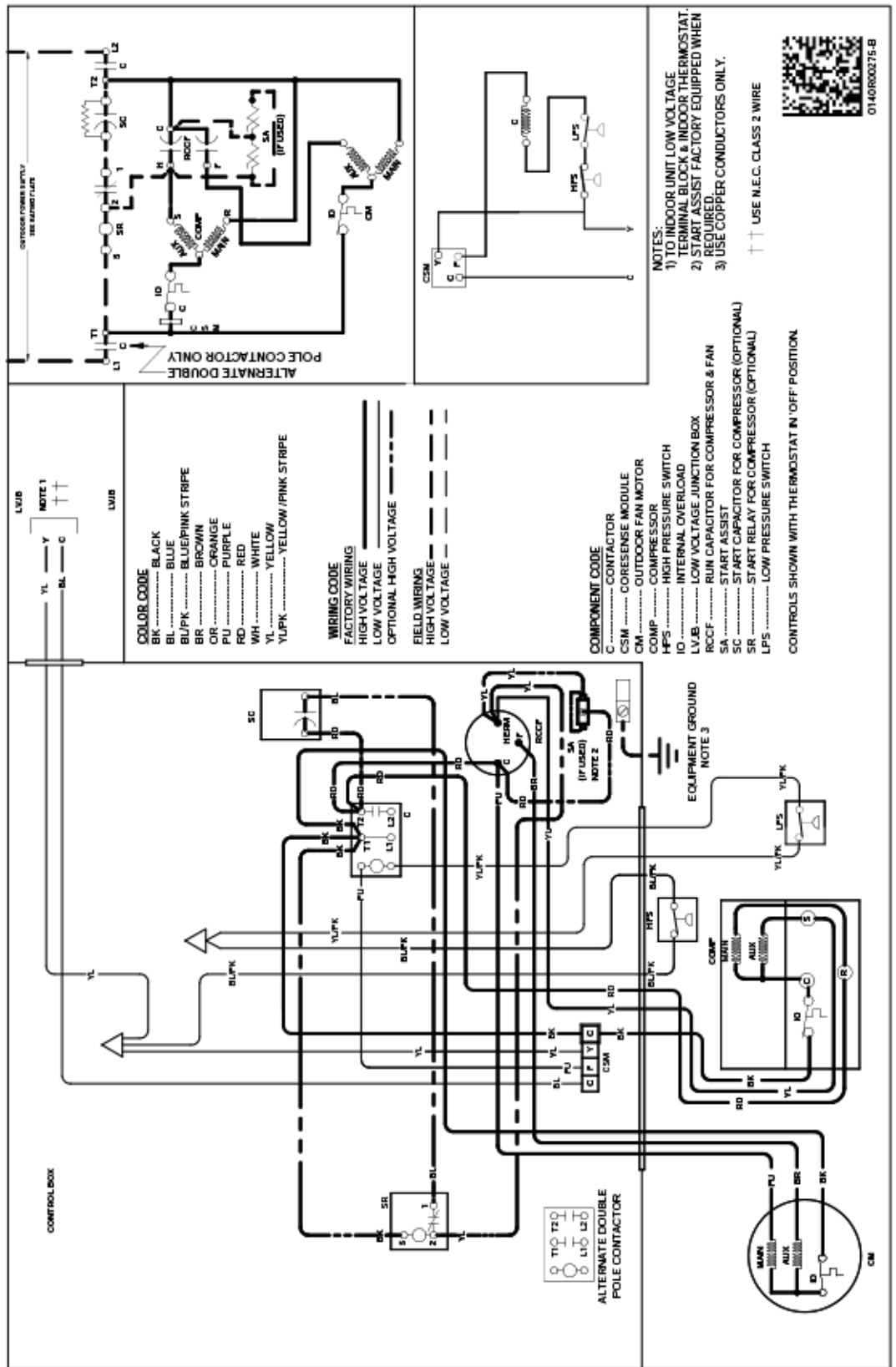
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# WIRING DIAGRAMS

# GSX160611F\*

WARNING

HIGH VOLTAGE!  
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.