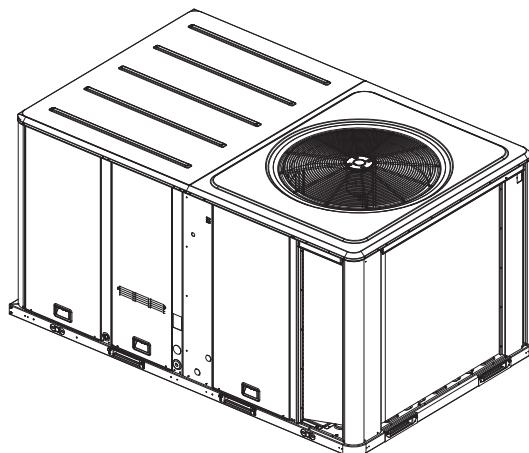


Service Facts

Packaged Rooftop Air Conditioners Precedent™ – Cooling and Gas/ Electric

6 Ton Standard Efficiency Rooftop Units



Model Numbers TSC072H* YSC072H*

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.

Introduction

Read this manual thoroughly before operating or servicing this unit.

Warnings, Cautions, and Notices

Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:

⚠ 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 accidents.

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 and HCFCs such as saturated or unsaturated HFCs and HCFCs.

Important 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 according to local rules. For the USA, 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!

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

⚠ WARNING

Personal Protective Equipment (PPE) Required!

Failure to wear proper PPE for the job being undertaken could result in death or serious injury. Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, **MUST** follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:

- Before installing/servicing this unit, technicians **MUST** put on all PPE required for the work being undertaken (Examples; cut resistant gloves/sleeves, butyl gloves, safety glasses, hard hat/bump cap, fall protection, electrical PPE and arc flash clothing). **ALWAYS** refer to appropriate Safety Data Sheets (SDS) and OSHA guidelines for proper PPE.
- When working with or around hazardous chemicals, **ALWAYS** refer to the appropriate SDS and OSHA/GHS (Global Harmonized System of Classification and Labeling of Chemicals) guidelines for information on allowable personal exposure levels, proper respiratory protection and handling instructions.
- If there is a risk of energized electrical contact, arc, or flash, technicians **MUST** put on all PPE in accordance with OSHA, NFPA 70E, or other country-specific requirements for arc flash protection, **PRIOR** to servicing the unit. **NEVER PERFORM ANY SWITCHING, DISCONNECTING, OR VOLTAGE TESTING WITHOUT PROPER ELECTRICAL PPE AND ARC FLASH CLOTHING. ENSURE ELECTRICAL METERS AND EQUIPMENT ARE PROPERLY RATED FOR INTENDED VOLTAGE.**

⚠ WARNING

Follow EHS Policies!

Failure to follow instructions below could result in death or serious injury.

- All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.
- Non-Trane personnel should always follow local regulations.

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Revision History

- Implementation of separation of circuit control box, 3-phase OD motors.
- General Data, Evaporator Fan Performance, Performance Data, Pressure Curve, Subcooling Chart updates.

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General Data

Table 1. General data - 6 tons- standard efficiency

	6 Tons
	T/YSC072H3,4,W
Cooling Performance^(a)	
Gross Cooling Capacity	75,000
EER ^(b)	11.2
Nominal cfm/AHRI Rated cfm	2,400/2,100
AHRI Net Cooling Capacity	71,000
IEER (T/Y) ^(c)	12.9/12.7
System Power (kW)	6.36
Compressor	
Number/Type	1/Scroll
Sound	
Outdoor Sound Rating (dB) ^(d)	89
Outdoor Coil - Type	
	Microchannel
Configuration	Full Face
Tube Size (in.)	0.71
Face Area (sq. ft.)	16.91
Rows/FPI (Fins per inch)	1/23
Indoor Coil - Type	
	Lanced
Configuration	Full Face
Tube Size (in.)	0.3125
Face Area (sq. ft.)	9.89
Rows/FPI (Fins per inch)	3/16
Refrigerant Control	Thermal Expansion Valve
Drain Connection Number/Size (in.)	1 $\frac{3}{4}$ NPT
Outdoor Fan - Type	
	Propeller
Number Used/Diameter (in.)	1/26
Drive Type/No. Speeds	Direct/1
CFM	6,037
Motor hp	0.70
Motor rpm	1,100
Indoor Fan - Type	
	FC Centrifugal
Number Used/Diameter (in.)/Width (in.)	1/12x12
Drive Type/No. Speeds/RPM	Belt/Variable/1,750
Motor hp (Standard/Oversized)	1.0/2.0
Motor Frame Size (Standard/Oversized)	56/56
Filters^(e)	
Type Furnished	Throwaway
Number Size Recommended	(4) 16x25x2
Refrigerant Charge ^(f)	
lbs of R-410A	5.5

Table 1. General data - 6 tons- standard efficiency

	6 Tons
	T/YSC072H3,4,W
Heating Performance^(g) (Gas/Electric Only)	
Heating Input	
Low Heat Input (Btu)	80,000
Mid Heat Input (Btu)	120,000
High Heat Input (Btu)	150,000/105,000
Heating Output	
Low Heat Output (Btu)	64,000
Mid Heat Output (Btu)	96,000
High Heat Output (Btu)	120,000/84,000
Steady State Efficiency%	
Low Heat Input (Btu)	80
Mid Heat Input (Btu)	80
High Heat Input (Btu)	80
No. Burners	
Low Heat Output (Btu)	2
Mid Heat Output (Btu)	3
High Heat Output (Btu)	3
No. Stages	
Low Heat Input (Btu)	1
Mid Heat Input (Btu)	1
High Heat Input (Btu)	2
Gas Supply Line Pressure	
Natural (minimum/maximum)	4.5/14.0
LP (minimum/maximum)	11.0/14.0
Gas Connection Pipe Size (in)	
Low Heat	1/2
Mid Heat	1/2
High Heat	3/4

(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. AHRI 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 AHRI Standard 340/360.

(b) EER is rated at AHRI conditions and in accordance with DOE test procedures.

(c) Integrated Efficiency Ratio (IEER) is rated in accordance with AHRI Standard 340/360. The IEER rating requires that the unit efficiency be determined at 100%, 75%, 50% and 25% load (net capacity) at the specified in AHRI Standard.

(d) Outdoor sound rating shown is tested in accordance with AHRI Standard 270. For additional information reference the outdoor sound power level data in the performance section..

(e) Optional 2" MERV 8 and MERV 13 filters also available.

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

(g) 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.

Evaporator Fan Performance

Table 2. Belt drive evaporator fan performance - 6 tons standard efficiency - TSC072H3,4,W downflow airflow

External Static Pressure (Inches of Water)																					
		0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		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										
1920	—	—	—	—	588	0.35	643	0.43	693	0.50	738	0.57	782	0.65	823	0.73	862	0.81	900	0.89	
2160	—	—	564	0.37	618	0.44	672	0.52	721	0.60	765	0.68	806	0.76	847	0.85	885	0.93	922	1.02	
2400	—	—	602	0.47	652	0.54	701	0.63	750	0.72	794	0.81	834	0.90	873	0.98	909	1.08	945	1.17	
2640	589	0.50	642	0.59	690	0.67	734	0.76	779	0.85	822	0.95	864	1.05	901	1.15	936	1.24	971	1.34	
2880	634	0.63	682	0.74	728	0.82	770	0.91	810	1.01	851	1.11	892	1.22	930	1.33	965	1.44	999	1.54	

Continued

External Static Pressure (Inches of Water)																					
		1.10		1.20		1.30		1.40		1.50		1.60		1.70		1.80		1.90		2.00	
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 & Drive											1-hp Standard Motor & High Static Drive Kit (or 2-hp Oversized Motor & Drive)										
1920	937	0.98	971	1.06	1004	1.14	1037	1.22	1068	1.30	1097	1.38	1127	1.47	1154	1.55	1182	1.64	1210	1.74	
2160	957	1.12	991	1.21	1024	1.30	1057	1.40	1087	1.49	1117	1.58	1146	1.67	1174	1.76	1201	1.85	1227	1.95	
2400	980	1.27	1013	1.37	1046	1.47	1076	1.57	1106	1.68	1137	1.78	1166	1.89	1194	1.99	1220	2.08	1248	2.19	
2640	1004	1.44	1036	1.55	1067	1.65	1098	1.77	1129	1.88	1158	1.99	1185	2.10	1214	2.22	—	—	—	—	
2880	1030	1.64	1061	1.75	1092	1.86	1123	1.98	1151	2.09	1181	2.22	—	—	—	—	—	—	—	—	

2-hp Oversized Motor & Drive^(b)

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference the applicable table in the fan performance section.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. 1-hp Fan Motor Heat (MBh) = 2.829 x Fan bhp + 0.4024; 2-hp Fan Motor Heat (MBh) = 3.000 x Fan bhp + 0.5000.
4. 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 horse power 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 AK84 and Belt AX36 required.
 (b) 1-hp Standard Motor & High Static Drive Kit (or 2-hp Oversized Motor & Drive)

Evaporator Fan Performance

Table 3. Belt drive evaporator fan performance - 6 tons standard efficiency - TSC072H3,4,W horizontal airflow

External Static Pressure (Inches of Water)																						
		0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00		
cfm	rpm	bhp	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											
1920	—	—	580	0.33	641	0.41	692	0.47	738	0.54	783	0.63	827	0.71	870	0.79	912	0.88	951	0.96		
2160	578	0.37	623	0.43	679	0.51	731	0.59	775	0.67	817	0.74	857	0.83	896	0.93	935	1.02	974	1.12		
2400	633	0.49	673	0.56	718	0.63	769	0.72	814	0.82	855	0.90	893	0.98	929	1.08	965	1.18	999	1.29		
2640	688	0.64	725	0.71	762	0.79	808	0.87	853	0.98	894	1.09	931	1.17	966	1.26	1000	1.36	1032	1.47 ^(b)		
2880	743	0.81	778	0.90	811	0.98	848	1.06	891	1.16	932	1.28	970	1.40	1004	1.49	1037	1.59	1068	1.69		
											1-hp Standard Motor & High Static Drive Kit (or 2-hp Oversized Motor)											

Continued

External Static Pressure (Inches of Water)																						
		1.10		1.20		1.30		1.40		1.50		1.60		1.70		1.80		1.90		2.00		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & Drive											1-hp Standard Motor & High Static Drive Kit (or 2-hp Oversized Motor & Drive)											
1920	990	1.05	1026	1.14	1062	1.24	1096	1.33	1130	1.43	1160	1.52	1190	1.61	1218	1.71	1247	1.80	1273	1.90		
2160	1010	1.21	1047	1.31	1082	1.40	1116	1.50	1150	1.61	1182	1.71	1211	1.81	1242	1.92	1271	2.03	1298	2.14		
2400	1035	1.39	1070	1.50	1104	1.60	1137	1.70	1168	1.81	1201	1.92	1232	2.03	1261	2.14	1291	2.26	—	—		
2640	1065	1.59	1097	1.71	1129	1.82	1161	1.93	1192	2.05	1223	2.16	1252	2.27	—	—	—	—	—	—		
2880	1099	1.80	1130	1.93	1159	2.05	1188	2.18	1217	2.30	—	—	—	—	—	—	—	—	—	—		
2-hp Oversized Motor & Drive											2-hp Oversized Motor & Field Supplied Drive ^(c)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference the applicable table in the fan performance section.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. 1-hp Fan Motor Heat (MBh) = 2.829 x Fan bhp + .4024. 2-hp Fan Motor Heat (MBh) = 3.000 x Fan bhp + .5000.
4. 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 AK84 and Belt AX36 required.
 (b) 2-hp Oversized Motor & Field Supplied Drive
 (c) Field Supplied Fan Sheave AK56 and Belt AX30.

Evaporator Fan Performance

Table 4. Belt drive evaporator fan performance - 6 tons standard efficiency with gas heat - YSC072H3,4,W*L,M low & medium heat downflow airflow

External Static Pressure (Inches of Water)																					
		0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		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										
1920	—	—	—	—	597	0.37	652	0.44	700	0.51	745	0.58	788	0.66	829	0.74	869	0.82	906	0.91	
2160	—	—	575	0.38	629	0.46	683	0.54	730	0.62	774	0.70	815	0.78	854	0.86	893	0.95	929	1.04	
2400	561	0.41	615	0.49	664	0.57	714	0.65	762	0.74	805	0.83	844	0.92	882	1.01	918	1.10	954	1.20	
2640	606	0.53	657	0.62	703	0.70	747	0.79	792	0.88	835	0.98	875	1.08	912	1.18	947	1.27	980	1.37	
2880	651	0.67	699	0.77	743	0.85	785	0.94	825	1.05	867	1.15	906	1.26	943	1.37	978	1.47	1010	1.58	
											2-hp Oversized Motor & Drive										

Continued

External Static Pressure (Inches of Water)																					
		1.10		1.20		1.30		1.40		1.50		1.60		1.70		1.80		1.90		2.00	
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 & Drive						1-hp Standard Motor & High Static Drive Kit (or 2-hp Oversized Motor & Drive)															
1920	941	0.99	977	1.07	1009	1.15	1041	1.23	1073	1.32	1103	1.40	1132	1.49	1159	1.57	1187	1.66	1213	1.75	
2160	964	1.13	997	1.23	1031	1.32	1061	1.41	1093	1.50	1123	1.60	1151	1.69	1179	1.78	1207	1.87	1234	1.97	
2400	988	1.29	1020	1.39	1054	1.50	1085	1.60	1114	1.70	1143	1.80	1171	1.90	1200	2.01	1227	2.11	1254	2.21	
2640	1014	1.47 ^(b)	1046	1.58	1077	1.69	1107	1.80	1138	1.91	1166	2.02	1193	2.13	1222	2.25	—	—	—	—	
2880	1042	1.68	1073	1.79	1103	1.90	1132	2.02	1162	2.14	1190	2.26	—	—	—	—	—	—	—	—	
											2-hp Oversized Motor & Drive										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference the applicable table in the fan performance section.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. 1-hp Fan Motor Heat (MBh) = 2.829 x Fan bhp + .4024. 2-hp Fan Motor Heat (MBh) = 3.000 x Fan bhp + .5000
4. 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 AK84 and Belt AX36 required.
 (b) 1-hp Standard Motor & High Static Drive Kit (or 2-hp Oversized Motor & Drive)

Evaporator Fan Performance

Table 5. Belt drive evaporator fan performance - 6 tons standard efficiency with gas heat - YSC072H3,4,W*L,M low & medium heat horizontal airflow

External Static Pressure (Inches of Water)																					
		0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		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											
1920	—	—	591	0.34	649	0.42	699	0.48	745	0.56	789	0.64	834	0.72	877	0.81	918	0.89	957	0.97	
2160	587	0.38	633	0.44	690	0.52	740	0.61	784	0.68	825	0.76	865	0.85	904	0.95	943	1.04	981	1.13	
2400	643	0.51	682	0.58	732	0.65	781	0.75	825	0.84	864	0.92	902	1.01	938	1.11	974	1.21	1010	1.32 ^(b)	
2640	700	0.66	736	0.74	775	0.81	822	0.90	866	1.01	906	1.11	942	1.20	976	1.29	1009	1.40	1042	1.51	
2880	756	0.84	790	0.93	823	1.01	864	1.09	907	1.20	947	1.32	983	1.43	1017	1.53	1048	1.62	1080	1.73	
										2-hp Oversized Motor & Drive											

Continued

External Static Pressure (Inches of Water)																					
		1.10		1.20		1.30		1.40		1.50		1.60		1.70		1.80		1.90		2.00	
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 & Drive							1-hp Standard Motor & High Static Drive Kit (or 2-hp Oversized Motor & Drive)														
1920	996	1.06	1033	1.16	1067	1.25	1102	1.35	1134	1.44	1165	1.53	1195	1.63	1223	1.72	1251	1.82	1277	1.91	
2160	1018	1.23	1054	1.32	1090	1.42	1123	1.52	1156	1.63	1188	1.73	1218	1.84	1247	1.94	1276	2.05	1304	2.16	
2400	1044	1.42	1079	1.52	1112	1.62	1145	1.73	1177	1.83	1208	1.94	1240	2.06	1268	2.17	1298	2.29	—	—	
2640	1075	1.62	1107	1.74	1139	1.85	1170	1.96	1201	2.08	1232	2.19	—	—	—	—	—	—	—	—	
2880	1111	1.85	1140	1.97	1169	2.09	1200	2.22	—	—	—	—	—	—	—	—	—	—	—	—	
2-hp Oversized Motor & Drive										2-hp Oversized Motor & Field Supplied High Static Drive^(c)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference the applicable table in the fan performance section.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. 1-hp Fan Motor Heat (MBh) = 2.829 x Fan bhp + .4024. 2-hp Fan Motor Heat (MBh) = 3.000 x Fan bhp + .5000.
4. 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 AK84 and Belt AX36 required.
 (b) 1-hp Standard Motor & High Static Drive (or 2-hp Oversized Motor)
 (c) Field Supplied Fan Sheave AK56 and Belt AX30 required.

Evaporator Fan Performance

Table 6. Belt drive evaporator fan performance - 6 tons standard efficiency with gas heat - YSC072H3,4,W*H high heat downflow airflow

External Static Pressure (Inches of Water)																					
		0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		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										
1920	—	—	574	0.34	631	0.41	681	0.48	727	0.55	771	0.63	814	0.71	853	0.79	892	0.87	928	0.95	
2160	562	0.36	616	0.44	671	0.52	719	0.60	763	0.68	805	0.76	845	0.84	884	0.93	921	1.02	957	1.11	
2400	612	0.48	662	0.56	711	0.65	759	0.74	802	0.83	842	0.91	879	1.00	916	1.09	951	1.19	986	1.29	
2640	663	0.63	709	0.71	754	0.80	798	0.90	842	1.00	881	1.10	917	1.19	951	1.29	986	1.39	1018	1.49 ^(b)	
2880	715	0.80	758	0.88	799	0.98	840	1.08	880	1.19	920	1.30	955	1.41	990	1.51	1022	1.62	1053	1.72	
											2-hp Oversized Motor & Drive										

Continued

External Static Pressure (Inches of Water)																					
		1.10		1.20		1.30		1.40		1.50		1.60		1.70		1.80		1.90		2.00	
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 & Drive											1-hp Standard Motor & High Static Drive Kit (or 2-hp Oversized Motor & Drive)										
1920	963	1.04	997	1.12	1028	1.20	1061	1.28	1090	1.36	1119	1.45	1149	1.54	1177	1.63	1203	1.71	1229	1.80	
2160	990	1.21	1023	1.30	1055	1.39	1086	1.48	1115	1.57	1144	1.66	1173	1.76	1200	1.85	1227	1.95	1253	2.04	
2400	1019	1.39	1051	1.49	1083	1.60	1113	1.70	1141	1.80	1171	1.90	1199	2.01	1225	2.10	1252	2.20	—	—	
2640	1050	1.59	1081	1.70	1111	1.81	1141	1.93	1170	2.04	1198	2.15	1226	2.27	—	—	—	—	—	—	
2880	1084	1.83	1114	1.94	1143	2.06	1172	2.18	1199	2.30	—	—	—	—	—	—	—	—	—	—	
											2-hp Oversized Motor & Drive										

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference the applicable table in the fan performance section.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. 1-hp Fan Motor Heat (MBh) = 2.829 x Fan bhp + .4024. 2-hp Fan Motor Heat (MBh) = 3.000 x Fan bhp + .5000
4. 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 AK84 and Belt AX36 required.

(b) 1-hp Standard Motor & High Static Drive Kit (or 2-hp Oversized Motor)

Evaporator Fan Performance

Table 7. Belt drive evaporator fan performance - 6 tons standard efficiency with gas heat - YSC072H3,4,W*H high heat horizontal airflow

External Static Pressure (Inches of Water)																						
		0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80		0.90		1.00		
cfm	rpm	bhp	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											
1920	565	0.31	627	0.39	680	0.46	727	0.52	772	0.61	816	0.69	859	0.77	902	0.86	942	0.94	981	1.03		
2160	621	0.43	677	0.50	729	0.59	774	0.66	816	0.74	856	0.83	895	0.93	934	1.02	973	1.11	1009	1.21 ^(b)		
2400	680	0.57	729	0.65	778	0.74	823	0.84	862	0.92	900	1.00	936	1.10	972	1.20	1006	1.31	1041	1.41		
2640	741	0.75	782	0.82	828	0.92	872	1.03	911	1.13	947	1.21	981	1.31	1014	1.41	1048	1.53	1079	1.64		
2880	802	0.95	837	1.04	880	1.13	921	1.24	960	1.36	995	1.47	1028	1.56	1060	1.66	1091	1.77	1122	1.89		
											2-hp Oversized Motor & Drive											

Continued

External Static Pressure (Inches of Water)																						
		1.10		1.20		1.30		1.40		1.50		1.60		1.70		1.80		1.90		2.00		
cfm	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
1-hp Standard Motor & High Static Drive Kit (or 2-hp Oversized Motor & Drive)																						
1920	1018	1.12	1054	1.21	1089	1.31	1122	1.40	1154	1.50	1184	1.59	1212	1.69	1241	1.78	1268	1.88	1293	1.97		
2160	1045	1.30	1081	1.40	1114	1.50	1149	1.61	1181	1.71	1211	1.81	1241	1.92	1270	2.03	1298	2.13	1324	2.24		
2400	1076	1.51	1110	1.62	1143	1.72	1176	1.83	1206	1.94	1238	2.05	1267	2.16	1297	2.28	—	—	—	—		
2640	1111	1.75	1144	1.87	1174	1.98	1205	2.09	1236	2.21	—	—	—	—	—	—	—	—	—	—		
2880	1151	2.02	1180	2.14	1209	2.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
2-hp Oversized Motor & Drive											2-hp Oversized Motor & Field Supplied High Static Drive ^(c)											

Notes:

1. For Standard Evaporator Fan Speed (rpm), reference the applicable table in the fan performance section.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. 1-hp Fan Motor Heat (MBh) = 2.829 x Fan bhp + .4024. 2-hp Fan Motor Heat (MBh) = 3.000 x Fan bhp + .5000.
4. 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 AK84 and Belt AX36 required.
 (b) 1-hp Standard Motor & High Static Drive Kit (or 2-hp Oversized Motor).
 (c) Field Supplied Fan Sheave AK56 and Belt AX30 required.

Performance Data

Table 8. Standard motor & sheave/fan speed (rpm)

	Unit Model	Fan	6 Turns	5 Turns	4 Turns	3 Turns	2 Turns	1 Turn	
Tons	Number	Sheave	Open	Open	Open	Open	Open	Open	Closed
6	T/YSC072H	AK64x1"	N/A	723	779	835	890	946	1002

Note: Factory set at 3 turns open.

Table 9. Oversized motor & drive sheave/fan speed (rpm)

	Unit Model	Fan	6 Turns	5 Turns	4 Turns	3 Turns	2 Turns	1 Turn	
Tons	Number	Sheave	Open	Open	Open	Open	Open	Open	Closed
6	T/YSC072H	AK56x1"	N/A	958	1022	1086	1150	1214	1278

Notes: Factory set at 3 turns open.

* Indicates both standard and high efficiency units and both ReliaTel™ and Electromechanical controls.

Table 10. Oversized motor & high static drive sheave/fan speed (rpm)

	Unit Model	Fan	5 Turns	4 Turns	3 Turns	2 Turns	1 Turn	
Tons	Number	Sheave	Open	Open	Open	Open	Open	Closed
6	T/YSC072H	AK54x1"	N/A	995	1061	1128	1194	1261

Notes: Factory set at 3 turns open.

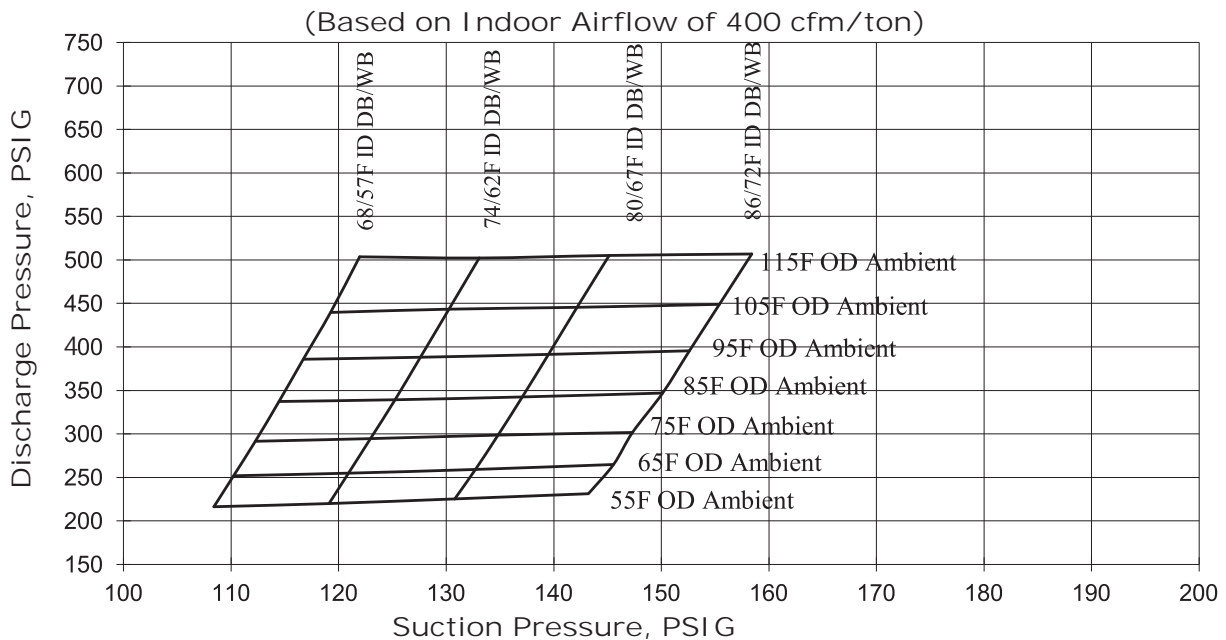
* Indicates both standard and high efficiency units and both ReliaTel™ and Electromechanical controls.

Pressure Curve

To Check Operating Pressures

1. Start the unit and allow the pressures to stabilize.
2. Measure the indoor DB/WB temperature entering the indoor coil.
3. Measure the outdoor air dry bulb temperature.
4. Take discharge and suction pressure readings.
5. Plot the outdoor dry bulb and the indoor DB/WB temperature onto the chart.
6. At the point of intersection, read down for the suction pressure and to the left for the discharge pressure

Figure 1. T/YSC072H cooling cycle pressure curve



Subcooling Charging Chart

Figure 2. T/YSC072H subcooling charging chart - 320 cfm/ton

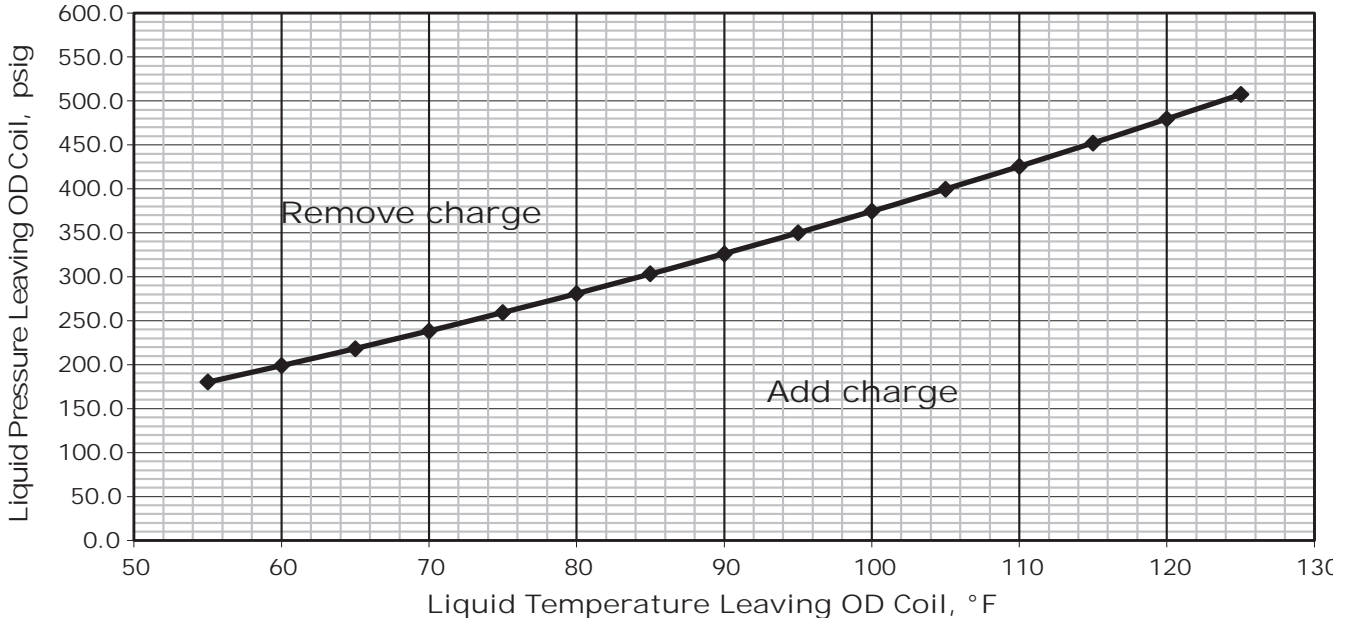
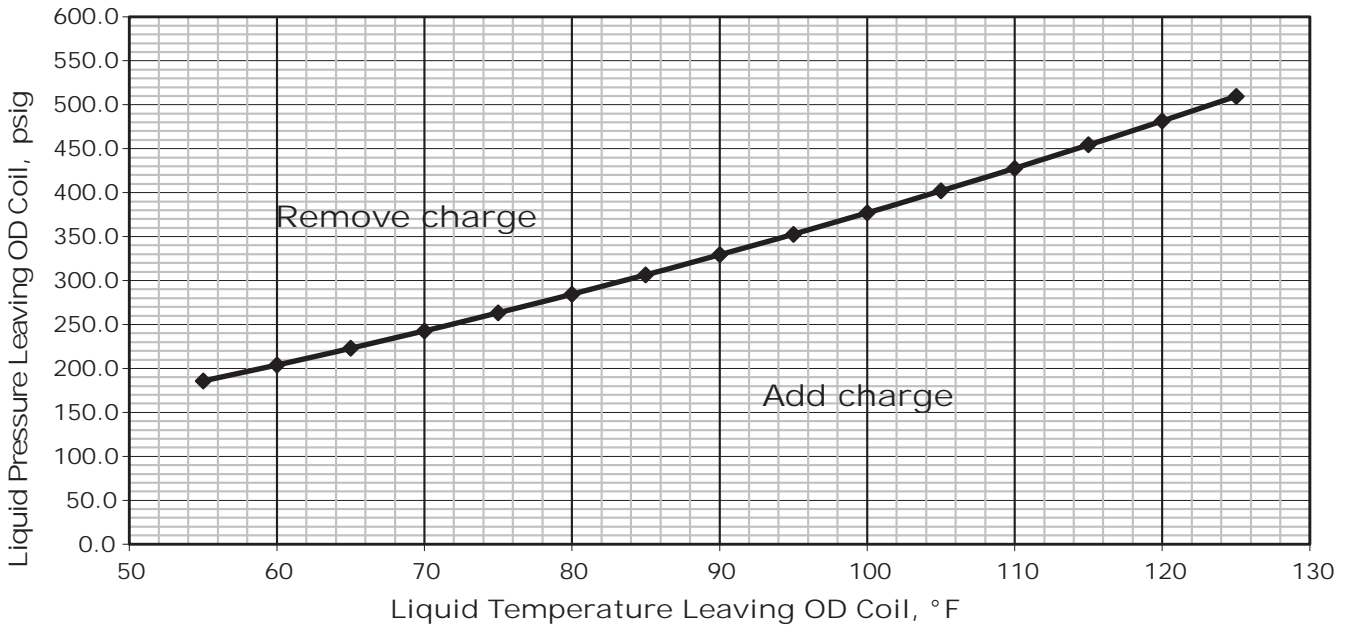


Figure 3. T/YSC072H subcooling charging chart - 350 cfm/ton



Subcooling Charging Chart

Figure 4. T/YSC072H subcooling charging chart - 400 cfm/ton

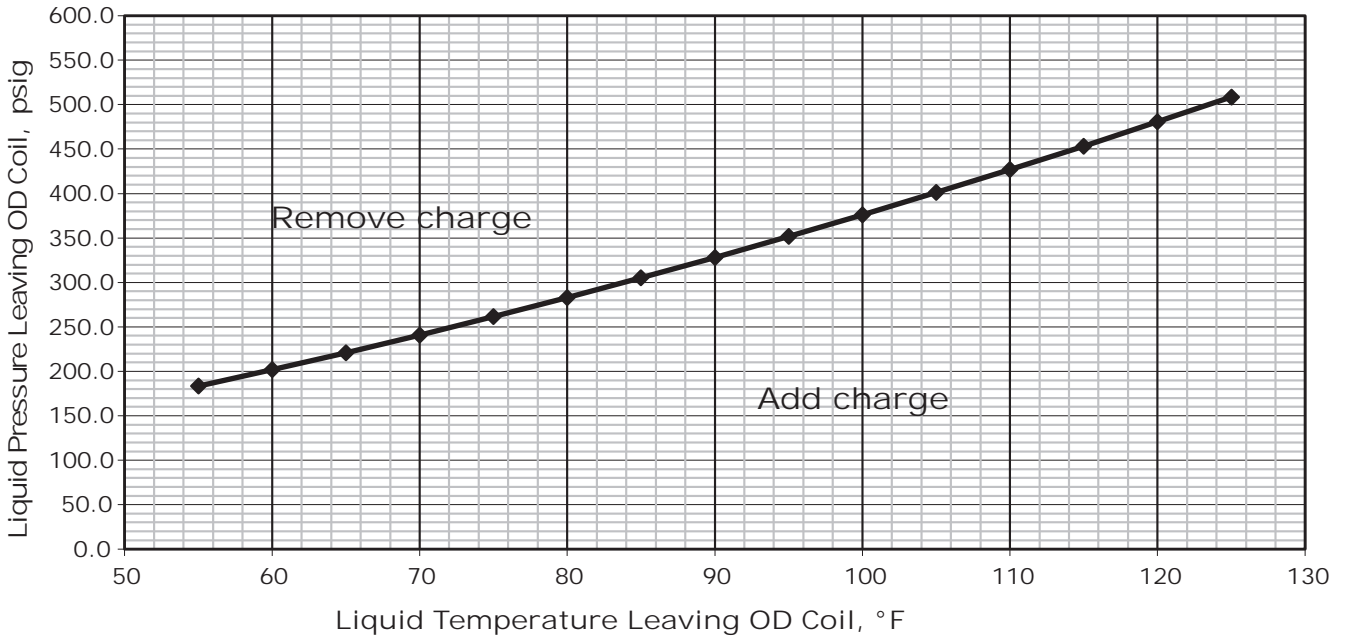
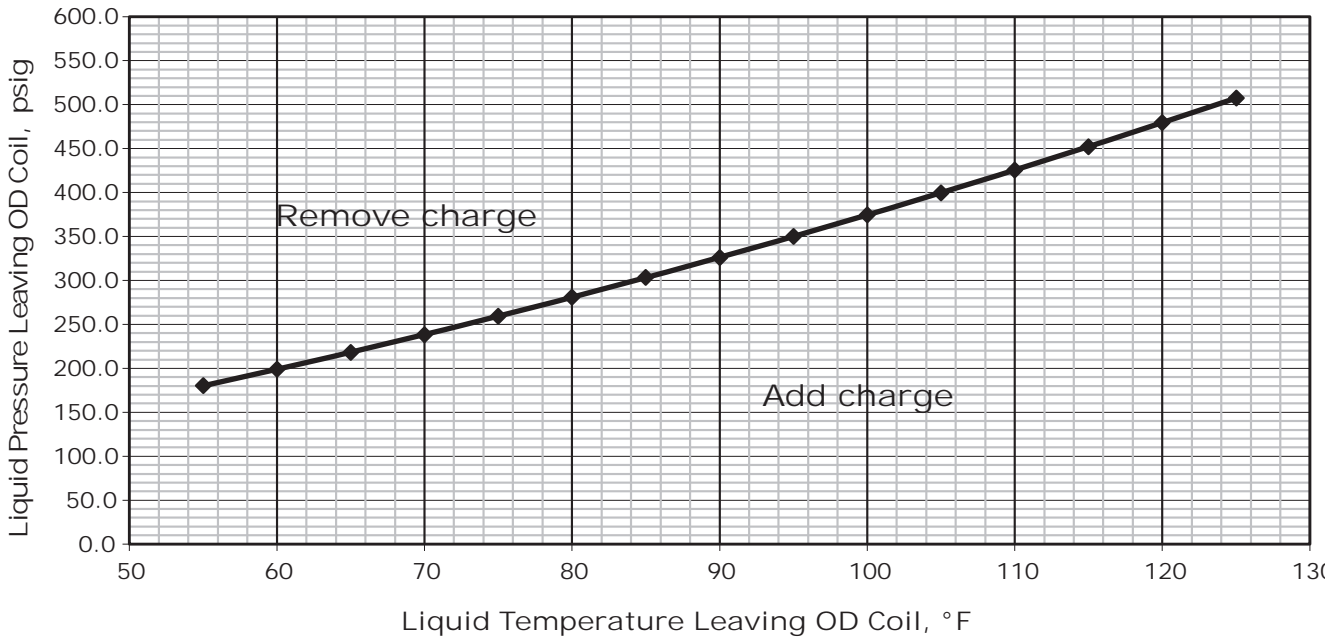
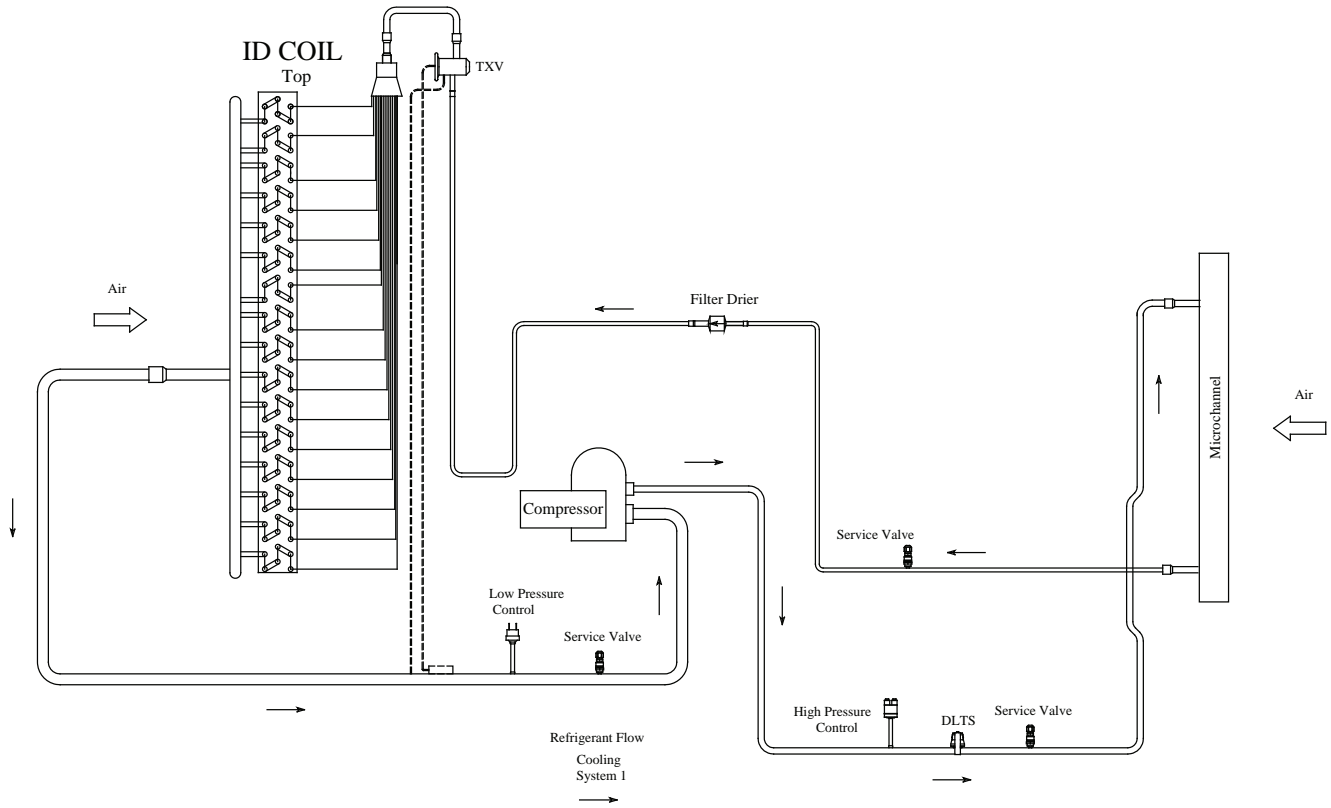


Figure 5. T/YSC072H subcooling charging chart - 480 cfm/ton



Refrigerant Circuit

Table 11. T/YSC072H refrigerant circuit



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