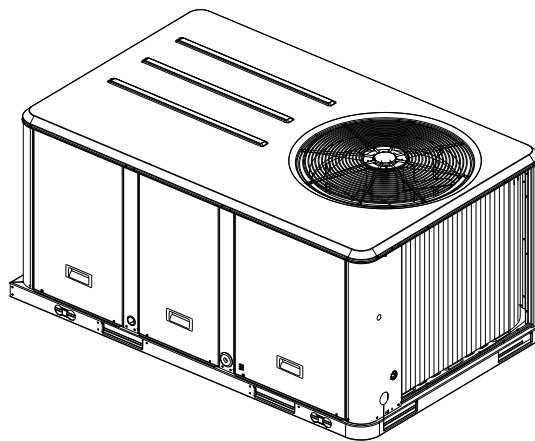


Service Facts

Packaged Rooftop Air Conditioners Precedent™ - Cooling, Gas/Electric, Heat Pump 3-5 Ton Standard and High Efficiency 3 Phase Rooftop Units



Model Numbers

TSC036E3,4,W	YSC036E3,4,W	WSC036E3,4,W	T/YHC036E3,4	T/YHC048F3,4
TSC048E3,4,W	YSC048E3,4,W	WSC048E3,4,W	T/YHC048E3,4	T/YHC060F3,4
TSC060E3,4,W	YSC060E3,4,W	WSC060E3,4,W	T/YHC060E3,4	

SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

Warnings, Cautions and Notices

Warnings, Cautions and Notices. Note that warnings, cautions and notices appear at appropriate intervals throughout this manual. Warnings are provide to alert installing contractors to potential hazards that could result in death or personal injury. Cautions are designed to alert personnel to hazardous situations that could result in personal injury, while notices indicate a situation that could result in equipment or property-damage-only accidents.

Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

Read this manual thoroughly before operating or servicing this unit.

ATTENTION: Warnings, Cautions and Notices appear at appropriate sections throughout this literature. Read these carefully:

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.

NOTICE:

Indicates a situation that could result in equipment or property-damage only

Important Environmental Concerns!

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants-including industry replacements for CFCs such as HCFCs and HFCs.

Responsible Refrigerant Practices!

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified. The Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that

must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.:

WARNING

Proper Field Wiring and Grounding Required!

All field wiring **MUST** be performed by qualified personnel. Improperly installed and grounded field wiring poses **FIRE** and **ELECTROCUTION** hazards. To avoid these hazards, you **MUST** follow requirements for field wiring installation and grounding as described in NEC and your local/state electrical codes. Failure to follow code could result in death or serious injury.

WARNING

Personal Protective Equipment (PPE) Required!

Installing/servicing this unit could result in exposure to electrical, mechanical and chemical hazards.

- Before installing/servicing this unit, technicians **MUST** put on all Personal Protective Equipment (PPE) recommended for the work being undertaken. **ALWAYS** refer to appropriate MSDS sheets and OSHA guidelines for proper PPE.
- When working with or around hazardous chemicals, **ALWAYS** refer to the appropriate MSDS sheets and OSHA guidelines for information on allowable personal exposure levels, proper respiratory protection and handling recommendations.
- If there is a risk of arc or flash, technicians **MUST** put on all Personal Protective Equipment (PPE) in accordance with NFPA 70E or other country-specific requirements for arc flash protection, **PRIOR** to servicing the unit.

Failure to follow recommendations could result in death or serious injury.

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General Data

Table 1. General data - 3-4 tons - standard efficiency

	3 Tons	4 Tons
	T/YSC036E3,4,W	T/YSC048E3,4,W
Cooling Performance^(a)		
Gross Cooling Capacity	37,150	49,450
EER/SEER ^(b)	11.2/13.0	10.9/13.0
Nominal cfm/ARI Rated cfm	1,200/1,200	1,600/1,600
ARI Net Cooling Capacity	35,800	48,000
System Power (kW)	3.20	4.39
Compressor		
Number/Type	1/Scroll	1/Scroll
Sound		
Outdoor Sound Rating (dB) ^(c)	81	82
Outdoor Coil - Type	Lanced	Lanced
Tube Size (in.) OD	0.3125	0.3125
Face Area (sq. ft.)	9.59	10.96
Rows/FPI	2/16	2/16
Indoor Coil - Type	Lanced	Lanced
Tube Size (in.)	0.3125	0.3125
Face Area (sq. ft.)	7.71	7.71
Rows/FPI	3/16	4/16
Refrigerant Control	Thermal Expansion Valve	Thermal Expansion Valve
Drain Connection Number/Size (in.)	1¾ NPT	1¾ NPT
Outdoor Fan - Type	Propeller	Propeller
Number Used/Diameter (in.)	1/22	1/22
Drive Type/No. Speeds	Direct/1	Direct/1
cfm	3,375	3,403
Motor hp	0.33	0.33
Motor rpm	1,075	1,075
Indoor Fan - Type (Standard)	FC Centrifugal	FC Centrifugal
Number Used/Diameter (in.)xWidth (in.)	1/11x11	1/11x11
Drive Type/Number Speeds/rpm	Belt/Variable/1,750	Belt/Variable/1,750
Number Motors	1	1
Motor hp	1.0	1.0
Motor Frame Size	56	56
Filters^(d)		
Type Furnished	Throwaway	Throwaway
Number Size Recommended	(2) 20x30x2	(2) 20x30x2
Refrigerant Charge^(e)		
Pounds of R-410A	6.0	7.0

continued on next page

Table 1. General data - 3-4 tons - standard efficiency (continued)

	3 Tons	4 Tons
	T/YSC036E3,4,W	T/YSC048E3,4,W
Heating Performance^(f) (Gas/Electric Only)		
Heating Input		
Low Heat Input (Btu)	60,000	60,000
Mid Heat Input (Btu)	80,000	80,000
High Heat Input (Btu)	120,000	120,000
Heating Output		
Low Heat Input (Btu)	48,000	48,000
Mid Heat Input (Btu)	64,000	64,000
High Heat Input (Btu)	96,000	96,000
AFUE%^(g)		
Low Heat Input (Btu)	80	80
Mid Heat Input (Btu)	80	80
High Heat Input (Btu)	80	80
Steady State Efficiency%		
Low Heat Input (Btu)	80	80
Mid Heat Input (Btu)	80	80
High Heat Input (Btu)	80	80
No. Burners		
Low Heat Input (Btu)	2	2
Mid Heat Input (Btu)	2	2
High Heat Input (Btu)	3	3
No. Stages		
Low Heat Input (Btu)	1	1
Mid Heat Input (Btu)	1	1
High Heat Input (Btu)	1	1
Gas Supply Line Pressure		
Natural (minimum/maximum)	4.5/14	4.5/14
LP (minimum/maximum)	10.0/14.0	10.0/14.0
Gas Connection Pipe Size (in)		
Low Heat	1/2	1/2
Mid Heat	1/2	1/2
High Heat	1/2	1/2

(a) Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on ARI Standard 210/240.

(b) EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.

(c) Outdoor Sound Rating shown is tested in accordance with ARI Standard 270. For additional information refer to [Table 58, p. 59](#).

(d) Optional 2" MERV 7 and MERV 13 filters also available.

(e) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

(f) Heating performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Applicable to Gas/Electric units only.

(g) AFUE is rated in accordance with DOE test procedures.

General Data

Table 2. General data - 3-4 tons heat pump - standard efficiency

	3 Tons	4 Tons
	WSC036E3,4,W	WSC048E3,4,W
Cooling Performance^(a)		
Gross Cooling Capacity	38,030	50,130
SEER ^(b)	13.0	13.0
Nominal cfm/ARI Rated cfm	1,200/1,200	1,600/1,600
ARI Net Cooling Capacity	37,000	48,800
System Power (kW)	3.45	4.40
Heating Performance^(c)		
High Temp. Btuh Rating	37,000	44,400
System Power kW/COP	3.21/3.40	3.86/3.40
Low Temp. Btuh Rating	20,700	24,900
System Power kW/COP	2.85/2.10	3.53/2.10
HSPF (Btu/Watts-hr)	8.00	7.80
Compressor		
Number/Type	1/Scroll	1/Scroll
Sound		
Outdoor Sound Rating (dB) ^(d)	80	82
Outdoor Coil - Type	Lanced	Lanced
Tube Size (in.)	0.3125	0.3125
Face Area (sq. ft.)	10.96	10.96
Rows/FPI	3/16	3/16
Refrigerant Control	Thermal Expansion Valve	Thermal Expansion Valve
Indoor Coil - Type	Lanced	Lanced
Tube Size (in.)	0.3125	0.3125
Face Area (sq. ft.)	6.68	7.71
Rows/FPI	3/16	4/16
Refrigerant Control	Thermal Expansion Valve	Thermal Expansion Valve
Drain Connection Number/Size (in.)	1¾ NPT	1¾ NPT
Outdoor Fan - Type	Propeller	Propeller
Number Used/Diameter (in.)	1/22	1/22
Drive Type/No. Speeds	Direct/1	Direct/1
cfm	2,823	3,279
Motor hp	0.25	0.40
Motor rpm	1,075	1,075
Indoor Fan - Type (Standard)	FC Centrifugal	FC Centrifugal
Number Used/Diameter (in.)xWidth (in.)	1/11x11	1/11x11
Drive Type/Number Speeds/rpm	Belt/Variable/1,750	Belt/Variable/1,750
Motor hp	1.0	1.0
Motor Frame Size	56	56
Filters^(e) - Type Furnished	Throwaway	Throwaway
Number Size Recommended	(2) 20x30x2	(2) 20x30x2
Refrigerant Charge^(f)		
Pounds of R-410A	7.3	9.4

(a) Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on ARI Standard 210/240.

(b) EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.

(c) Heating performance is rated at 47°F ambient with 43°F wet bulb, 70°F entering dry bulb, 60°F entering wet bulb. High Temp. Btuh Rating includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on ARI Standard 210/240.

(d) Outdoor Sound Rating shown is tested in accordance with ARI Standard 270. For additional information refer to [Table 59, p. 59](#).

(e) Optional 2" MERV 7 and MERV 13 filters also available.

(f) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

Table 3. General data - 5 tons - standard efficiency

	5 Tons T/YSC060E3,4,W
Cooling Performance^(a)	
Gross Cooling Capacity	62,270
EER/SEER ^(b)	11.0/13.0
Nominal cfm/ARI Rated cfm	2,000/2,000
ARI Net Cooling Capacity	60,000
System Power (kW)	5.46
Compressor	
Number/Type	1/Scroll
Sound	
Outdoor Sound Rating (dB) ^(c)	82
Outdoor Coil - Type	Lanced
Tube Size (in.)	0.3125
Face Area (sq. ft.)	10.96
Rows/FPI	3/16
Indoor Coil - Type	Lanced
Tube Size (in.)	0.3125
Face Area (sq. ft.)	7.71
Rows/FPI	4/16
Refrigerant Control	Thermal Expansion Valve
Drain Connection Number/Size (in.)	1¾ NPT
Outdoor Fan - Type	Propeller
Number Used/Diameter (in.)	1/22
Drive Type/No. Speeds	Direct/1
cfm	3,245
Number Motors/hp	0.40
Motor rpm	1,075
Indoor Fan - Type (Standard)	FC Centrifugal
Number Used/Diameter (in.) x Width (in.)	1/11x11
Drive Type/Number Speeds	Belt/Variable
Motor hp	1.0
Motor Frame Size	56
Filters^(d) - Type Furnished	Throwaway
Number Size Recommended	(2)20x30x1
Refrigerant Charge^(e)	
Pounds of R-410A	9.8

Table 3. General data - 5 tons - standard efficiency (continued)

	5 Tons T/YSC060E3,4,W
Heating Performance^(f) (Gas/Electric Only)	
Heating Input	
Low Heat Input (Btu)	60,000
Mid Heat Input (Btu)	80,000
High Heat Input (Btu)	130,000
Heating Output	
Low Heat Input (Btu)	48,000
Mid Heat Input (Btu)	64,000
High Heat Input (Btu)	104,000
AFUE^(g)	
Low Heat Input (Btu)	80
Mid Heat Input (Btu)	80
High Heat Input (Btu)	80
Steady State Efficiency%	
Low Heat Input (Btu)	
Mid Heat Input (Btu)	
High Heat Input (Btu)	
No. Burners	
Low Heat Input (Btu)	2
Mid Heat Input (Btu)	2
High Heat Input (Btu)	3
No. Stages	
Low Heat Input (Btu)	1
Mid Heat Input (Btu)	1
High Heat Input (Btu)	1
Gas Supply Line Pressure	
Natural (minimum/maximum)	4.5/14
LP (minimum/maximum)	10.0/14.0
Gas Connection Pipe Size (in)	
Low Heat	1/2
Mid Heat	1/2
High Heat	1/2

(a) Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on ARI Standard 210/240.

(b) EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.

(c) Outdoor Sound Rating shown is tested in accordance with ARI Standard 270. For additional information refer to Table 58, p. 59.

(d) Optional 2" MERV 7 and MERV 13 filters also available.

(e) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

(f) Heating performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Applicable to Gas/Electric units only.

(g) AFUE is rated in accordance with DOE test procedures.

General Data

Table 4. General data - 5 ton heat pump - standard efficiency

	5 Tons
	WSC060E3,4,W
Cooling Performance^(a)	
Gross Cooling Capacity	63,440
SEER ^(b)	13.0
Nominal cfm/ARI Rated cfm	2,000/2,000
ARI Net Cooling Capacity	62,000
System Power (kW)	5.13
Heating Performance^(c)	
High Temp. Btuh Rating	58,500
System Power kW/COP	4.94/3.50
Low Temp. Btuh Rating	34,400
System Power kW/COP	4.44/2.30
HSPF (Btu/Watts-hr)	8.00
Compressor	
Number/Type	1/Scroll
Sound	
Outdoor Sound Rating (dB) ^(d)	87
Outdoor Coil - Type	Lanced
Tube Size (in.)	0.3125
Face Area (sq. ft.)	17.00
Rows/FPI	3/16
Refrigerant Control	Thermal Expansion Valve
Indoor Coil - Type	Lanced
Tube Size (in.)	0.3125
Face Area (sq. ft.)	9.27
Rows/FPI	3/16
Refrigerant Control	Thermal Expansion Valve
Drain Connection Number/Size (in.)	1¾ NPT
Outdoor Fan - Type	Propeller
Number Used/Diameter (in.)	1/26
Drive Type/No. Speeds	Direct/1
cfm	5,138
Motor hp	0.40
Motor rpm	1,075
Indoor Fan - Type (Standard)	FC Centrifugal
Number Used/Diameter X Width (in.)	1/11x11
Drive Type/Number Speeds	Belt/Variable
Motor hp	1.00
Motor Frame Size	56
Filters^(e) - Type Furnished	Throwaway
Number Size Recommended	(4) 16x25x2
Refrigerant Charge^(f)	
Pounds of R-410A	10.6

(d) Outdoor Sound Rating shown is tested in accordance with ARI Standard 270. For additional information refer to [Table 59, p. 59](#).

(e) Optional 2" MERV 7 and MERV 13 filters also available.

(f) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

(a) Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on ARI Standard 210/240.

(b) EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.

(c) Heating performance is rated at 47°F ambient with 43°F wet bulb, 70°F entering dry bulb, 60°F entering wet bulb. High Temp. Btuh Rating includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on ARI Standard 210/240.

Table 5. General data - 3-4 tons - high efficiency

	3 Tons	4 Tons	
	T/YHC036E3,4	T/YHC048E3,4	T/YHC048F3,4
Cooling Performance^(a)			
Gross Cooling Capacity	37,600	49,930	49,930
EER/SEER ^(b)	12.7/15.0	13.35/15.0	13.35/15.0
Nominal cfm/ARI Rated cfm	1,200/1,200	1,600/1,600	1,600/1,600
ARI Net Cooling Capacity	37,000	49,000	49,000
System Power (kW)	2.99	3.67	3.67
Compressor			
Number/Type	1/Scroll	1/Scroll	1/Scroll
Sound			
Outdoor Sound Rating (dB) ^(c)	81	87	87
Outdoor Coil - Type	Lanced	Lanced	Microchannel
Configuration	Full Face	Full Face	Full Face
Tube Size (in.) OD or MC Thickness (in.)	0.3125	0.3125	0.71
Face Area (sq. ft.)	10.96	17	16.91
Rows/FPI	2/16	3/16	1/23
Indoor Coil - Type	Lanced	Lanced	Lanced
Configuration	Full Face	Full Face	Full Face
Tube Size (in.)	0.3125	0.3125	0.3125
Face Area (sq. ft.)	7.71	9.27	9.27
Rows/FPI	3/16	3/16	3/16
Refrigerant Control	Thermal Expansion Valve	Thermal Expansion Valve	Thermal Expansion Valve
Drain Connection Number/Size (in.)	1¾ NPT	1¾ NPT	1¾ NPT
Outdoor Fan - Type	Propeller	Propeller	Propeller
Number Used/Diameter (in.)	1/22	1/26	1/26
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1
cfm	3,064	3,982	3,982
Motor hp	0.2	0.4	0.4
Motor rpm	1,075	1,075	1,075
Indoor Fan - Type (Standard)^(d)	FC Centrifugal	FC Centrifugal	FC Centrifugal
Number Used/Diameter (in.)xWidth (in.)	1/11x11	1/11x11	1/11x11
Drive Type/Number Speeds	Direct/5	Direct/5	Direct/5 ^(e)
Number Motors	1	1	1
Motor hp (Standard/Oversized)	1.0	1.0	1.0
Motor Frame Size (Standard/Oversized)	48	48	48
Indoor Fan - Type (Optional)	FC Centrifugal	FC Centrifugal	FC Centrifugal
Number Used/Diameter (in.)xWidth (in.)	1/11x11	1/11x11	1/11x11
Drive Type/Number Speeds	Belt/Variable	Belt/Variable	Belt/Variable
Number Motors	1	1	1
Motor hp (Standard/Oversized)	1.0	1.0	1.0
Motor Frame Size (Standard/Oversized)	56	56	56
Filters^(f)			
Type Furnished	Throwaway	Throwaway	Throwaway
Number Size Recommended	(2) 20x30x2	(4) 16x25x2	(4) 16x25x2
Optional Hot Gas Reheat Coil (Type)			
Tube Size (in.) OD	0.375	0.375	—
Face Area (sq. ft.)	4.72	6.83	—
Rows/FPI	2/18	2/18	—
Refrigerant Charge (Lbs. of R-410A)^(g)			
Standard	6.2	—	5.2
Optional Hot Gas Reheat Coil	6.6	12.0	—

General Data

Table 5. General data - 3-4 tons - high efficiency (continued)

	3 Tons	4 Tons	
	T/YHC036E3,4	T/YHC048E3,4	T/YHC048F3,4
Heating Performance^(h) (Gas/Electric Only)			
Heating Input			
Low Heat Input (Btu)	60,000	60,000	60,000
Mid Heat Input (Btu)	80,000	80,000	80,000
High Heat Input (Btu)	120,000	120,000	120,000
Heating Output			
Low Heat Input (Btu)	48,000	49,000	49,000
Mid Heat Input (Btu)	64,000	64,000	64,000
High Heat Input (Btu)	96,000	96,000	96,000
AFUE%⁽ⁱ⁾			
Low Heat Input (Btu)	78	80	80
Mid Heat Input (Btu)	78	79	79
High Heat Input (Btu)	78	79	79
Steady State Efficiency%			
Low Heat Input (Btu)	80	81	81
Mid Heat Input (Btu)	80	80	80
High Heat Input (Btu)	80	80	81
No. Burners			
Low Heat Input (Btu)	2	2	2
Mid Heat Input (Btu)	2	2	2
High Heat Input (Btu)	3	3	3
No. Stages			
Low Heat Input (Btu)	1	1	1
Mid Heat Input (Btu)	1	1	1
High Heat Input (Btu)	1	1	1
Gas Supply Line Pressure			
Natural (minimum/maximum)	4.5/14	4.5/14	4.5/14.0
LP (minimum/maximum)	10.0/14.0	10.0/14.0	11.0/14.0
Gas Connection Pipe Size (in)			
Low Heat	1/2	1/2	1/2
Mid Heat	1/2	1/2	1/2
High Heat	1/2	1/2	1/2

(a) Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on ARI Standard 210/240.

(b) EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.

(c) Outdoor Sound Rating shown is tested in accordance with ARI Standard 270. For additional information refer to [Table 58, p. 59](#).

(d) Belt drive fan is standard on units with reheat option.

(e) For multispeed direct drive rpm THC values, reference [Table \(34?\)](#), p. (75?). For multispeed direct drive rpm YHC (low & medium gas heat) values, reference [Table \(35?\)](#), p. (76?). For multispeed direct drive rpm YHC (high gas heat) values, reference [Table \(36?\)](#), p. (77?).

(f) Optional 2" MERV 7 and MERV 13 filters also available.

(g) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

(h) Heating performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Applicable to Gas/Electric units only.

(i) AFUE is rated in accordance with DOE test procedures.

Table 6. General data - 5 tons - high efficiency

	5 Tons	
	T/YHC060E3,4	T/YHC060F3,4
Cooling Performance^(a)		
Gross Cooling Capacity	61,000	61,000
EER/SEER ^(b)	15.0	12.85/15.0
Nominal cfm/ARI Rated cfm	2,000/2,000	2,000/2,000
ARI Net Cooling Capacity	6,000	60,000
System Power (kW)	4.67	4.67
Compressor		
Number/Type	1/Scroll	1/Scroll
Sound		
Outdoor Sound Rating (dB) ^(c)	87	87
Outdoor Coil - Type		
Configuration	Lanced	Microchannel
Tube Size (in.) or MC Thickness (in.)	Full Face	Full Face
Face Area (sq. ft.)	0.3125	0.71
Rows/FPI	17	16.91
	3/16	1/23
Indoor Coil - Type		
Configuration	Lanced	Lanced
Tube Size (in.)	Full Face	Full Face
Face Area (sq. ft.)	0.3125	0.3125
Rows/FPI	9.89	9.89
Refrigerant Control	4/16	4/16
Drain Connection Number/Size (in.)	Thermal Expansion Valve	Thermal Expansion Valve
	1¾ NPT	1¾ NPT
Outdoor Fan - Type		
Number Used/Diameter (in.)	Propeller	Propeller
Drive Type/No. Speeds	1/26	1/26
cfm	Direct/1	Direct/1
Number Motors/hp	3,953	3,953
Motor rpm	0.40	0.40
	1,075	1,075
Indoor Fan - Type (Standard)^(d)		
Number Used/Diameter (in.)/Width (in.)	FC Centrifugal	FC Centrifugal
Drive Type/No. Speeds/rpm	1/11x11	1/11x11
Motor hp	Direct/5	Direct/5 ^(e)
Motor Frame Size	1.0	1.0
	48	48
Indoor Fan - Type (Optional)		
Number Used/Diameter (in.)/Width (in.)	FC Centrifugal	FC Centrifugal
Drive Type/No. Speeds	1/11x11	1/11x11
Motor hp	Belt/Variable	Belt/Variable
Motor Frame Size	1.0	1.0
	56	56
Filters^(f)		
Type Furnished	Throwaway	Throwaway
Number Size Recommended	(4) 16x25x2	(4) 16x25x2
Optional Hot Gas Reheat Coil - Type		
Tube Size (in.) OD	0.375	—
Face Area (sq. ft.)	6.83	—
Rows/FPI	2/18	—
Refrigerant Charge (Lbs. of R-410A) ^(g)		
Standard	—	6.1
Optional Hot Gas Reheat Coil	13.9	—

continued on next page

General Data

Table 6. General data - 5 tons - high efficiency (continued)

	5 Tons	
	T/YHC060E3,4	T/YHC060F3,4
Heating Performance^(h)		
(Gas/Electric Only)		
Heating Input		
Low Heat Input (Btu)	60,000	60,000
Mid Heat Input (Btu)	80,000	80,000
High Heat Input (Btu)	130,000	130,000
Heating Output		
Low Heat Input (Btu)	49,000	49,000
Mid Heat Input (Btu)	64,000	64,000
High Heat Input (Btu)	104,000	104,000
AFUE%⁽ⁱ⁾		
Low Heat Input (Btu)	80	80
Mid Heat Input (Btu)	79	79
High Heat Input (Btu)	80	80
Steady State Efficiency%		
Low Heat Input (Btu)	81	81
Mid Heat Input (Btu)	80	80
High Heat Input (Btu)	80	80
No. Burners		
Low Heat Input (Btu)	2	2
Mid Heat Input (Btu)	2	2
High Heat Input (Btu)	3	3
No. Stages		
Low Heat Input (Btu)	1	1
Mid Heat Input (Btu)	1	1
High Heat Input (Btu)	1	1
Gas Supply Line Pressure		
Natural (minimum/maximum)	4.5/14.0	4.5/14.0
LP (minimum/maximum)	11.0/14.0	11.0/14.0
Gas Connection Pipe Size (in)		
Low Heat	1/2	1/2
Mid Heat	1/2	1/2
High Heat	1/2	1/2

(a) Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. ARI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on ARI Standard 210/240.

(b) EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures.

(c) Outdoor Sound Rating shown is tested in accordance with ARI Standard 270. For additional information refer to [Table 58, p. 59](#).

(d) Belt drive fan is standard on units with reheat option.

(e) For multispeed direct drive rpm THC values, reference Table (34?), p. (75?). For multispeed direct drive rpm YHC (low & medium gas heat) values, reference Table (35?), p. (76?). For multispeed direct drive rpm YHC (high gas heat) values, reference Table (36?), p. (77?).

(f) Optional 2" MERV 7 and MERV 13 filters also available.

(g) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

(h) Heating performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Applicable to Gas/Electric units only.

(i) AFUE is rated in accordance with DOE test procedures.

Evaporator Fan Performance

Table 7. Belt drive evaporator fan performance - 3 tons standard efficiency - TSC036E3,E4,EW downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
960	—	—	—	—	614	0.17	683	0.22	742	0.27	795	0.32	845	0.37	891	0.42	935	0.47	977	0.53	
1080	—	—	561	0.15	635	0.20	704	0.25	765	0.30	818	0.36	868	0.42	913	0.47	957	0.53	998	0.59	
1200	—	—	592	0.18	658	0.23	725	0.29	786	0.35	842	0.41	891	0.47	936	0.53	979	0.59	1019	0.66	
1320	555	0.17	625	0.22	686	0.27	747	0.33	807	0.39	862	0.46	914	0.53	959	0.59	1002	0.66	1043	0.73	
1440	592	0.21	658	0.27	717	0.32	772	0.38	828	0.44	882	0.51	933	0.58	980	0.66	1025	0.73	1065	0.80	

Continued

External Static Pressure (Inches of Water)											
	1.10		1.20		1.30		1.40		1.50		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
960	1016	0.59	1054	0.65	1089	0.70	1124	0.76	1155	0.82	
1080	1036	0.65	1075	0.72	1111	0.78	1146	0.84	1180	0.91	
1200	1058	0.72	1095	0.78	1131	0.85	1167	0.92	1201	0.99	
1320	1082	0.80	1119	0.87	1153	0.94	1188	1.01	1221	1.08	
1440	1104	0.88	1141	0.95	1176	1.03	1211	1.10	—	—	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 8. Belt drive evaporator fan performance - 3 tons standard efficiency - TSC036E3,E4,EW horizontal airflow

External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)										1-hp Standard Motor & Drive										
960	—	—	552	0.12	626	0.16	689	0.20	748	0.25	802	0.30	852	0.35	898	0.39	942	0.44	982	0.49
1080	—	—	576	0.14	654	0.19	716	0.24	772	0.29	825	0.34	874	0.39	921	0.45	964	0.50	1005	0.55
1200	—	—	600	0.17	681	0.23	744	0.28	799	0.33	850	0.39	898	0.44	943	0.50	987	0.56	1028	0.62
1320	554	0.16	627	0.20	705	0.27	773	0.33	828	0.38	877	0.44	923	0.50	967	0.56	1010	0.62	1052	0.69
1440	590	0.20	657	0.24	728	0.30	797	0.37	855	0.44	904	0.50	950	0.56	993	0.63	1034	0.69	1074	0.76

Continued

External Static Pressure (Inches of Water)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive										
960	1020	0.54	1057	0.59	1092	0.64	1126	0.69	1158	0.74
1080	1045	0.61	1082	0.67	1116	0.72	1151	0.77	1183	0.83
1200	1067	0.68	1104	0.74	1141	0.80	1174	0.86	1207	0.92
1320	1091	0.75	1127	0.82	1163	0.88	1198	0.95	1230	1.02
1440	1112	0.83	1150	0.90	1186	0.97	1221	1.04	1254	1.11
1-hp Standard Motor & Field Supplied High Static Drive ^(b)										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 9. Belt drive evaporator fan performance - 3 tons standard efficiency - YSC036E3,E4,EW*L,M low & medium gas heat downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
960	—	—	—	—	605	0.15	671	0.19	730	0.23	784	0.27	835	0.31	881	0.36	924	0.41	965	0.45	
1080	—	—	563	0.14	630	0.17	693	0.22	751	0.26	804	0.31	854	0.35	901	0.40	946	0.46	986	0.50	
1200	—	—	596	0.17	659	0.21	718	0.25	773	0.30	825	0.35	875	0.40	921	0.45	964	0.51	1005	0.56	
1320	555	0.16	629	0.20	689	0.25	745	0.29	797	0.34	848	0.40	897	0.45	941	0.51	984	0.56	1026	0.62	
1440	593	0.20	663	0.25	721	0.29	775	0.34	824	0.39	873	0.45	919	0.51	963	0.57	1006	0.63	1046	0.69	

Continued

		External Static Pressure (Inches of Water)									
		1.10		1.20		1.30		1.40		1.50	
cfm		rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive											
960	1004	0.50	1039	0.55	1073	0.59	1105	0.64	1137	0.69	
1080	1025	0.56	1063	0.61	1098	0.66	1132	0.72	1163	0.77	
1200	1046	0.62	1082	0.67	1119	0.73	1153	0.79	1187	0.85	
1320	1064	0.68	1103	0.74	1139	0.80	1174	0.86	1207	0.93	
1440	1085	0.75	1123	0.81	1159	0.88	1193	0.94	—	—	
1-hp Standard Motor & Field Supplied High Static Drive^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 10. Belt drive evaporator fan performance - 3 tons standard efficiency - YSC036E3,E4,EW*L,M low & medium gas heat horizontal airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
960	—	—	—	—	613	0.15	679	0.20	736	0.24	788	0.28	837	0.32	886	0.37	930	0.42	973	0.47	
1080	—	—	561	0.14	636	0.18	702	0.23	761	0.28	812	0.32	860	0.37	904	0.42	947	0.47	991	0.52	
1200	—	—	589	0.16	661	0.21	726	0.26	784	0.31	836	0.37	884	0.42	929	0.47	970	0.52	1011	0.58	
1320	—	—	619	0.20	687	0.25	750	0.30	807	0.36	859	0.41	909	0.47	953	0.53	995	0.59	1034	0.65	
1440	585	0.19	651	0.24	715	0.29	775	0.35	831	0.40	883	0.47	931	0.53	976	0.59	1019	0.66	1058	0.72	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
960	1014	0.53	1051	0.58	1087	0.63	1121	0.68	1155	0.74	
1080	1031	0.58	1071	0.64	1108	0.69	1142	0.75	1177	0.81	
1200	1049	0.63	1087	0.69	1124	0.75	1161	0.82	1195	0.88	
1320	1071	0.70	1107	0.76	1143	0.82	1178	0.89	1213	0.96	
1440	1095	0.78	1130	0.84	1166	0.91	1199	0.97	—	—	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 11. Belt drive evaporator fan performance - 3 tons standard efficiency - YSC036E3,E4,EW*H high gas heat downflow airflow

External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive									
960	—	—	—	—	609	0.15	671	0.19	730	0.24	785	0.28	835	0.33	881	0.37	924	0.42	966	0.47
1080	—	—	572	0.14	638	0.18	697	0.23	752	0.27	805	0.32	855	0.37	900	0.42	945	0.47	986	0.53
1200	—	—	606	0.18	668	0.22	725	0.26	778	0.31	827	0.36	876	0.42	922	0.47	964	0.52	1007	0.58
1320	573	0.17	641	0.22	700	0.26	754	0.31	805	0.36	853	0.41	898	0.47	942	0.53	985	0.59	1026	0.65
1440	613	0.21	677	0.27	733	0.31	786	0.36	835	0.42	881	0.47	925	0.53	966	0.59	1007	0.65	1047	0.71

Continued

External Static Pressure (Inches of Water)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive										
960	1004	0.52	1041	0.58	1076	0.63	1109	0.68	1142	0.73
1080	1026	0.58	1063	0.64	1098	0.69	1133	0.75	1165	0.81
1200	1046	0.64	1083	0.70	1120	0.76	1154	0.82	1187	0.88
1320	1065	0.71	1103	0.77	1139	0.83	1175	0.90	1207	0.96
1440	1086	0.78	1123	0.84	1160	0.91	1194	0.98	1227	1.05
1-hp Standard Motor & Field Supplied High Static Drive ^(b)										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 12. Belt drive evaporator fan performance - 3 tons standard efficiency - YSC036E3,E4,EW*H high gas heat horizontal airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)										1-hp Standard Motor & Drive											
960	—	—	—	—	621	0.15	685	0.20	745	0.24	799	0.29	849	0.33	894	0.38	936	0.42	975	0.47	
1080	—	—	580	0.14	649	0.19	711	0.23	768	0.28	821	0.32	871	0.38	917	0.43	960	0.48	1000	0.53	
1200	—	—	613	0.18	679	0.22	738	0.27	793	0.32	845	0.37	892	0.42	939	0.48	982	0.53	1024	0.59	
1320	574	0.17	647	0.22	710	0.26	767	0.31	820	0.37	870	0.42	917	0.48	962	0.53	1004	0.59	1046	0.66	
1440	612	0.21	682	0.26	742	0.31	797	0.37	849	0.42	897	0.48	943	0.54	986	0.60	1028	0.66	1068	0.72	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
960	1012	0.52	1048	0.57	1082	0.62	1116	0.67	1148	0.72	
1080	1039	0.59	1075	0.64	1109	0.69	1142	0.74	1173	0.80	
1200	1063	0.65	1100	0.71	1134	0.77	1168	0.83	1199	0.88	
1320	1085	0.72	1122	0.78	1159	0.85	1193	0.91	1226	0.98	
1440	1107	0.79	1145	0.86	1181	0.93	1216	1.00	1248	1.07	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 13. Belt drive evaporator fan performance - 4 tons standard efficiency - TSC048E3,E4,EW downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1280	—	—	619	0.20	680	0.24	735	0.29	789	0.34	843	0.39	894	0.45	940	0.51	983	0.56	1025	0.63	
1440	597	0.20	664	0.25	724	0.30	775	0.35	823	0.40	872	0.46	921	0.52	968	0.58	1012	0.65	1052	0.71	
1600	648	0.26	710	0.32	768	0.37	818	0.43	864	0.49	908	0.54	950	0.60	995	0.67	1039	0.74	1081	0.81	
1760	700	0.34	758	0.39	812	0.46	862	0.52	907	0.58	948	0.64	988	0.71	1027	0.77	1068	0.84	1108	0.91	
1920	753	0.43	807	0.49	858	0.55	906	0.62	952	0.70	992	0.76	1029	0.83	1066	0.89	1102	0.96	1138	1.03	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
1280	1063	0.69	1101	0.75	1138	0.81	1175	0.88	1208	0.94	
1440	1091	0.78	1128	0.85	1164	0.91	1198	0.98	1233	1.05	
1600	1120	0.88	1157	0.95	1193	1.02	1227	1.10	1259	1.17	
1760	1147	0.99	1185	1.07	1220	1.14	1256	1.23	—	—	
1920	1174	1.11	1212	1.19	1247	1.27	—	—	—	—	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Note:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK69x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 14. Belt drive evaporator fan performance - 4 tons standard efficiency - TSC048E3,E4,EW horizontal airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1280	—	—	633	0.20	704	0.26	767	0.31	822	0.37	871	0.42	915	0.48	957	0.54	997	0.60	1035	0.66	
1440	604	0.20	676	0.26	744	0.32	805	0.38	859	0.44	909	0.50	954	0.57	996	0.63	1035	0.69	1073	0.76	
1600	656	0.27	721	0.32	785	0.39	843	0.45	897	0.52	946	0.59	991	0.66	1034	0.73	1075	0.80	1110	0.87	
1760	709	0.34	768	0.40	827	0.47	883	0.54	936	0.61	984	0.69	1030	0.77	1072	0.84	1113	0.92	1149	1.00	
1920	762	0.43	817	0.50	872	0.57	925	0.64	975	0.72	1023	0.80	1067	0.88	1109	0.97	1150	1.05	1188	1.14	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)																					

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
1280	1072	0.71	1107	0.77	1142	0.84	1176	0.90	1210	0.97	
1440	1108	0.83	1143	0.89	1176	0.96	1209	1.02	1239	1.09	
1600	1146	0.95	1180	1.02	1212	1.09	1243	1.16	—	—	
1760	1185	1.08	1219	1.16	1251	1.24	—	—	—	—	
1920	1223	1.22	1258	1.31	—	—	—	—	—	—	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK69x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 15. Belt drive evaporator fan performance - 4 tons standard efficiency - YSC048E3,E4,EW*L,M low & medium gas heat downflow airflow

External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)																				
1280	571	0.17	641	0.22	701	0.26	755	0.31	807	0.36	858	0.42	907	0.49	953	0.55	996	0.61	1037	0.67
1440	624	0.23	689	0.28	747	0.33	799	0.39	847	0.44	892	0.50	938	0.56	983	0.63	1027	0.71	1067	0.78
1600	679	0.30	740	0.35	794	0.41	844	0.47	890	0.53	933	0.59	975	0.66	1016	0.72	1057	0.80	1097	0.88
1760	735	0.38	791	0.44	843	0.51	891	0.58	936	0.64	977	0.71	1017	0.77	1056	0.84	1092	0.91	1130	0.99
1920	791	0.48	844	0.55	893	0.62	939	0.69	982	0.76	1023	0.84	1061	0.91	1097	0.98	1133	1.05	1168	1.13
										1-hp Standard Motor & Field Supplied High Static Drive ^(b)										

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm
1-hp Standard Motor & Drive											
1280	1075	0.73	1113	0.79	1147	0.85	1181	0.92	1215	0.98	
1440	1106	0.85	1143	0.91	1179	0.98	1211	1.05	1245	1.11	
1600	1137	0.96	1173	1.04	1209	1.12	1242	1.19	—	—	
1760	1166	1.07	1203	1.16	1239	1.25	—	—	—	—	
1920	1201	1.21	1236	1.29	—	—	—	—	—	—	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = $2.7672 \times \text{Fan bhp} + 0.4705$.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK69x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 16. Belt drive evaporator fan performance - 4 tons standard efficiency - YSC048E3,E4,EW*L,M low & medium gas heat horizontal airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm		rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1280	—	—	638	0.21	704	0.26	766	0.31	822	0.37	875	0.42	922	0.48	968	0.54	1010	0.60	1052	0.66	
1440	621	0.22	685	0.26	746	0.32	804	0.38	858	0.44	909	0.50	957	0.56	1002	0.63	1043	0.70	1084	0.76	
1600	676	0.29	734	0.34	790	0.39	844	0.45	896	0.52	946	0.59	992	0.66	1036	0.73	1078	0.80	1118	0.87	
1760	732	0.37	786	0.42	838	0.48	888	0.55	936	0.62	984	0.69	1029	0.76	1071	0.84	1112	0.91	1152	0.99	
1920	789	0.47	839	0.53	887	0.59	934	0.66	979	0.73	1023	0.80	1067	0.88	1108	0.96	1149	1.04	1187	1.13	
											1-hp Standard Motor & Field Supplied High Static Drive ^(b)										

Continued

		External Static Pressure (Inches of Water)									
		1.10		1.20		1.30		1.40		1.50	
cfm		rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive											
1280	1091	0.73	1129	0.79	1166	0.85	1201	0.92	1234	0.98	
1440	1122	0.83	1159	0.90	1196	0.97	1230	1.04	—	—	
1600	1155	0.95	1192	1.02	1228	1.10	1261	1.17	—	—	
1760	1189	1.07	1225	1.15	1261	1.24	—	—	—	—	
1920	1225	1.21	1260	1.30	—	—	—	—	—	—	
1-hp Standard Motor & Field Supplied High Static Drive^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK69x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 17. Belt drive evaporator fan performance - 4 tons standard efficiency - YSC048E3,E4,EW*H high gas heat downflow airflow

External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive									
1280	586	0.17	652	0.21	711	0.26	766	0.31	818	0.36	870	0.41	919	0.47	965	0.53	1008	0.59	1049	0.65
1440	642	0.23	704	0.28	759	0.33	810	0.38	859	0.43	906	0.49	951	0.55	996	0.61	1039	0.68	1080	0.74
1600	699	0.30	757	0.36	809	0.41	857	0.47	903	0.53	947	0.59	990	0.65	1030	0.71	1071	0.78	1111	0.85
1760	757	0.39	811	0.45	861	0.51	906	0.57	950	0.63	991	0.70	1031	0.76	1071	0.83	1109	0.90	1146	0.97
1920	816	0.49	867	0.56	914	0.63	957	0.69	998	0.76	1037	0.82	1076	0.89	1113	0.96	1149	1.04	1184	1.11
												1-hp Standard Motor & Field Supplied High Static Drive ^(b)								

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
1280	1086	0.71	1122	0.77	1157	0.83	1190	0.89	1221	0.94	
1440	1119	0.81	1156	0.88	1191	0.94	1224	1.01	1257	1.08	
1600	1151	0.92	1187	0.99	1223	1.07	1258	1.14	—	—	
1760	1182	1.04	1218	1.12	1255	1.20	—	—	—	—	
1920	1219	1.19	1252	1.27	—	—	—	—	—	—	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = $2.7672 \times \text{Fan bhp} + 0.4705$.
6. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK69x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 18. Belt drive evaporator fan performance - 4 tons standard efficiency - YSC048E3,E4,EW*H high gas heat horizontal airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1280	587	0.18	659	0.23	722	0.28	782	0.33	835	0.39	886	0.45	931	0.51	975	0.57	1016	0.64	1056	0.70	
1440	641	0.24	709	0.29	769	0.35	824	0.41	876	0.47	924	0.53	970	0.60	1013	0.67	1053	0.74	1092	0.81	
1600	696	0.31	761	0.37	817	0.44	869	0.50	918	0.56	965	0.63	1009	0.70	1053	0.78	1092	0.85	1131	0.93	
1760	753	0.40	813	0.47	867	0.54	917	0.61	963	0.68	1008	0.75	1051	0.82	1092	0.90	1132	0.98	1169	1.06	
1920	810	0.50	867	0.58	919	0.66	966	0.73	1011	0.81	1053	0.88	1094	0.96	1134	1.04	1172	1.12	1209	1.21	
											1-hp Standard Motor & Field Supplied High Static Drive ^(b)										

Continued

		External Static Pressure (Inches of Water)									
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
1280	1095	0.76	1131	0.83	1167	0.89	1200	0.95	1233	1.02	
1440	1130	0.88	1164	0.95	1199	1.02	1234	1.09	—	—	
1600	1167	1.00	1201	1.08	1236	1.16	—	—	—	—	
1760	1206	1.14	1240	1.22	—	—	—	—	—	—	
1920	1245	1.30	—	—	—	—	—	—	—	—	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = $2.7672 \times \text{Fan bhp} + 0.4705$.
6. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK69x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 19. Belt drive evaporator fan performance - 5 tons standard efficiency - TSC060E3,E4,EW downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm		rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1600	—	—		706	0.31	763	0.37	814	0.42	862	0.47	908	0.53	951	0.59	992	0.65	1031	0.71	1069	0.77
1800	710	0.35		767	0.41	819	0.47	868	0.53	913	0.59	957	0.66	998	0.72	1038	0.78	1075	0.85	1112	0.91
2000	777	0.46		828	0.53	877	0.60	924	0.67	967	0.74	1008	0.80	1047	0.87	1086	0.94	1122	1.01	1157	1.08
2200	844	0.60		892	0.68	938	0.75	981	0.83	1022	0.90	1061	0.97	1099	1.05	1136	1.13	1170	1.20	1205	1.28
2400	912	0.77		957	0.85	999	0.93	1040	1.01	1079	1.09	1117	1.17	1153	1.25	1187	1.33	1222	1.42	1254	1.50

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
1600	1105	0.83	1140	0.89	1174	0.96	1209	1.03	1242	1.10	
1800	1146	0.98	1181	1.05	1213	1.12	1245	1.19	1276	1.26	
2000	1191	1.15	1225	1.23	1256	1.30	1287	1.37	—	—	
2200	1238	1.35	1269	1.43	—	—	—	—	—	—	
2400	1286	1.58	—	—	—	—	—	—	—	—	

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure
5. drop due to other options/accessories.
6. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp+0.4705.
7. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK61x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 20. Belt drive evaporator fan performance - 5 tons standard efficiency - TSC060E3,E4,EW horizontal airflow

External Static Pressure (Inches of Water)																					
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1600	653	0.26	714	0.31	774	0.37	829	0.43	879	0.48	924	0.54	967	0.60	1007	0.66	1045	0.71	1082	0.78	
1800	720	0.36	775	0.41	829	0.47	881	0.54	930	0.60	975	0.67	1016	0.73	1055	0.79	1093	0.86	1128	0.92	
2000	787	0.47	837	0.54	887	0.60	935	0.67	982	0.74	1026	0.81	1068	0.88	1106	0.96	1142	1.03	1176	1.10	
2200	856	0.61	902	0.68	947	0.75	992	0.83	1036	0.90	1078	0.98	1119	1.06	1157	1.14	1193	1.22	1227	1.30	
2400	926	0.78	969	0.86	1010	0.94	1051	1.01	1092	1.09	1131	1.17	1170	1.26	1208	1.35	1244	1.43	1278	1.52	

Continued

External Static Pressure (Inches of Water)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive										
1600	1118	0.84	1152	0.90	1187	0.97	1219	1.04	1253	1.11
1800	1163	0.99	1195	1.06	1228	1.13	1260	1.20	1291	1.28
2000	1210	1.17	1243	1.24	1274	1.32	—	—	—	—
2200	1260	1.38	1292	1.45	—	—	—	—	—	—
2400	—	—	—	—	—	—	—	—	—	—

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = $2.7672 \times \text{Fan bhp} + 0.4705$.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK61x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 21. Belt drive evaporator fan performance - 5 tons standard efficiency - YSC060E3,E4,EW*L,M low & medium gas heat downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)										1-hp Standard Motor & Drive											
1600	704	0.31	762	0.36	815	0.42	861	0.47	904	0.53	947	0.58	987	0.64	1028	0.70	1064	0.75	1101	0.82	
1800	777	0.42	831	0.48	880	0.54	925	0.60	966	0.67	1005	0.73	1043	0.79	1080	0.86	1116	0.92	1151	0.98	
2000	851	0.56	901	0.63	947	0.70	990	0.77	1031	0.83	1068	0.90	1102	0.97	1137	1.04	1171	1.11	1205	1.18	
2200	926	0.73	973	0.81	1016	0.88	1057	0.96	1096	1.03	1131	1.10	1165	1.18	1198	1.26	1229	1.33	1260	1.41	
2400	1002	0.93	1045	1.01	1086	1.10	1124	1.18	1162	1.26	1197	1.34	1230	1.42	1261	1.51	1291	1.59	—	—	

Continued

External Static Pressure (Inches of Water)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive										
1600	1137	0.88	1172	0.95	1205	1.01	1238	1.08	1270	1.15
1800	1186	1.05	1217	1.12	1251	1.19	1281	1.26	—	—
2000	1237	1.25	1269	1.32	—	—	—	—	—	—
2200	1291	1.49	—	—	—	—	—	—	—	—
2400	—	—	—	—	—	—	—	—	—	—

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp+0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK61x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 22. Belt drive evaporator fan performance - 5 tons standard efficiency - YSC060E3,E4,EW*L,M low & medium gas heat horizontal airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)										1-hp Standard Motor & Drive											
1600	—	—	732	0.33	789	0.38	843	0.43	894	0.49	941	0.55	986	0.61	1028	0.68	1069	0.74	1107	0.80	
1800	741	0.38	795	0.43	848	0.49	898	0.55	946	0.61	991	0.68	1034	0.74	1075	0.81	1114	0.88	1151	0.95	
2000	811	0.50	861	0.57	909	0.63	956	0.69	1000	0.76	1044	0.83	1084	0.90	1124	0.97	1162	1.05	1198	1.12	
2200	883	0.65	929	0.72	973	0.79	1016	0.86	1058	0.94	1098	1.01	1138	1.09	1176	1.16	1213	1.24	1249	1.32	
2400	955	0.83	997	0.91	1038	0.99	1078	1.06	1118	1.14	1156	1.22	1193	1.30	1229	1.38	1264	1.46	—	—	

Continued

		External Static Pressure (Inches of Water)									
		1.10		1.20		1.30		1.40		1.50	
cfm		rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive											
1600	1144	0.87		1180	0.94	1213	1.00	1247	1.07	1279	1.14
1800	1188	1.02		1224	1.10	1257	1.17	1289	1.24	—	—
2000	1234	1.20		1269	1.28	—	—	—	—	—	—
2200	1282	1.40		—	—	—	—	—	—	—	—
2400	—	—		—	—	—	—	—	—	—	—

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp+0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK61x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 23. Belt drive evaporator fan performance - 5 tons standard efficiency - YSC060E3,E4,EW*H high gas heat downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1600	714	0.32	773	0.37	827	0.43	873	0.48	916	0.54	959	0.60	1003	0.66	1044	0.73	1083	0.79	1122	0.86	
1800	788	0.44	842	0.50	893	0.56	939	0.62	980	0.68	1019	0.75	1056	0.81	1095	0.88	1133	0.95	1170	1.02	
2000	863	0.58	914	0.65	961	0.72	1005	0.79	1045	0.86	1082	0.93	1117	0.99	1152	1.07	1187	1.14	1221	1.22	
2200	939	0.76	986	0.84	1030	0.92	1073	0.99	1112	1.07	1148	1.14	1182	1.21	1214	1.29	1246	1.37	1277	1.44	
2400	1016	0.97	1060	1.05	1101	1.14	1141	1.22	1179	1.31	1215	1.39	1248	1.47	1280	1.55	—	—	—	—	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm
1-hp Standard Motor & Drive											
1600	1157	0.92	1193	0.99	1226	1.06	1258	1.12	1290	1.19	
1800	1205	1.10	1240	1.17	1273	1.24	—	—	—	—	
2000	1256	1.30	1289	1.38	—	—	—	—	—	—	
2200	—	—	—	—	—	—	—	—	—	—	
2400	—	—	—	—	—	—	—	—	—	—	

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp+0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK61x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 24. Belt drive evaporator fan performance - 5 tons standard efficiency - YSC060E3,E4,EW*H high gas heat horizontal airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)										1-hp Standard Motor & Drive											
1600	711	0.30	769	0.36	823	0.41	874	0.47	923	0.53	969	0.59	1010	0.65	1050	0.71	1088	0.78	1126	0.84	
1800	784	0.42	839	0.48	889	0.54	935	0.60	981	0.67	1024	0.73	1066	0.80	1104	0.87	1142	0.94	1177	1.00	
2000	859	0.56	910	0.63	956	0.69	999	0.76	1041	0.83	1083	0.90	1123	0.98	1161	1.05	1197	1.12	1232	1.20	
2200	934	0.72	982	0.80	1026	0.88	1067	0.95	1106	1.03	1144	1.10	1181	1.18	1218	1.26	1254	1.34	1288	1.42	
2400	1010	0.92	1055	1.01	1097	1.09	1135	1.17	1173	1.25	1208	1.34	1242	1.42	1277	1.50	—	—	—	—	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm
1-hp Standard Motor & Drive											
1600	1163	0.91	1197	0.98	1232	1.05	1265	1.12	1296	1.19	
1800	1211	1.08	1244	1.15	1278	1.22	—	—	—	—	
2000	1265	1.28	—	—	—	—	—	—	—	—	
2200	—	—	—	—	—	—	—	—	—	—	
2400	—	—	—	—	—	—	—	—	—	—	

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 60, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp+0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK61x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 25. Multispeed direct drive evaporator fan performance 3 - 5 tons - high efficiency - no electric heat THC036,048,060E3,4/THC048,060F3,4

			External Static Pressure (Inches of Water) & Motor Power (Bhp) ^(a)														
Tons	Unit Model Number	cfm	Standard Low					Standard High									
			Rated Speed Set 1			Speed Set 2			Mid Speed Set 3			Speed Set 4			High Speed Set 5		
			ESP	rpm	bhp	ESP	rpm	bhp	ESP	rpm	bhp	ESP	rpm	bhp	ESP	rpm	bhp
3	THC036E3,4 Downflow Airflow	960	0.45	715	0.21	0.74	851	0.31	0.92	929	0.38	1.07	993	0.44	1.25	1053	0.52
3		1020	0.39	695	0.20	0.66	826	0.30	0.84	905	0.37	0.99	969	0.43	1.17	1030	0.50
3		1080	0.33	675	0.20	0.59	800	0.29	0.77	880	0.36	0.91	945	0.42	1.08	1007	0.49
3		1140	0.27	654	0.19	0.51	774	0.28	0.69	855	0.35	0.83	921	0.41	1.00	985	0.48
3		1200	0.21	634	0.18	0.43	749	0.27	0.61	831	0.34	0.75	898	0.40	0.91	962	0.47
3		1260	0.15	614	0.18	0.35	723	0.26	0.53	806	0.33	0.67	874	0.39	0.83	939	0.46
3		1320	0.09	593	0.17	0.28	697	0.25	0.45	782	0.32	0.59	850	0.38	0.74	916	0.45
3		1380	0.03	573	0.17	0.20	671	0.24	0.37	757	0.31	0.51	826	0.37	0.66	893	0.44
3		1440	—	—	—	0.12	646	0.23	0.29	732	0.30	0.43	802	0.36	0.57	871	0.43
3		960	0.45	711	0.21	0.70	835	0.30	0.89	913	0.37	1.04	978	0.44	1.21	1037	0.51
3	THC036E3,4 Horizontal Airflow	1020	0.39	689	0.20	0.63	811	0.29	0.81	890	0.36	0.96	957	0.43	1.13	1016	0.50
3		1080	0.32	667	0.19	0.56	787	0.28	0.73	868	0.35	0.88	935	0.42	1.04	996	0.49
3		1140	0.26	644	0.19	0.48	763	0.28	0.65	845	0.34	0.80	913	0.41	0.95	975	0.48
3		1200	0.20	622	0.18	0.41	739	0.27	0.57	823	0.33	0.72	892	0.40	0.87	955	0.47
3		1260	0.13	599	0.17	0.33	715	0.26	0.50	800	0.32	0.64	870	0.39	0.78	934	0.46
3		1320	0.07	577	0.17	0.26	691	0.25	0.42	777	0.32	0.56	848	0.38	0.69	913	0.45
3		1380	0.01	555	0.16	0.18	667	0.24	0.34	755	0.31	0.48	826	0.37	0.61	893	0.44
3		1440	—	—	—	0.11	642	0.23	0.26	732	0.30	0.40	805	0.36	0.52	872	0.43
4	THC048E/F3,4 Downflow Airflow	1280	0.65	805	0.31	0.86	902	0.40	1.04	966	0.48	1.27	1042	0.58	—	—	—
4		1360	0.55	769	0.30	0.76	866	0.38	0.94	934	0.46	1.17	1010	0.56	1.43	1113	0.68
4		1440	0.46	733	0.28	0.66	830	0.37	0.84	902	0.44	1.06	977	0.54	1.31	1078	0.66
4		1520	0.36	696	0.27	0.56	794	0.35	0.74	869	0.43	0.95	944	0.52	1.20	1043	0.64
4		1600	0.27	660	0.25	0.46	758	0.33	0.63	837	0.41	0.85	912	0.50	1.08	1009	0.62
4		1680	0.17	624	0.24	0.36	722	0.32	0.53	805	0.40	0.74	879	0.49	0.97	974	0.60
4		1760	—	—	—	0.26	686	0.30	0.43	772	0.38	0.63	847	0.47	0.85	939	0.58
4		1840	—	—	—	0.16	650	0.29	0.33	740	0.36	0.53	814	0.45	0.74	905	0.55
4		1920	—	—	—	0.06	614	0.27	0.23	707	0.35	0.42	782	0.43	0.62	870	0.53
4		1280	0.56	795	0.31	0.77	880	0.39	0.95	967	0.48	1.16	1040	0.57	—	—	—
4	THC048E/F3,4 Horizontal Airflow	1360	0.48	760	0.29	0.67	847	0.37	0.86	935	0.46	1.06	1010	0.56	1.26	1105	0.68
4		1440	0.39	725	0.28	0.58	814	0.36	0.76	903	0.44	0.96	980	0.54	1.16	1075	0.66
4		1520	0.30	690	0.27	0.48	780	0.34	0.66	871	0.43	0.86	951	0.53	1.06	1045	0.64
4		1600	0.22	655	0.25	0.39	747	0.33	0.57	838	0.41	0.76	921	0.51	0.96	1016	0.62
4		1680	0.13	619	0.24	0.30	714	0.31	0.47	806	0.40	0.66	891	0.49	0.86	986	0.60
4		1760	—	—	—	0.20	681	0.30	0.37	774	0.38	0.56	861	0.48	0.76	956	0.59
4		1840	—	—	—	0.11	647	0.29	0.28	742	0.37	0.46	831	0.46	0.66	926	0.57
4		1920	—	—	—	0.01	614	0.27	0.18	710	0.35	0.36	802	0.44	0.56	896	0.55
5	THC060E/F3,4 Downflow Airflow	1600	0.82	918	0.50	1.04	1002	0.60	1.26	1087	0.72	—	—	—	—	—	—
5		1700	0.67	873	0.47	0.89	957	0.58	1.11	1043	0.69	—	—	—	—	—	—
5		1800	0.53	828	0.45	0.74	913	0.55	0.96	1000	0.66	1.16	1083	0.78	—	—	—
5		1900	0.39	782	0.42	0.59	869	0.52	0.82	957	0.63	1.02	1041	0.75	1.17	1099	0.85
5		2000	0.25	737	0.40	0.45	824	0.50	0.67	914	0.60	0.87	999	0.72	1.02	1056	0.82
5		2100	0.11	692	0.37	0.30	780	0.47	0.52	870	0.58	0.72	957	0.69	0.87	1014	0.78
5		2200	—	—	—	0.15	735	0.44	0.37	827	0.55	0.57	914	0.66	0.71	971	0.75
5		2300	—	—	—	0.00	691	0.42	0.22	784	0.52	0.42	872	0.63	0.56	929	0.72
5		2400	—	—	—	—	—	—	0.07	741	0.49	0.27	830	0.60	0.41	886	0.68
5		1600	0.71	918	0.50	0.91	1001	0.60	1.09	1070	0.71	—	—	—	—	—	—
5	THC060E/F3,4 Horizontal Airflow	1700	0.59	875	0.47	0.78	959	0.58	0.96	1029	0.68	1.11	1102	0.79	—	—	—
5		1800	0.46	832	0.45	0.65	916	0.55	0.82	987	0.65	0.97	1063	0.77	—	—	—
5		1900	0.33	788	0.43	0.51	874	0.53	0.68	945	0.62	0.84	1023	0.74	1.01	1093	0.85
5		2000	0.21	745	0.40	0.38	831	0.50	0.54	903	0.60	0.71	984	0.71	0.87	1052	0.81
5		2100	0.08	701	0.38	0.25	788	0.47	0.41	861	0.57	0.57	944	0.68	0.73	1010	0.78
5		2200	—	—	—	0.12	746	0.45	0.27	819	0.54	0.44	904	0.65	0.59	968	0.75
5		2300	—	—	—	—	—	—	0.13	778	0.51	0.31	865	0.62	0.45	926	0.72
5		2400	—	—	—	—	—	—	—	—	—	0.17	825	0.59	0.31	884	0.68

For 036 Models, fan motor heat (MBh) = 2.72 x Fan Bhp + 0.16.

For 048 & 060 Models, fan motor heat (MBh) = 2.87 x Fan Bhp + 0.15.

Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Data includes pressure drop due to wet coil and filters.

Evaporator Fan Performance

Table 26. Multispeed direct drive evaporator fan performance 3 - 5 tons - high efficiency - low & medium gas heat
YHC036,048,060E3,4/YHC048,060F3,4

Tons	Unit Model Number	cfm	External Static Pressure (Inches of Water) & Motor Power (Bhp) ^(a)														
			Standard Low					Standard High					High Speed				
			Rated Speed Set 1			Speed Set 2			Mid Speed Set 3			Speed Set 4			Speed Set 5		
			ESP	rpm	bhp	ESP	rpm	bhp	ESP	rpm	bhp	ESP	rpm	bhp	ESP	rpm	bhp
3	YHC036E3,4*L,M Downflow Airflow	960	0.43	718	0.19	0.64	825	0.27	0.88	923	0.35	1.12	1017	0.46	1.28	1074	0.52
3		1020	0.37	696	0.18	0.57	800	0.26	0.80	900	0.35	1.04	997	0.45	1.20	1053	0.51
3		1080	0.30	675	0.18	0.49	775	0.26	0.72	877	0.34	0.96	977	0.44	1.11	1033	0.50
3		1140	0.24	654	0.17	0.42	749	0.25	0.64	854	0.33	0.87	957	0.43	1.03	1013	0.49
3		1200	0.18	633	0.17	0.34	724	0.24	0.56	832	0.32	0.79	938	0.42	0.94	992	0.48
3		1260	0.11	612	0.16	0.26	698	0.23	0.48	809	0.31	0.71	918	0.41	0.86	972	0.47
3		1320	0.05	590	0.16	0.19	673	0.22	0.39	786	0.30	0.63	898	0.40	0.77	951	0.46
3		1380	—	—	—	0.11	647	0.21	0.31	763	0.29	0.55	878	0.39	0.68	931	0.45
3		1440	—	—	—	0.03	622	0.21	0.23	740	0.28	0.47	859	0.38	0.60	910	0.44
3	YHC036E3,4*L,M Horizontal Airflow	960	0.42	715	0.19	0.67	842	0.28	0.90	937	0.36	1.15	1037	0.46	1.25	1062	0.51
3		1020	0.37	695	0.18	0.61	819	0.27	0.83	916	0.35	1.07	1014	0.45	1.18	1047	0.50
3		1080	0.31	675	0.18	0.54	796	0.26	0.75	895	0.34	0.99	992	0.44	1.11	1032	0.50
3		1140	0.26	654	0.17	0.47	772	0.26	0.68	874	0.34	0.91	970	0.43	1.04	1017	0.49
3		1200	0.20	634	0.17	0.41	749	0.25	0.61	853	0.33	0.83	948	0.42	0.97	1002	0.48
3		1260	0.14	614	0.16	0.34	725	0.24	0.54	832	0.32	0.75	926	0.41	0.90	987	0.48
3		1320	0.09	594	0.16	0.27	702	0.23	0.47	811	0.31	0.67	903	0.40	0.83	972	0.47
3		1380	0.03	574	0.15	0.20	678	0.22	0.40	789	0.30	0.59	881	0.39	0.76	957	0.46
3		1440	—	—	—	0.14	654	0.22	0.33	768	0.29	0.51	859	0.38	0.69	942	0.45
4	YHC048E/F3,4*L,M Downflow Airflow	1280	0.69	820	0.33	0.88	903	0.41	1.07	969	0.49	1.07	969	0.49	1.27	1039	0.58
4		1360	0.59	785	0.32	0.78	869	0.40	0.96	936	0.48	0.96	936	0.48	1.16	1007	0.56
4		1440	0.49	750	0.30	0.68	835	0.38	0.86	903	0.46	0.86	903	0.46	1.05	976	0.55
4		1520	0.40	714	0.29	0.58	801	0.37	0.75	870	0.44	0.75	870	0.44	0.94	944	0.53
4		1600	0.30	679	0.27	0.48	767	0.35	0.65	837	0.42	0.65	837	0.42	0.84	912	0.51
4		1680	0.20	643	0.26	0.38	733	0.34	0.54	804	0.41	0.54	804	0.41	0.73	881	0.49
4		1760	0.10	608	0.25	0.28	699	0.32	0.44	771	0.39	0.44	771	0.39	0.62	849	0.48
4		1840	0.01	572	0.23	0.18	666	0.31	0.33	738	0.37	0.33	738	0.37	0.51	817	0.46
4		1920	—	—	—	0.08	632	0.29	0.23	705	0.36	0.23	705	0.36	0.41	786	0.44
4	YHC048E/F3,4*L,M Horizontal Airflow	1280	0.61	813	0.33	0.81	896	0.41	1.00	977	0.50	1.00	977	0.50	1.17	1044	0.58
4		1360	0.51	777	0.31	0.70	862	0.40	0.89	944	0.48	0.89	944	0.48	1.06	1011	0.57
4		1440	0.42	742	0.30	0.60	828	0.38	0.79	911	0.46	0.79	911	0.46	0.95	979	0.55
4		1520	0.32	707	0.28	0.50	794	0.36	0.68	878	0.45	0.68	878	0.45	0.84	946	0.53
4		1600	0.22	671	0.27	0.40	760	0.35	0.57	845	0.43	0.57	845	0.43	0.73	913	0.51
4		1680	0.13	636	0.26	0.29	725	0.33	0.46	812	0.41	0.46	812	0.41	0.62	881	0.49
4		1760	0.03	600	0.24	0.19	691	0.32	0.36	779	0.40	0.36	779	0.40	0.51	848	0.47
4		1840	—	—	—	0.09	657	0.30	0.25	746	0.38	0.25	746	0.38	0.40	815	0.46
4		1920	—	—	—	—	—	—	0.14	713	0.36	0.14	713	0.36	0.29	783	0.44
5	YHC060E/F3,4*L,M Downflow Airflow	1600	0.90	962	0.55	1.07	1027	0.64	1.28	1099	0.75	—	—	—	—	—	—
5		1700	0.76	919	0.53	0.93	985	0.61	1.14	1060	0.72	—	—	—	—	—	—
5		1800	0.62	875	0.50	0.78	943	0.59	0.99	1022	0.70	1.15	1092	0.81	—	—	—
5		1900	0.48	832	0.48	0.64	900	0.56	0.84	984	0.67	1.00	1051	0.78	1.18	1116	0.89
5		2000	0.34	788	0.45	0.49	858	0.53	0.70	945	0.65	0.86	1010	0.75	1.03	1076	0.86
5		2100	0.20	745	0.43	0.35	815	0.51	0.55	907	0.62	0.71	969	0.72	0.88	1037	0.83
5		2200	0.06	701	0.40	0.20	773	0.48	0.41	868	0.59	0.56	928	0.69	0.73	997	0.80
5		2300	—	—	—	0.06	730	0.46	0.26	830	0.57	0.41	887	0.66	0.58	958	0.77
5		2400	—	—	—	—	—	—	0.12	792	0.54	0.26	846	0.63	0.43	918	0.73
5	YHC060E/F3,4*L,M Horizontal Airflow	1600	0.75	944	0.54	0.91	1010	0.63	1.10	1094	0.75	—	—	—	—	—	—
5		1700	0.61	899	0.52	0.77	969	0.60	0.96	1052	0.72	1.12	1114	0.82	—	—	—
5		1800	0.48	855	0.49	0.63	927	0.58	0.82	1011	0.69	0.97	1074	0.79	—	—	—
5		1900	0.34	811	0.47	0.49	885	0.55	0.67	969	0.66	0.83	1035	0.76	1.01	1111	0.89
5		2000	0.20	766	0.44	0.35	843	0.53	0.53	928	0.63	0.68	995	0.74	0.87	1070	0.85
5		2100	0.07	722	0.42	0.21	801	0.50	0.39	887	0.61	0.54	956	0.71	0.72	1028	0.82
5		2200	—	—	—	0.07	759	0.47	0.25	845	0.58	0.39	916	0.68	0.57	987	0.79
5		2300	—	—	—	—	—	—	0.10	804	0.55	0.25	877	0.65	0.42	945	0.76
5		2400	—	—	—	—	—	—	—	—	—	0.10	837	0.62	0.27	904	0.72

For 036 Models, fan motor heat (MBh) = 2.72 x Fan Bhp + 0.16.

For 048 & 060 Models, fan motor heat (MBh) = 2.87 x Fan Bhp + 0.15.

Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Data includes pressure drop due to wet coil and filters.

Evaporator Fan Performance

Table 27. Multispeed direct drive evaporator fan performance 3 - 5 tons - high efficiency - high heat /YHC036,048,060E3,4/YHC048,060F3,4

		External Static Pressure (Inches of Water) & Motor Power (Bhp) ^(a)															
		Standard Low									Standard High						
		Rated			Speed			Mid Speed			Speed			High Speed			
		Speed Set 1			Speed Set 2			Speed Set 3			Speed Set 4			Speed Set 5			
Tons	Unit Model Number	cfm	ESP	rpm	bhp	ESP	rpm	bhp	ESP	rpm	bhp	ESP	rpm	bhp	ESP	rpm	bhp
3	YHC036E3,4*H Downflow Airflow	960	0.43	718	0.19	0.64	825	0.26	0.88	923	0.34	1.12	1017	0.44	1.28	1074	0.51
3		1020	0.37	696	0.19	0.57	800	0.26	0.80	900	0.34	1.04	997	0.43	1.20	1053	0.50
3		1080	0.30	675	0.18	0.49	775	0.25	0.72	877	0.33	0.96	977	0.42	1.11	1033	0.49
3		1140	0.24	654	0.18	0.42	749	0.24	0.64	854	0.32	0.87	957	0.42	1.03	1013	0.48
3		1200	0.18	633	0.17	0.34	724	0.23	0.56	832	0.31	0.79	938	0.41	0.94	992	0.47
3		1260	0.11	612	0.16	0.26	698	0.22	0.48	809	0.30	0.71	918	0.40	0.86	972	0.46
3		1320	0.05	590	0.16	0.19	673	0.21	0.39	786	0.29	0.63	898	0.39	0.77	951	0.45
3		1380	—	—	—	0.11	647	0.21	0.31	763	0.28	0.55	878	0.38	0.68	931	0.44
3		1440	—	—	—	0.03	622	0.20	0.23	740	0.28	0.47	859	0.37	0.60	910	0.43
3	YHC036E3,4*H Horizontal Airflow	960	0.44	732	0.20	0.65	836	0.27	0.87	935	0.35	1.12	1033	0.45	1.25	1078	0.51
3		1020	0.37	708	0.19	0.58	811	0.26	0.80	911	0.34	1.03	1010	0.44	1.17	1059	0.50
3		1080	0.31	684	0.18	0.51	787	0.25	0.72	886	0.33	0.95	987	0.43	1.09	1040	0.49
3		1140	0.24	660	0.18	0.43	762	0.24	0.64	862	0.32	0.87	964	0.42	1.01	1021	0.48
3		1200	0.18	636	0.17	0.36	737	0.24	0.56	838	0.31	0.79	941	0.41	0.93	1002	0.47
3		1260	0.11	612	0.16	0.29	712	0.23	0.48	814	0.30	0.70	918	0.40	0.85	983	0.47
3		1320	0.05	588	0.16	0.21	688	0.22	0.40	789	0.29	0.62	895	0.39	0.77	964	0.46
3		1380	—	—	—	0.14	663	0.21	0.32	765	0.28	0.54	872	0.38	0.69	945	0.45
3		1440	—	—	—	0.07	638	0.20	0.24	741	0.28	0.45	849	0.37	0.61	926	0.44
4	YHC048E/F3,4*H Downflow Airflow	1280	0.69	833	0.35	0.90	924	0.43	1.07	989	0.51	1.07	989	0.51	1.27	1066	0.61
4		1360	0.60	796	0.33	0.80	889	0.42	0.97	956	0.50	0.97	956	0.50	1.17	1033	0.59
4		1440	0.50	759	0.32	0.71	855	0.40	0.87	922	0.48	0.87	922	0.48	1.06	1000	0.57
4		1520	0.40	722	0.30	0.61	820	0.39	0.77	889	0.46	0.77	889	0.46	0.96	966	0.56
4		1600	0.31	684	0.29	0.51	785	0.37	0.67	855	0.44	0.67	855	0.44	0.85	933	0.54
4		1680	0.21	647	0.27	0.41	751	0.35	0.57	822	0.43	0.57	822	0.43	0.75	900	0.52
4		1760	0.12	610	0.26	0.31	716	0.34	0.47	788	0.41	0.47	788	0.41	0.64	867	0.50
4		1840	—	—	—	0.22	681	0.32	0.37	755	0.39	0.37	755	0.39	0.54	834	0.48
4		1920	—	—	—	0.12	647	0.30	0.27	721	0.37	0.27	721	0.37	0.43	801	0.46
4	YHC048E/F3,4*H Horizontal Airflow	1280	0.60	822	0.34	0.81	912	0.43	0.97	986	0.51	0.97	986	0.51	1.18	1063	0.61
4		1360	0.51	787	0.33	0.70	876	0.41	0.87	952	0.49	0.87	952	0.49	1.07	1031	0.59
4		1440	0.41	752	0.31	0.60	840	0.40	0.76	918	0.48	0.76	918	0.48	0.96	998	0.57
4		1520	0.31	718	0.30	0.49	805	0.38	0.66	885	0.46	0.66	885	0.46	0.84	966	0.56
4		1600	0.22	683	0.29	0.38	769	0.36	0.55	851	0.44	0.55	851	0.44	0.73	933	0.54
4		1680	0.12	648	0.27	0.28	733	0.34	0.45	818	0.42	0.45	818	0.42	0.62	901	0.52
4		1760	0.03	613	0.26	0.17	697	0.33	0.34	784	0.41	0.34	784	0.41	0.51	868	0.50
4		1840	—	—	—	0.07	661	0.31	0.23	750	0.39	0.23	750	0.39	0.40	836	0.48
4		1920	—	—	—	—	—	—	0.13	717	0.37	0.13	717	0.37	0.29	803	0.46
5	YHC060E/F3,4*H Downflow Airflow	1600	0.90	955	0.57	1.06	1022	0.66	1.25	1095	0.77	—	—	—	—	—	—
5		1700	0.76	910	0.54	0.92	977	0.63	1.11	1052	0.74	1.28	1113	0.85	—	—	—
5		1800	0.62	865	0.52	0.77	932	0.60	0.96	1009	0.71	1.13	1072	0.82	—	—	—
5		1900	0.47	819	0.49	0.63	888	0.57	0.82	966	0.68	0.98	1031	0.79	1.18	1105	0.91
5		2000	0.33	774	0.46	0.49	843	0.54	0.67	922	0.65	0.83	990	0.75	1.02	1062	0.87
5		2100	0.19	729	0.44	0.34	798	0.52	0.52	879	0.62	0.68	949	0.72	0.87	1019	0.84
5		2200	0.04	683	0.41	0.20	754	0.49	0.38	836	0.59	0.54	908	0.69	0.71	976	0.80
5		2300	—	—	—	0.05	709	0.46	0.23	793	0.56	0.39	867	0.66	0.55	933	0.77
5		2400	—	—	—	—	—	—	0.09	750	0.53	0.24	826	0.63	0.40	890	0.73
5	YHC060E/F3,4*H Horizontal Airflow	1600	0.77	948	0.57	0.95	1016	0.66	1.10	1093	0.77	—	—	—	—	—	—
5		1700	0.63	903	0.54	0.80	973	0.63	0.96	1052	0.74	—	—	—	—	—	—
5		1800	0.48	859	0.51	0.66	930	0.60	0.81	1012	0.71	1.00	1084	0.83	—	—	—
5		1900	0.34	814	0.49	0.51	888	0.57	0.67	971	0.68	0.85	1042	0.79	1.01	1106	0.91
5		2000	0.20	770	0.46	0.36	845	0.55	0.52	931	0.65	0.70	1000	0.76	0.86	1063	0.87
5		2100	0.06	725	0.43	0.22	803	0.52	0.38	890	0.62	0.55	959	0.73	0.70	1021	0.84
5		2200	—	—	—	0.07	760	0.49	0.23	850	0.60	0.39	917	0.70	0.54	979	0.80
5		2300	—	—	—	—	—	—	0.09	809	0.57	0.24	875	0.67	0.39	937	0.77
5		2400	—	—	—	—	—	—	—	—	0.00	0.09	833	0.63	0.23	894	0.73

For 036 Models, fan motor heat (MBh) = 2.72 x Fan Bhp + 0.16. For 048 & 060 Models, fan motor heat (MBh) = 2.87 x Fan Bhp + 0.15.

Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Data includes pressure drop due to wet coil and filters.

Evaporator Fan Performance

Table 28. Belt drive evaporator fan performance - 3 tons high efficiency - THC036E3,E4 downflow airflow

External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Low Static Drive Accessory Kit^(a)											1-hp Standard Motor & Drive									
600*	—	—	468	0.07	547	0.1	616	0.13	677	0.17	729	0.21	776	0.24	819	0.28	860	0.32	898	0.36
720*	386	0.05	490	0.08	570	0.12	638	0.16	697	0.12	752	0.24	802	0.28	848	0.33	889	0.37	928	0.42
840*	416	0.06	511	0.10	593	0.14	661	0.19	719	0.23	773	0.28	823	0.32	870	0.37	914	0.42	954	0.47
960	449	0.08	534	0.12	614	0.17	683	0.22	742	0.27	795	0.32	845	0.37	891	0.42	935	0.47	977	0.53
1080	483	0.11	561	0.15	635	0.20	704	0.25	765	0.30	818	0.36	868	0.42	913	0.47	957	0.53	998	0.59
1200	518	0.14	592	0.18	658	0.23	725	0.29	786	0.35	842	0.41	891	0.47	936	0.53	979	0.59	1019	0.66
1320	555	0.17	625	0.22	686	0.27	747	0.33	807	0.39	862	0.46	914	0.53	959	0.59	1002	0.66	1043	0.73
1440	592	0.21	658	0.27	717	0.32	772	0.38	828	0.44	882	0.51	933	0.58	980	0.66	1025	0.73	1065	0.80

Continued

External Static Pressure (Inches of Water)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive										
600*	934	0.41	968	0.45	1001	0.49	1034	0.54	1066	0.59
720*	965	0.46	999	0.51	1032	0.56	1065	0.61	1095	0.66
840*	992	0.53	1029	0.58	1063	0.63	1096	0.68	1125	0.74
960	1016	0.59	1054	0.65	1089	0.70	1124	0.76	1155	0.82
1080	1036	0.65	1075	0.72	1111	0.78	1146	0.84	1180	0.91
1200	1058	0.72	1095	0.78	1131	0.85	1167	0.92	1201	0.99
1320	1082	0.80	1119	0.87	1153	0.94	1188	1.01	1221	1.08
1440	1104	0.88	1141	0.95	1176	1.03	1211	1.10	1243	1.18
1-hp Standard Motor & Field Supplied High Static Drive^(b)										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
 2. Data includes pressure drop due to standard filters and wet coils. Data does not include pressure drop due to reheat coil.
 3. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
 4. 1-hp Fan Motor Heat (MBh) = $2.7672 \times \text{Fan bhp} + 0.4705$.
 5. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
- * For 600, 720, and 840 CFM, unit application below 320 CFM/Ton are only applicable on T_C models only (No Gas Heat). See below for restrictions.
 * Electric heaters restricted on applications below 320 CFM/Ton
 * Dehumidification (Hot Gas Reheat) or TXV with Froststat and Crankcase Heaters are required on applications below 320 CFM/Ton

(a) BAYLSDR006AB

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 29. Belt drive evaporator fan performance - 3 tons high efficiency - THC036E3,E4 horizontal airflow

External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Low Static Drive Accessory Kit^(a)											1-hp Standard Motor & Drive									
600*	372	0.04	472	0.06	552	0.09	619	0.12	678	0.15	730	0.18	778	0.22	823	0.25	865	0.29	904	0.32
720*	398	0.05	496	0.08	575	0.11	643	0.15	702	0.18	756	0.22	805	0.26	849	0.29	892	0.33	931	0.37
840*	422	0.06	524	0.10	598	0.13	665	0.17	726	0.22	780	0.26	829	0.30	875	0.34	918	0.39	957	0.43
960	449	0.08	552	0.12	626	0.16	689	0.20	748	0.25	802	0.30	852	0.35	898	0.39	942	0.44	982	0.49
1080	482	0.10	576	0.14	654	0.19	716	0.24	772	0.29	825	0.34	874	0.39	921	0.45	964	0.50	1005	0.55
1200	517	0.13	600	0.17	681	0.23	744	0.28	799	0.33	850	0.39	898	0.44	943	0.50	987	0.56	1028	0.62
1320	554	0.16	627	0.20	705	0.27	773	0.33	828	0.38	877	0.44	923	0.50	967	0.56	1010	0.62	1052	0.69
1440	590	0.20	657	0.24	728	0.30	797	0.37	855	0.44	904	0.50	950	0.56	993	0.63	1034	0.69	1074	0.76

Continued

External Static Pressure (Inches of Water)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive										
600*	941	0.36	977	0.4	1010	0.44	1042	0.48	1074	0.53
720*	969	0.41	1005	0.45	1040	0.5	1073	0.54	1105	0.5
840*	995	0.47	1031	0.52	1066	0.56	1100	0.61	1131	0.66
960	1020	0.54	1057	0.59	1092	0.64	1126	0.69	1158	0.74
1080	1045	0.61	1082	0.67	1116	0.72	1151	0.77	1183	0.83
1200	1067	0.68	1104	0.74	1141	0.80	1174	0.86	1207	0.92
1320	1091	0.75	1127	0.82	1163	0.88	1198	0.95	1230	1.02
1440	1112	0.83	1150	0.90	1186	0.97	1221	1.04	1254	1.11
1-hp Standard Motor & Field Supplied High Static Drive^(b)										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
 2. Data includes pressure drop due to standard filters and wet coils. Data does not include pressure drop due to reheat coil.
 3. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
 4. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
 5. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
- * For 600, 720, and 840 CFM, unit application below 320 CFM/Ton are only applicable on T_C models only (No Gas Heat). See below for restrictions.
 * Electric heaters restricted on applications below 320 CFM/Ton
 * Dehumidification (Hot Gas Reheat) or TXV with Froststat and Crankcase Heaters are required on applications below 320 CFM/Ton

(a) BAYLSDR006AB

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 30. Belt drive evaporator fan performance - 3 tons high efficiency - YHC036E3,E4*L,M low & medium gas heat downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
960	—	—	—	—	605	0.15	671	0.19	730	0.23	784	0.27	835	0.31	881	0.36	924	0.41	965	0.45	
1080	—	—	563	0.14	630	0.17	693	0.22	751	0.26	804	0.31	854	0.35	901	0.40	946	0.46	986	0.50	
1200	—	—	596	0.17	659	0.21	718	0.25	773	0.30	825	0.35	875	0.40	921	0.45	964	0.51	1005	0.56	
1320	555	0.16	629	0.20	689	0.25	745	0.29	797	0.34	848	0.40	897	0.45	941	0.51	984	0.56	1026	0.62	
1440	593	0.20	663	0.25	721	0.29	775	0.34	824	0.39	873	0.45	919	0.51	963	0.57	1006	0.63	1046	0.69	

Continued

		External Static Pressure (Inches of Water)									
		1.10		1.20		1.30		1.40		1.50	
cfm		rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive^(b)											
960	1004	0.50	1039	0.55	1073	0.59	1105	0.64	1137	0.69	
1080	1025	0.56	1063	0.61	1098	0.66	1132	0.72	1163	0.77	
1200	1046	0.62	1082	0.67	1119	0.73	1153	0.79	1187	0.85	
1320	1064	0.68	1103	0.74	1139	0.80	1174	0.86	1207	0.93	
1440	1085	0.75	1123	0.81	1159	0.88	1193	0.94	—	—	
1-hp Standard Motor & Field Supplied High Static Drive^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 31. Belt drive evaporator fan performance - 3 tons high efficiency - YHC036E3,E4*L,M low & medium gas heat horizontal airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
960	—	—	—	—	613	0.15	679	0.20	736	0.24	788	0.28	837	0.32	886	0.37	930	0.42	973	0.47	
1080	—	—	561	0.14	636	0.18	702	0.23	761	0.28	812	0.32	860	0.37	904	0.42	947	0.47	991	0.52	
1200	—	—	589	0.16	661	0.21	726	0.26	784	0.31	836	0.37	884	0.42	929	0.47	970	0.52	1011	0.58	
1320	—	—	619	0.20	687	0.25	750	0.30	807	0.36	859	0.41	909	0.47	953	0.53	995	0.59	1034	0.65	
1440	585	0.19	651	0.24	715	0.29	775	0.35	831	0.40	883	0.47	931	0.53	976	0.59	1019	0.66	1058	0.72	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
960	1014	0.53	1051	0.58	1087	0.63	1121	0.68	1155	0.74	
1080	1031	0.58	1071	0.64	1108	0.69	1142	0.75	1177	0.81	
1200	1049	0.63	1087	0.69	1124	0.75	1161	0.82	1195	0.88	
1320	1071	0.70	1107	0.76	1143	0.82	1178	0.89	1213	0.96	
1440	1095	0.78	1130	0.84	1166	0.91	1199	0.97	—	—	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 32. Belt drive evaporator fan performance - 3 tons high efficiency - YHC036E3,E4*H high gas heat downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
960	—	—	—	—	609	0.15	671	0.19	730	0.24	785	0.28	835	0.33	881	0.37	924	0.42	966	0.47	
1080	—	—	572	0.14	638	0.18	697	0.23	752	0.27	805	0.32	855	0.37	900	0.42	945	0.47	986	0.53	
1200	—	—	606	0.18	668	0.22	725	0.26	778	0.31	827	0.36	876	0.42	922	0.47	964	0.52	1007	0.58	
1320	573	0.17	641	0.22	700	0.26	754	0.31	805	0.36	853	0.41	898	0.47	942	0.53	985	0.59	1026	0.65	
1440	613	0.21	677	0.27	733	0.31	786	0.36	835	0.42	881	0.47	925	0.53	966	0.59	1007	0.65	1047	0.71	

Continued

External Static Pressure (Inches of Water)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive										
960	1004	0.52	1041	0.58	1076	0.63	1109	0.68	1142	0.73
1080	1026	0.58	1063	0.64	1098	0.69	1133	0.75	1165	0.81
1200	1046	0.64	1083	0.70	1120	0.76	1154	0.82	1187	0.88
1320	1065	0.71	1103	0.77	1139	0.83	1175	0.90	1207	0.96
1440	1086	0.78	1123	0.84	1160	0.91	1194	0.98	1227	1.05
1-hp Standard Motor & Field Supplied High Static Drive ^(b)										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 33. Belt drive evaporator fan performance - 3 tons high efficiency - YHC036E3,E4*H high gas heat horizontal airflow

External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive									
960	—	—	—	—	621	0.15	685	0.20	745	0.24	799	0.29	849	0.33	894	0.38	936	0.42	975	0.47
1080	—	—	580	0.14	649	0.19	711	0.23	768	0.28	821	0.32	871	0.38	917	0.43	960	0.48	1000	0.53
1200	—	—	613	0.18	679	0.22	738	0.27	793	0.32	845	0.37	892	0.42	939	0.48	982	0.53	1024	0.59
1320	574	0.17	647	0.22	710	0.26	767	0.31	820	0.37	870	0.42	917	0.48	962	0.53	1004	0.59	1046	0.66
1440	612	0.21	682	0.26	742	0.31	797	0.37	849	0.42	897	0.48	943	0.54	986	0.60	1028	0.66	1068	0.72

Continued

External Static Pressure (Inches of Water)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive										
960	1012	0.52	1048	0.57	1082	0.62	1116	0.67	1148	0.72
1080	1039	0.59	1075	0.64	1109	0.69	1142	0.74	1173	0.80
1200	1063	0.65	1100	0.71	1134	0.77	1168	0.83	1199	0.88
1320	1085	0.72	1122	0.78	1159	0.85	1193	0.91	1226	0.98
1440	1107	0.79	1145	0.86	1181	0.93	1216	1.00	1248	1.07
1-hp Standard Motor & Field Supplied High Static Drive ^(b)										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 34. Belt drive evaporator fan performance - 4 tons high efficiency - THC048E3,4/THC048F3,4 downflow airflow

External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Low Static Drive Accessory Kit^(a)												1-hp Standard Motor & Drive								
800*	—	—	444	0.06	526	0.09	598	0.13	663	0.16	720	0.20	772	0.24	820	0.28	863	0.32	905	0.36
960*	—	—	462	0.08	542	0.12	610	0.15	672	0.19	731	0.23	785	0.27	835	0.32	881	0.36	923	0.41
1120*	399	0.07	485	0.11	559	0.14	626	0.18	687	0.22	743	0.26	795	0.31	846	0.36	893	0.41	937	0.46
1280	429	0.10	510	0.14	581	0.17	644	0.21	703	0.26	757	0.30	809	0.35	857	0.40	903	0.45	947	0.51
1440	459	0.12	537	0.17	604	0.21	665	0.26	722	0.30	774	0.35	823	0.40	871	0.45	916	0.51	959	0.56
1600	492	0.16	567	0.21	630	0.26	689	0.31	742	0.36	793	0.41	842	0.46	887	0.51	932	0.57	974	0.63
1760	526	0.20	597	0.26	658	0.31	713	0.36	765	0.42	814	0.47	860	0.53	905	0.58	947	0.64	989	0.70
1920	561	0.25	627	0.31	687	0.37	739	0.43	790	0.49	838	0.55	882	0.60	924	0.66	966	0.72	1006	0.79

Continued

External Static Pressure (Inches of Water)											
	1.10		1.20		1.30		1.40		1.50		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
800*	942	0.40	980	0.44	1015	0.48	1047	0.53	1079	0.569	
960*	964	0.46	1002	0.50	1038	0.55	1072	0.60	1105	0.65	
1120*	979	0.51	1019	0.56	1055	0.62	1091	0.67	1125	0.725	
1280	990	0.56	1031	0.62	1069	0.68	1105	0.74	1140	0.80	
1440	999	0.62	1040	0.68	1079	0.75	1115	0.81	1152	0.87	
1600	1014	0.69	1051	0.75	1089	0.82	1125	0.88	1162	0.95	
1760	1028	0.77	1066	0.83	1104	0.90	1139	0.96	1175	1.04	
1920	1044	0.85	1083	0.92	1118	0.99	1155	1.06	1188	1.13	
1-hp Standard Motor & Field Supplied High Static Drive^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
 2. Data includes pressure drop due to standard filters and wet coils. Data does not include pressure drop due to reheat coil.
 3. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
 4. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp+0.4705.
 5. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
- * For 800, 960, and 1120 CFM, unit application below 320 CFM/Ton are only applicable on T_C models only (No Gas Heat). See below for restrictions.
 * Electric heaters restricted on applications below 320 CFM/Ton
 * Dehumidification (Hot Gas Reheat) or TXV with Froststat and Crankcase Heaters are required on applications below 320 CFM/Ton

(a) BAYLSDR006AB

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 35. Belt drive evaporator fan performance - 4 tons high efficiency - THC048E3,4/THC048F3,4 horizontal airflow

External Static Pressure (Inches of Water)																					
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Low Static Drive Accessory Kit ^(a)											1-hp Standard Motor & Drive										
800*	368	0.05	481	0.08	562	0.12	623	0.16	677	0.20	730	0.24	780	0.28	825	0.32	870	0.37	911	0.41	
960*	392	0.06	501	0.10	587	0.15	655	0.20	711	0.24	759	0.29	804	0.33	848	0.38	891.1	0.43	932	0.48	
1120*	420	0.08	519	0.13	607	0.18	679	0.23	740	0.29	792	0.34	837	0.39	879	0.45	918	0.50	955	0.55	
1280	449	0.11	541	0.16	625	0.21	700	0.27	764	0.33	819	0.40	868	0.46	912	0.52	951	0.58	989	0.64	
1440	482	0.14	567	0.19	644	0.25	718	0.32	783	0.38	841	0.45	892	0.52	939	0.59	982	0.66	1022	0.73	
1600	518	0.18	596	0.24	668	0.30	736	0.36	801	0.44	861	0.51	915	0.59	963	0.67	1007	0.74	1048	0.82	
1760	555	0.23	625	0.29	694	0.35	757	0.42	820	0.50	879	0.58	933	0.66	984	0.74	1030	0.83	1072	0.91	
1920	593	0.28	657	0.35	723	0.42	783	0.49	840	0.57	897	0.65	951	0.74	1001	0.83	1049	0.92	1093	1.01	
											1-hp Standard Motor & Field Supplied High Static Drive ^(b)										

Continued

External Static Pressure (Inches of Water)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive										
800*	950	0.46	986	0.51	1024	0.56	1057	0.602	1090	0.65
960*	972	0.53	1009	0.58	1045	0.64	1080	0.692	1111	0.74
1120*	994	0.61	1031	0.67	1067	0.73	1101	0.786	1134	0.85
1280	1023	0.70	1057	0.76	1090	0.82	1123	0.89	1157	0.95
1440	1057	0.80	1091	0.86	1123	0.93	1155	1.00	1184	1.07
1600	1087	0.90	1123	0.97	1156	1.05	1187	1.12	1217	1.20
1760	1113	1.00	1150	1.08	1184	1.17	1219	1.25	1250	1.34
1920	1135	1.10	1174	1.19	1210	1.29	1244	1.38	1278	1.47
1-hp Standard Motor & Field Supplied High Static Drive										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
 2. Data includes pressure drop due to standard filters and wet coils. Data does not include pressure drop due to reheat coil.
 3. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
 4. 1-hp Fan Motor Heat (MBh) = $2.7672 \times \text{Fan bhp} + 0.4705$.
 5. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
- * For 800, 960, and 1120 CFM, unit application below 320 CFM/Ton are only applicable on T_C models only (No Gas Heat). See below for restrictions.
 * Electric heaters restricted on applications below 320 CFM/Ton
 * Dehumidification (Hot Gas Reheat) or TXV with Froststat and Crankcase Heaters are required on applications below 320 CFM/Ton

(a) BAYLSDR006AB

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 36. Belt drive evaporator fan performance - 4 tons high efficiency - YHC048E3,4/F3,4*L,M low & medium gas heat downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1280	—	—	—	—	589	0.18	652	0.23	710	0.27	763	0.32	812	0.37	858	0.42	905	0.47	949	0.53	
1440	—	—	546	0.18	614	0.22	675	0.27	731	0.32	782	0.37	830	0.42	876	0.48	919	0.53	961	0.59	
1600	—	—	575	0.22	641	0.27	699	0.32	752	0.37	803	0.43	851	0.49	895	0.54	938	0.60	978	0.66	
1760	538	0.21	606	0.27	668	0.32	725	0.38	776	0.44	826	0.50	872	0.56	916	0.62	958	0.68	997	0.75	
1920	574	0.27	638	0.32	696	0.38	752	0.45	802	0.51	850	0.57	895	0.63	938	0.70	978	0.77	1018	0.84	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm
1-hp Standard Motor & Drive											
1280	993	0.58	1032	0.64	1070	0.70	1107	0.76	1143	0.82	
1440	1003	0.65	1043	0.71	1082	0.77	1118	0.84	1154	0.90	
1600	1017	0.72	1054	0.78	1092	0.85	1129	0.92	1165	0.98	
1760	1036	0.81	1073	0.88	1108	0.94	1142	1.01	1177	1.08	
1920	1056	0.91	1092	0.98	1127	1.04	1160	1.11	1193	1.19	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 37. Belt drive evaporator fan performance - 4 tons high efficiency -YHC048E3,4/F3,4*L,M low & medium gas heat horizontal airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)										1-hp Standard Motor & Drive											
1280	—	—	554	0.16	622	0.21	685	0.26	741	0.31	794	0.36	842	0.42	888	0.47	931	0.53	973	0.59	
1440	—	—	590	0.21	652	0.26	712	0.31	767	0.36	818	0.42	866	0.48	911	0.54	953	0.60	995	0.67	
1600	561	0.21	628	0.26	686	0.32	741	0.37	794	0.43	844	0.49	890	0.55	935	0.62	976	0.68	1017	0.75	
1760	602	0.27	667	0.33	722	0.38	773	0.44	822	0.50	871	0.57	917	0.63	960	0.70	1001	0.77	1040	0.84	
1920	644	0.33	706	0.40	760	0.46	809	0.52	855	0.59	900	0.66	944	0.73	987	0.80	1027	0.87	1066	0.95 ^(b)	

Continued

External Static Pressure (Inches of Water)												
		1.10		1.20		1.30		1.40		1.50		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive												
1280	1012	0.65	1052	0.72	1090	0.78	1127	0.84	1162	0.91		
1440	1032	0.73	1070	0.80	1107	0.87	1142	0.94	1175	1.01		
1600	1055	0.82	1093	0.89	1128	0.96	1162	1.03	1195	1.11		
1760	1078	0.91	1114	0.99	1150	1.06	1183	1.14	1217	1.22		
1920	1103	1.02	1139	1.10	1174	1.18	1207	1.26	1239	1.34		
1-hp Standard Motor & Field Supplied High Static Drive ^(b)												

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp+0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 38. Belt drive evaporator fan performance - 4 tons high efficiency - YHC048E3,4/F3,4*H high gas heat downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1280	—	—	528	0.15	600	0.19	661	0.23	717	0.28	771	0.33	821	0.38	870	0.43	915	0.48	959	0.54	
1440	—	—	556	0.18	626	0.23	687	0.28	740	0.33	790	0.38	839	0.43	886	0.49	930	0.54	974	0.61	
1600	—	—	586	0.22	651	0.28	712	0.34	766	0.39	814	0.44	860	0.50	904	0.55	947	0.61	990	0.68	
1760	554	0.22	619	0.28	680	0.33	738	0.39	792	0.46	841	0.52	884	0.58	926	0.63	967	0.69	1007	0.76	
1920	592	0.28	653	0.34	710	0.39	765	0.46	817	0.53	866	0.60	912	0.67	953	0.73	992	0.79	1028	0.85	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
1280	1003	0.60	1045	0.66	1083	0.71	1121	0.77	1156	0.83	
1440	1013	0.66	1054	0.73	1094	0.79	1132	0.86	1168	0.92	
1600	1029	0.74	1069	0.81	1106	0.87	1142	0.94	1177	1.01	
1760	1046	0.82	1084	0.89	1121	0.96	1156	1.03	1191	1.11	
1920	1066	0.92	1103	0.99	1139	1.06	1174	1.14	1206	1.21	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 39. Belt drive evaporator fan performance - 4 tons high efficiency - YHC048E3,4/F3,4*H high gas heat horizontal airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)										1-hp Standard Motor & Drive											
1280	—	—	561	0.16	626	0.20	684	0.25	739	0.29	792	0.34	842	0.39	890	0.45	935	0.50	977	0.56	
1440	—	—	595	0.20	659	0.25	715	0.30	766	0.35	816	0.40	864	0.45	909	0.51	953	0.57	995	0.63	
1600	561	0.20	628	0.25	694	0.31	748	0.36	798	0.41	843	0.47	888	0.52	932	0.58	974	0.64	1015	0.71	
1760	603	0.26	665	0.31	727	0.37	782	0.43	830	0.49	875	0.54	917	0.60	958	0.67	998	0.73	1038	0.80	
1920	646	0.32	705	0.38	761	0.44	816	0.52	864	0.58	908	0.63	949	0.70	988	0.76	1026	0.83	1063	0.90 ^(b)	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm
1-hp Standard Motor & Drive											
1280	1018	0.62	1058	0.68	1095	0.74	1131	0.81	1166	0.87	
1440	1036	0.69	1075	0.76	1113	0.82	1148	0.89	1183	0.96	
1600	1055	0.77	1093	0.84	1130	0.91	1166	0.98	1201	1.05	
1760	1075	0.86	1113	0.93	1149	1.00	1184	1.08	1219	1.15	
1920	1100	0.97	1135	1.04	1171	1.11	1204	1.19	1237	1.26	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 40. Belt drive evaporator fan performance - 5 tons high efficiency - THC060E3,4/F3,4 downflow airflow

External Static Pressure (Inches of Water)																					
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Low Static Drive Accessory Kit ^(a)														1-hp Standard Motor & Drive							
1000*	379	0.06	469	0.09	546	0.12	614	0.16	676	0.20	732	0.24	784	0.28	833	0.33	879	0.37	922	0.42	
1200*	416	0.09	498	0.12	571	0.158	635	0.20	694	0.24	749	0.28	800	0.33	849	0.38	894	0.43	938	0.48	
1400*	456	0.12	531	0.16	599	0.20	662	0.25	717	0.29	769	0.34	820	0.39	867	0.44	911	0.50	955	0.56	
1600	499	0.16	570	0.21	631	0.25	691	0.31	745	0.36	794	0.41	842	0.46	887	0.52	930	0.57	972	0.63	
1800	544	0.22	609	0.27	667	0.32	721	0.37	773	0.43	823	0.49	868	0.55	911	0.61	953	0.67	992	0.73	
2000	589	0.29	650	0.35	706	0.40	755	0.46	804	0.52	851	0.58	897	0.65	938	0.71	978	0.77	1017	0.84	
2200	636	0.37	692	0.43	745	0.50	793	0.56	838	0.62	882	0.68	925	0.75	967	0.83	1007	0.90	1044	0.97	
2400	683	0.47	736	0.54	785	0.61	833	0.68	875	0.74	916	0.81	956	0.88	996	0.95	1036	1.03	1073	1.11	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
1000*	962	0.46	1002	0.51	1040	0.56	1076	0.61	1111	0.66	
1200*	979	0.54	1018	0.50	1055	0.64	1091	0.70	1126	0.75	
1400*	996	0.61	1035	0.67	1072	0.73	1107	0.79	1143	0.85	
1600	1013	0.70	1051	0.76	1088	0.82	1124	0.89	1160	0.96	
1800	1031	0.79	1070	0.86	1106	0.93	1142	1.00	1176	1.07	
2000	1054	0.91	1091	0.98	1126	1.04	1161	1.12	1195	1.19	
2200	1080	1.04	1115	1.11	1148	1.18	1183	1.26	1215	1.33	
2400	1108	1.19	1142	1.27	1176	1.34	1207	1.42	1238	1.49	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
 2. Data includes pressure drop due to standard filters and wet coils. Data does not include pressure drop due to reheat coil.
 3. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
 4. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
 5. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
- * For 1000, 1200, and 1400 CFM, unit application below 320 CFM/Ton are only applicable on T_C models only (No Gas Heat). See below for restrictions.
 * Electric heaters restricted on applications below 320 CFM/Ton
 * Dehumidification (Hot Gas Reheat) or TXV with Froststat and Crankcase Heaters are required on applications below 320 CFM/Ton

(a) BAYLSDR006AB

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 41. Belt drive evaporator fan performance - 5 tons high efficiency - THC060E3,4/F3,4 horizontal airflow

External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Low Static Drive Accessory Kit ^(a)												1-hp Standard Motor & Drive								
1000*	412	0.07	517	0.10	601	0.15	664	0.19	716	0.23	764	0.27	810	0.31	853	0.35	897	0.40	939	0.44
1200*	456	0.10	542	0.14	631	0.19	702	0.24	758	0.29	808	0.33	851	0.38	892	0.43	932	0.48	970	0.53
1400*	502	0.14	580	0.18	654	0.23	730	0.29	795	0.35	848	0.41	893	0.46	936	0.52	974	0.58	1010	0.63
1600	550	0.19	622	0.24	688	0.29	753	0.35	820	0.41	881	0.49	930	0.55	975	0.62	1015	0.68	1052	0.75
1800	598	0.25	668	0.31	728	0.37	785	0.42	843	0.49	903	0.56	960	0.64	1010	0.72	1053	0.80	1092	0.87
2000	648	0.33	714	0.39	771	0.46	824	0.52	875	0.58	927	0.66	982	0.74	1034	0.83	1082	0.91	1126	1.00
2200	699	0.42	762	0.50	816	0.57	866	0.63	914	0.70	960	0.77	1006	0.85	1056	0.94	1106	1.03	1152	1.13
2400	750	0.54	810	0.61	863	0.69	911	0.77	956	0.84	999	0.92	1042	1.00	1084	1.08	1130	1.17	1176	1.27
												1-hp Standard Motor & Field Supplied High Static Drive ^(b)								

Continued

External Static Pressure (Inches of Water)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive										
1000*	977	0.49	1014	0.53	1049	0.58	1084	0.63	1118	0.68
1200*	1006	0.58	1042	0.63	1078	0.69	1112	0.74	1145	0.80
1400*	1045	0.69	1078	0.74	1111	0.8	1144	0.86	1174	0.92
1600	1087	0.81	1121	0.88	1152	0.94	1182	1.00	1213	1.07
1800	1129	0.95	1163	1.02	1195	1.09	1226	1.16	1255	1.23
2000	1165	1.08	1201	1.17	1236	1.25	1268	1.33	1298	1.41
2200	1196	1.23	1237	1.33	1271	1.42	1305	1.51	1338	1.60
2400	1219	1.37	1261	1.48	1301	1.58	1339	1.69	1373	1.79
1-hp Standard Motor & Field Supplied High Static Drive ^(b)										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
 2. Data includes pressure drop due to standard filters and wet coils. Data does not include pressure drop due to reheat coil.
 3. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
 4. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
 5. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.
- * For 1000, 1200, and 1400 CFM, unit application below 320 CFM/Ton are only applicable on T_C models only (No Gas Heat). See below for restrictions.
 * Electric heaters restricted on applications below 320 CFM/Ton
 * Dehumidification (Hot Gas Reheat) or TXV with Froststat and Crankcase Heaters are required on applications below 320 CFM/Ton

(a) BAYLSDR006AB

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 42. Belt drive evaporator fan performance - 5 tons high efficiency - YHC060E3,4/F3,4*L,M low & medium gas heat downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1600	—	—	583	0.22	648	0.27	705	0.32	755	0.37	804	0.42	852	0.47	897	0.53	941	0.59	982	0.65	
1800	—	—	623	0.28	683	0.34	740	0.40	790	0.45	835	0.50	879	0.56	922	0.62	964	0.68	1004	0.74	
2000	605	0.30	665	0.36	721	0.42	774	0.48	824	0.55	870	0.61	911	0.66	951	0.73	991	0.79	1028	0.86	
2200	653	0.39	709	0.45	762	0.51	812	0.58	859	0.65	905	0.72	948	0.79	986	0.86	1022	0.92	1057	0.99	
2400	701	0.49	756	0.56	803	0.63	851	0.70	896	0.77	939	0.85	982	0.93	1022	1.00	1057	1.07	1092	1.14	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
1600	1024	0.71	1061	0.77	1099	0.83	1136	0.90	1170	0.96	
1800	1044	0.81	1081	0.87	1118	0.94	1155	1.01	1188	1.08	
2000	1067	0.93	1103	1.00	1139	1.07	1175	1.14	1209	1.22	
2200	1094	1.06	1129	1.13	1163	1.21	1197	1.29	1229	1.36	
2400	1124	1.21	1157	1.29	1189	1.37	1222	1.45	—	—	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 43. Belt drive evaporator fan performance - 5 tons high efficiency - YHC060E3,4/F3,4*L,M low & medium gas heat horizontal airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1600	566	0.21	633	0.26	694	0.31	747	0.36	798	0.41	848	0.47	895	0.52	939	0.58	981	0.65	1021	0.71	
1800	621	0.28	681	0.33	739	0.39	790	0.45	837	0.51	884	0.57	929	0.63	971	0.69	1013	0.76	1052	0.82	
2000	676	0.37	731	0.43	785	0.49	836	0.56	880	0.62	923	0.69	966	0.75	1006	0.82	1046	0.89	1084	0.96	
2200	732	0.48	784	0.54	832	0.61	881	0.68	927	0.75	967	0.83	1005	0.90	1044	0.97	1082	1.04	1118	1.12	
2400	789	0.61	838	0.68	882	0.75	927	0.82	972	0.90	1012	0.98	1049	1.06	1085	1.14	1121	1.22	1155	1.30 ^(b)	

Continued

External Static Pressure (Inches of Water)												
		1.10		1.20		1.30		1.40		1.50		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive												
1600	1060	0.78	1097	0.84	1135	0.91	1169	0.98	1203	1.04		
1800	1090	0.89	1126	0.96	1161	1.04	1195	1.11	1229	1.19		
2000	1121	1.03	1156	1.10	1192	1.18	1224	1.26	1257	1.34		
2200	1155	1.19	1189	1.27	1223	1.34	1256	1.42	—	—		
2400	1190	1.38	1223	1.46	—	—	—	—	—	—		
1-hp Standard Motor & Field Supplied High Static Drive ^(b)												

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 44. Belt drive evaporator fan performance - 5 tons high efficiency - YHC060E3,4/F3,4*H high gas heat downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1600	—	—	595	0.22	658	0.27	716	0.32	768	0.37	817	0.42	864	0.47	910	0.53	954	0.59	996	0.65	
1800	—	—	637	0.29	697	0.34	752	0.40	802	0.45	849	0.51	893	0.56	936	0.62	979	0.68	1019	0.75	
2000	621	0.31	680	0.36	737	0.42	790	0.49	838	0.55	884	0.61	927	0.67	967	0.73	1007	0.80	1046	0.86	
2200	671	0.40	726	0.46	779	0.52	829	0.59	876	0.66	919	0.72	962	0.79	1002	0.86	1039	0.93	1076	1.00	
2400	721	0.50	773	0.57	822	0.64	870	0.71	916	0.78	957	0.86	998	0.93	1036	1.00	1074	1.08	1109	1.15	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm
1-hp Standard Motor & Drive											
1600	1037	0.72	1076	0.78	1114	0.85	1151	0.91	1184	0.98	
1800	1058	0.82	1096	0.88	1133	0.95	1169	1.02	1204	1.10	
2000	1083	0.93	1120	1.00	1155	1.07	1189	1.15	1224	1.23	
2200	1111	1.07	1146	1.14	1181	1.22	1214	1.29	1248	1.37	
2400	1144	1.23	1177	1.30	1210	1.38	1241	1.46	1274	1.54	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 45. Belt drive evaporator fan performance - 5 tons high efficiency - YHC060E3,4/F3,4*H high gas heat horizontal airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)										1-hp Standard Motor & Drive											
1600	570	0.21	639	0.26	703	0.32	760	0.37	809	0.41	854	0.46	894	0.52	936	0.58	977	0.64	1019	0.70	
1800	620	0.28	689	0.34	746	0.40	801	0.46	851	0.52	896	0.57	937	0.62	974	0.68	1011	0.75	1048	0.81	
2000	671	0.36	741	0.44	792	0.50	844	0.57	893	0.64	939	0.71	980	0.76	1019	0.82	1054	0.88	1087	0.95	
2200	723	0.46	791	0.55	843	0.62	889	0.69	936	0.77	981	0.85	1022	0.92	1061	0.99	1097	1.05	1131	1.11	
2400	776	0.58	841	0.68	895	0.76	937	0.84	981	0.91	1023	1.00	1064	1.09	1103	1.17	1140	1.25	1173	1.31 ^(b)	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm
1-hp Standard Motor & Drive											
1600	1057	0.76	1096	0.83	1133	0.90	1167	0.96	1201	1.03	
1800	1086	0.88	1123	0.95	1159	1.02	1192	1.09	1226	1.17	
2000	1119	1.02	1153	1.09	1188	1.17	1221	1.24	1253	1.32	
2200	1162	1.18	1193	1.25	1223	1.33	1253	1.41	1284	1.49	
2400	1206	1.38	1236	1.44	1266	1.52	1294	1.61	1320	1.69	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 52, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 61, p. 60](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 46. Belt drive evaporator fan performance - 3 tons standard efficiency - WSC036E3,E4,EW downflow airflow

External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)										1-hp Standard Motor & Drive										
960	—	—	572	0.14	639	0.19	702	0.23	762	0.28	816	0.34	865	0.39	907	0.44	948	0.49	986	0.54
1080	—	—	608	0.18	672	0.23	731	0.27	785	0.33	840	0.38	890	0.44	937	0.50	979	0.56	1017	0.62
1200	572	0.18	645	0.23	707	0.28	762	0.33	814	0.38	864	0.44	913	0.50	961	0.57	1005	0.63	1046	0.70
1320	614	0.22	684	0.28	744	0.33	797	0.39	846	0.44	894	0.50	939	0.56	984	0.63	1028	0.70	1070	0.78
1440	656	0.27	723	0.34	781	0.40	833	0.46	881	0.52	925	0.58	969	0.64	1011	0.71	1053	0.78	1094	0.86

Continued

External Static Pressure (Inches of Water)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive										
960	1022	0.59	1057	0.64	1092	0.69	1125	0.74	1157	0.79
1080	1053	0.67	1088	0.73	1121	0.79	1152	0.84	1184	0.90
1200	1084	0.77	1118	0.83	1152	0.89	1182	0.95	1213	1.01
1320	1110	0.85	1147	0.92	1182	1.00	1214	1.07	—	—
1440	1133	0.94	1170	1.01	1207	1.10	—	—	—	—
1-hp Standard Motor & Field Supplied High Static Drive ^(b)										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 53, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 62, p. 61](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Table 47. Belt drive evaporator fan performance - 3 tons standard efficiency - WSC036E3,E4,EW horizontal airflow

External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)										1-hp Standard Motor & Drive										
960	—	—	560	0.13	641	0.17	711	0.22	770	0.27	822	0.32	868	0.37	911	0.41	952	0.46	991	0.52
1080	—	—	589	0.16	665	0.21	735	0.26	796	0.31	850	0.37	899	0.42	942	0.48	983	0.53	1021	0.58
1200	551	0.15	622	0.19	691	0.24	758	0.30	820	0.36	875	0.42	925	0.48	971	0.54	1012	0.60	1052	0.66
1320	592	0.19	657	0.24	720	0.29	783	0.35	843	0.41	899	0.47	950	0.54	997	0.60	1041	0.67	1081	0.74
1440	634	0.24	695	0.29	753	0.34	810	0.40	867	0.46	922	0.53	974	0.60	1022	0.67	1066	0.75	1108	0.82

Continued

External Static Pressure (Inches of Water)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive										
960	1028	0.57	1064	0.62	1099	0.67	1133	0.73	1165	0.78
1080	1057	0.64	1093	0.70	1127	0.75	1160	0.81	1192	0.87
1200	1087	0.72	1123	0.78	1156	0.84	1189	0.90	1221	0.97
1320	1118	0.80	1153	0.87	1187	0.94	1218	1.00	—	—
1440	1146	0.89	1182	0.97	1217	1.04	—	—	—	—
1-hp Standard Motor & Field Supplied High Static Drive ^(b)										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 53, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 62, p. 61](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp+0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK71x3/4" required. Field Supplied Belt may be necessary.
(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 48. Belt drive evaporator fan performance - 4 tons standard efficiency - WSC048E3,E4,EW downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1280	—	—	619	0.20	680	0.24	735	0.29	789	0.34	843	0.39	894	0.45	940	0.51	983	0.56	1025	0.63	
1440	597	0.20	664	0.25	724	0.30	775	0.35	823	0.40	872	0.46	921	0.52	968	0.58	1012	0.65	1052	0.71	
1600	648	0.26	710	0.32	768	0.37	818	0.43	864	0.49	908	0.54	950	0.60	995	0.67	1039	0.74	1081	0.81	
1760	700	0.34	758	0.39	812	0.46	862	0.52	907	0.58	948	0.64	988	0.71	1027	0.77	1068	0.84	1108	0.91	
1920	753	0.43	807	0.49	858	0.55	906	0.62	952	0.70	992	0.76	1029	0.83	1066	0.89	1102	0.96	1138	1.03	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
1280	1063	0.69	1101	0.75	1138	0.81	1175	0.88	1208	0.94	
1440	1091	0.78	1128	0.85	1164	0.91	1198	0.98	1233	1.05	
1600	1120	0.88	1157	0.95	1193	1.02	1227	1.10	1259	1.17	
1760	1147	0.99	1185	1.07	1220	1.14	1256	1.23	—	—	
1920	1174	1.11	1212	1.19	1247	1.27	—	—	—	—	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Note:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 53, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 62, p. 61](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK69x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 49. Belt drive evaporator fan performance - 4 tons standard efficiency - WSC048E3,E4,EW horizontal airflow

External Static Pressure (Inches of Water)																				
	.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive									
1280	—	—	633	0.20	704	0.26	767	0.31	822	0.37	871	0.42	915	0.48	957	0.54	997	0.60	1035	0.66
1440	604	0.20	676	0.26	744	0.32	805	0.38	859	0.44	909	0.50	954	0.57	996	0.63	1035	0.69	1073	0.76
1600	656	0.27	721	0.32	785	0.39	843	0.45	897	0.52	946	0.59	991	0.66	1034	0.73	1075	0.80	1110	0.87
1760	709	0.34	768	0.40	827	0.47	883	0.54	936	0.61	984	0.69	1030	0.77	1072	0.84	1113	0.92	1149	1.00
1920	762	0.43	817	0.50	872	0.57	925	0.64	975	0.72	1023	0.80	1067	0.88	1109	0.97	1150	1.05	1188	1.14
											1-hp Standard Motor & Field Supplied High Static Drive ^(b)									

Continued

External Static Pressure (Inches of Water)										
	1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive										
1280	1072	0.71	1107	0.77	1142	0.84	1176	0.90	1210	0.97
1440	1108	0.83	1143	0.89	1176	0.96	1209	1.02	1239	1.09
1600	1146	0.95	1180	1.02	1212	1.09	1243	1.16	—	—
1760	1185	1.08	1219	1.16	1251	1.24	—	—	—	—
1920	1223	1.22	1258	1.31	—	—	—	—	—	—
1-hp Standard Motor & Field Supplied High Static Drive ^(b)										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 53, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 62, p. 61](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK69x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 50. Belt drive evaporator fan performance - 5 tons standard efficiency - WSC060E3,E4,EW downflow airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)													1-hp Standard Motor & Drive								
1600	—	—	—	—	623	0.26	681	0.31	734	0.36	783	0.41	831	0.46	878	0.52	923	0.58	965	0.64	
1800	—	—	594	0.27	656	0.32	712	0.38	763	0.43	810	0.49	855	0.54	899	0.60	941	0.67	983	0.73	
2000	571	0.28	633	0.34	690	0.40	744	0.46	794	0.52	840	0.58	883	0.64	924	0.71	964	0.77	1003	0.84	
2200	615	0.36	674	0.42	727	0.49	778	0.55	826	0.62	871	0.69	913	0.76	953	0.82	991	0.89	1030	0.96	
2400	660	0.45	715	0.52	766	0.59	814	0.66	859	0.74	903	0.81	945	0.88	984	0.96	1021	1.03	1057	1.11	

Continued

External Static Pressure (Inches of Water)											
	1.10		1.20		1.30		1.40		1.50		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Drive											
1600	1005	0.71	1045	0.78	1083	0.84	1120	0.91	1155	0.98	
1800	1023	0.80	1062	0.87	1098	0.94	1134	1.01	1170	1.09	
2000	1041	0.91	1079	0.98	1116	1.06	1152	1.13	1186	1.21	
2200	1065	1.03	1100	1.11	1135	1.18	1169	1.26	1203	1.34	
2400	1092	1.18	1125	1.26	1159	1.34	1191	1.41	1223	1.50	
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 53, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 62, p. 61](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp + 0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK69x3/4" required. Field Supplied Belt may be necessary.

(b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Evaporator Fan Performance

Table 51. Belt drive evaporator fan performance - 5 tons standard efficiency - WSC060E3,E4,EW horizontal airflow

External Static Pressure (Inches of Water)																					
		.10		.20		.30		.40		.50		.60		.70		.80		.90		1.00	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	
1-hp Standard Motor & Field Supplied Low Static Drive ^(a)											1-hp Standard Motor & Drive										
1600	—	—	585	0.23	659	0.29	724	0.35	787	0.42	846	0.49	901	0.56	950	0.64	995	0.71	1038	0.78	
1800	—	—	622	0.29	690	0.36	753	0.43	811	0.49	866	0.57	922	0.65	973	0.73	1020	0.81	1064	0.90	
2000	598	0.31	661	0.37	724	0.44	784	0.52	840	0.59	893	0.66	943	0.74	993	0.83	1041	0.92	1085	1.01	
2200	647	0.40	703	0.46	761	0.54	817	0.62	870	0.70	921	0.78	970	0.86	1016	0.95	1061	1.04	1106	1.13	
2400	696	0.50	746	0.57	799	0.65	853	0.74	903	0.82	952	0.91	998	1.00	1043	1.09	1086	1.18	1127	1.27	

Continued

External Static Pressure (Inches of Water)											
		1.10		1.20		1.30		1.40		1.50	
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm
1-hp Standard Motor & Drive											
1600	1078	0.86	1115	0.93	1150	1.01	1183	1.08	1214	1.16	—
1800	1105	0.98	1143	1.06	1180	1.15	1215	1.23	—	—	—
2000	1128	1.10	1169	1.20	1207	1.29	—	—	—	—	—
2200	1150	1.24	1190	1.34	—	—	—	—	—	—	—
2400	1170	1.38	1211	1.48	—	—	—	—	—	—	—
1-hp Standard Motor & Field Supplied High Static Drive ^(b)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference [Table 53, p. 58](#).
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. Data does not include pressure drop due to reheat coil.
4. Refer to [Table 62, p. 61](#) to determine additional static pressure drop due to other options/accessories.
5. 1-hp Fan Motor Heat (MBh) = 2.7672 x Fan bhp+0.4705.
6. Factory supplied motors, in equipment, are definite purpose motors, specifically designed and tested to operate at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

(a) Field Supplied Fan Sheave AK69x3/4" required. Field Supplied Belt may be necessary.
 (b) Field Supplied Fan Sheave AK41x3/4" required. Field Supplied Belt may be necessary.

Performance Data

Table 52. Standard motor & sheave/fan speed (rpm)

Tons	Unit Model Number	Fan Sheave	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
3	T/YSC036E	AK51x3/4"	N/A	765	835	905	975	1045	1115
4	T/YSC048E	AK49x3/4"	N/A	804	876	948	1020	1091	1163
5	T/YSC060E	AK44x3/4"	N/A	885	966	1049	1131	1212	1295
3	T/YHC036E	AK51x3/4"	N/A	765	835	905	975	1045	1115
4	T/YHC048	AK54x3/4"	N/A	729	794	860	926	911	1057
5	T/YHC060	AK49x3/4"	N/A	801	871	942	1012	1083	1154

Note: Factory set at 3 turns open.

Table 53. Standard motor & sheave/fan speed (rpm)

Tons	Unit Model Number	Fan Sheave	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
3	WSC036E	AK51x3/4"	N/A	761	835	909	982	1057	1125
4	WSC048E	AK49x3/4"	N/A	801	874	946	1019	1091	1164
5	WSC060E	AK49x3/4"	N/A	798	868	939	1010	1081	1152

Note: Factory set at 3 turns open.

Table 54. Standard motor & low static drive accessory sheave/fan speed (rpm)

Tons	Unit Model Number	Fan Sheave	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
3	T/YSC036E	AK71x3/4"	N/A	556	606	657	707	757	808
4	T/YSC048E	AK69x3/4"	N/A	N/A	624	675	727	779	832
5	T/YSC060E	AK61x3/4"	N/A	N/A	708	765	823	880	938
3	YHC036E	AK71x3/4"	N/A	556	607	657	707	758	808
3	THC036E	AK99x3/4"	N/A	385	424	462	501	539	578
4	YHC048	AK71x3/4"	N/A	556	607	657	707	758	808
4	THC048	AK99x3/4"	N/A	385	424	462	501	539	578
5	YHC060	AK71x3/4"	N/A	556	607	657	707	758	808
5	THC060	AK99x3/4"	N/A	385	424	462	501	539	578

Note: Factory set at 3 turns open.

Table 55. Standard motor & low static drive accessory sheave/fan speed (rpm)

Tons	Unit Model Number	Fan Sheave	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
3	WSC036E	AK71x3/4"	N/A	549	600	650	701	751	802
4	WSC048E	AK69x3/4"	N/A	567	619	671	723	775	828
5	WSC060E	AK69x3/4"	N/A	566	617	668	719	770	821

Note: Factory set at 3 turns open.

Table 56. Standard motor & high static drive accessory sheave/fan speed (rpm)

Tons	Unit Model Number	Fan Sheave	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
3	WSC036E	AK41x3/4"	N/A	966	1041	1115	1190	1227	N/A
4	WSC048E	AK41x3/4"	N/A	958	1034	1110	1186	1261	N/A
5	WSC060E	AK41x3/4"	N/A	970	1034	1097	1161	1224	N/A

Note: Factory set at 3 turns open.

Table 57. Standard motor & high static drive accessory sheave/fan speed (rpm)

Tons	Unit Model Number	Fan Sheave	6 Turns Open	5 Turns Open	4 Turns Open	3 Turns Open	2 Turns Open	1 Turn Open	Closed
3	T/YSC036E	AK41x3/4"	N/A	967	1040	1113	1187	1228	N/A
4	T/YSC048E	AK41x3/4"	N/A	957	1033	1110	1187	1263	N/A
3	T/YHC036E	AK41x3/4"	N/A	N/A	967	1040	1113	1187	N/A
4	T/YHC048	AK41x3/4"	N/A	N/A	966	1048	1132	1215	N/A
5	T/YHC060	AK41x3/4"	N/A	N/A	961	1041	1122	1203	N/A

Note: Factory set at 3 turns open.

Table 58. Outdoor sound power level - dB (ref. 10 - 12 W)

Tons	Unit Model Number	Octave Center Frequency								Overall dBA
		63	125	250	500	1000	2000	4000	8000	
3	T/YSC036E	79	85	79	79	77	71	67	58	81
4	T/YSC048E	82	84	83	80	76	72	66	58	82
5	T/YSC060E	85	82	81	81	77	72	67	61	82
3	T/YHC036E	79	85	79	79	77	71	67	58	81
4	T/YHC048	80	86	84	85	83	79	73	67	87
5	T/YHC060	80	86	84	85	83	79	73	67	87

Note: Tests follow ARI270-95.

Table 59. Outdoor sound power level - dB (ref. 10 - 12 W)

Tons	Unit Model Number	Octave Center Frequency								Overall dBA
		63	125	250	500	1000	2000	4000	8000	
3	WSC036E	77	85	79	78	75	71	66	59	80
4	WSC048E	81	82	83	81	77	72	66	59	82
5	WSC060E	81	87	84	85	83	78	73	67	87

Note: Tests follow ARI270-95.

Performance Data

Table 60. Static pressure drop through accessories (inches water column) - 3-5 tons

Tons	Unit Model Number	cfm	Standard Filters(d)	2" MERV 7 Filter	2" MERV 13 Filter	Economizer with OA/RA Dampers(a)				Electric Heater Accessory (kW)(b),(c)		
						100% OA Downflow	100% RA Downflow	100% OA Horizontal	100% RA Horizontal	5-6	9-18	23-36
3	T/YSC036E3	960	0.01	0.03	0.04	0.04	0.01	0.04	0.01	0.01	0.01	0.01
3	T/YSC036E3	1200	0.02	0.04	0.05	0.06	0.01	0.06	0.01	0.02	0.02	0.02
3	T/YSC036E3	1440	0.03	0.05	0.06	0.08	0.02	0.08	0.01	0.02	0.03	0.03
4	T/YSC048E3	1280	0.03	0.05	0.06	0.09	0.02	0.09	0.01	0.02	0.03	0.03
4	T/YSC048E3	1600	0.04	0.07	0.07	0.13	0.04	0.13	0.02	0.04	0.05	0.05
4	T/YSC048E3	1920	0.06	0.10	0.08	0.17	0.06	0.17	0.02	0.05	0.06	0.08
5	T/YSC060E3	1600	0.04	0.07	0.07	0.13	0.04	0.13	0.02	0.04	0.05	0.05
5	T/YSC060E3	2000	0.06	0.10	0.09	0.18	0.07	0.18	0.02	0.06	0.07	0.08
5	T/YSC060E3	2400	0.08	0.13	0.10	0.25	0.11	0.25	0.03	0.08	0.10	0.12

(a) OA = Outside Air and RA = Return Air.

(b) Nominal kW ratings at 240, 480, 600 volts. Heaters only available on T units.

(c) Electric heaters restricted on applications below 320 cfm/Ton.

(d) Tested with standard filters. Difference in pressure drop should be considered when utilizing optional 2" MERV 7 and MERV 13 filters.

Table 61. Static pressure drop through accessories (inches water column) - 3-5 tons

Economizer with OA/RA Dampers ^(a)										Electric Heater Accessory (kW) ^{(b),(c)}			
Tons	Unit Model Number	cfm	Standard Filters ^(d)	2" MERV 7 Filter	2" MERV 13 Filter	Reheat Coil	100% OA Downflow	100% RA	100% OA Horizontal	100% RA	5-6	9-18	23-36
3	T/YHC036E3,4	600	0.01	0.02	0.03	0.04	0.03	0.01	0.03	0.01	—	—	—
3	T/YHC036E3,4	960	0.01	0.03	0.04	0.08	0.04	0.01	0.04	0.01	0.01	0.01	0.01
3	T/YHC036E3,4	1200	0.02	0.04	0.05	0.10	0.06	0.01	0.06	0.01	0.02	0.02	0.02
3	T/YHC036E3,4	1440	0.03	0.05	0.06	0.14	0.08	0.02	0.08	0.01	0.02	0.03	0.03
4	T/YHC048E/F3,4	800	0.01	0.03	0.04	0.03	0.06	0.00	0.03	0.01	—	—	—
4	T/YHC048E/F3,4	1280	0.02	0.04	0.03	0.07	0.08	0.00	0.04	0.01	0.01	0.00	0.01
4	T/YHC048E/F3,4	1600	0.03	0.06	0.05	0.09	0.09	0.01	0.05	0.02	0.02	0.01	0.02
4	T/YHC048E/F3,4	1920	0.05	0.08	0.07	0.12	0.10	0.01	0.07	0.02	0.02	0.01	0.03
5	T/YHC060E/F3,4	1000	0.01	0.04	0.03	0.05	0.06	0.01	0.06	0.01	—	—	—
5	T/YHC060E/F3,4	1600	0.03	0.06	0.08	0.09	0.09	0.01	0.05	0.01	0.02	0.01	0.02
5	T/YHC060E/F3,4	2000	0.05	0.08	0.11	0.13	0.11	0.01	0.07	0.02	0.02	0.02	0.03
5	T/YHC060E/F3,4	2400	0.07	0.10	0.13	0.17	0.12	0.03	0.09	0.04	0.03	0.02	0.04

(a) OA = Outside Air and RA = Return Air.

(b) Nominal kW ratings at 240, 480, 600 volts. Heaters only available on T units.

(c) Electric heaters restricted on applications below 320 cfm/Ton.

(d) Tested with standard filters. Difference in pressure drop should be considered when utilizing optional 2" MERV 7 and MERV 13 filters.

Table 62. Static pressure drop through accessories (inches water column) - 3-5 tons

Tons	Unit Model Number	cfm	Standard Filters(d)	2" MERV 7 Filter	2" MERV 13 Filter	Economizer with OA/RA Dampers(a)				Electric Heater Accessory (kW)(b),(c)		
						100% OA	100% RA	100% OA	100% RA	5-6	9-18	23-36
						Downflow		Horizontal				
3	WSC036E3	960	0.02	0.03	0.03	0.05	0.01	0.05	0.01	0.01	0.02	0.02
3	WSC036E3	1200	0.03	0.05	0.04	0.07	0.02	0.07	0.01	0.02	0.03	0.03
3	WSC036E3	1440	0.03	0.06	0.04	0.10	0.03	0.10	0.01	0.03	0.04	0.04
4	WSC048E3	1280	0.03	0.05	0.06	0.09	0.02	0.09	0.01	0.02	0.03	0.03
4	WSC048E3	1600	0.04	0.07	0.07	0.13	0.04	0.13	0.02	0.04	0.05	0.05
4	WSC048E3	1920	0.06	0.10	0.08	0.17	0.06	0.17	0.02	0.05	0.06	0.08
5	WSC060E3	1600	0.03	0.06	0.05	0.09	0.01	0.05	0.01	0.01	0.01	0.02
5	WSC060E3	2000	0.05	0.08	0.07	0.11	0.01	0.07	0.02	0.02	0.01	0.03
5	WSC060E3	2400	0.07	0.10	0.10	0.12	0.03	0.09	0.03	0.03	0.02	0.04

(a) OA = Outside Air and RA = Return Air.

(b) Nominal kW ratings at 240, 480, 600 volts.

(c) Electric heaters restricted on applications below 320 cfm/ton.

(d) Tested with standard filters. Difference in pressure drop should be considered when utilizing optional 2" MERV 7 and MERV 13 filters.

**Table 63. Electric heater voltage correction factors
(applicable to auxiliary heat capacity)**

Nominal Voltage	Distribution Voltage	Capacity Multiplier
240	208	0.751
240	230	0.918
240	240	1.000
480	440	0.840
480	460	0.918
480	480	1.000
600	540	0.810
600	575	0.918
600	600	1.000

Table 64. Air temperature rise across electric heaters (°F)

kW	Stages	3 Tons(a) 1200 cfm	4 Tons 1600 cfm	5 Tons(b) 2000 cfm
		Three Phase	Three Phase	Three Phase
		T*C036E3,E4,EW(c)	T*C048*3, *4, EW(c)	T*C060*3, *4, EW(c)
5.00	1	—	—	—
6.00	1	18.5	10.5	11.4
10.00	2	—	—	—
12.00	2	36.2	22.3	21.5
13.80	2	—	—	—
17.40	2	48.2	33.0	30.0
17.60	2	—	—	—
23.0	2	—	—	38.8

Notes:

1. For minimum design airflow, see airflow performance table for each unit.

2. To calculate temp rise at different airflow, use the following formula: Temp. rise across Electric Heater = $kW \times 3414 / 1.08 \times CFM$.

(a) The minimum allowable airflow for a 3 ton with a 17.4 kW heater is 1080 cfm.

(b) The minimum allowable airflow for a 5 ton unit with a 23.0 kW heater is 1900 cfm.

(c) 600V is not available on high efficiency units.

Performance Data

Table 65. Air temperature rise across electric heaters (°F)

		3 Tons^(a) 1200 cfm	4 Tons 1600 cfm	5 Tons^(b) 2000 cfm
kW	Stages	Three Phase WSC036E3,E4,EW	Three Phase WSC048E3, E4, EW	Three Phase WSC060E3, E4, EW
5.00	1	—	—	—
6.00	1	18.5	10.5	11.4
10.00	2	—	—	—
12.00	2	36.2	22.3	21.5
13.80	2	—	—	—
17.40	2	48.2	33.0	30.0
17.60	2	—	—	—
23.0	2	—	—	38.8

Notes:

1. For minimum design airflow, see airflow performance table for each unit.
2. To calculate temp rise at different airflow, use the following formula: Temp. rise across Electric Heater = $kW \times 3414 / 1.08 \times CFM$.

(a) The minimum allowable airflow for a 3 ton with a 17.4 kW heater is 1080 cfm.

(b) The minimum allowable airflow for a 5 ton unit with a 23.0 kW heater is 1900 cfm.

Table 66. Reheat temperature rise table

Leaving Evaporator Dry Bulb									
Tons	Unit Model No.	CFM	35	40	45	50	55	60	65
3	THC	600	33.5	31.6	29.7	27.7	25.8	23.8	21.8
3	THC	720	30.8	29.1	27.4	25.6	23.9	22.1	20.3
3	THC	840	28.5	27.0	25.4	23.8	22.1	20.5	18.8
3	T/YHC	960	26.8	25.3	23.8	22.2	20.7	19.1	17.6
3	T/YHC	1080	25.3	23.8	22.4	20.9	19.4	18.0	16.5
3	T/YHC	1200	23.9	22.5	21.2	19.8	18.4	17.0	15.6
3	T/YHC	1320	22.7	21.4	20.0	18.7	17.4	16.1	14.8
3	T/YHC	1440	21.8	20.5	19.2	17.9	16.6	15.3	14.1
4	THC	800	32.9	30.9	29.0	27.0	25.0	23.0	21.1
4	THC	960	30.4	28.6	26.8	25.0	23.2	21.4	19.6
4	THC	1120	28.3	26.6	24.9	23.3	21.6	19.9	18.2
4	T/YHC	1280	26.6	25.1	23.5	21.9	20.3	18.6	17.0
4	T/YHC	1440	25.1	23.6	22.1	20.7	19.2	17.7	16.2
4	T/YHC	1600	23.7	22.3	21.0	19.6	18.2	16.8	15.3
4	T/YHC	1760	22.7	21.3	20.0	18.6	17.3	15.9	14.5
4	T/YHC	1920	21.8	20.4	19.1	17.8	16.5	15.2	13.9
5	THC	1000	33.2	31.4	29.6	27.7	25.9	24.0	22.1
5	THC	1200	30.6	28.9	27.3	25.6	23.9	22.2	20.4
5	THC	1400	28.3	26.8	25.3	23.8	22.2	20.7	19.1
5	T/YHC	1600	26.5	25.1	23.6	22.2	20.7	19.3	17.8
5	T/YHC	1800	24.9	23.6	22.2	20.9	19.5	18.1	16.7
5	T/YHC	2000	23.5	22.2	21.0	19.7	18.4	17.1	15.8
5	T/YHC	2200	22.2	21.0	19.9	18.7	17.5	16.3	15.0
5	T/YHC	2400	21.1	20.0	18.9	17.8	16.6	15.5	14.3

Electrical Data

Table 67. Unit wiring - standard efficiency

Tons	Unit Model Number	Voltage Range	Standard Indoor Fan Motor ^(a)		Oversized Indoor Fan Motor	
			MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker
3	T/YSC036E3	187-253	23.0	35	—	—
3	T/YSC036E4	414-506	11.7	15	—	—
3	T/YSC036EW	517-633	9.4	15	—	—
4	T/YSC048E3	187-253	24.1	35	—	—
4	T/YSC048E4	414-506	11.5	15	—	—
4	T/YSC048EW	517-633	8.6	15	—	—
5	T/YSC060E3	187-253	27.4	40	—	—
5	T/YSC060E4	414-506	12.3	15	—	—
5	T/YSC060EW	517-633	8.9	15	—	—

(a) No optional motors available for 3-5 tons. The standard motor for the 1-phase models is a Multispeed Direct Drive Motor. The standard motor for the 3-phase models is a Belt Drive Motor.

Table 68. Unit wiring - standard efficiency heat pump

Tons	Unit Model Number	Voltage Range	Standard Indoor Fan Motor ^(a)		Oversized Indoor Fan Motor	
			MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker
3	WSC036E3	187-253	23.8	35	—	—
3	WSC036E4	414-506	11.4	15	—	—
3	WSC036EW	517-633	8.8	15	—	—
4	WSC048E3	187-253	27.5	40	—	—
4	WSC048E4	414-506	12.3	15	—	—
4	WSC048EW	517-633	9.5	15	—	—
5	WSC060E3	187-253	30.2	45	—	—
5	WSC060E4	414-506	14.7	20	—	—
5	WSC060EW	517-633	11.0	15	—	—

(a) No optional motors available for 3-5 tons. The standard motor for the 1-phase models is a Multispeed Direct Drive Motor. The standard motor for 3-phase, 3-5 ton models is a Belt Drive Motor.

Electrical Data

Table 69. Unit wiring with electric heat (single point connection) - standard efficiency

Tons	Unit Model Number	Heater Model Number	Heater kW Rating ^(a)	Control Stages	Standard Indoor Motor	Oversized Indoor Motor		
					MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker
208/230 Volts Three Phase								
3	TSC036E3	BAYHTRE306*	4.5/6.0	1	23.0/24.3	35.0/35.0	—	—
3	TSC036E3	BAYHTRE312*	9.0/12.0	2	37.5/42.4	40.0/45.0	—	—
3	TSC036E3	BAYHTRE318*	13.1/17.4	2	51.6/58.6	60.0/60.0	—	—
4	TSC048E3	BAYHTRE306*	4.5/6.0	1	24.1/24.3	35.0/35.0	—	—
4	TSC048E3	BAYHTRE312*	9.0/12.0	2	37.5/42.4	40.0/45.0	—	—
4	TSC048E3	BAYHTRE318*	13.1/17.4	2	51.6/58.6	60.0/60.0	—	—
5	TSC060E3	BAYHTRE306*	4.5/6.0	1	27.4/24.4	40.0/40.0	—	—
5	TSC060E3	BAYHTRE312*	9.0/12.0	2	37.5/42.4	40.0/45.0	—	—
5	TSC060E3	BAYHTRE318*	13.1/17.4	2	51.6/58.6	60.0/60.0	—	—
5	TSC060E3	BAYHTRE323*	17.3/23.0	2	66.3/75.4	70.0/80.0	—	—
460 Volts Three Phase								
3	TSC036E4	BAYHTRE406*	6.0	1	12.1	15.0	—	—
3	TSC036E4	BAYHTRE412*	12.0	2	21.1	25.0	—	—
3	TSC036E4	BAYHTRE418*	17.4	2	29.3	30.0	—	—
4	TSC048E4	BAYHTRE406*	6.0	1	12.1	15.0	—	—
4	TSC048E4	BAYHTRE412*	12.0	2	21.1	25.0	—	—
4	TSC048E4	BAYHTRE418*	17.4	2	29.3	30.0	—	—
5	TSC060E4	BAYHTRE406*	6.0	1	12.3	15.0	—	—
5	TSC060E4	BAYHTRE412*	12.0	2	21.1	25.0	—	—
5	TSC060E4	BAYHTRE418*	17.4	2	29.3	30.0	—	—
5	TSC060E4	BAYHTRE423*	23.0	2	37.8	40.0	—	—
575 Volts Three Phase								
3	TSC036EW	BAYHTREW06*	6.0	1	9.4	15.0	—	—
3	TSC036EW	BAYHTREW12*	12.0	2	16.5	20.0	—	—
3	TSC036EW	BAYHTREW18*	17.4	2	23.0	25.0	—	—
4	TSC048EW	BAYHTREW06*	6.0	1	9.4	15.0	—	—
4	TSC048EW	BAYHTREW12*	12.0	2	16.5	20.0	—	—
4	TSC048EW	BAYHTREW18*	17.4	2	23.0	25.0	—	—
5	TSC060EW	BAYHTREW06*	6.0	1	9.4	15.0	—	—
5	TSC060EW	BAYHTREW12*	12.0	2	16.5	20.0	—	—
5	TSC060EW	BAYHTREW18*	17.4	2	23.0	25.0	—	—
5	TSC060EW	BAYHTREW23*	23.0	2	29.8	30.0	—	—

(a) No optional motors available for 3-5 tons. The standard motor for 1-phase models is a Multispeed, Direct Drive Motor. The Standard Motor for the 3-phase models is a Belt Drive Motor.

Table 70. Unit wiring with electric heat (single point connection) - standard efficiency heat pump

Tons	Unit Model Number	Heater Model Number	Heater kW Rating ^(a)	Control Stages	Standard Indoor Motor	Oversized Indoor Motor		
					MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker
208/230 Volts Three Phase								
3	WSC036E3	BAYHTRE306*	4.5/6.0	1	39.5/41.8	45.0/50.0	—	—
3	WSC036E3	BAYHTRE312*	9.0/12.0	2	55.1/60.0	60.0/60.0	—	—
3	WSC036E3	BAYHTRE318*	13.1/17.4	2	69.2/76.2	70.0/80.0	—	—
4	WSC048E3	BAYHTRE306*	4.5/6.0	1	43.2/45.5	50.0/50.0	—	—
4	WSC048E3	BAYHTRE312*	9.0/12.0	2	58.8/63.7	60.0/70.0	—	—
4	WSC048E3	BAYHTRE318*	13.1/17.4	2	72.9/79.9	80.0/80.0	—	—
5	WSC060E3	BAYHTRX306*	4.5/6.0	1	45.8/48.2	60.0/60.0	—	—
5	WSC060E3	BAYHTRX312*	9.0/12.0	2	61.4/66.3	70.0/70.0	—	—
5	WSC060E3	BAYHTRX318*	13.1/17.4	2	75.6/82.6	80.0/90.0	—	—
5	WSC060E3	BAYHTRX323*	17.3/23.0	2	90.2/99.3	100.0/100.0	—	—
460 Volts Three Phase								
3	WSC036E4	BAYHTRE406*	6.0	1	20.4	25.0	—	—
3	WSC036E4	BAYHTRE412*	12.0	2	29.4	30.0	—	—
3	WSC036E4	BAYHTRE418*	17.4	2	37.5	40.0	—	—
4	WSC048E4	BAYHTRE406*	6.0	1	21.3	25.0	—	—
4	WSC048E4	BAYHTRE412*	12.0	2	30.3	35.0	—	—
4	WSC048E4	BAYHTRE418*	17.4	2	38.4	40.0	—	—
5	WSC060E4	BAYHTRX406*	6.0	1	23.7	30.0	—	—
5	WSC060E4	BAYHTRX412*	12.0	2	32.7	35.0	—	—
5	WSC060E4	BAYHTRX418*	17.4	2	40.8	45.0	—	—
5	WSC060E4	BAYHTRX423*	23.0	2	49.3	50.0	—	—
575 Volts Three Phase								
3	WSC036EW	BAYHTREW06*	6.0	1	16.1	20.0	—	—
3	WSC036EW	BAYHTREW12*	12.0	2	23.2	25.0	—	—
3	WSC036EW	BAYHTREW18*	17.4	2	29.7	30.0	—	—
4	WSC048EW	BAYHTREW06*	6.0	1	16.7	20.0	—	—
4	WSC048EW	BAYHTREW12*	12.0	2	23.8	25.0	—	—
4	WSC048EW	BAYHTREW18*	17.4	2	30.3	35.0	—	—
5	WSC060EW	BAYHTRXW06*	6.0	1	18.2	20.0	—	—
5	WSC060EW	BAYHTRXW12*	12.0	2	25.4	30.0	—	—
5	WSC060EW	BAYHTRXW18*	17.4	2	31.9	35.0	—	—
5	WSC060EW	BAYHTRXW23*	23.0	2	38.6	40.0	—	—

(a) No optional motors available for 3-5 tons. The standard motor for 1-phase models is a Multispeed, Direct Drive Motor. The Standard Motor for the 3-phase models is a Belt Drive Motor.

Electrical Data

Table 71. Electrical characteristics - compressor motor and condenser motor - 60 cycle - standard efficiency

Compressor Motors									Condenser Fan Motors					
Unit Model			Volts	Motor Phase	hp ^(b)	rpm	Amps ^(a)		No.	Volts	Motor Phase	hp	Amps ^(a)	
Tons	Number	No.					RLA	LRA					FLA	LRA
3	T/YSC036E3	1	208-230	3	2.8	3500	12.8	95.0	1	208-230	1	0.33	2.0	6.6
3	T/YSC036E4	1	460	3	2.8	3500	6.4	45.0	1	460	1	0.33	1.2	2.5
3	T/YSC036EW	1	575	3	2.8	3500	5.4	38.0	1	575	1	0.33	0.9	1.3
4	T/YSC048E3	1	208-230	3	3.6	3500	13.7	83.1	1	208-230	1	0.33	2.0	6.6
4	T/YSC048E4	1	460	3	3.6	3500	6.2	41.0	1	460	1	0.33	1.2	2.5
4	T/YSC048EW	1	575	3	3.5	3500	4.8	33.0	1	575	1	0.33	0.9	1.3
5	T/YSC060E3	1	208-230	3	4.3	3500	15.9	110.0	1	208-230	1	0.40	2.5	6.6
5	T/YSC060E4	1	460	3	4.3	3500	7.1	52.0	1	460	1	0.40	1.0	2.8
5	T/YSC060EW	1	575	3	4.3	3500	5.1	39.5	1	575	1	0.40	0.8	2.0

(a) Amp draw for each motor; multiply value by number of motors to determine total amps.

(b) hp for each compressor.

Table 72. Electrical characteristics - compressor motor and condenser motor - 60 cycle - standard efficiency

Compressor Motors									Condenser Fan Motors					
Unit Model			Volts	Motor Phase	hp ^(b)	rpm	Amps ^(a)		No.	Volts	Motor Phase	hp	Amps ^(a)	
Tons	Number	No.					RLA	LRA					FLA	LRA
3	WSC036E3	1	208-230	3	3.2	3500	13.5	88.0	1	208-230	1	0.25	2.0	4.4
3	WSC036E4	1	460	3	3.2	3500	6.4	39.0	1	460	1	0.25	0.9	2.2
3	WSC036EW	1	575	3	3.2	3500	5.1	34.0	1	575	1	0.25	0.7	1.4
4	WSC048E3	1	208-230	3	3.8	3500	16.0	91.0	1	208-230	1	0.40	2.5	6.6
4	WSC048E4	1	460	3	3.8	3500	7.1	46.0	1	460	1	0.40	1.0	2.8
4	WSC048EW	1	575	3	3.8	3500	5.6	37.0	1	575	1	0.40	0.8	2.0
5	WSC060E3	1	208-230	3	4.7	3500	18.1	137.0	1	208-230	1	0.40	2.5	6.6
5	WSC060E4	1	460	3	4.7	3500	9.0	62.0	1	460	1	0.40	1.0	2.8
5	WSC060EW	1	575	3	4.7	3500	6.8	50.0	1	575	1	0.40	0.8	2.0

(a) Amp draw for each motor; multiply value by number of motors to determine total amps.

(b) hp for each compressor.

Table 73. Electrical characteristics - standard evaporator fan motor - 60 cycle - direct or belt drive standard efficiency

Unit Model		Direct or Belt		No.	Volts	Motor Phase	hp	Amps	
Tons	Number	Drive						FLA	LRA
3	T/YSC036E3	Belt Drive		1	208-230	3	1.00	5.0	32.2
3	T/YSC036E4	Belt Drive		1	460	3	1.00	2.5	16.1
3	T/YSC036EW	Belt Drive		1	575	3	1.00	1.7	13.2
4	T/YSC048E3	Belt Drive		1	208-230	3	1.00	5.0	32.2
4	T/YSC048E4	Belt Drive		1	460	3	1.00	2.5	16.1
4	T/YSC048EW	Belt Drive		1	575	3	1.00	1.7	13.2
5	T/YSC060E3	Belt Drive		1	208-230	3	1.00	5.0	32.2
5	T/YSC060E4	Belt Drive		1	460	3	1.00	2.5	16.1
5	T/YSC060EW	Belt Drive		1	575	3	1.00	1.7	13.2

Table 74. Electrical characteristics - standard evaporator fan motor - 60 cycle - direct or belt drive standard efficiency

Tons	Unit Model Number	Direct or Belt Drive	No.	Volts	Motor Phase	hp	Amps	
							FLA	LRA
3	WSC036E3	Belt Drive	1	208-230	3	1.00	5.0	32.2
3	WSC036E4	Belt Drive	1	460	3	1.00	2.5	16.1
3	WSC036EW	Belt Drive	1	575	3	1.00	1.7	13.2
4	WSC048E3	Belt Drive	1	208-230	3	1.00	5.0	32.2
4	WSC048E4	Belt Drive	1	460	3	1.00	2.5	16.1
4	WSC048EW	Belt Drive	1	575	3	1.00	1.7	13.2
5	WSC060E3	Belt Drive	1	208-230	3	1.00	5.0	32.2
5	WSC060E4	Belt Drive	1	460	3	1.00	2.5	16.1
5	WSC060EW	Belt Drive	1	575	3	1.00	1.7	13.2

Table 75. Electrical characteristics — power exhaust (cooling and gas/electric)

Tons	Volts	Motor Phase	hp	rpm	FLA	LRA
3-5	208-230	1	0.33	1075	2.2	3.9
3-5	460	1	0.33	1075	1.1	2.0
3-5	575	1	0.33	1075	1.0	1.8

Table 76. Electrical characteristics - inducer motor

Unit Model Number	Stages	hp	rpm	Volts	Motor Phase	LRA
YSC(036-060)E**(L,M,X,Y)	1	1/35	3000	208-230	1	0.6
YSC(036-060)E**(H,Z)	1	1/15	3300	208-230	1	0.4

Table 77. Unit wiring - high efficiency

Tons	Unit Model Number	Voltage Range	Standard Indoor Fan Motor		Optional Belt Drive Indoor Fan Motor ^(a)	
			MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker
3	T/YHC036E3	187-253	20.6	30	19.6	30
3	T/YHC036E4	414-506	11.0	15	10.3	15
4	T/YHC048E3	187-253	28.3	40	25.7	40
4	T/YHC048E4	414-506	13.8	20	12.3	15
4	T/YHC048F3	187-253	27.2	40	24.6	40
4	T/YHC048F4	414-506	12.8	15	11.3	15
5	T/YHC060E3	187-253	30.0	45	27.4	40
5	T/YHC060E4	414-506	13.8	20	12.3	20
5	T/YHC060F3	187-253	30.0	45	27.4	45
5	T/YHC060F4	414-506	13.8	20	12.3	20

(a) No optional motors available for 3-5 tons. The standard motor for the 1-phase models is a Multispeed Direct Drive Motor.

Electrical Data

Table 78. Unit wiring with electric heat (single point connection) - high efficiency - 3-5 tons

Tons	Unit Model Number	Heater Model Number	Heater kW Rating ^(a)	Control Stages	Standard Indoor Motor	Optional Belt Drive Indoor Motor		
					MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker
208/230 Volts Single Phase								
3	THC036E3	BAYHTRE306*	4.5/6.0	1	23.1/25.5	30/30	21.9/24.3	30/30
3	THC036E3	BAYHTRE312*	9.0/12.0	2	38.8/43.6	40/45	37.5/42.4	40/45
3	THC036E3	BAYHTRE318*	13.1/17.4	2	52.9/59.9	60/60	51.6/58.6	60/60
4	THC048E3	BAYHTRX306*	4.5/6.0	1	28.3/28.3	40/40	25.7/25.7	40/40
4	THC048E3	BAYHTRX312*	9.0/12.0	2	40.8/45.6	45/50	37.5/42.4	40/45
4	THC048E3	BAYHTRX318*	13.1/17.4	2	54.9/61.9	60/70	51.6/58.6	60/60
4	THC048F3	BAYHTRX306*	4.5/6.0	1	27.2/27.5	40/40	24.6/24.6	35/35
4	THC048F3	BAYHTRX312*	9.0/12.0	2	40.8/45.6	45/50	37.5/42.4	40/45
4	THC048F3	BAYHTRX318*	13.1/17.4	2	54.9/61.9	60/70	51.6/58.6	60/60
5	THC060E3	BAYHTRX306*	4.5/6.0	1	30.0/30.0	45/45	27.4/27.4	40/40
5	THC060E3	BAYHTRX312*	9.0/12.0	2	40.8/45.6	45/50	37.5/42.4	40/45
5	THC060E3	BAYHTRX318*	13.1/17.4	2	54.9/61.9	60/70	51.6/58.6	60/60
5	THC060E3	BAYHTRX323*	17.3/23.0	2	69.5/78.6	70/80	66.3/75.4	70/80
5	THC060F3	BAYHTRX306*	4.5/6.0	1	30.0/30.0	45/45	27.4/27.4	40/40
5	THC060F3	BAYHTRX312*	9.0/12.0	2	40.8/45.6	45/50	37.5/42.4	40/45
5	THC060F3	BAYHTRX318*	13.1/17.4	2	54.9/61.9	60/70	51.6/58.6	60/60
5	THC060F3	BAYHTRX323*	17.3/23.0	2	69.5/78.6	70/80	66.3/75.4	70/80
460 Volts Three Phase								
3	THC036E4	BAYHTRE406*	6.0	1	13.0	15	12.1	15
3	THC036E4	BAYHTRE412*	12.0	2	22.0	25	21.1	25
3	THC036E4	BAYHTRE418*	17.4	2	30.1	35	29.3	30
4	THC048E4	BAYHTRX406*	6.0	1	14.0	20	12.3	15
4	THC048E4	BAYHTRX412*	12.0	2	23.0	25	21.1	25
4	THC048E4	BAYHTRX418*	17.4	2	31.1	35	29.3	30
4	THC048F4	BAYHTRX406*	6.0	1	14.0	15	12.3	15
4	THC048F4	BAYHTRX412*	12.0	2	23.0	25	21.1	25
4	THC048F4	BAYHTRX418*	17.4	2	31.1	35	29.3	30
5	THC060E4	BAYHTRX406*	6.0	1	14.0	20	12.3	15
5	THC060E4	BAYHTRX412*	12.0	2	23.0	25	21.1	25
5	THC060E4	BAYHTRX418*	17.4	2	31.1	35	29.3	30
5	THC060E4	BAYHTRX423*	23.0	2	39.6	40	37.8	40
5	THC060F4	BAYHTRX406*	6.0	1	14.0	20	12.3	15
5	THC060F4	BAYHTRX412*	12.0	2	23.0	25	21.1	25
5	THC060F4	BAYHTRX418*	17.4	2	31.1	35	29.3	30
5	THC060F4	BAYHTRX423*	23.0	2	39.6	40	37.8	40

(a) Heater kW ratings are at 208/240V for 208/230V units, 480V for 460V units.

Table 79. Electrical characteristics - compressor motor and condenser fan motor - 60 cycle - high efficiency

Unit Model			Compressor Motors						Condenser Fan Motors					
Tons	Number	No.	Volts	Phase	hp	rpm	RLA	LRA	No.	Volts	Phase	hp	FLA	LRA
3	T/YHC036E3	1	208-230	3	2.7	3500	10.4	73.0	1	208-230	1	0.20	1.5	2.4
3	T/YHC036E4	1	460	3	2.7	3500	5.8	38.0	1	460	1	0.20	0.6	1.3
4	T/YHC048E3	1	208-230	3	3.6	3500	14.6	91.0	1	208-230	1	0.40	2.5	6.6
4	T/YHC048E4	1	460	3	3.6	3500	7.1	46.0	1	460	1	0.40	1.0	2.8
4	T/YHC048F3	1	208-230	3	3.5	3500	13.7	83.1	1	208-230	1	0.40	2.5	6.6
4	T/YHC048F4	1	460	3	3.5	3500	6.2	41.0	1	460	1	0.40	1.0	2.8
5	T/YHC060E3	1	208-230	3	4.3	3500	15.9	110.1	1	208-230	1	0.40	2.5	6.6
5	T/YHC060E4	1	460	3	4.3	3500	7.1	52.0	1	460	1	0.40	1.0	2.8
5	T/YHC060F3	1	208-230	3	4.3	3500	15.9	110.0	1	208-230	1	0.40	2.5	6.6
5	T/YHC060F4	1	460	3	4.3	3500	7.1	52.0	1	460	1	0.40	1.0	2.8

Table 80. Electrical characteristics - evaporator fan motor - 60 cycle - direct drive - high efficiency^(a)

Unit Model			Motor					
Tons	Number	Volts	Hz	Phase	No.	FLA	LRA	bhp
3	T/YHC036E3	208-230	60	1	1	6.0	—	0.75
3	T/YHC036E4	460	60	1	1	3.2	—	0.75
4	T/YHC048E3	208-230	60	1	1	7.6	—	1.00
4	T/YHC048E4	460	60	1	1	4.0	—	1.00
4	T/YHC048F3	208-230	60	3	1	7.6	—	1.00
4	T/YHC048F4	460	60	3	1	4.0	—	1.00
5	T/YHC060E3	208-230	60	1	1	7.6	—	1.00
5	T/YHC060E4	460	60	1	1	4.0	—	1.00
5	T/YHC060F3	208-230	60	3	1	7.6	—	1.00
5	T/YHC060F4	460	60	3	1	4.0	—	1.00

(a) Belt drive indoor motor is standard equipment on T/YHC036E-T/YHC060E with optional dehumidification.

Table 81. Electrical characteristics - evaporator fan motor - 60 cycle - optional belt drive - high efficiency^(a)

Unit Model								
Tons	Number	Volts	Hz	Phase	No.	FLA	LRA	bhp
3	T/YHC036E3	208-230	60	3	1	5.0	32.2	1.00
3	T/YHC036E4	460	60	3	1	2.5	16.1	1.00
4	T/YHC048E3	208-230	60	3	1	5.0	32.2	1.00
4	T/YHC048E4	460	60	3	1	2.5	16.1	1.00
4	T/YHC048F3	208-230	60	3	1	5.0	32.2	1.00
4	T/YHC048E4	460	60	3	1	2.5	16.1	1.00
5	T/YHC060E3	208-230	60	3	1	5.0	32.2	1.00
5	T/YHC060E4	460	60	3	1	2.5	16.1	1.00
5	T/YHC060F3	208-230	60	3	1	5.0	32.2	1.00
5	T/YHC060F4	460	60	3	1	2.5	16.1	1.00

(a) Belt drive indoor motor is standard equipment on T/YHC036E-T/YHC060E with optional dehumidification.

Table 82. Electrical characteristics - inducer motor

Unit Model Number	Stages	hp	rpm	Volts	Phase	LRA
YHC036E(L,M,X,Y) YHC(048,060)E, F	1	1/35	3000	208-230	1	0.6
YHC036E(H,Z)	1	1/15	3300	208-230	1	0.4

Sequence of Operation

These units are offered with two control options, electromechanical and ReliaTel™.

Note: Refer to the unit nameplate: If the 9th digit of the model number = R, proceed with the following Sequence of Operation. If the 9th digit of the model number = E, proceed with “Electromechanical Controls,” p. 73.

ReliaTel Controls

ReliaTel Control is a microelectronic control feature, which provides operating functions that are significantly different than conventional electromechanical units. The master module is the ReliaTel Refrigeration Module (RTRM).

The RTRM provides compressor anti-short cycle timing functions through minimum “Off” and “On” timing to increase reliability, performance and to maximize unit efficiency.

Upon power initialization, the RTRM performs self-diagnostic checks to insure that all internal controls are functioning. It checks the configuration parameters against the components connected to the system.

The LED located on the RTRM module is turned “On” within one second after power-up if all internal operations are okay.

ReliaTel Control Cooling without an Economizer

When the system switch is set to the “Cool” position and the zone temperature rises above the cooling setpoint control band, the RTRM energizes the (K9) relay coil located on the RTRM. When the K9 relay contacts close, the compressor contactor (CC1) coil is energized provided the low pressure control (LPC1), high pressure control (HPC1) and discharge line thermostat (TDL 1) are closed. When the CC1 contacts close, compressor (CPR1) and the outdoor fan motor (ODM) start to maintain the zone temperature to within $\pm 2^{\circ}\text{F}$ of the sensor setpoint at the sensed location.

If the first stage of cooling can not satisfy the cooling requirement, the RTRM energizes the (K10) relay coil located on the RTRM. When the (K10) relay contacts close, the compressor contactor (CC2) coil is energized provided the low pressure control (LPC2), high pressure control (HPC2) and discharge line thermostat (TDL 2) are closed. When the CC2 contacts close, compressor (CPR2) starts to maintain the zone temperature to within $\pm 2^{\circ}\text{F}$ of the sensor setpoint at the sensed location.

Three-Stages of Cooling¹

When the unit is configured for three-stage cooling, and the system switch is set to the cool position and the zone temperature rises above the cooling setpoint control band, the RTRM energizes the (K10) relay coil located on the RTRM. When the (K10) relay contacts close, compressor contactor (CC2) is energized. This is the smaller of the two compressors (CPR2). This staging order is opposite standard staging order.

If the first stage of cooling can not satisfy the cooling requirement, the RTRM energizes the (K9) relay coil and de-energizes the (K10) relay coil on the RTRM. Compressor contactor (CC1) is energized, bringing on the larger of the two compressors (CPR1). Compressor contactor (CC2) is de-energized, turning off the smaller compressor.

If the second stage of cooling can not satisfy the cooling requirement, the RTRM keeps the (K9) relay coil energized and energizes the (K10) relay coil. Compressor contactors (CC1) and (CC2) are energized, and both compressors (CPR1 and CPR2).

Lead/Lag is disabled with three-stage cooling. A unit configured for three-stage cooling and controlled with a thermostat will operate as a two-stage unit.

ReliaTel Control Evaporator Fan Operation (for Gas Units)

When the fan selection switch is set to the “Auto” position, the RTRM energizes the (K6) relay coil approximately 1 second after energizing the compressor contactor coil (CC1) in the cooling mode. In the heating mode, the RTRM energizes the (K6) relay coil approximately 45 second after gas ignition. Closing the (K6) contacts on the RTRM energizes the indoor fan relay (F) coil to start the indoor fan motor (IDM).

The RTRM de-energizes the fan relay (F) approximately 60 seconds after the cooling requirement has been satisfied to enhance unit efficiency. When the heating cycle is terminated, the indoor fan relay (F) coil is de-energized approximately 90 seconds after the heating requirement.

When the fan selection switch is set to the “On” position, the RTRM keeps the indoor fan relay coil (F) energized for continuous fan motor operation.

When the unit is equipped with the optional clogged filter switch, wired between terminals J7-3 and J7-4 on the ReliaTel Options Module (RTOM), the RTRM produces an analog output if the clogged filter switch (CFS) closes for two minutes after a request for fan operation. When the system is connected to a remote panel, the “SERVICE” LED will be turned on when this failure occurs.

¹ High efficiency units only.

ReliaTel Control Evaporator Fan Operation (for Cooling Only Units)

When the fan selection switch is set to the "Auto" position, the RTRM energizes the (K6) relay coil approximately 1 second after energizing the compressor contactor coil (CC1) in the cooling mode. In the heating mode, the RTRM energizes the (K6) relay coil approximately 1 second before energizing the electric heat contactors. Closing the (K6) contacts on the RTRM energizes the indoor fan relay (F) coil to start the indoor fan motor (IDM). The RTRM de-energizes the fan relay (F) approximately 60 seconds after the cooling requirement has been satisfied to enhance unit efficiency.

When the heating cycle is terminated, the indoor fan relay (F) coil is de-energized at the same time as the heater contactors.

When the fan selection switch is set to the "On" position, the RTRM keeps the indoor fan relay coil (F) energized for continuous fan motor operation.

When the unit is equipped with the optional clogged filter switch, wired between terminals J7-3 and J7-4 on the ReliaTel Options Module (RTOM), the RTRM produces an analog output if the clogged filter switch (CFS) closes for two minutes after a request for fan operation.

When the system is connected to a remote panel, the "SERVICE" LED will be turned on when this failure occurs.

Low Ambient Operation

During low ambient operation, outside air temperature below 55°F, the RTRM will cycle the compressor and outdoor fan motor "Off" for approximately 3 minutes after every 10 minutes of accumulated compressor run time. The indoor fan motor (IDM) will continue to operate during this evaporator defrost cycle (EDC) and the compressor and outdoor fan will return to normal operation once the defrost cycle has terminated and the compressor "Off" time delay has been satisfied.

Note: (For units with the dehumidification option) When in dehumidification mode, the unit will not cycle as described above. The unit will run continuously in dehumidification mode at all ambient conditions above 40°F. Dehumidification is disabled at ambient conditions below 40°F.

ReliaTel Control Dehumidification

Single Compressor Units

On a call for dehumidification, the reheat valve is energized and the compressor is turned on. When the humidity control setpoint is satisfied, the valve is de-energized and the compressor is turned off. If there is a call for cooling or heating from the space temperature controller, i.e. zone sensor or thermostat, while in reheat, the reheat valve is de-energized and the compressor continues to run, or the heat is turned on. The 3 minute

compressor on and off times are still active during compressor operation.

Dual Compressor Units

The dehumidification cycle is only permitted above 40°F as indicated above and is not permitted during a heating cycle or during a demand for 2nd stage cooling. Otherwise, when an installed zone humidity sensor indicates a relative humidity equal to or greater than the RH set point as adjusted on the ReliaTel Options Module (RTOM), a dehumidification cycle is initiated. The Sequence of Operation for the dehumidification cycle is identical to that of the second stage ReliaTel cooling cycle, except that the hot gas reheat valve (RHV) is energized, allowing air from the evaporator to be reheated. Also, any installed fresh air damper is driven to minimum position. The dehumidification cycle is terminated by initiation of a heating cycle or a 2nd stage cooling cycle or when zone humidity is reduced to 5% below the R.H. set point. In the absence of a zone humidity sensor input, an on/off input from a zone humidistat is used to initiate/terminate the dehumidification cycle.

Dehumidification takes priority over a call for one-stage cooling.

Heating or two-stage cooling takes priority over dehumidification, and a relative humidity sensor takes priority over a humidistat.

Dehumidification Coil Purge Cycle

On multiple circuit units with dehumidification/reheat configured, a purge cycle will be active for compressor reliability. The purpose of this function is to properly distribute refrigerant and lubricant throughout the system by temporarily switching to the unused section of the coil for 3 minutes (purge cycle). The function operates as follows:

1. A purge cycle will be initiated after 90 minutes of accumulated compressor run time in only one mode: cooling or dehumidification, without transitioning to the other mode.
2. A purge cycle will consist of transitioning to the mode that hasn't run in 90 minutes of total compressor operation. The cycle will last for a period of 3 minutes.
3. The 90-minute cycle count will be reset anytime there is a normal transition between cooling and dehumidification. Transitioning from one of these modes to any other mode (off or heat) will not reset the counter.
4. If the purge cycle is a cooling cycle, only the first circuit will be activated. If it is a dehumidification cycle then the normal 2-compressor dehumidification mode cycle will be used.
5. The purge cycle will ignore the low ambient dehumidification lockout feature.

Sequence of Operation

6. A purge cycle takes priority over normal cooling or dehumidification requests, but will discontinue for all high priority lockouts and alarms.

ReliaTel Control Cooling with an Economizer

The economizer is utilized to control the zone temperature providing the outside air conditions are suitable. Outside air is drawn into the unit through modulating dampers. When cooling is required and economizing is possible, the RTRM sends the cooling request to the unit economizer actuator (ECA) to open the economizer damper. The RTRM tries to cool the zone utilizing the economizer to slightly below the zone temperature setpoint. If the mixed air sensor (MAS) senses that the mixed air temperature is below 53°F, the damper modulates toward the closed position. If the zone temperature continues to rise above the zone temperature setpoint control band and the economizer damper is full open for 5 minutes, the RTRM energizes the compressor contactor (CC1). If the zone temperature continues to rise above the zone temperature setpoint control band and the economizer damper is fully open, the RTRM energizes the compressor contactor (CC2).

The ECA continues to modulate the economizer damper open/closed to keep the mixed air temperature that is calculated by the RTRM.

If economizing is not possible, the ECA drives the damper to the minimum position setpoint when the indoor fan relay (F) is energized and allows mechanical cooling operation.

When the unit is equipped with the optional fan failure switch, wired between terminals J7-5 and J7-6 on the RTOM, the RTRM will stop all cooling functions and produce an analog output if the fan failure switch (FFS) does not open within 40 seconds after a request for fan operation. When the system is connected to a remote panel, the "SERVICE" LED will flash when this failure occurs.

Note: For units equipped with the dehumidification option, if the unit is economizing, the damper resets to minimum position while in dehumidification mode.

Economizer Set-Up

Adjusting the minimum position potentiometer located on the unit economizer actuator (ECA) sets the required amount of ventilation air.

Two of the three methods for determining the suitability of the outside air can be selected utilizing the enthalpy potentiometer on the ECA, as described below:

1. Ambient Temperature - controlling the economizing cycle by sensing the outside air dry bulb temperature. [Table 83, p. 72](#) lists the selectable dry bulb values by potentiometer setting.
2. Reference Enthalpy - controlling the economizer cycle by sensing the outdoor air humidity. [Table 83, p. 72](#) lists the selectable enthalpy values by potentiometer setting. If the outside air enthalpy value is less than the selected value, the economizer is allowed to operate.
3. Comparative Enthalpy - utilizing a humidity sensor and a temperature sensor in both the return air stream and the outdoor air stream, the unit control processor (RTRM) will be able to establish which conditions are best suited for maintaining the zone temperature, i.e. indoor conditions or outdoor conditions. The potentiometer located on the ECA is non-functional when both the temperature and humidity sensors are installed.

Table 83. Potentiometer settings

Potentiometer Setting	Dry Bulb	Reference Enthalpy
A	73°F (22.8°C)	27 Btu/lb (63 kJ/kg)
B	70°F (21.1°C)	25 Btu/lb (58 kJ/kg)
C	67°F ^(a) (19.4°C)	23 Btu/lb (53 kJ/kg)
D	63°F (17.2°C)	22 Btu/lb (51 kJ/kg)
E	55°F (12.8°C)	19 Btu/lb (44 kJ/kg)

(a) Factory settings

ReliaTel Control Heating Operation (for Cooling Only Units)

When the system switch is set to the "Heat" position and the zone temperature falls below the heating setpoint control band, the RTRM energizes (K1) relay coil. When the (K1) relay contacts close, located on the RTRM, the first stage electric heat contactor (AH or AH & CH) is energized.

If the first stage of electric heat can not satisfy the heating requirement, the RTRM energizes (K2) relay coil. When the (K2) relay contacts close, located on the RTRM, the second stage electric heat contactor (BH) is energized, if applicable. The RTRM cycles both the first and second stages of heat "On" and "Off" as required to maintain the zone temperature setpoint.

ReliaTel Control Heating Operation (for Gas Units)

When the system switch is set to the "Heat" position and the zone temperature falls below the heating setpoint control band, a heat cycle is initiated when the RTRM communicates ignition information to the Ignition module (IGN).

Ignition Module

Two-stage (IGN) runs self-check (including verification that the gas valve is de-energized). (IGN) checks the high-limit switches (TC01 & TC02) for normally closed contacts, the pressure switch (PS) for normally open contacts, and the flame rollout (FR) switch for continuity. (IGN) energizes inducer blower on high speed to check pressure switch closure. If the pressure switch is closed, the inducer blower

starts a 20-second pre-purge (15 seconds on high speed followed by 5 seconds on low speed). If the pressure switch (PS) is still open, the inducer blower will continue to be energized on high speed until pressure switch closure. After pre-purge completes, the (IGN) energizes the first stage of the gas valve, initiates spark for 2 seconds minimum, 7 seconds maximum (ignition trial) and detects flame and de-energizes spark. From this point, a fixed 45 second indoor blower delay on timing starts. After the indoor blower delay on is completed, the (IGN) energizes the indoor blower. The (IGN) enters a normal operating loop where all inputs are continuously monitored. If the first stage of gas heat can not satisfy the heating requirement, the thermostat closes W2. The (IGN) energizes the second stage of the gas valve and the second stage of inducer blower. When the zone thermostat is satisfied, the (IGN) de-energizes the gas valve. The (IGN) senses loss of flame. The (IGN) initiates a 5 second inducer blower post purge. The (RTRM) initiates a second indoor blower delay off.

If the burner fails to ignite, the ignition module will attempt two retries before locking out. The green LED will indicate a lock out by two fast flashes. An ignition lockout can be reset by;

1. Opening for 3 seconds and closing the main power disconnect switch.
2. Switching the "Mode" switch on the zone sensor to "OFF" and then to the desired position.
3. Allowing the ignition control module to reset automatically after one hour. Refer to the "Ignition Control Module Diagnostics" section for the LED diagnostic definitions.

When the fan selection switch is set to the "Auto" position, the RTRM energizes the indoor fan relay (F) coil approximately 30 second after initiating the heating cycle to start the indoor fan motor (IDM).

Table 84. Ignition module diagnostics

Steady light	Module is powered up, but no active call for heat.
Blinking at continuous steady rate	Active call for heat.
One blink	Loss of communication.
Two blinks	System lockout (failure to ignite, no spark, low/no gas pressure, etc.)
Three blinks	Pressure switch (no vent air flow, bad CBM, closed at initial call for heat). Auto reset.
Four blinks	High limit (excessive heat in combustion chamber, low airflow). Auto reset.
Five blinks	Flame sensed and gas valve not energized or flame sensed and no call for heat.
Six blinks	Flame rollout (CBM failure, incorrect gas pressure, incorrect primary air). Requires manual reset of the switch.
Seven blinks	ReliaTel module will communicate a heat fail diagnostic back to the RTRM.

Electromechanical Controls

These units are offered with two control options, electromechanical and ReliaTel controls. The ReliaTel controls is a microelectronic control feature, which provides operating functions that are significantly different than conventional electromechanical units.

Electromechanical Control Cooling without an Economizer

When the thermostat switch is set to the "Cool" position and the zone temperature rises above the cooling setpoint, the thermostat Y contacts close. The compressor contactor (CC1) coil is energized provided the low pressure control (LPC1), high pressure control (HPC1) and discharge line thermostat (TDL 1) are closed. When the (CC1) contacts close, compressor (CPR1) and the outdoor fan motor (ODM) start. If the first stage of cooling can not satisfy the cooling requirement, the thermostat closes Y2. The compressor contactor (CC2) coil is energized provided the low pressure control (LPC2), high pressure control (HPC2) and discharge line thermostat (TDL 2) are closed. When the (CC2) contacts close, compressor (CPR2) starts.

Electromechanical Control Evaporator Fan Operation (for Gas Units)

When the thermostat fan selection switch is set to the "Auto" position, the Ignition Module (IGN) energizes the indoor fan relay (F) approximately 1 second after energizing the compressor contactor coil (CC1) in the cooling mode. In the heating mode, the Ignition Module (IGN) energizes the indoor fan relay (F) coil approximately 45 second after gas ignition. Closing indoor fan relay (F) coil starts the indoor fan motor (IDM). The (IGN) de-energizes the fan relay (F) approximately 80 seconds after the cooling requirement has been satisfied to enhance unit efficiency.

When the heating cycle is terminated, the indoor fan relay (F) coil is de-energized approximately 90 seconds after the heating requirement.

When the thermostat fan selection switch is set to the "On" position, the (IGN) keeps the indoor fan relay coil (F) energized for continuous fan motor operation.

Electromechanical Evaporator Fan Operation (for Cooling Only Units)

When the thermostat fan selection switch is set to the "Auto" position, the thermostat energizes the indoor fan relay coil (F) to start the indoor fan motor (IDM). The fan relay (F) de-energizes after the cooling requirement has been satisfied. When the heating cycle is terminated, the indoor fan relay (F) coil is de-energized with heater contactors.

When the thermostat fan selection switch is set to the "On" position, the thermostat keeps the indoor fan relay coil (F) energized for continuous fan motor operation.

Sequence of Operation

Economizer Set-Up

Adjusting the minimum position potentiometer located on the unit economizer actuator (ECA) sets the required amount of ventilation air.

Ambient temperature is controlling the economizing cycle by sensing the outside air dry bulb temperature. [Table 83, p. 72](#) lists the selectable dry bulb values by potentiometer setting.

Electromechanical Control Cooling with an Economizer

The economizer is utilized to control the zone temperature providing the outside air conditions are suitable. Outside air is drawn into the unit through modulating dampers.

When cooling is required and economizing is possible, the unit economizer actuator (ECA) opens the economizer damper. The ECA continues to modulate the economizer damper open/closed to keep the mixed air temperature in the 50°F to 55°F range.

The thermostat will close the Y2 contacts to turn on contactor (CC1) if mechanical cooling is required.

If economizing is not possible, the ECA drives the damper to the minimum position setpoint when the indoor fan relay (F) is energized and allows mechanical cooling operation.

Electromechanical Control Heating Operation (for Cooling Only Units)

When the system switch is set to the "Heat" position and the zone temperature falls below the heating setpoint, the thermostat closes W1 contacts the first stage electric heat contactor (AH or AH & CH) is energized. If the first stage of electric heat can not satisfy the heating requirement, the thermostat closes W2.

When the W2 contacts close, the second stage electric heat contactor (BH) is energized, if applicable. The thermostat cycles both the first and second stages of heat "On" and "Off" as required to maintain the zone temperature setpoint.

Electromechanical Control Heating Operation (for Gas Units)

When the system switch is set to the "Heat" position and the zone temperature falls below the heating setpoint, the Ignition module (IGN) initiates a heat cycle.

Ignition Module Low, Medium and High Heat

Two-stage (IGN) runs self-check (including verification that the gas valve is de-energized). (IGN) checks the high-limit switches (TC01 & TC02) for normally closed contacts, the pressure switch (PS) for normally open contacts, and the flame rollout (FR) switch for continuity. (IGN) energizes inducer blower on high speed to check pressure switch closure.

If the pressure switch is closed, the inducer blower starts a 20 second pre-purge (15 seconds on high speed followed by 5 seconds on low speed).

If the pressure switch (PS) is still open, the inducer blower will continue to be energized on high speed until pressure switch closure.

After pre-purge completes, the (IGN) energizes the first stage of the gas valve, initiates spark for 2 seconds minimum, 7 seconds maximum (ignition trial) and detects flame and de-energizes spark. From this point, a fixed 45 second indoor blower delay on timing starts.

After the indoor blower delay on is completed, the (IGN) energizes the indoor blower. The (IGN) enters a normal operating loop where all inputs are continuously monitored. If the first stage of gas heat can not satisfy the heating requirement, the thermostat closes W2. The (IGN) energizes the second stage of the gas valve and the second stage of inducer blower.

When the zone thermostat is satisfied, the (IGN) de-energizes the gas valve. The (IGN) senses loss of flame. The (IGN) initiates a 5 second inducer blower post purge and 90 second indoor blower delay off at current speed. The (IGN) de-energizes the inducer blower at the end of the post purge. The (IGN) de-energizes the indoor blower at the end of the selected indoor blower delay off.

Table 85. Ignition module diagnostics

Steady light	Module is powered up, but no active call for heat.
Blinking at continuous steady rate	Active call for heat.
One blink	Loss of communication.
Two blinks	System lockout (failure to ignite, no spark, low/no gas pressure, etc.)
Three blinks	Pressure switch (no vent air flow, bad CBM, closed at initial call for heat). Auto reset.
Four blinks	High limit (excessive heat in combustion chamber, low airflow). Auto reset.
Five blinks	Flame sensed and gas valve not energized or flame sensed and no call for heat.
Six blinks	Flame rollout (CBM failure, incorrect gas pressure, incorrect primary air). Requires manual reset of the switch.
Seven blinks	W1& W2 swapped (electromechanical 3-10 tons units).

Sequence of Operation (W Units)

ReliaTel Controls

These units are equipped with a microelectronic control feature, which provides operating functions that are significantly different than conventional units. It is referred to as the "ReliaTel Control System." The master module is the ReliaTel Refrigeration Module (RTRM).

The RTRM provides compressor anti-short cycle timing functions through minimum "Off" and "On" timing to increase reliability, performance and to maximize unit efficiency.

Upon power initialization, the RTRM performs self-diagnostic checks to insure that all internal controls are functioning. It checks the configuration parameters against the components connected to the system.

The LED located on the RTRM module is turned "On" within one second after power-up if all internal operations are okay.

Cooling without an Economizer

When the system is in the "Cool" MODE, the RTRM energizes relay (K3). When the normally open (K3) contacts close, the switch over valves (SOV1 & 2) are energized. When the zone temperature rises above the cooling setpoint controlband, the RTRM energizes the (K9) relay coil on the RTRM. When the (K9) relay contacts close, the compressor contactor (CC1) coil is energized provided the low pressure control (LPC1), high pressure control (HPC1) and discharge line thermostat (TDL 1) are closed. When the CC1 contacts close, compressor (CPR1) and the outdoor fan motor (ODM) starts provided the normally open (ODF) relay contacts are closed, to maintain the zone temperature to within ± 2 F of the sensor setpoint at the sensed location.

Evaporator Fan Operation

When the fan selection switch is set to the "Auto" position, the RTRM energizes the (K6) relay coil approximately 1 second after energizing the compressor contactor coil (CC1) in the cooling mode. In the heating mode, the RTRM energizes the (K6) relay coil approximately 1 second before energizing the electric heat contactors. Closing the (K6) contacts on the RTRM energizes the indoor fan relay (F) coil to start the indoor fan motor (IDM).

The RTRM de-energizes the fan relay (F) approximately 60 seconds after the cooling requirement has been satisfied to enhance unit efficiency. When the heating cycle is terminated, the indoor fan relay (F) coil is de-energized at the same time as the heater contactors.

When the fan selection switch is set to the "On" position, the RTRM keeps the indoor fan relay coil (F) energized for continuous fan motor operation.

When the unit is equipped with the optional clogged filter switch, wired between terminals J7-3 and J7-4 on the

ReliaTel Options Module (RTOM), the RTRM produces an analog output if the clogged filter switch (CFS) closes for two minutes after a request for fan operation. When the system is connected to a remote panel, the "SERVICE" LED will be turned on when this failure occurs.

Low Ambient Operation

During low ambient operation, outside air temperature below 55 F, the RTRM will cycle the compressor and outdoor fan motor "Off" for approximately 3 minutes after every 10 minutes of accumulated compressor run time. The indoor fan motor (IDM) will continue to operate during this evaporator defrost cycle (EDC) and the compressor and outdoor fan will return to normal operation once the defrost cycle has terminated and the compressor "Off" time delay has been satisfied.

Cooling with an Economizer

When the system is in the "Cool" MODE, the RTRM energizes relay (K3). When the normally open (K3) contacts close, the switch over valves (SOV1 & 2) are energized. The economizer is utilized to control the zone temperature providing the outside air conditions are suitable. Outside air is drawn into the unit through modulating dampers. When cooling is required and economizing is possible, the RTRM sends the cooling request to the unit economizer actuator (ECA) to open the economizer damper. The RTRM tries to cool the zone utilizing the economizer to slightly below the zone temperature setpoint. If the mixed air sensor (MAS) senses that the mixed air temperature is below 53°F, the damper modulates toward the closed position. If the zone temperature continues to rise above the zone temperature setpoint controlband and the economizer damper is fully open, the RTRM energizes the compressor contactor (CC1).

The ECA continues to modulate the economizer damper open/closed to keep the mixed air temperature that is calculated by the RTRM.

If economizing is not possible, the ECA drives the damper to the minimum position setpoint when the indoor fan relay (F) is energized and allows mechanical cooling operation.

When the unit is equipped with the optional fan failure switch, wired between terminals J7-5 and J7-6 on the RTOM, the RTRM will stop all cooling functions and produce an analog output if the fan failure switch (FFS) does not open within 40 seconds after a request for fan operation. When the system is connected to a remote panel, the "SERVICE" LED will flash when this failure occurs.

Sequence of Operation (W Units)

Economizer Set-Up

Adjusting the minimum position potentiometer located on the unit economizer actuator (ECA) sets the required amount of ventilation air.

Two of the three methods for determining the suitability of the outside air can be selected utilizing the enthalpy potentiometer on the ECA, as described below:

4. Ambient Temperature - controlling the economizing cycle by sensing the outside air-dry bulb temperature. The table below lists the selectable dry bulb values by potentiometer setting.
5. Reference Enthalpy - controlling the economizer cycle by sensing the outdoor air humidity. The table below lists the selectable enthalpy values by potentiometer setting. If the outside air enthalpy value is less than the selected value, the economizer is allowed to operate.
6. Comparative Enthalpy - By utilizing a humidity sensor and a temperature sensor in both the return air stream and the outdoor air stream, the unit control processor (RTRM) will be able to establish which conditions are best suited for maintaining the zone temperature, i.e. indoor conditions or outdoor conditions. The potentiometer located on the ECA is nonfunctional when both the temperature and humidity sensors are installed.

Table 86. Potentiometer settings

Potentiometer Setting	Dry Bulb	Enthalpy
A	73°F (22.8°C)	27 Btu/lb (63 kJ/kg)
B	70°F (21.1°C)	25 Btu/lb (58 kJ/kg)
C	67°F ^(a) (19.4°C)	23 Btu/lb (53 kJ/kg)
D	63°F (17.2°C)	22 Btu/lb (51 kJ/kg)
E	55°F (12.8°C)	19 Btu/lb (44 kJ/kg)

(a) Factory Setting

Heating Operation

When the system switch is set to the "Heat" MODE, the RTRM energizes relay (K3). When the normally open (K3) contacts open, the switch over valves (SOV1 & 2) are de-energized. When the zone temperature falls below the heating setpoint controlband, the RTRM energizes the (K9) & (K10) relay coils on the RTRM. When the (K9) relay contacts close, the compressor contactor (CC1) coil is energized provided the low pressure control (LPC1), high pressure control (HPC1) and discharge line thermostat (TDL 1) are closed. When the CC1 contacts close, compressor (CPR1) and the outdoor fan motor (ODM) starts provided the normally open (ODF) relay contacts are closed.

The RTRM "Smart Recovery" function monitors the rate at which the zone temperature is changing every 9 minutes during the operating heating cycle. If the zone temperature is rising at a rate greater than 6 F per hour, no additional heat is requested (auxiliary electric heat). If not, the RTRM energizes the first stage auxiliary electric heat contactor

(AH or AH and CH) (electric heat optional). A minimum of 10 seconds "Off" time must have elapsed between heater cycles. If mechanical heat and first stage auxiliary heat cannot provide the 6 F recovery rate, the RTRM energizes second stage auxiliary heat contactor (BH), if applicable. The RTRM continues to monitor the rate of change and stages the electric heat "Off" as it determines that the mechanical heat (compressor operation) is sufficient.

Demand Defrost

Demand defrost is a standard feature which permits defrost whenever coil icing conditions begin to significantly reduce unit capacity. To permit defrost, the outdoor temperature must be below 52 F, coil temperature must be below 33 F, and the delta temperature F must exceed a RTRM calculated value. After 30 minutes of run time under defrost permit conditions, the RTRM initiates a defrost cycle. Upon termination of this cycle, the RTRM monitors the outdoor temperature (ODT) and the coil temperature (CT) and calculates the delta temperature F (ODT - CT). This value is stored in memory and the RTRM calculates a defrost initiate value. The RTRM continually compares the delta temperature F to the defrost initiate value. Once the delta tee reaches the initiate value, a defrost cycle is initiated.

During the defrost cycle, the RTRM energizes the relay (K3), which energizes the switch over valves (SOV1 & 2) through the normally open K3 relay contacts. Then turns the outdoor fan motor (ODM) "Off" by de-energizing the (K8) relay, which de-energizes the (ODF) relay. The RTRM energizes the auxiliary electric heat contactor (AH) and (BH) (if applicable) if they are not operating, while maintaining compressor (CPR1) operation.

The defrost cycle is terminated based on the RTRM termination temperature calculation using the outdoor temperature (ODT) + 27 F. The defrost termination temperature (DTT) will typically be between 37 F and 52 F.

Emergency Heat Operation

When the system selection switch is in the "EM HEAT" MODE, and the zone temperature falls below the heating setpoint controlband, the RTRM bypasses compressor and outdoor fan operation and energizes the K1 relay located on the RTRM. When K1 relay contacts close, the first stage auxiliary electric heat contactor (AH or AH and CH) is energized. If the first stage of auxiliary electric heat can not satisfy the heating requirement, the RTRM energizes the K2 relay coil located on the RTRM. When the K2 relay contacts close, the second stage auxiliary electric heat contactor (BH) is energized. The RTRM cycles both the first and second stages of heat "On" and "Off" as required to maintain the zone temperature setpoint.

Pressure Curves

Figure 1. T/YSC036E3,E4,EW cooling cycle pressure curve

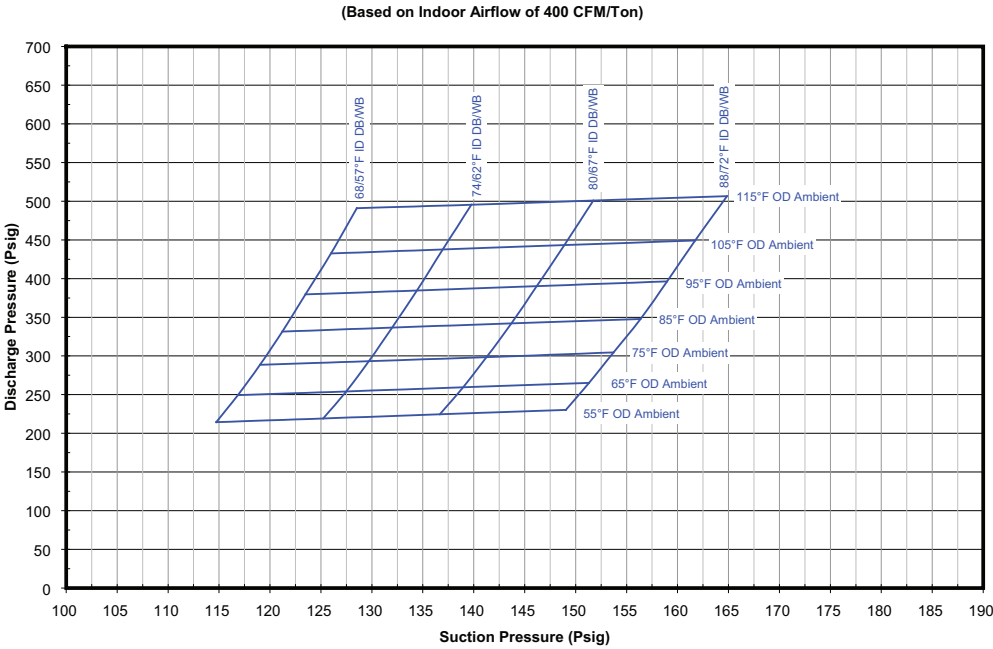
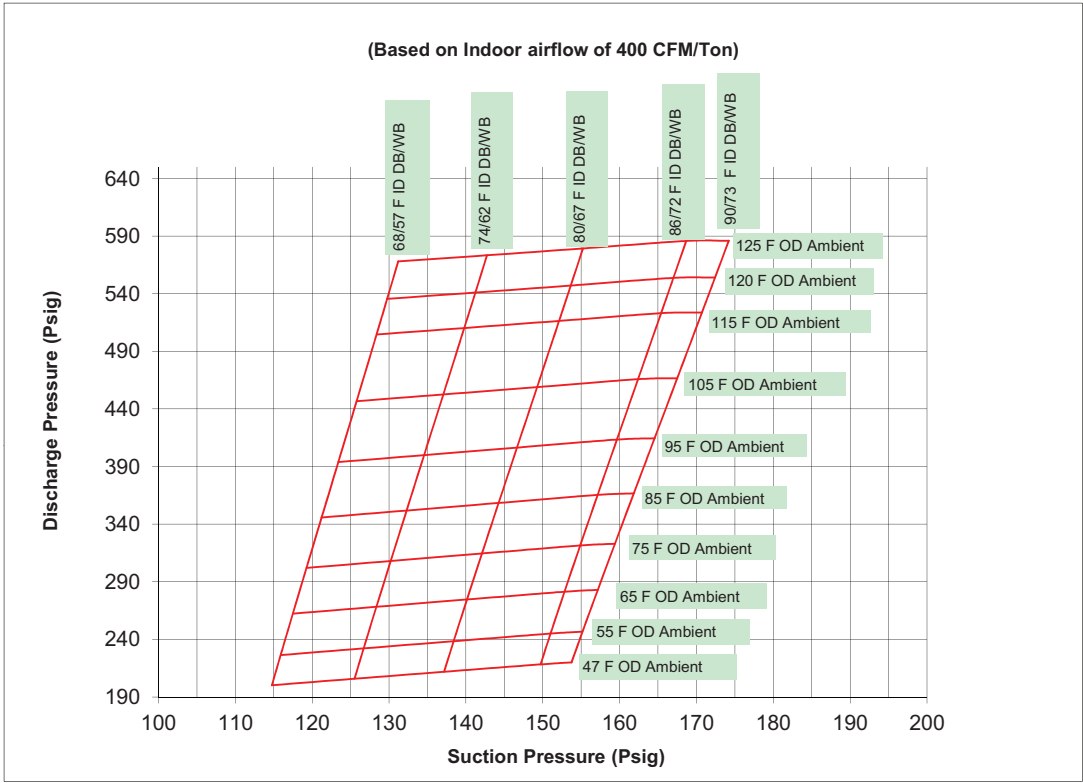


Figure 2. T/YSC048E3,E4,EW cooling cycle pressure curve



Pressure Curves

Figure 3. T/YSC060E3,E4,EW cooling cycle pressure curve

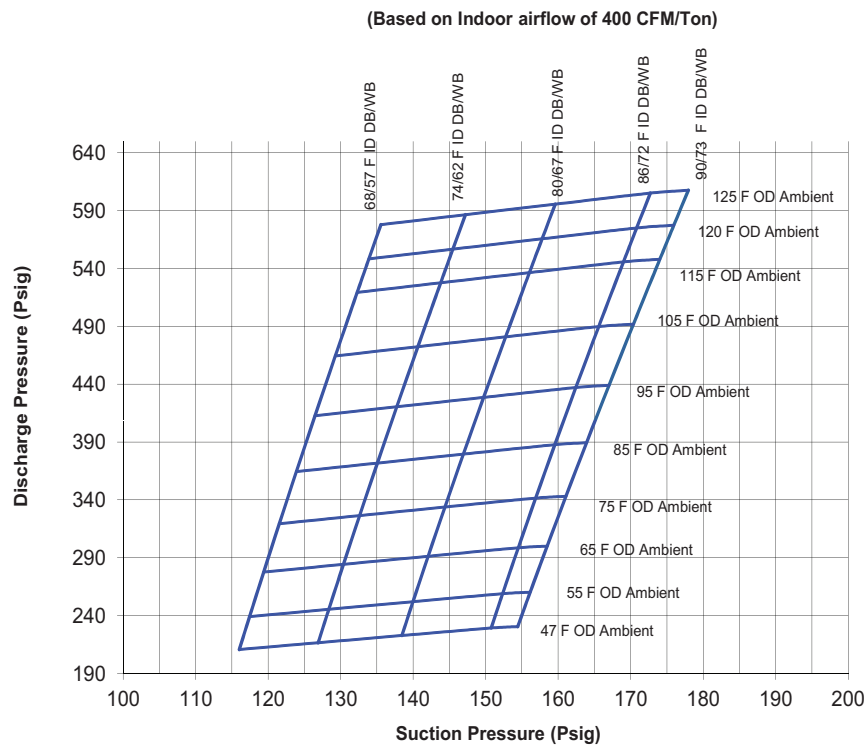


Figure 4. T/YHC036E3,E4 cooling cycle pressure curve

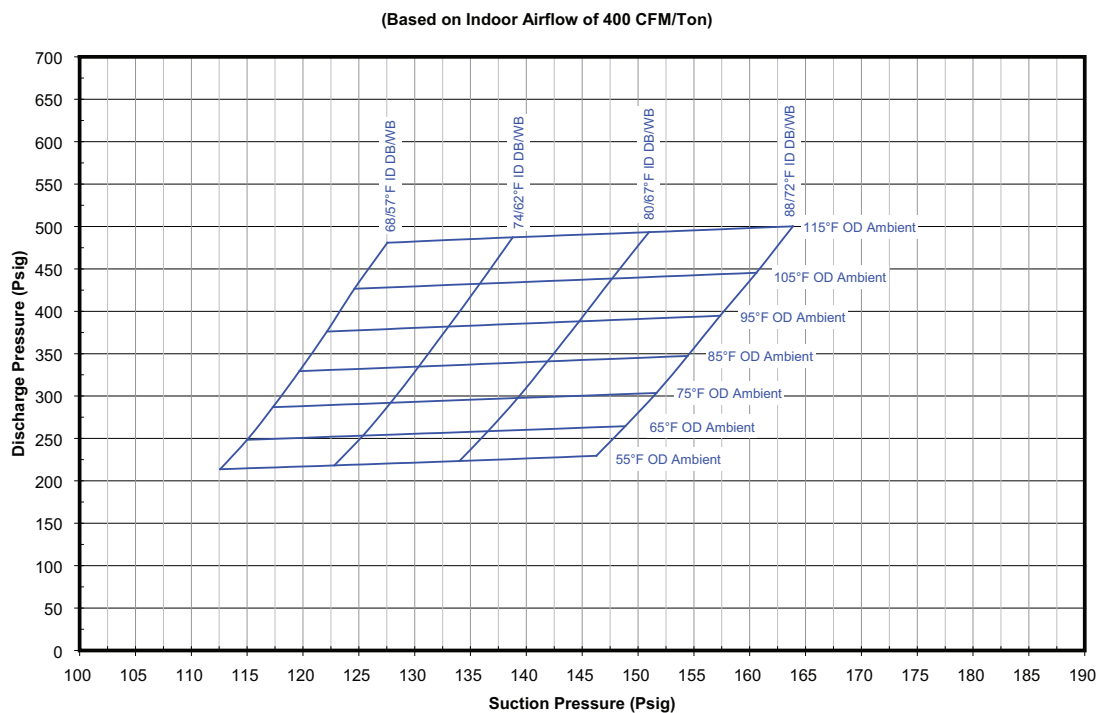


Figure 5. T/YHC048E3,E4 cooling cycle pressure curve

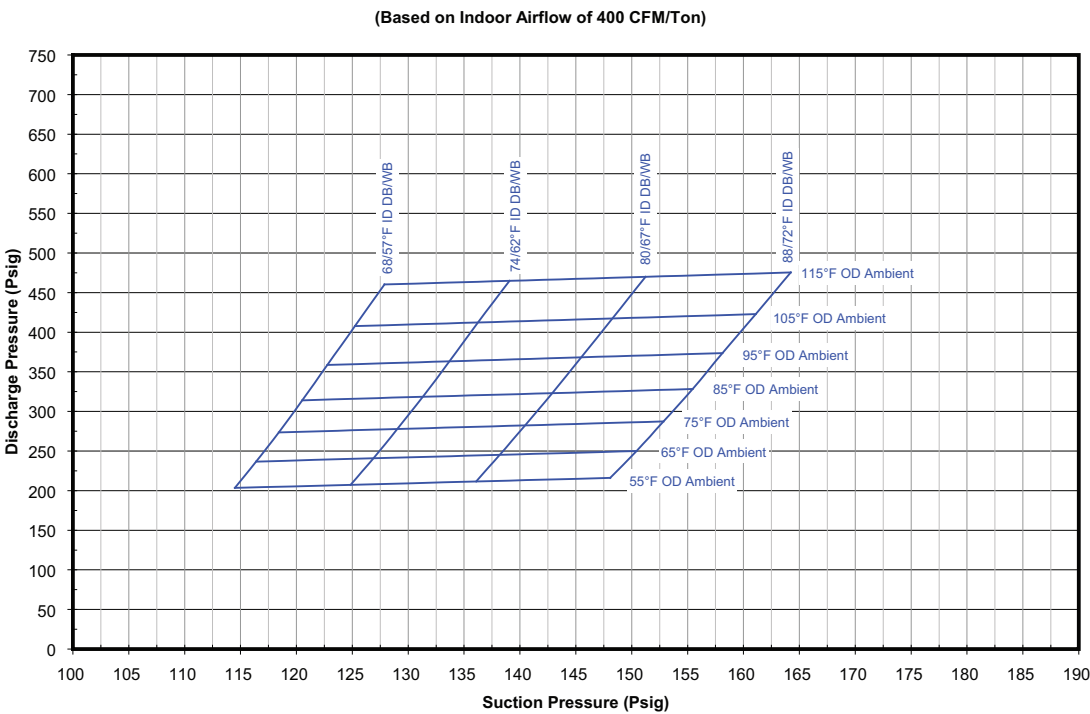
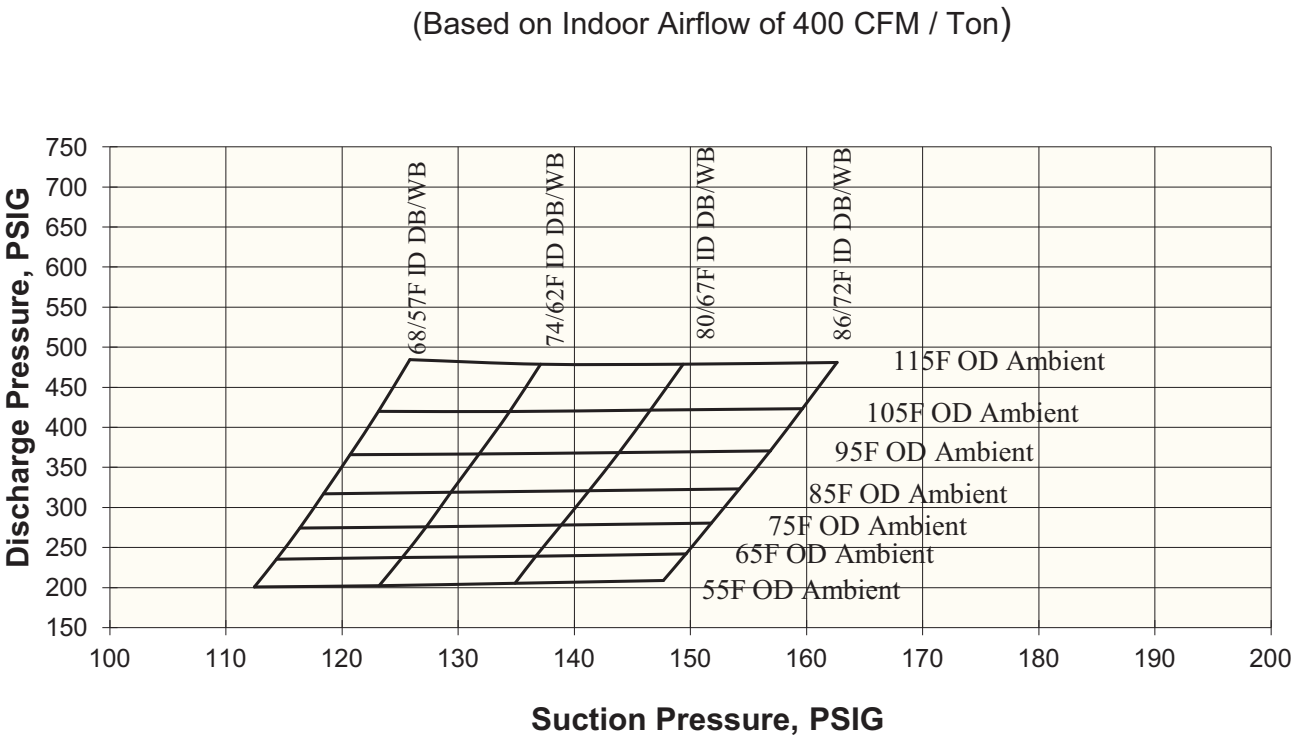


Figure 6. T/YHC048F3,F4 cooling cycle pressure curve



Pressure Curves

Figure 7. T/YHC060E3,E4 cooling cycle pressure curve

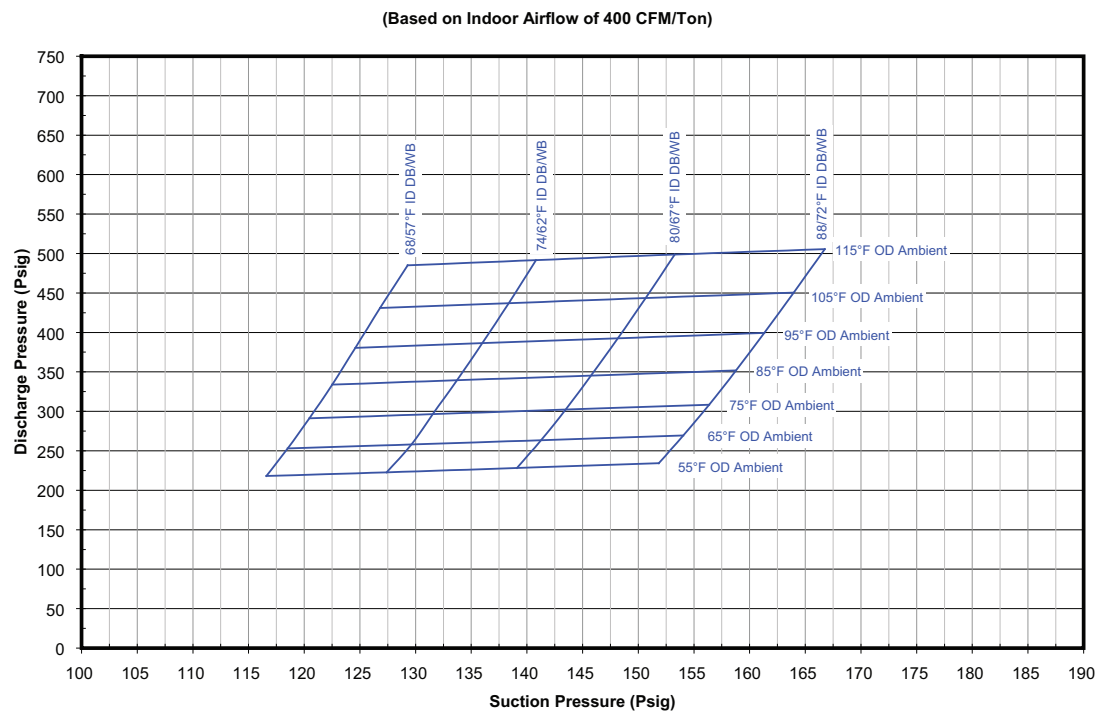


Figure 8. T/YHC060F3,F4 cooling cycle pressure curve

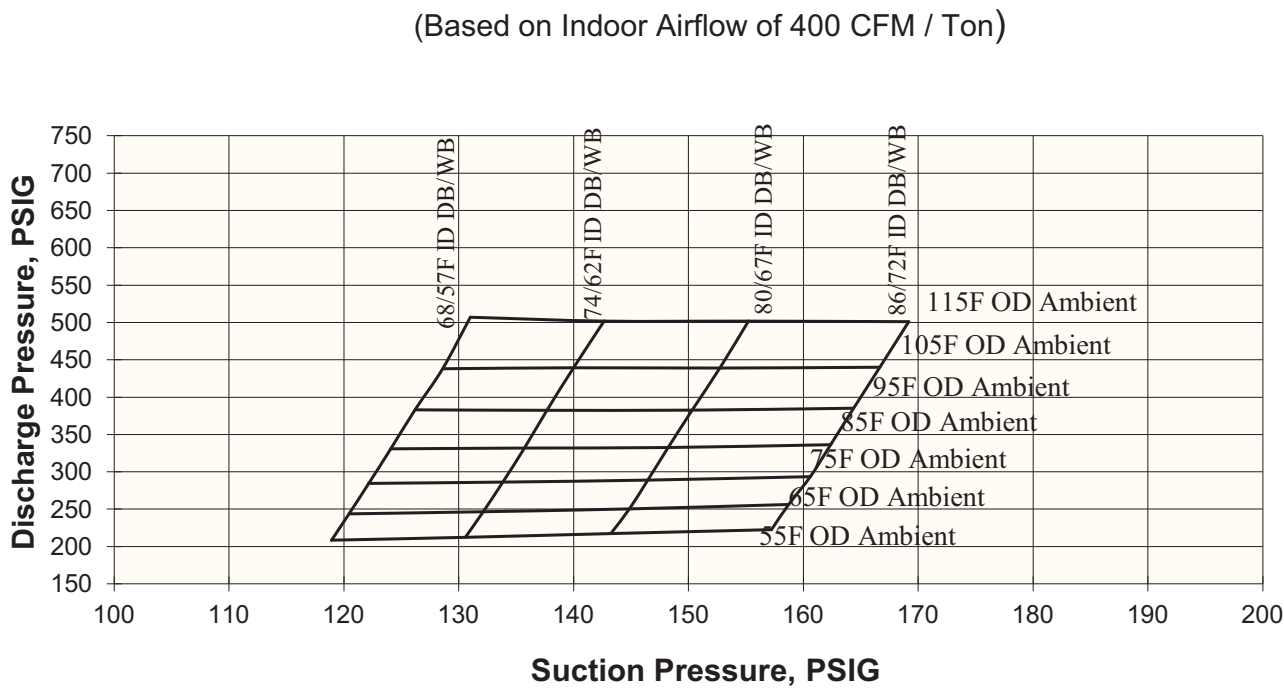


Figure 9. WSC036E3,E4,EW cooling cycle pressure curve

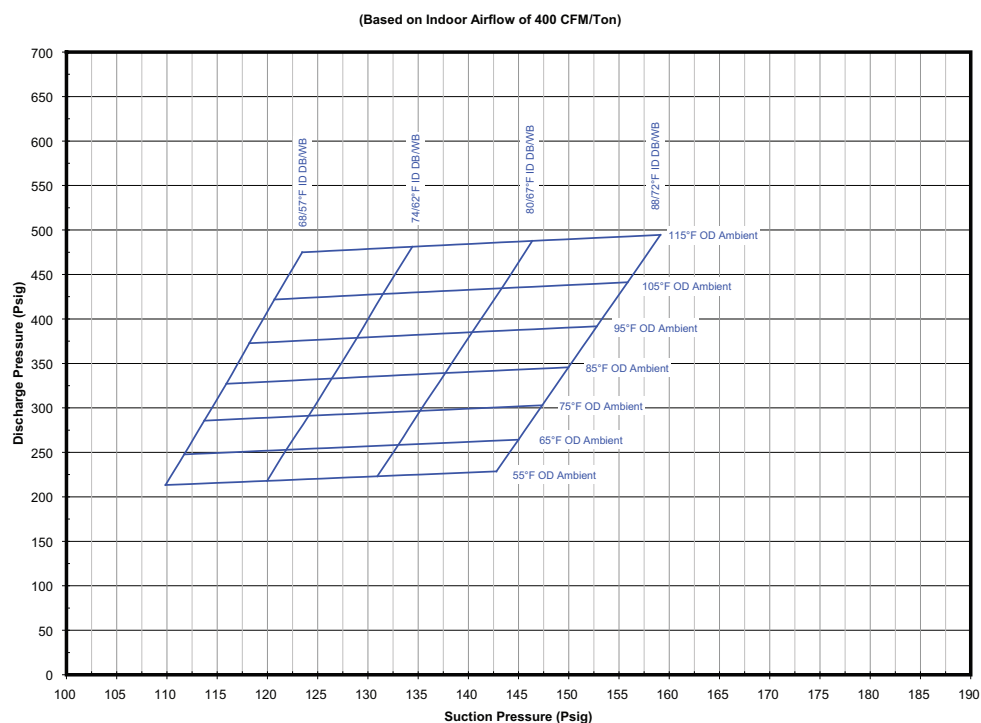
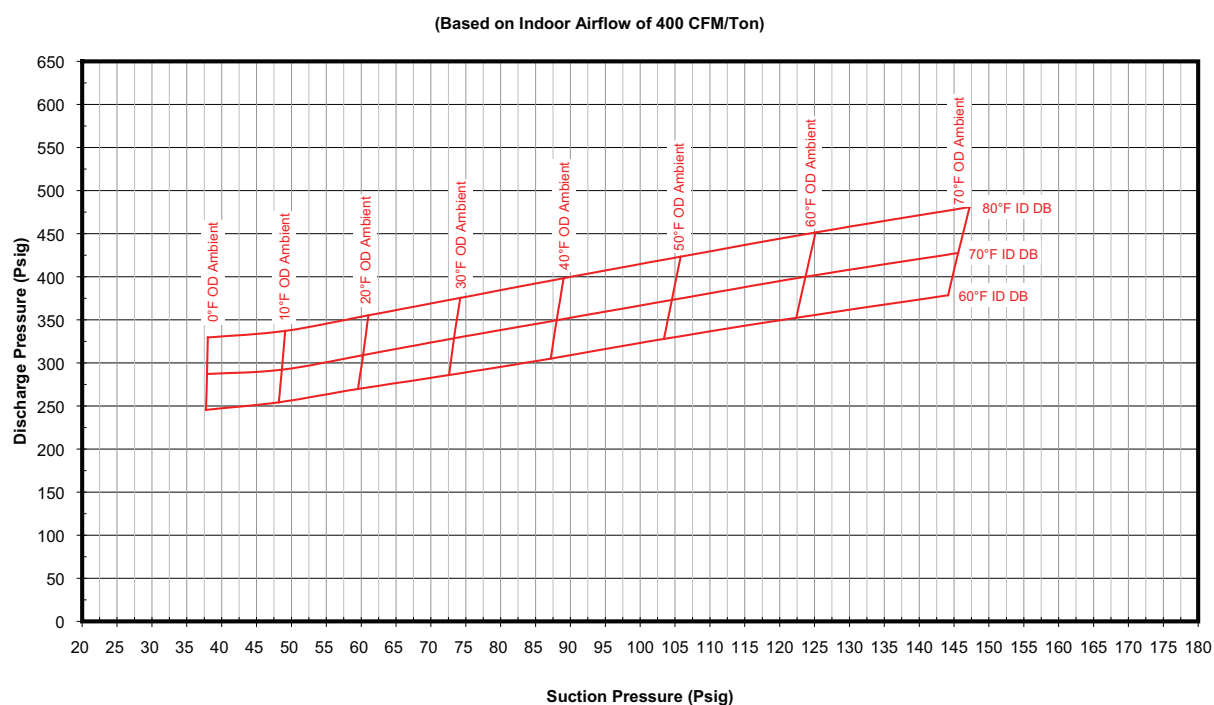


Figure 10. WSC036E3,E4,EW heating pressure curve



Pressure Curves

Figure 11. WSC048E3,E4,EW cooling cycle pressure curve

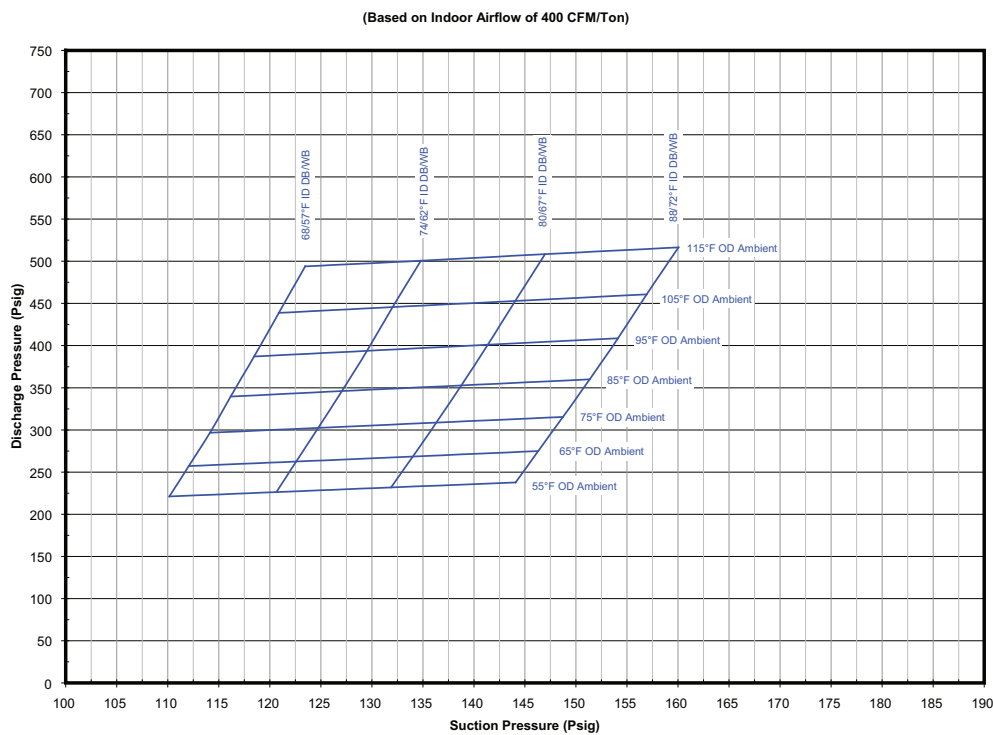


Figure 12. WSC048E3 heating pressure curve

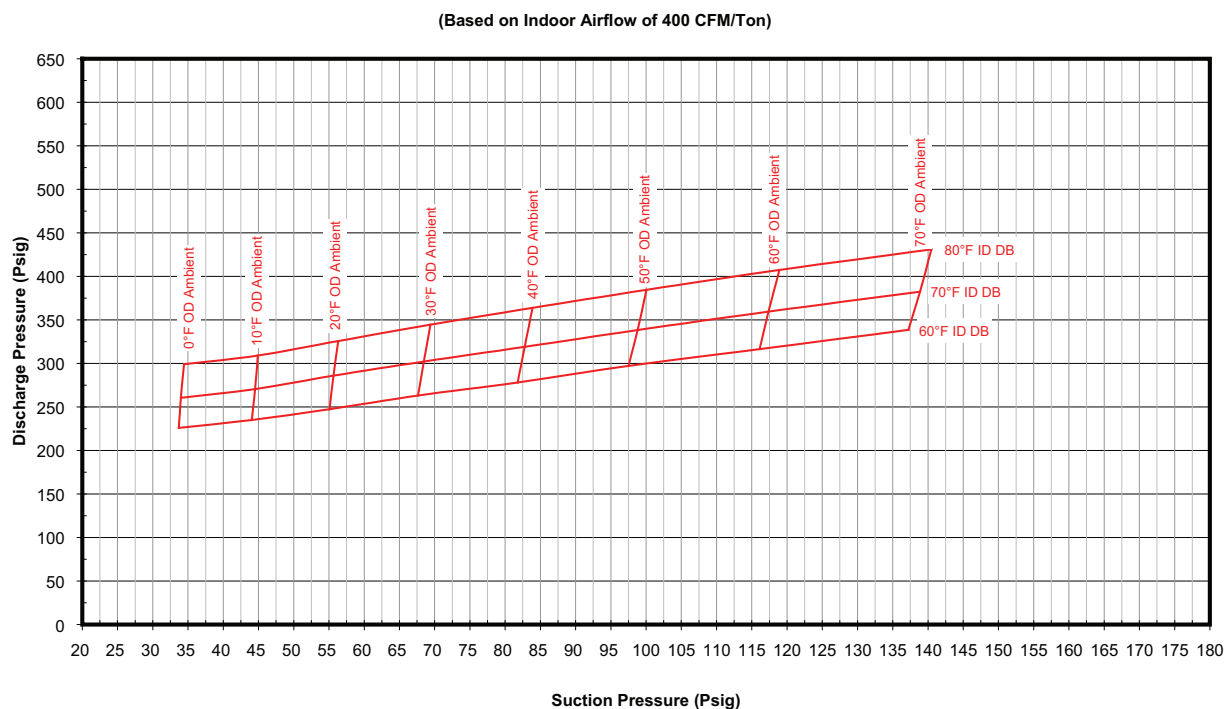


Figure 13. WSC060E3,E4,EW cooling cycle pressure curve

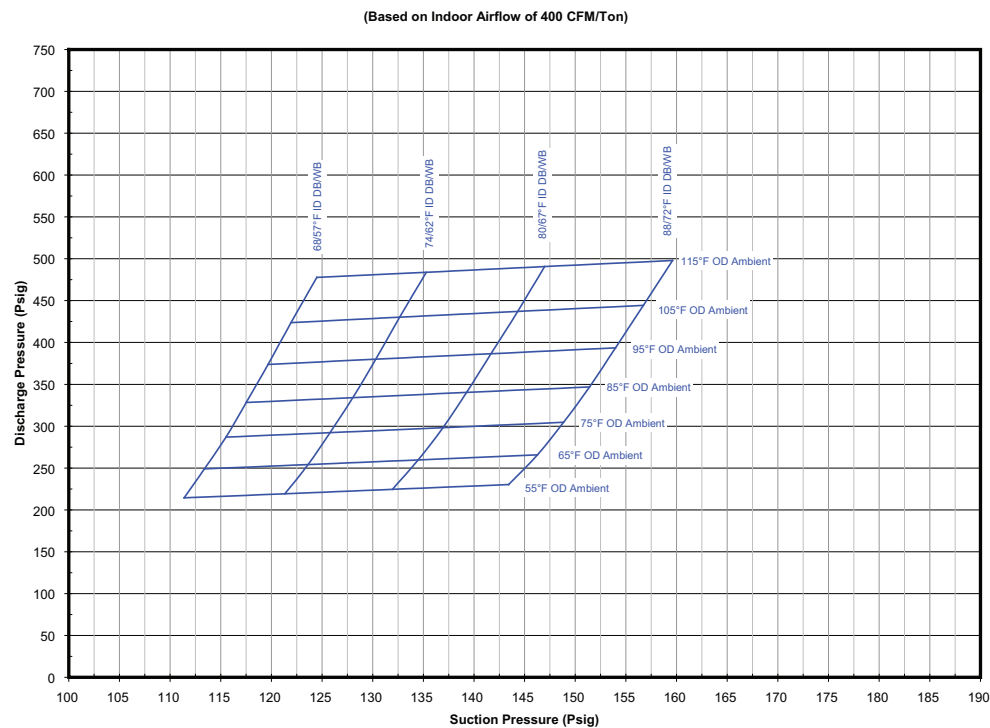
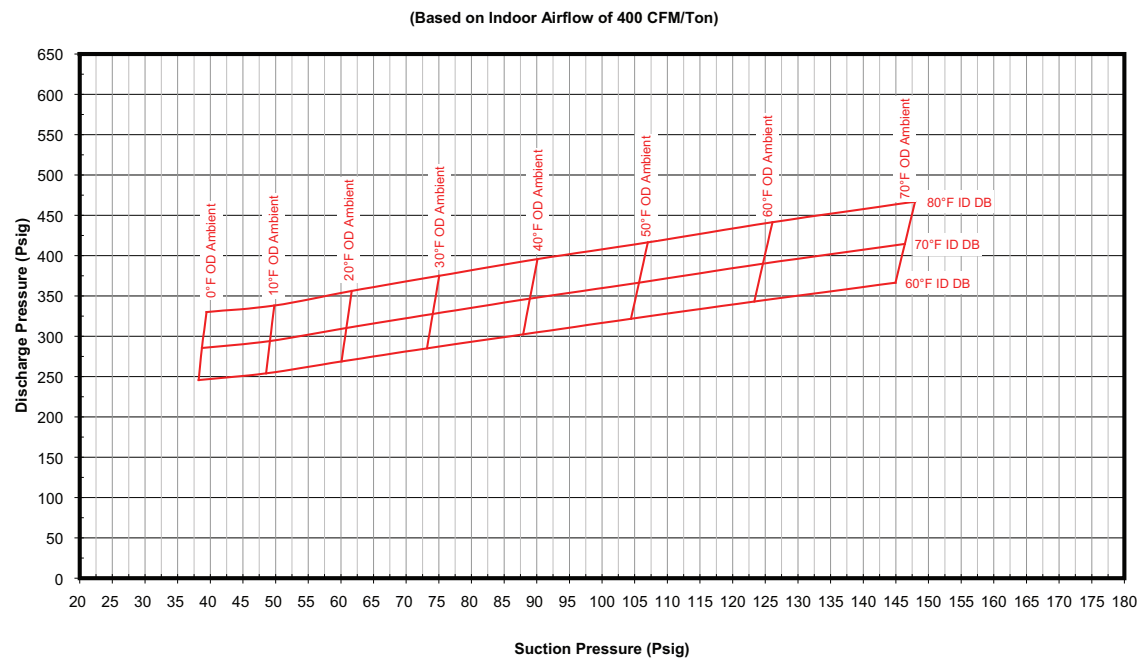


Figure 14. WSC060E3,E4,EW heating pressure curve



Subcooling Charging Charts

Figure 15. T/YSC036E3,E4,EW subcooling charging chart

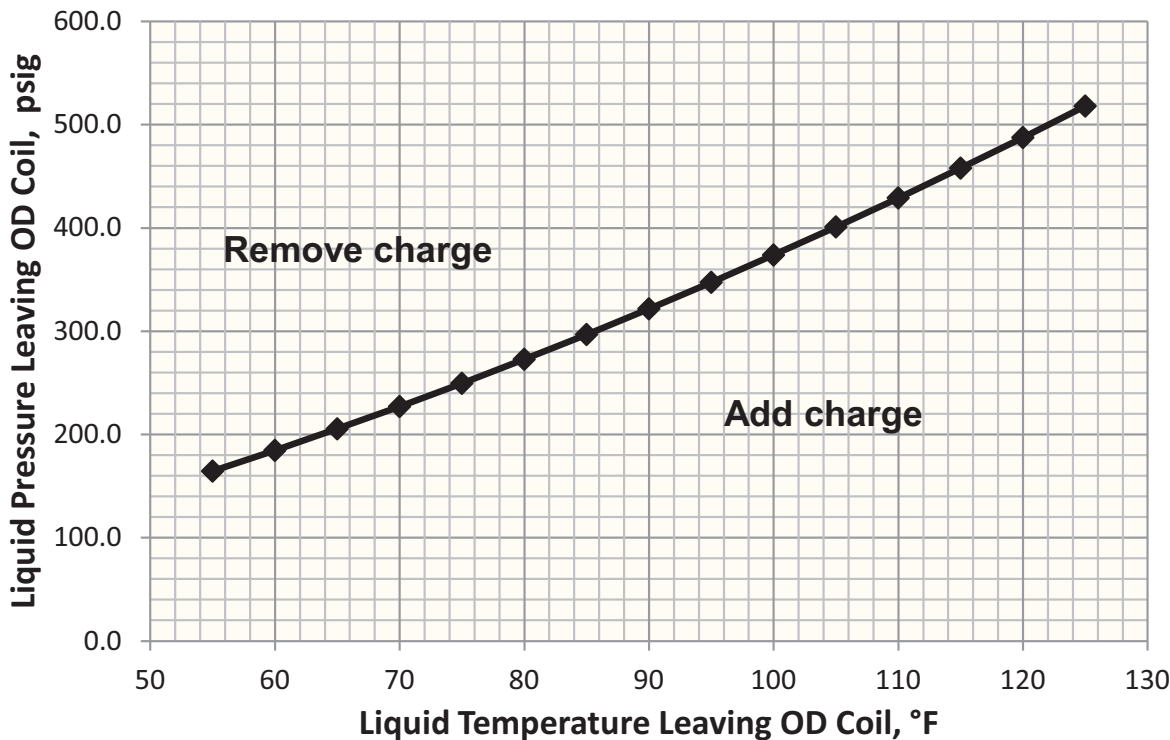


Figure 16. T/YSC048E3,E4,EW subcooling charging chart

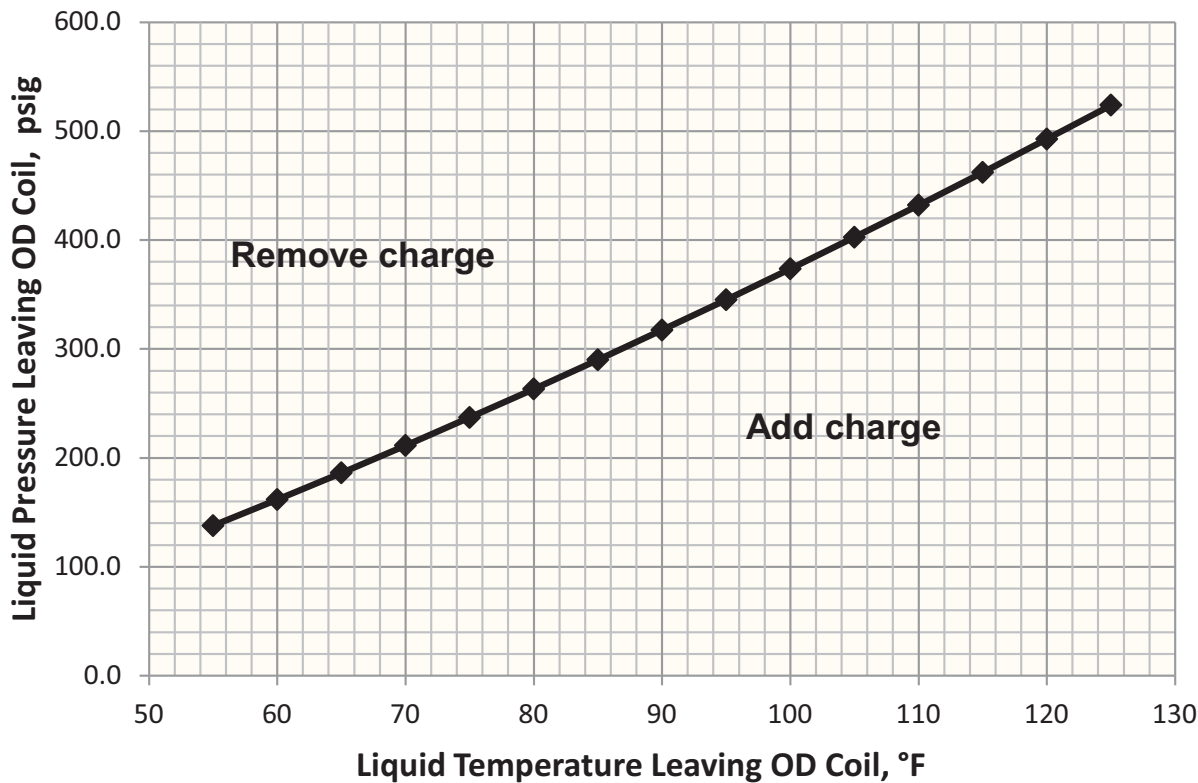


Figure 17. T/YSC060E3,E4,EW subcooling charging chart

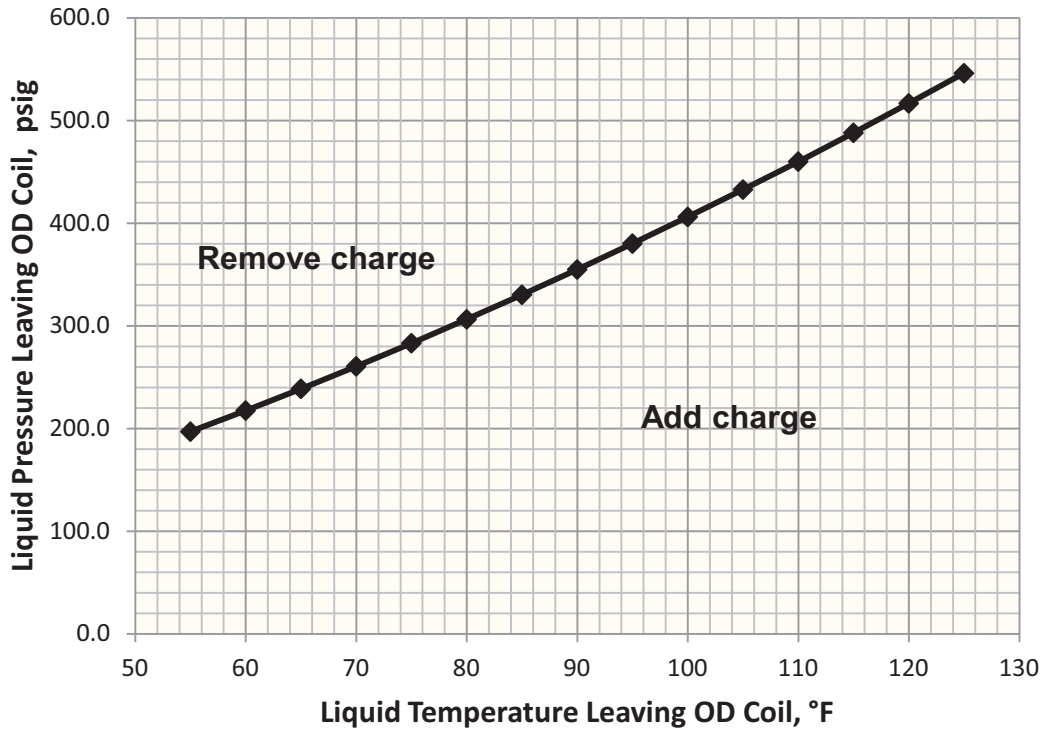
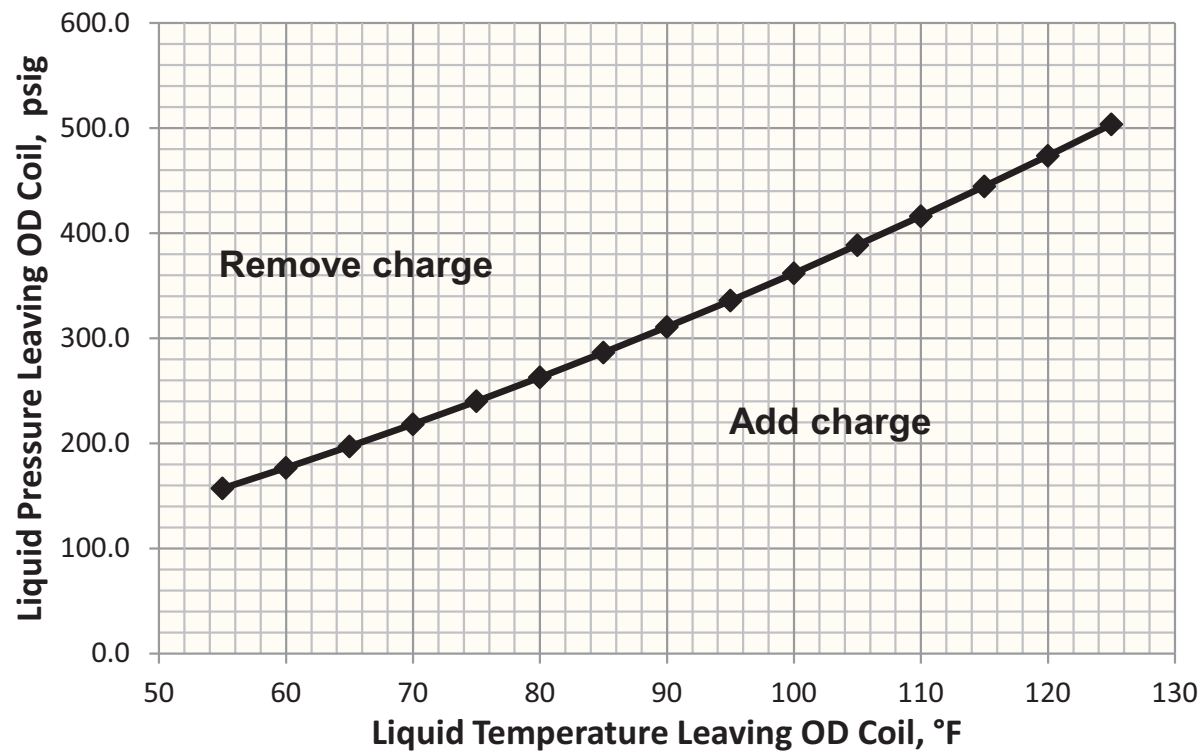


Figure 18. T/YHC036E3,E4 subcooling charging chart



Subcooling Charging Charts

Figure 19. T/YHC048E3,E4 subcooling charging chart (dehumidification)

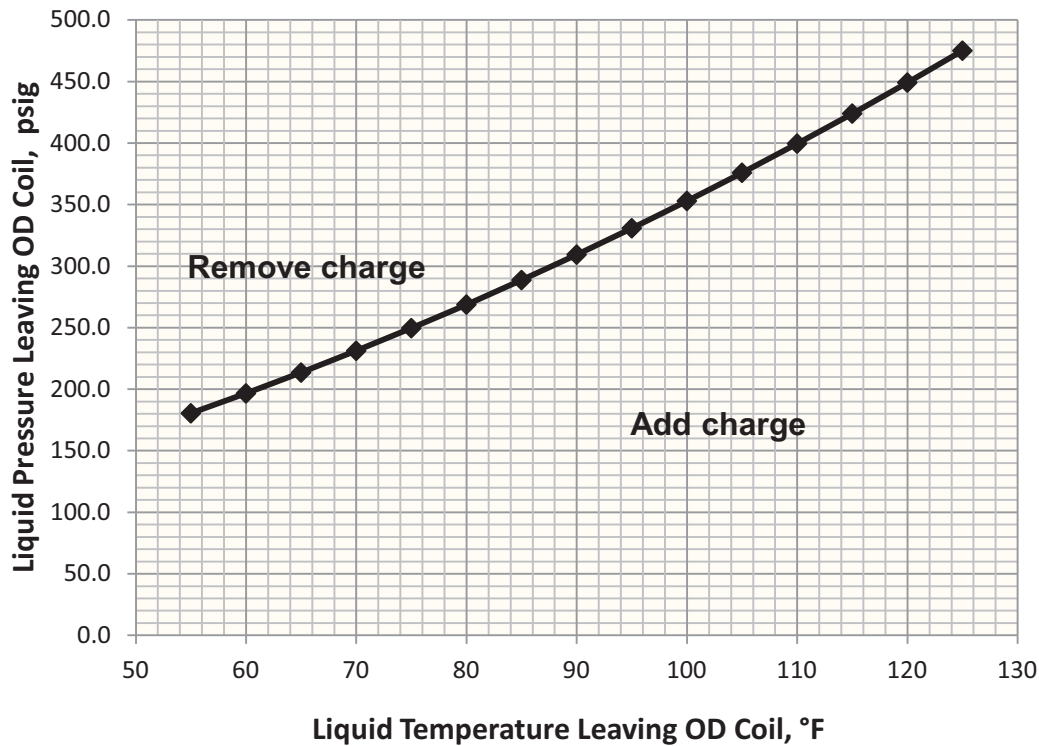


Figure 20. T/YHC048F3,F4 Subcooling charging chart

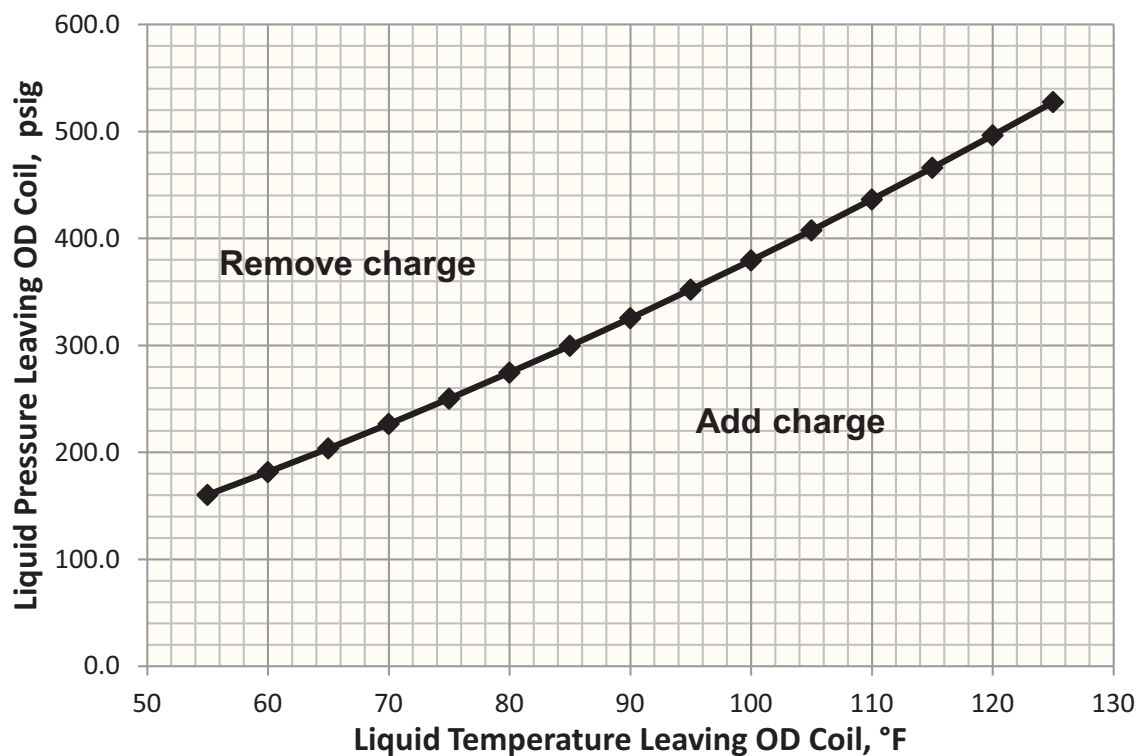


Figure 21. T/YHC060E3,E4 subcooling charging chart (dehumidification)

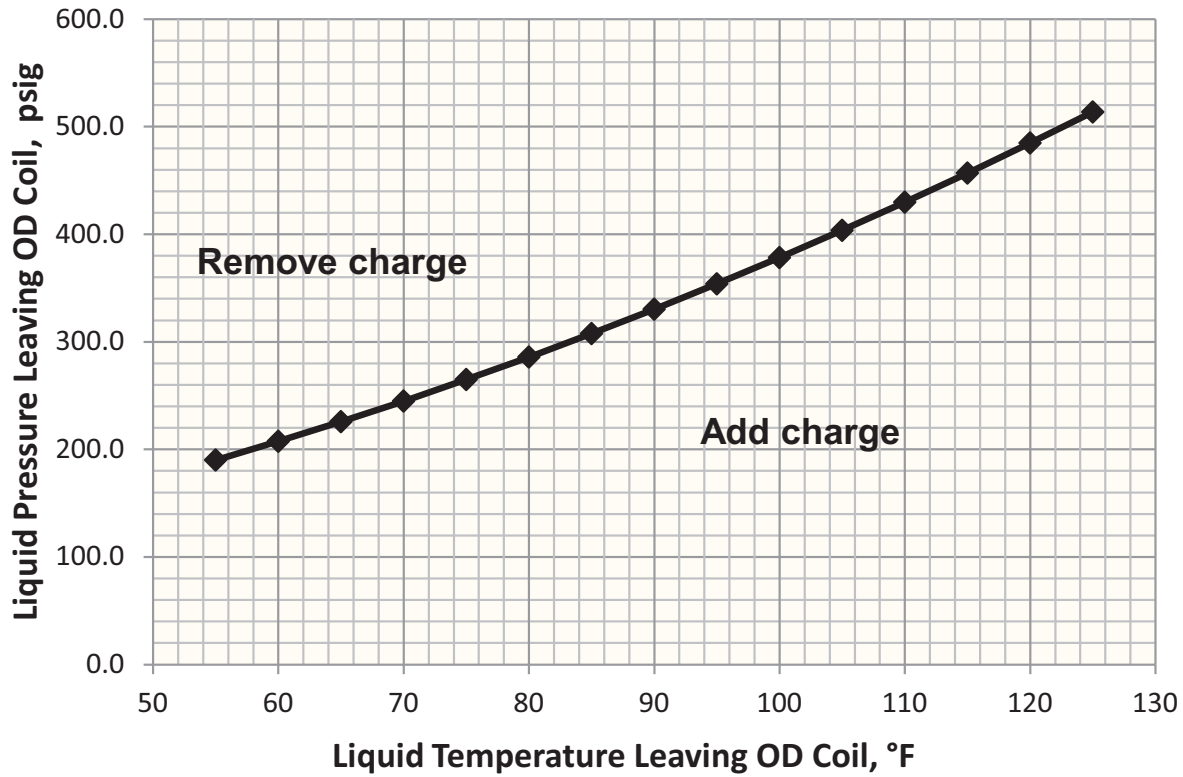
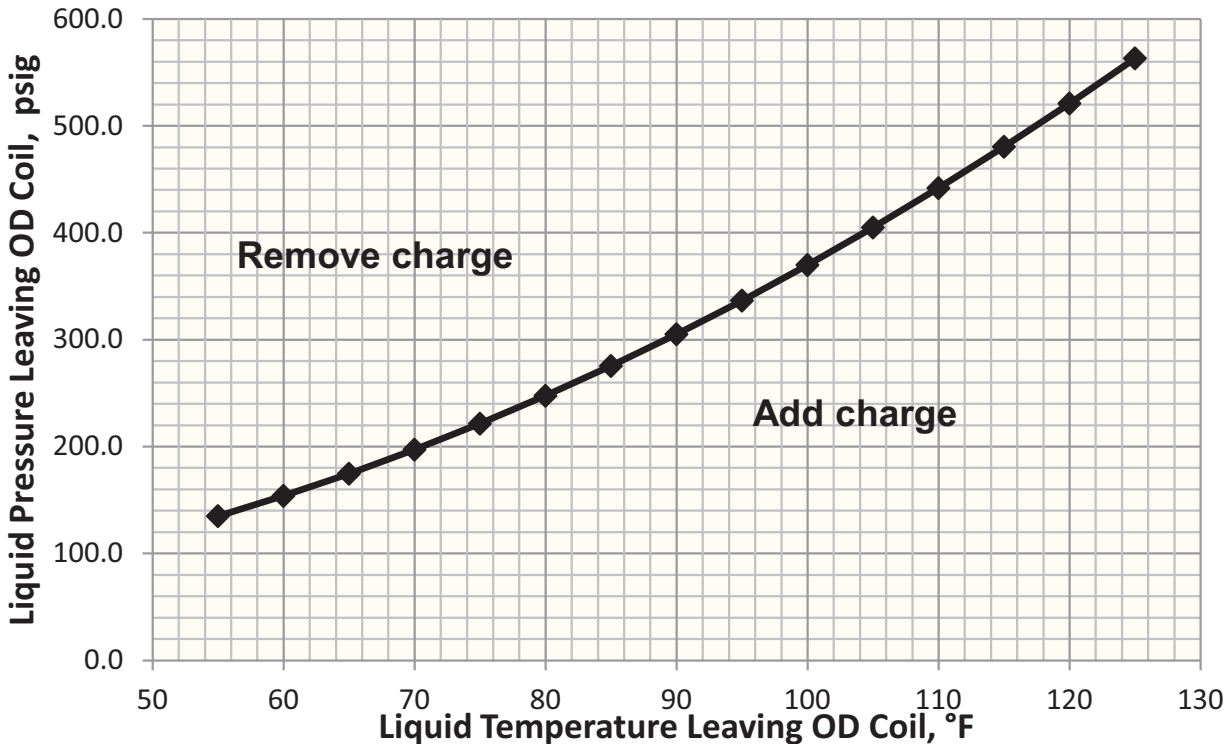


Figure 22. T/YHC060F3,F4 subcooling charging chart



Subcooling Charging Charts

Figure 23. WSC036E3,E4,EW subcooling charging chart

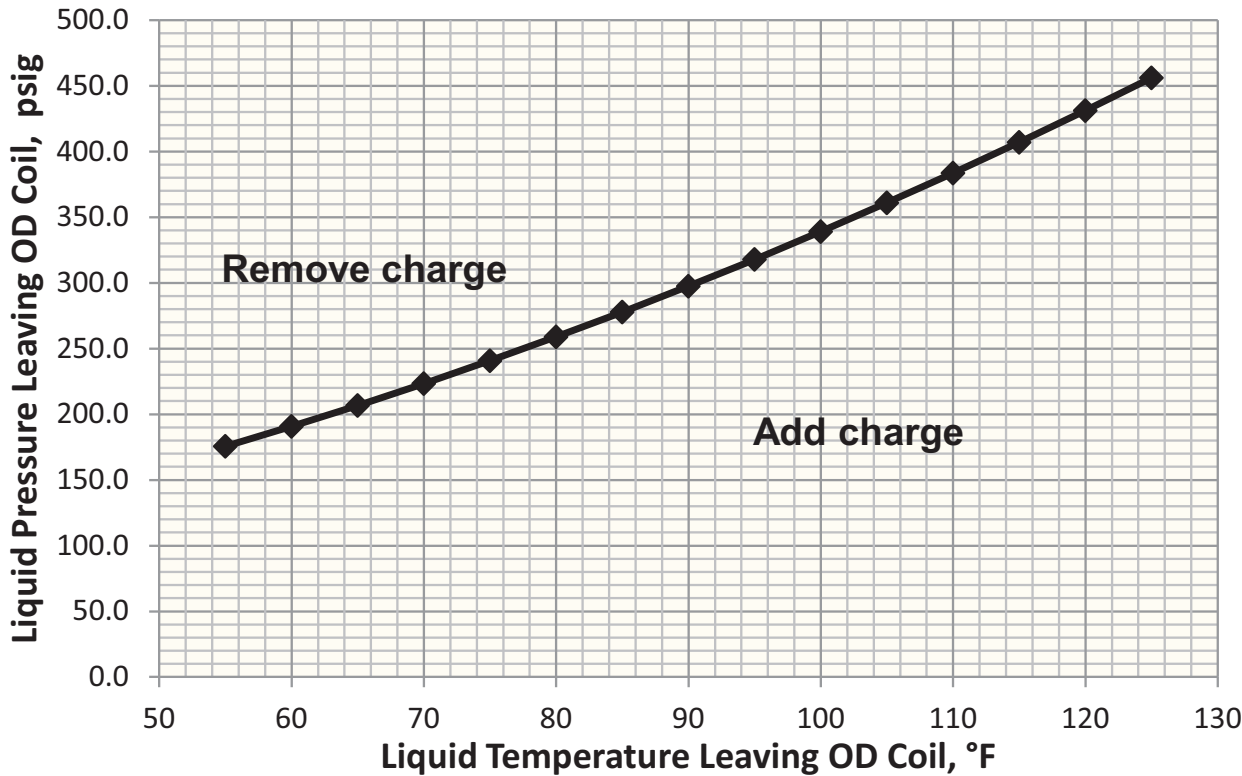


Figure 24. WSC048E3,E4,EW subcooling charging chart

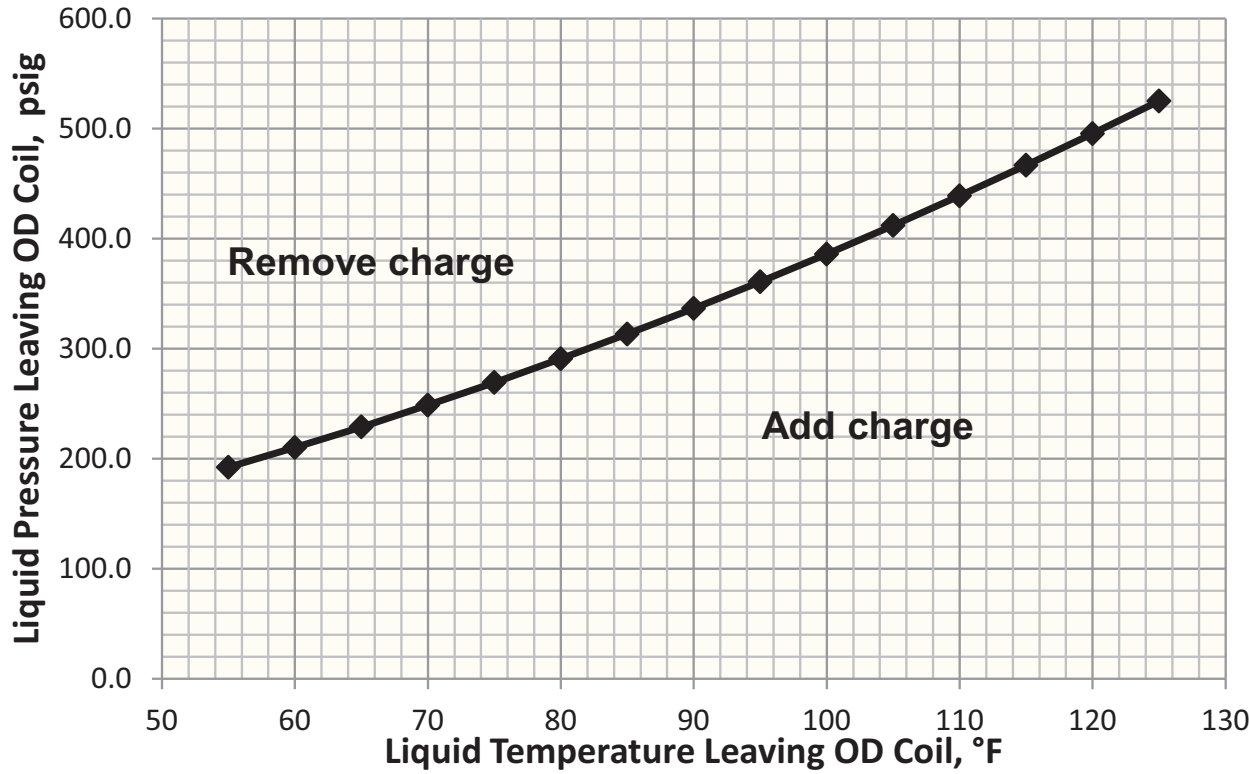
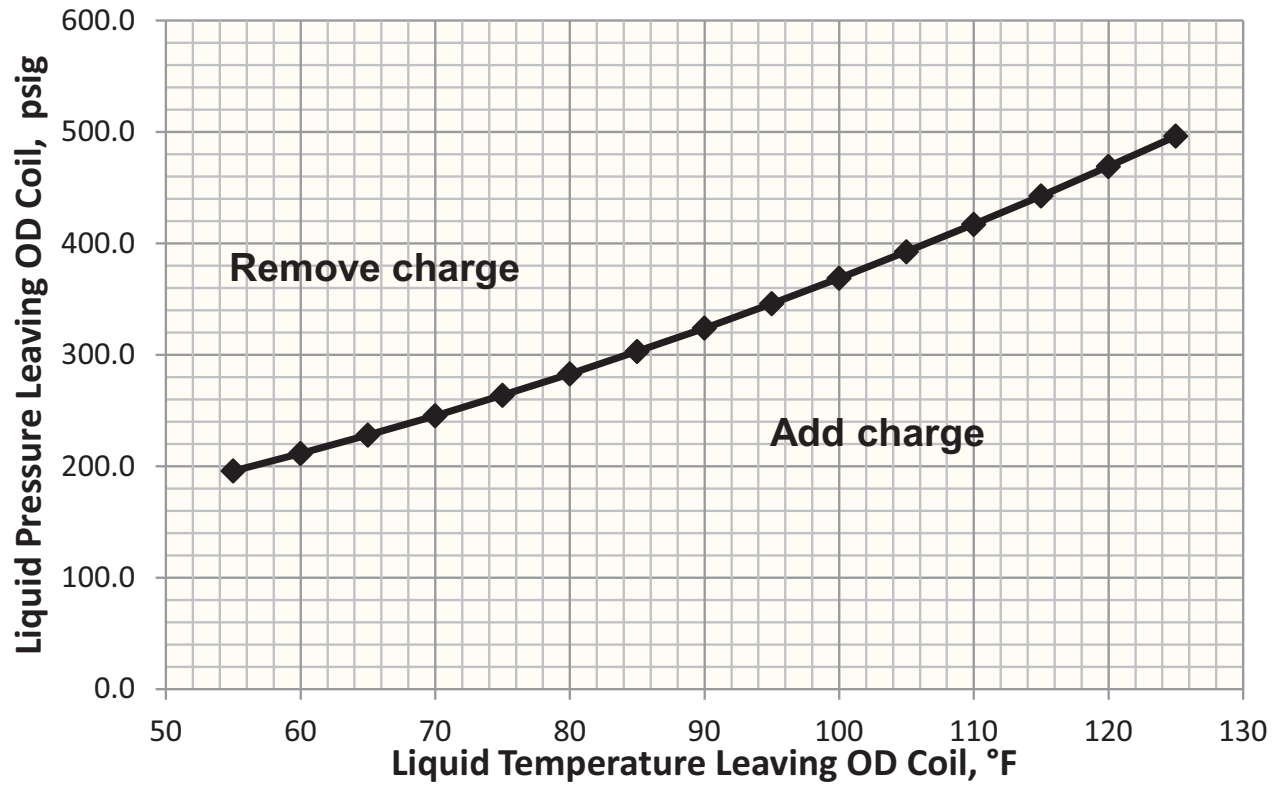


Figure 25. WSC060E3,E4,EW subcooling charging chart



Refrigerant Circuits

Figure 26. T/YSC036-060E, T/YHC036-060E, T/YHC048-060F refrigerant circuit

UNIT	NO. CIRCUITS INDOOR COIL	NO. CIRCUITS OUTDOOR COIL
TSC036E1, YSC036E1	9	5
TSC036E3, E4, EW YSC036E3, E4, EW	9	4
TSC048E1, E3, E4, EW YSC048E1, E3, E4, EW	10	5
TSC060E1, E3, E4, EW YSC060E1, E3, E4, EW	10	7
T/YHC036E1, E3, E4	9	7
T/YHC048E3, E4	9	8
T/YHC060 E3, E4	12	8
T/YHC048F1, F3, F4	9	Microchannel
T/YHC060F1, F3, F4	12	Microchannel

ALL OUTDOOR COILS HAVE AN EXTRA CIRCUIT FOR SUBCOOLER

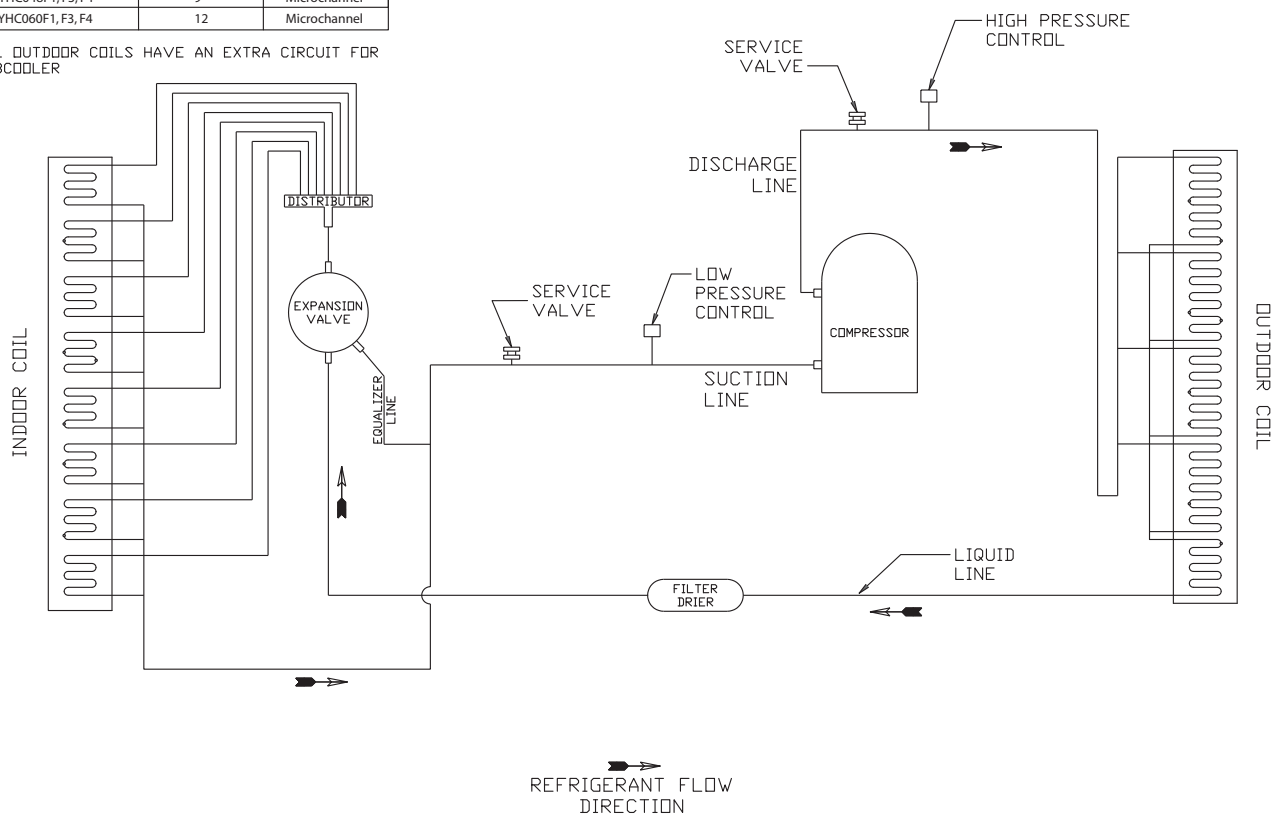


Figure 27. WSC036E refrigerant circuit

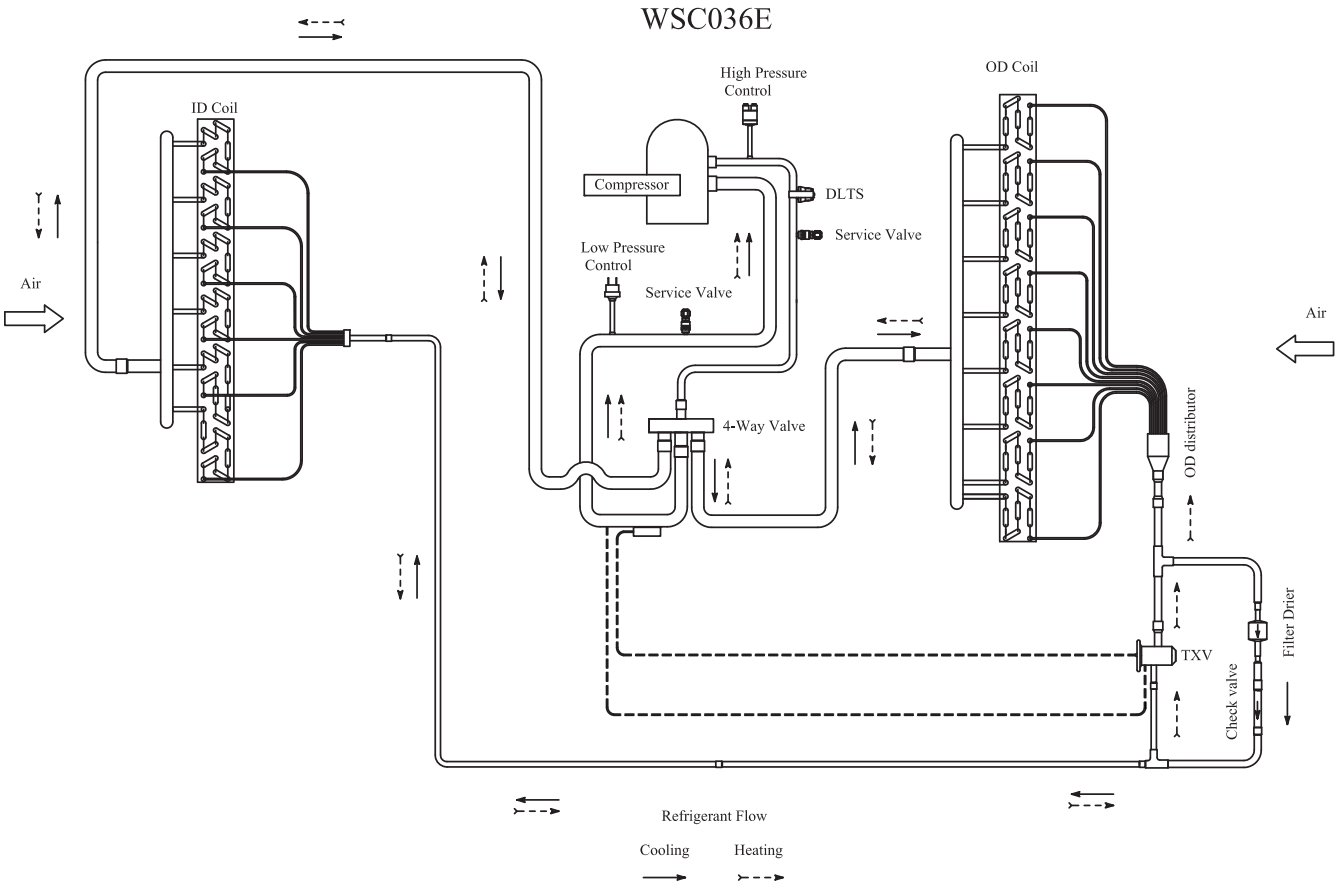


Figure 28. WSC048E refrigerant circuit

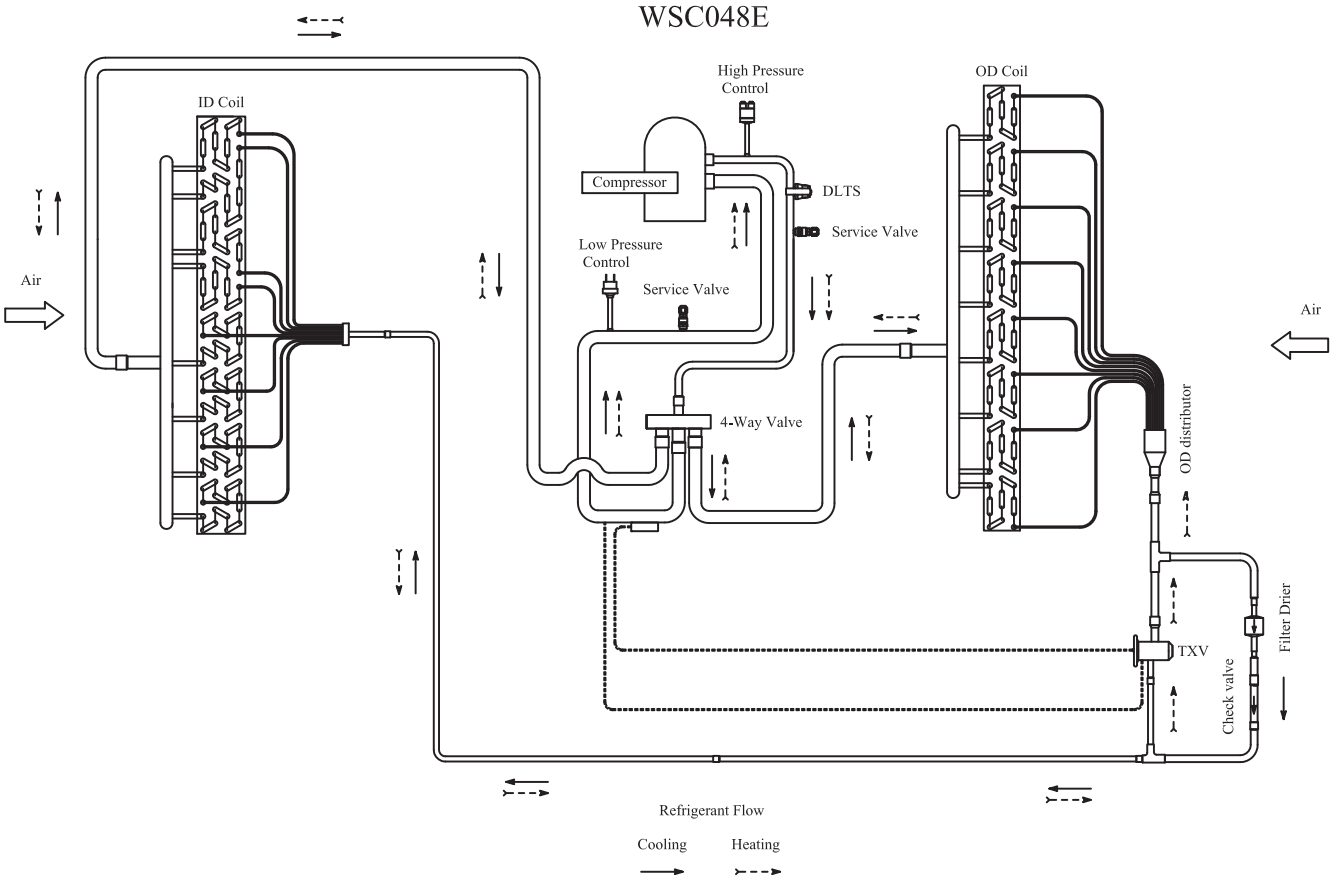
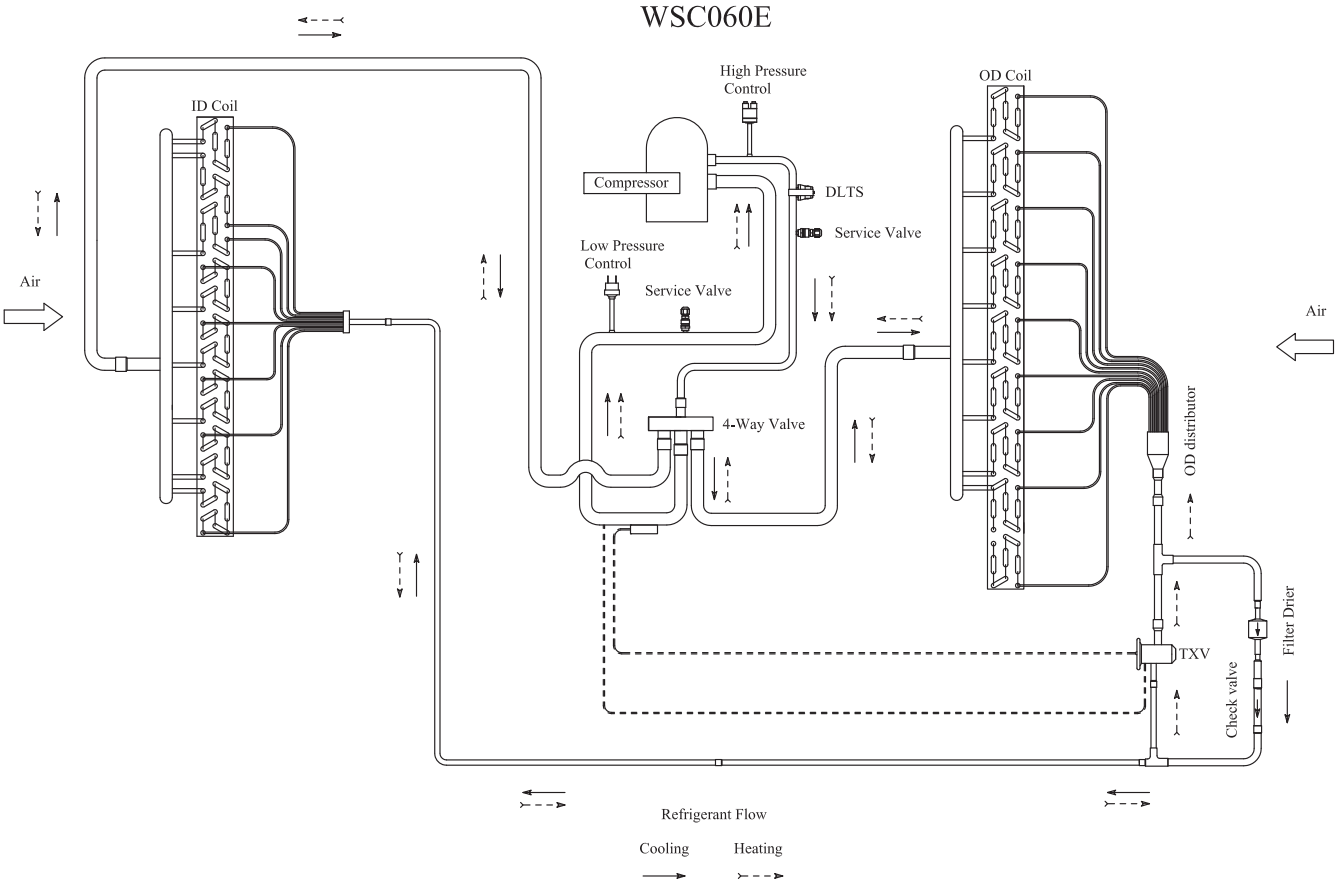


Figure 29. WSC060E refrigerant circuit



Refrigerant Circuits

Figure 30. T/YHC036E - reheat refrigerant circuit

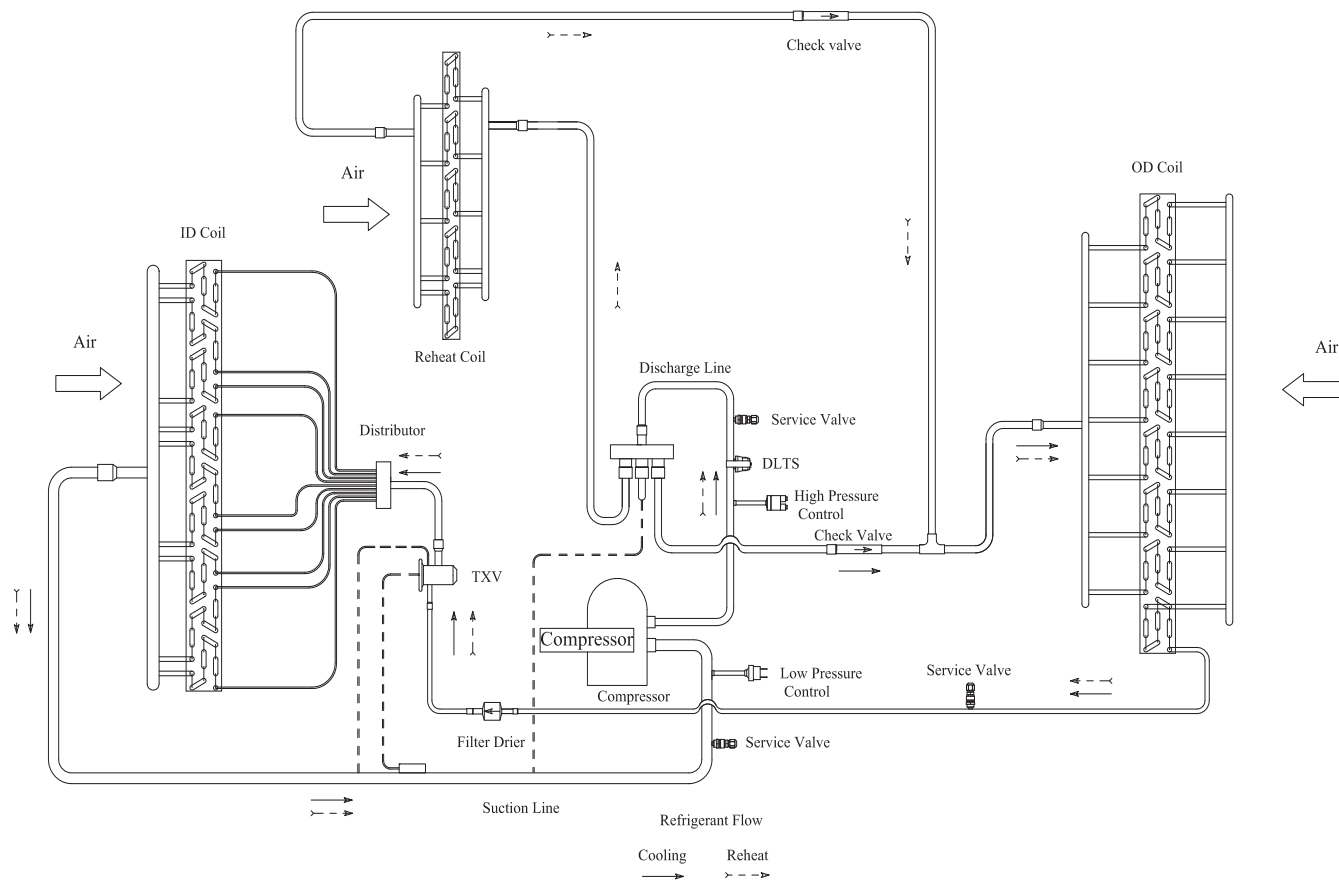


Figure 31. T/YHC048E reheat refrigerant circuit

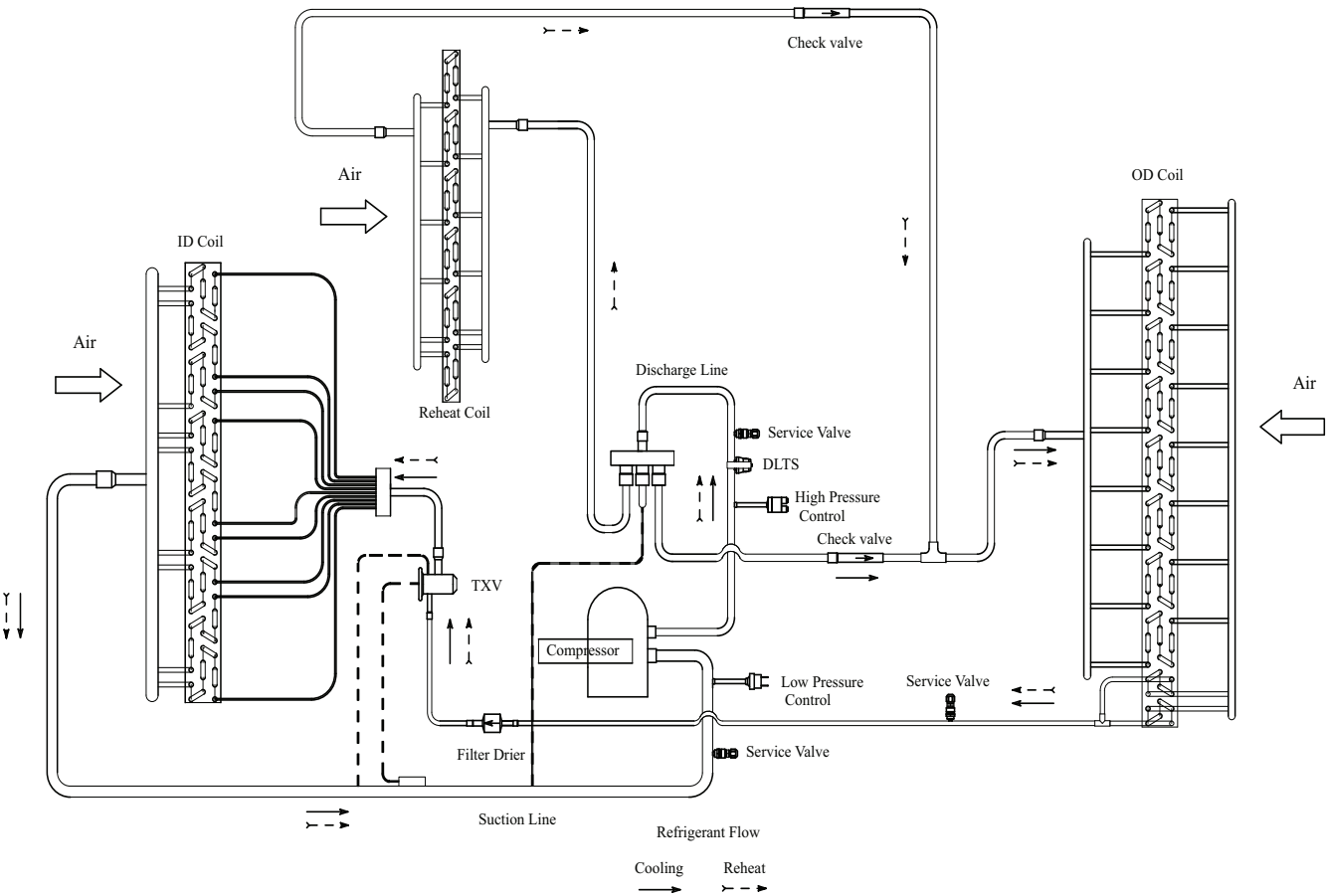
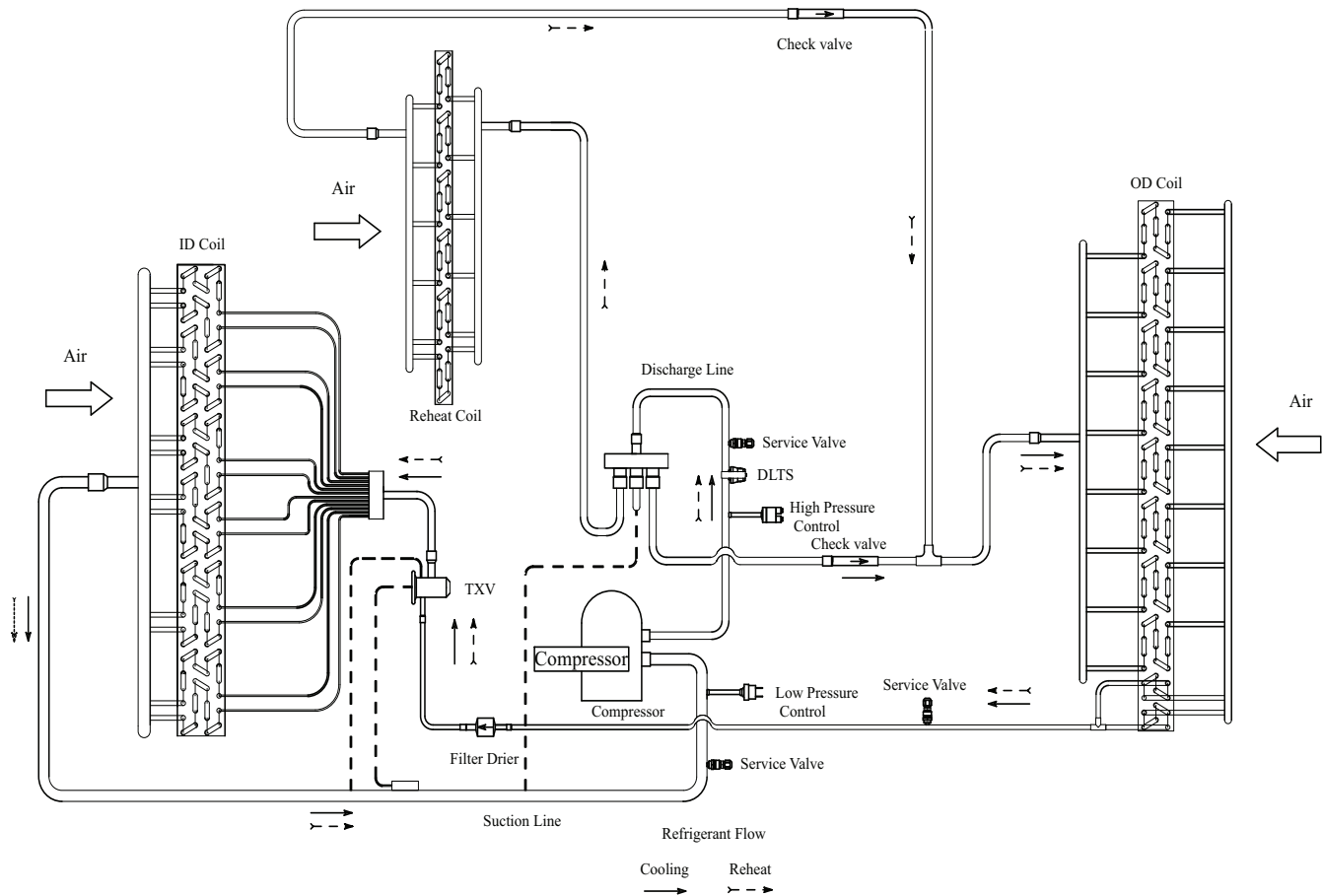


Figure 32. T/YHC060E Reheat



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The manufacturer has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.