2022

تبخیر صنعت

TASK

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AIR CONDITIONER

Air Cooled Screw Chiller

R 407

R134a

Cooling Capacity
80 ~ 640 TR

Air Cooled Screw Chiller

Tabkhir Sanat Screw chillers are an ideal choice in a wide range of capacities from 80 TR to 640 TR for various air-conditioning applications, including office spaces, banks, hotels, hospitals, shopping malls, multiplexes,commercial complexes and process cooling.

KEY FEATURES INCLUDE:

- Very economical operation
- Low sound levels
- Simple installation
- Environmentally responsible
- Refrigerant R-134a
- twin-rotor fixed-speed screw compressors
- High efficient copper condenser of "V" shape Type and evaporator are made with fined copper tube for heat exchange with optional Enviro-Shield coatings
- Auto-adaptive Siemens plc controller
- Economizer
- Step /stepless

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Equipment

Axial Fan

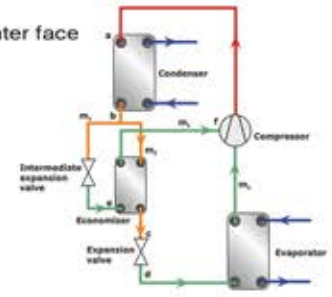
- Fan blade is a compact design
- maximum air performance at an absolute minimum of noise
- the structure of high strength, corrosion-resistant aluminum alloy with a jacket made of a special, fibre-reinforced plastics.
- Type of protection: IP 54 (acc. to EN 60529)
- Insulation class: "F"

Condenser

- High efficient copper condenser of "V" shape Type
- Fins with a sinuous wavy edge
- optional Enviro-Shield coatings
- The fins are made of aluminum and the pipes are made of copper The fins can also be made of copper as an option
- Design and manufacture based on AHRI-410 standard

Controller

- Plc Siemens controller
- Touch screen user interface
- Bac net- J-bus or lon Communication inter face
- 2 language available : English , Farsi
- High resolution 10 inch screen



Economizer

- An economizer is a type of sub-cooler that uses part of the total refrigerant flow from the condenser to cool the rest of the refrigerant flow.The evaporated refrigerant then enters the compressor at an intermediate pressure level.The cold gas from the economizer can also be used to provide extra cooling

compressor screw

- Using Bitzer or Hanbell screw compressors
- Twin screw Compressor designed for fixed speed Operation
- Siling Vale control (25% -100%) stepless
- Bearing life exceeding 100.000 hours

Air Cooled Screw Chiller

Nominal Ton				80	100	120	140	160	180	220
Models				ACC80T1-WAXE	ACC100T1-WAXE	ACC120T1-WAXE	ACC140T1-WAXE	ACC160T1-WAXE	ACC180T1-WAXE	ACC220T1-WAXE
Capacity	Cooling Capacity (T1)		ton	61/1	70/0	81	91	117/1	132/5	152/4
			KW	214/8	246/2	284/0	320/2	412/0	466/0	536/0
Electrical Data	Power Supply		(V,Hz)	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50
	Operation Current		(Amps)	124/2	151/4	169/4	185/7	221/2	258	293
	M.O.C (max. operation current)		(Amps)	147/60	181/40	219/40	271/40	319/20	349/00	403/00
	Power Input		KW	71/36	87/24	97/44	107/44	136/72	154/80	170/60
	EER	Cooling	W/W	3/01	2/82	2/91	2/98	3/01	3/01	3/14
	ISEER	Cooling	W.	4/70	4/39	4/44	4/47	4/47	4/55	4/67
	Sound Rating		db	76	76	76	76	76	76	76
Comperessor	Type			Screw	Screw	Screw	Screw	Screw	Screw	Screw
	Brand	BITZER		BITZER	BITZER	BITZER	BITZER	BITZER	BITZER	BITZER
	Quantity			2	2	2	2	2	2	2
Condenser Coil	Type			High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX
	No.coil V		Qty.	2	3	3	3	4	5	5
	Row/FPI/feed			4R/14FPI/14	2R&3R/14FPI/12	3R/14FPI/14	4R/14FPI/14	4R/14FPI/14	3R/14FPI/14	4R/14FPI/14
Outdoor Fan	Type			Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
	No.Used			4	6	6	6	8	10	10
	Velocity		rpm	900	900	900	900	900	900	900
	IP Protected			IP54	IP54	IP54	IP54	IP54	IP54	IP54
Evaporator	Shell & Tube	Qty.		1	1	1	1	1	1	1
		Flow rate	gpm	163	187	215	243	312	353	406
Refrigerant	Refrigerant		HFC	R134a	R134a	R134a	R134a	R134a	R134a	R134a
Dimensions	Water connection		in	4	4	6	6	6	6	6
	Dimensions LxWxH		cm	245*220*254	325*220*254	325*220*254	325*220*254	430*220*254	430*220*254	540*220*254
	Weight		(kg)	2200	2400	2600	3000	3400	3800	4500
Remark:										

1) Standard Conditions - T1) evap. Entering/leaving water temperature 12/7°C ,outdoor air temperture 35°C evaporator fouling factor 0.018m2k/kw

Air Cooled Screw Chiller

Nominal Ton				250	280	320	360	420	440	500
Models				ACC250T1-WAXE	ACC280T1-WAXE	ACC320T1-WAXE	ACC360T1-WAXE	ACC420T1-WAXE	ACC440T1-WAXE	ACC500T1-WAXE
Capacity	Cooling Capacity (T1)		ton	169	189	225/8	259/3	298/0	304/8	338/9
			KW	596/0	666/0	794/0	912/0	1048/0	1072/0	1192/0
Electrical Data	Power Supply		(V,Hz)	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 V,3 ,50	383 v,3 ,50	383 v,3 ,50
	Operation Current		(Amps)	336/8	378/6	434/4	473/2	557	586	673/6
	M.O.C (max. operation current)		(Amps)	438/80	482/60	622/40	690/20	718/00	806/00	877/60
	Power Input		KW	194/68	219/76	257/84	284/92	328/40	341/20	389/36
	EER	Cooling	W/W	3/06	3/03	3/08	3/20	3/19	3/14	3/06
	ISEER	Cooling	W.	4/64	4/70	4/57	4/58	4/76	4/66	4/64
	Sound Rating		db	76	76	76	76	76	76	76
Comperessor	Type			Screw	Screw	Screw	Screw	Screw	Screw	Screw
	Brand	BITZER		BITZER	BITZER	BITZER	BITZER	BITZER	BITZER	BITZER
	Quantity			2	2	2	2	2	4	4
Condenser Coil	Type			High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX
	No.coil V		Qty.	6	7	8	9	10	10	12
	Row/FPI/feed			4R&3R/14FPI/14	3R/14FPI/14	4R/14FPI/14	4R/14FPI/14	4R/14FPI/14	4R/14FPI/14	4R/14FPI/14
Outdoor Fan	Type			Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
	No.Used			12	14	16	18	20	20	24
	Velocity		rpm	900	900	900	900	900	900	900
	IP Protected			IP54	IP54	IP54	IP54	IP54	IP54	IP54
Evaporator	Shell & Tube	Qty.		1	1	2	2	2	2	2
		Flow rate	gpm	452	505	602	692	795	813	904
Refrigerant	Refrigerant		HFC	19/0	19/0	30/0	30/0	30/0	22/0	19/0
Dimensions	Water connection		in	6*2	6*2	6*2	6*2	6*2	6	6*2
	Dimensions LxWxH		cm	645*220*254	755*220*254	860*220*254	860*220*254	1075*220*254	1080*220*254	1190*220*254
	Weight		(kg)	5000	5500	6000	8000	13000	4500	14000
Remark:										

1) Standard Conditions - T1) evap. Entering/leaving water temperature 12/7°C ,outdoor air temperture 35°C evaporator fouling factor 0.018m2k/kw

Water Cooled Chiller Screw

R 407c

R 134a

Cooling Capacity
80 - 640 TR

Water Cooled Chiller Screw

Tabkhir Sanat's Water Cooled Chiller combines high efficiency performance and stable operation . New model chiller lineup featuring a G-type semi-hermetic twin-screw compressor using the environmentally-friendlyR134a refrigerant In addition to low noise, low vibration, high efficiency and high performance, the new models come with a userfriendly touch panel type liquid crystal screen display that allows you to check operation status at a glance and has a full range of control functions As the perfect answer to user needs,Tabkhir sanat's chillers are designed to cover a broad range of applications from air conditioning of buildings to cooling of factories

Water Cooled Screw Chiller										
Nominal Ton				100	120	140	160	180	220
Models				WCC100T1-WAX	WCC120T1-WAX	WCC140T1-WAX	WCC160T1-WAX	WCC180T1-WAX	WCC220T1-WAX
Cooling Capacity			ton	74/8	88	101	121/1	139/6	165/2
			KW	263/0	309/0	355/0	426/0	491/0	581/0
Electrical Data	Power Supply		(V,Hz)	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50
	Operation Current		(Amps)	50/5	58/8	65/9	72/7	84/8	101/5
	M.O.C (max. operation current)		(Amps)	79/00	98/00	124/00	144/00	155/00	182/00
	Power Input		KW	56/40	65/00	74/00	89/80	102/20	116/20
	EER	Cooling	W/W	4/66	4/75	4/80	4/74	4/80	5/00
	ISEER	Cooling	W.	6/11	6/25	6/32	6/98	6/50	6/54
	Sound Rating		db	76	76	76	76	76	76
Comperessor	Type			Screw	Screw	Screw	Screw	Screw	Screw
	Brand	BITZER		BITZER	BITZER	BITZER	BITZER	BITZER	BITZER
	Quantity			2	2	2	2	2	2
	Power Input	each comp.	KW	28/2	32/5	37	44/9	51/1	58/1
	Current input	each comp.	A	50/5	58/8	65/9	72/7	84/8	101/5
Condenser	Shell & Tube	Qty.		1	1	1	1	1	1
		Flow rate	gpm	239	281	323	388	447	529
Evaporator		Qty.		1	1	1	1	1	1
		Flow rate	gpm	199	234	269	323	372	441
Refrigerant	Refrigerant		HFC	R134a	R134a	R134a	R134a	R134a	R134a
Dimensions	Water connection		in	4	6	6	6	6	6
	Dimensions LxW		cm	350x200	350x200	350x200	350x200	350x200	350x200
	Weight		(kg)	2300	2800	3000	3200	3600	4300
Remark:									
1) Standard Conditions - T1) evap. Entering/leaving water temperature 45/55°F , Condenser. Inlet/outdoor Water temperture 85/95 °F									

Water Cooled Screw Chiller										
Nominal Ton				250	280	320	360	420	500
Models				WCC250T1-WAX	WCC280T1-WAX	WCC320T1-WAX	WCC360T1-WAX	WCC420T1-WAX	WCC500T1-WAX
Cooling Capacity			ton	182/0	207	246	286/0	326/4	364/0
			KW	640/0	728/0	865/0	1006/0	1148/0	1280/0
Electrical Data	Power Supply		(V,Hz)	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50
	Operation Current		(Amps)	115/5	130	145/5	162	192/5	115/5
	M.O.C (max. operation current)		(Amps)	196/00	214/00	280/00	310/00	320/00	196/00
	Power Input		KW	130/60	148/80	173/20	197/60	225/00	261/20
	EER	Cooling	W/W	4/90	4/89	4/99	5/09	5/10	4/90
	ISEER	Cooling	W.	6/65	6/67	6/52	6/71	6/79	6/65
	Sound Rating		db	76	76	76	76	76	76
Comperessor	Type			Screw	Screw	Screw	Screw	Screw	Screw
	Brand	BITZER		BITZER	BITZER	BITZER	BITZER	BITZER	BITZER
	Quantity			2	2	2	2	2	4
	Power Input	each comp.	KW	65/3	74/4	86/6	98/8	112/5	65/3
	Current input	each comp.	A	115/5	130	145/5	162	192/5	115/5
Condenser	Shell & Tube	Qty.		2	2	2	2	2	2
		Flow rate	gpm	582	662	787	915	1045	1165
Evaporator		Qty.		1	1	2	2	2	2
		Flow rate	gpm	485	552	656	763	870	971
Refrigerant	Refrigerant		HFC	R134a	R134a	R134a	R134a	R134a	R134a
Dimensions	Water connection		in	4	6	6	6	6	6
	Dimensions LxWxH		cm	350x280	350x280	350x280	350x280	350x280	350x280
	Weight		(kg)	5500	7000	8000	9500	11000	13000
Remark:									
1) Standard Conditions - T1) evap. Entering/leaving water temperature 45/55°F , Condenser. Inlet/outdoor Water temperture 85/95 °F									

Air Cooled Scroll Chiller

R 410

R 134

R407c

Cooling Capacity
15 ~ 100 TR

Air Cooled Scroll Chiller

Tabkhir Sanat scroll chillers are an ideal choice in a wide range of capacities from 8 TR to 180 TR for various air-conditioning applications, including office spaces, banks ,hotels, hospitals, shopping malls, multiplexes, commercial complexes and process cooling.

KEY FEATURES INCLUDE:

- Scroll compressors
- Energy Efficiency
- Auto-adaptive Siemens plc controller
- Low Noise fan and Compact Design
- Modular Design
- High efficient copper condenser and evaporator are made with fined copper tube for heat exchanger with optional Enviro-Shield coatings.
- Non-ozone depleting refrigerant R-134A ~ R-407c ~ R410A

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Equipment

Axial Fan

- Fan blade is a compact design
- maximum air performance at an absolute minimum of noise
- the structure of high strength, corrosion-resistant aluminum alloy with a jacket made of a special, fibre-reinforced plastics.
- Type of protection: IP 54 (acc. to EN 60529)
- Insulation class: "F"

Condenser

- High efficient copper condenser of "V" shape Type
- Fins with a sinuous wavy edge
- optional Enviro-Shield coatings
- The fins are made of aluminum and the pipes are made of copper The fins can also be made of copper as an option
- Design and manufacture based on AHRI-410 standard

Controller

- Plc Siemens controller
- Touch screen user interface
- Bac net- J-bus or Ion Communication inter face
- 2 language available : English , Farsi
- High resolution 10 inch screen

High Efficiency Brazed Plate Heat EXCHANGER

- Low Pressure Drop

Scroll Compressor

Air Cooled Scroll Chiller

Nominal Ton				15	20	25	30	35	40
Models				ACC15T1-LCX	ACC20T1-LCX	ACC25T1-LCX	ACC30T1-LCX	ACC35T1-LCX	ACC40T1-LCX
Capacity	Cooling Capacity		ton	12/0	15/5	19/0	22/7	27/2	29/7
			KW	42/3	54/5	66/8	80/0	95/8	104/6
Electrical Data	Power Supply		(V,Hz)	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50
	M.C.A (with standard motor)		(Amps)	27/18	33/96	42/88	56/32	54/77	62/27
	Power Input		KW	13/90	18/28	23/16	27/80	30/08	33/05
	COP	Cooling	W/W	3/04	2/98	2/89	2/88	3/19	3/17
	EER	Cooling	btu/kwh	10/38	10/17	9/84	9/82	10/87	10/80
	Sound Rating		db	67	67	67	67	67	67
Comperessor	Type			Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Quantity			2	2	2	2	3	3
Condenser Coil	Type			High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX
	No.coil		Qty.	1V	1V	1V	1V	1V	1V
	Row/FPI			2R/14FPI	2R/14FPI	3R/14FPI	2R/14FPI	3R/14FPI	4R/14FPI
Outdoor Fan	Type			Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
	No.Used			2	2	2	2	2	2
	Velocity		rpm	950	930	930	930	930	930
	IP Protected			IP54	IP54	IP55	IP54	IP54	IP54
Evaporator	type			H.X Plate	H.X Plate	H.X Plate	H.X Plate	H.X Plate	H.X Plate
	Flow rate		gpm	29	37	46	55	65	71
Refrigerant	Oil Charge POE- each comp.		dm^3	2/65	3/38	3/25	3/25	3/38	3/25
	Refrigerant		Gas	R22/R407C	R22/R407C	R22/R407C	R22/R407C	R22/R407C	R22/R407C
Dimensions	Water connection		in	2	2	2	2	2	2
	Dimensions LxWxH		cm	200*110*186	200*110*186	200*110*186	220*110*216	220*110*216	220*110*216
	Weight		(kg)	500	600	700	900	1000	1100

Remark:

1) Standard Conditions - T1) evap. Entering/leaving water temperature 12/7°C ,outdoor air temperture 35°C evaporator fouling factor 0.018m2k/kw

Air Cooled Scroll Chiller

Nominal Ton				50	60	70	80	100
Models				ACC50T1-LCX	ACC60T1-LCX	ACC70T1-LCX	ACC80T1-LCX	ACC100T1-LCX
Capacity	Cooling Capacity (T1)		ton	37/2	44/0	51/2	58/5	72/7
			KW	130/7	154/7	180/0	205/7	255/5
Electrical Data	Power Supply		(V,Hz)	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50	383 v,3 ,50
	M.C.A (with standard motor)		(Amps)	90/36	113/24	118/36	131/08	160/2
	Power Input		KW	47/96	56/24	63/84	75/56	90/76
	COP	Cooling	W/W	2/72	2/75	2/82	2/72	2/82
	EER	Cooling	btu/kwh	9/30	9/39	9/62	9/29	9/61
	Sound Rating		db	67	67	67	67	67
Comperessor	Type			Scroll	Scroll	Scroll	Scroll	Scroll
	Copeland			Copeland	Copeland	Copeland	Copeland	Copeland
	Quantity			4	4	4	4	4
Condenser Coil	Type			High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX
	No.coil		Qty.	2V	2V	2V	3V	3V
	Row/FPI			3R/14FPI	2R/14FPI	3R/14FPI	2R/14FPI	3R/14FPI
Outdoor Fan	Type			Propeller	Propeller	Propeller	Propeller	Propeller
	No.Used			4	4	4	6	6
	Velocity		rpm	900	900	900	900	900
	IP Protected			IP54	IP54	IP54	IP54	IP54
Evaporator	type			Shell @ tube				
	Qty.			1	1	1	1	1
	Flow rate		gpm	99	117	136	156	194
Refrigerant	Refrigerant		Gas	R407C	R407C	R407C	R407C	R407C
Dimensions	Water connection		in	2	2	2	2	2
	Dimensions LxWxH		cm	245*200*186	245*220*254	245*220*254	325*220*254	325*220*254
	Weight		(kg)	1600	2000	2200	2700	3000

Remark:

1) Standard Conditions - T1) evap. Entering/leaving water temperature 12/7°C ,outdoor air temperture 35°C evaporator fouling factor 0.018m2k/kw

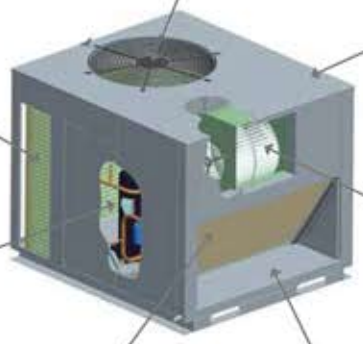
ROOFTOP PACKEGE

R 407

R407c

Cooling Capacity
5 - 100 TR

•The Package New Generation unit is a factory assembled cooling or combination of cooling and heating, suitable for outdoor installation mounting on the roof or ground.
•The packaged unit consists of scroll compressors, cooling coil, condenser coil, fans, electric heater (optional), control wiring and interconnecting piping-all factory assembled..Customized to provide 100% FRESH AIR•The units are rated and designed according to ARI 340/360 standard.



Condenser Fan Motor
It has a very quiet axial electrofan with IP55 permeability and thermal class F.
Balanced statically and dynamically and resistant to corrosion with a suitable guard.

Condenser Coils
The coils are built up seamless copper tubes and mechanically bonded to scientifically designed louvered fins.
The assembled coils are factory leak tested under water at a pressure of 450 psig for quality and leak free unit.

Unit Casing
The body of the device is made of 2 walls with insulation between the walls, which is made of hot dipped G90 sheet metal, zinc coating and zero spangle galvanized steel, with a powder coating baked in the oven.The unit has an integrated weatherproof control panel for outdoor use.

Compressor
The compressors are scroll type with crankcase heater, internal pressure relief valve which provides high pressure protection to the refrigerant system and rubber vibration isolators for quiet and efficient operation.
The compressors are equipped with internal motor protector for safe operation. The compressors are built to NF, VPE, CSA, & UL certification.

Evaporator Fan
The units are provided with centrifugal fans which are statically and dynamically balanced, designed for low sound level operation
Direct drive motors and belt driven.

Evaporator Coils
The coils are built up of ripple finned seamless copper tubes and mechanically bonded to scientifically designed louvered fins.
The assembled coils are factory leak tested under water at a pressure of 350 psig for quality and leak free units.

Drain Pan
The drain pan is fabricated of galvanized steel. The drain pan is powder coat painted and the outer surface is thermally insulated.

Naminal ton				5TR	10TR	12TR	15TR	20TR	25TR
Models				PU5T3-LCX	PU10T3-LCX	PU12T3-LCX	PU15T3-LCX	PU20T3-LCX	PU25T3-LCX
Cooling Capacity			ton	4	8	9	12	16	19
			KW	13/6	27/2	32	43/2	58	68/2
Electrical Data	Power Supply		(V,Hz)	380V,3 -50	380V,3 -50	380V,3 -50	380V,3 -50	380V,3 -50	380V,3 -50
	M.C.A (with standard motor)		(Amps)	17/62	26/74	29/28	40/21	48/66	63/22
	Power Input		KW	7/31	12/53	14/33	19/26	24/74	31/54
Performance	Air Circulation		cfm	2000	3330	3330	4440	5330	6400
	EER	Cooling	Btu\(w.h)	1/86	2/17	2/23	2/24	2/34	2/16
	Sound Rating		dB	72	72	72	72	72	72
Compressor	Type			SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
	Quantity			1	2	2	2	2	2
Evap. Coil	Type			High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX
	Face Area		(sq.ft)	4	6/67	6/67	8/89	10/67	13/33
	Face Velocity		fpm	500	500	500	500	500	480
Electro motor Supply Fan	Motor output(standard/oversized)		Kw	1/5	1/5	1/5	2/2	2/2	3
	Current		A	6/4	6/4	6/4	8/9	8/9	12
	velocity		rpm	1405	1405	1410	1415	1420	1420
	IP Protected			IP54	IP54	IP54	IP54	IP54	IP54
Supply Fan	Type			Centrifugal Blower Fan	Centrifugal Blower Fan	Centrifugal Blower Fan	Centrifugal Blower Fan	Centrifugal Blower Fan	Centrifugal Blower Fan
	No.Used			1	1	1	1	1	1
	Fan Velocity		rpm	1150	1100	1080	900	740	770
Cond. Coil	Type			High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX
	Tube/Row/FPI			3/8"/4R/14FPI	3/8"/4R/14FPI	3/8"/4R/14FPI	3/8"/4R/14FPI	3/8"/4R/14FPI	3/8"/4R/14FPI
	Face Area		(sq.ft)	9/33	12/25	15/17	19/5	26/25	32/5
outdoor Fan	Type			Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
	No.Used			1	1	1	1	2	2
	Diameter/Width(in.)		in	25	28	28	32	28	28
	Drive Type/Motor Step			Direct/2	Direct/2	Direct/2	Direct/2	Direct/2	Direct/2
	Air flow		cfm	6000	6700	7800	11500	15000	15600
	Motor output(standard/oversized)		kw	0/83	1/07	1/07	1/8	1/07	1/07
	Current		A	2/3	2/5	2/5	3/55	2/5	2/5
	Velocity		rpm	940	920	920	930	920	920
	IP Protected			IP54	IP54	IP54	IP54	IP54	IP54
Refrigerant	Refrigerant Charge		Type	R22/R407C	R22/R407C	R22/R407C	R22/R407C	R22/R407C	R22/R407C
Dimensions	LxWxH		cm	110*110*200	200*130*125	200*155*125	200*155*160	200*200*160	220*220*175
Weight	net		(kg)	350	600	800	1000	1300	1500

1)Test Condition of ARI Rated Cooling Capacity: T3(Ambient Temp: 115°F/75°F db/wb, Air entering temprature :84°F DB and 67°F WB)

Naminal ton				30TR	40TR	50TR	60TR	80TR	100TR
Models				PU30T3-LCX	PU40T3-LCX	PU50T3-LCX	PU60T3-LCX	PU80T3-LCX	PU100T3-LCX
Cooling Capacity			ton	24	33	37	47	64	79
			KW	83/4	116/16	130/8	166/8	223/6	276/8
Electrical Data	Power Supply		(V,Hz)	380V,3 -51	380V,3 -52	380V,3 -53	380V,3 -51	380V,3 -52	380V,3 -53
	M.C.A (with standard motor)		(Amps)	74/38	92/5	99/7	137/66	167/9	207
	Power Input		KW	38/88	50/58	55/38	73/90	98/30	121/40
Performance	Air Circulation		cfm	8330	10400	12400	14200	18400	22400
	EER	Cooling	Btu\(w.h)	2/15	2/30	2/36	2/26	2/27	2/28
	Sound Rating		dB	72	72	72	72	72	72
Compressor	Type			SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
	Quantity			2	4	4	4	4	4
Evap. Coil	Type			High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX
	Face Area		(sq.ft)	16/67	20/83	25	28	36	43
	Face Velocity		fpm	500	500	500	508	512	520
Electro motor Supply Fan	Nomber Of Motors		Qty.	1	1	1	1	1	1
	Motor output(standard/oversized)		Kw	4	5/5	5/5	5/5	7/5	11
	Current		A	8/5	11/7	11/7	11/7	15/8	18/5
	velocity		rpm	1420	1420	1420	1420	1420	1430
	IP Protected			IP54	IP54	IP54	IP54	IP54	IP54
Supply Fan	Type			Centrifugal Blower Fan	Centrifugal Blower Fan	Centrifugal Blower Fan	Centrifugal Blower Fan	Centrifugal Blower Fan	Centrifugal Blower Fan
	No.Used			1	1	1	1	1	1
	Fan Velocity		rpm	720	750	750	750	750	750
Cond. Coil	Type			High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX	High efficiency DX
	Tube/Row/FPI			3/8"/4R/14FPI	3/8"/4R/14FPI	3/8"/4R/14FPI	3/8"/4R/14FPI	3/8"/3R/14FPI	3/8"/4R/14FPI
	Face Area		(sq.ft)	36/94	54/7	60/78	70/78	136/5	136/5
outdoor Fan	Type			Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
	No.Used			4	4	4	4	6	6
	Diameter/Width(in.)		in	28	28	28	32	32	32
	Drive Type/Motor Step			Direct/2	Direct/2	Direct/2	Direct/2	Direct/2	Direct/2
	Air flow		cfm	32800	32000	31200	48000	72000	72000
	Motor output(standard/oversized)		kw	1/07	1/07	1/07	1/8	1/8	1/8
	Current		A	2/5	2/5	2/5	3/55	3/55	3/55
	Velocity		rpm	920	920	920	930	930	930
	IP Protected			IP54	IP54	IP54	IP54	IP54	IP54
Refrigerant	Refrigerant Charge		Type	R22/R407C	R22/R407C	R22/R407C	R22/R407C	R22/R407C	R22/R407C
Dimensions	LxWxH		cm	220*220*207	400*200*160	420*200*175	420*220*200	545*220*200	545*220*200
Weight	net		(kg)	1600	1800	2000	2500	3000	3300

1)Test Condition of ARI Rated Cooling Capacity: T3(Ambient Temp: 115°F/75°F db/wb, Air entering temprature :84°F DB and 67°F WB)

Air Handling Unit

Air Flow
2000 - 28000 CFM

Air Handling Unit

Tabkhir sanat offers a wide range of hygiene air handling units for use in sterile areas, pharmaceutical industry, clean rooms, hospital etc.
All the metallic components are either designed of corrosion free material or have been provided with special coatings to make it corrosion free.

The non metallic components have been developed from materials which are tested and evaluated for negative growth of micro organisms/ fungi after completion of incubation cycle.
None of the components have been manufactured from hazardous materials and do not produce odor.

Equipment

Hygenic Air Handling units conform to following international standards in addition to EN -13053 & EN -1886

- EN ISO 846:1997 "Evaluation of the action of microorganisms" for all non metallic material.

- EN 10088-3:2014 Standard 1.4301 / AISI 304 for "Stainless steel".

- EN 1993-1-2:2005 Eurocode 3: "Design of steel structures" for corrosion resistance.

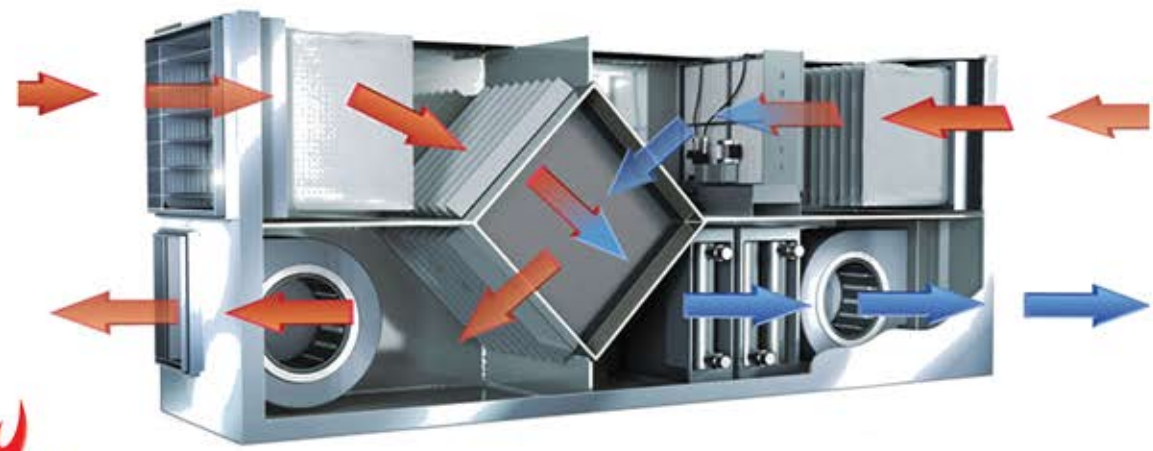
- DIN 1946/4-6.5.1:2008 for Aluminium and coating properties.

- EN 779:2012 for medium and fine filters.
- EN 1822:2010 for high efficiency filters.

- EN ISO 12944-2:1998 for corrosion resistance.

Heat Recovery

We have a pedigree in energy heat recovery systems and have been developing and manufacturing market-leading solutions for many years.
Our products are used in a range of applications from Pool / hotels / shopping centers / schools and offices.We works closely with our clients to develop specific solutions for their requirements and share best practice advice.
Heat recovery units are supply and extract systems delivering filtered fresh air into a building whilst extracting stale, stagnant air from the interior.



HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS (HVACs)											
STANDARD AIR FLOW					2000	3000	4000	5000	6000	8000
Model					H2F-X-G	H3F-X-G	H4F-X-G	H5F-X-G	H6F-X-G	H8F-X-G
Maximum Air Flow				CFM	2240	3360	4514	5516	6524	9033
Cooling Capacity				KW	18/3	27/5	39/9	49/2	58/6	79/7
Heating Capacity				KCal/h	13810	20740	32508	40093	47729	64865
Electrical Data	Power Supply			V, Hz	380V, 3ø	380V, 3ø	380V, 3ø	380V, 3ø	380V, 3ø	380V, 3ø
Cooling Coil	Type				Fin Tube	Fin Tube	Fin Tube	Fin Tube	Fin Tube	Fin Tube
	Capacity	Total		Kbtu/h	62/6	94	136	168	200	272
	Row/FPI/Feed				4/14/H	4/14/H	4/14/H	4/14/H	4/14/H	4/14/H
	Face Area			Ft^2	4	6	8/06	9/85	11/65	16/13
	Face Velocity			FPM	500	500	496	507/5	515/5	496/5
	Air Pressure Drop			In. W. C.	0/68	0/68	0/69	0/71	0/73	0/69
	Water Temp. Entr./Leav.			°F	45/54	45/54	45/54	45/54	45/54	45/54
	Water Flow Rate			GPM	13/9	20/8	30/3	37/4	44/6	60/5
	Collector Size			Inch	1 1/4	1 1/2	2	2	2	2 1/2
Heating Coil	Type				Fin Tube	Fin Tube	Fin Tube	Fin Tube	Fin Tube	Fin Tube
	Capacity			Kbtu/h	54/8	82/3	129	159/1	189/4	257/4
	Row/FPI/Feed				1/14/H	1/14/H	1/14/H	1/14/H	1/14/H	1/14/H
	Face Area			Ft^2	4	6	8/06	9/85	11/65	16/13
	Face Velocity			FPM	500	500	496	507/5	515/5	496/5
	Air Pressure Drop			In. W. C.	0/15	0/15	0/15	0/15	0/15	0/15
	Water Temp. Entr./Leav.			°F	180/160	180/160	180/160	180/160	180/160	180/160
	Water Flow Rate			GPM	5/6	8/4	13/2	16/3	19/4	26/4
	Collector Size			Inch	3/4	1	1 1/4	1 1/4	1 1/4	1 1/2
Supply Fan	Forward Blade	Type			Centrifugal Double Inlet	Centrifugal Double Inlet	Centrifugal Double Inlet	Centrifugal Double Inlet	Centrifugal Double Inlet	Centrifugal Double Inlet
		Model			TDF 10-10	TDF 12-12	TDF 12-12	TDF 15-15	TDF 15-15	TDF 18-18
		Electromotor	Power	KW	1/1	1/5	2/2	2/2	3	4
			Current	A	4/7	6/4	8/9	8/9	12	8/5
			Velocity	RPM	1395	1405	1410	1410	1415	1420
			IP		54	54	54	54	54	54
Filter	Aluminium Washable Mesh			Qty.	Standard	Standard	Standard	Standard	Standard	Standard
	G4 , Bag , Hepa , Ulpa, Carbon Active , UV Lamp & Ect			CM	Optional	Optional	Optional	Optional	Optional	Optional
Dimension	LxWxH			CM	370x95x90	370x95x120	370x145x120	370x145x125	370x145x125	370x145x160
Weight	Gross			Kg	500	650	750	850	1000	1200

HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS (HVACs)										
STANDARD AIR FLOW					10000	12000	15000	18000	21000	24000
Model					H10F-X-G	H12F-X-G	H15F-X-G	H18F-X-G	H21F-X-G	H24F-X-G
Maximum Air Flow				CFM	11306	13888	16335	19600	22960	26320
Cooling Capacity				KW	95/8	118/7	143/8	172/6	205/4	236/1
Heating Capacity				KCal/h	85680	107377	130964	157147	187463	218182
Electrical Data	Power Supply			V, Hz	380V, 3ø	380V, 3ø	380V, 3ø	380V, 3ø	380V, 3ø	380V, 3ø
Cooling Coil	Type				Fin Tube	Fin Tube	Fin Tube	Fin Tube	Fin Tube	Fin Tube
	Capacity	Total		Kbtu/h	327	405	490/7	588/8	701	805/6
	Row/FPI/Feed				4/14/F	4/14/F	4/14/F	4/14/F	4/14/F	4/14/F
	Face Area			Ft^2	20/19	24/8	29/17	35	41	47
	Face Velocity			FPM	500	484/5	514/5	514/5	512/5	511
	Air Preisure Drop			In. W. C.	0/69	0/66	0/73	0/73	0/72	0/72
	Water Temp. Entr./Leav.			°F	45/54	45/54	45/54	45/54	45/54	45/54
	Water Flow Rate			GPM	73/1	90/5	109/2	131/1	156	177/3
	Collector Size			Inch	3	3	3	4	4	4
Heating Coil	Type				Fin Tube	Fin Tube	Fin Tube	Fin Tube	Fin Tube	Fin Tube
	Capacity			Kbtu/h	340	426/1	519/7	623/6	743/9	865/8
	Row/FPI/Feed				1/14/H	1/14/H	1/14/H	1/14/H	1/14/H	1/14/H
	Face Area			Ft^2	20/19	24/8	29/17	35	41	47
	Face Velocity			FPM	500	484/5	514/5	514/5	512/5	511
	Air Pressure Drop			In. W. C.	0/15	0/14	0/15	0/15	0/15	0/15
	Water Temp. Entr./Leav.			°F	180/160	180/160	180/160	180/160	180/160	180/160
	Water Flow Rate			GPM	34/8	43/6	53/2	63/9	75/9	88/6
	Collector Size			Inch	2	2	2 1/2	2 1/2	3	3
Supply Fan	Forward Blade	Type			Centrifugal Double Inlet	Centrifugal Double Inlet	Centrifugal Double Inlet	Centrifugal Double Inlet	Centrifugal Double Inlet	Centrifugal Double Inlet
		Model			TDF 20-20	TDF 22-22	TDF 25-25	TDF 25-25	TDF 25-25	TDF 28-28
		Electromotor	Power	KW	5/5	5/5	5/5	7/5	11	15
			Current	A	11/7	11/7	11/7	15/8	22/6	29/6
			Velocity	RPM	1430	1430	1430	1445	1445	1455
			IP		54	54	54	54	54	54
Filter	Aluminium Washable Mesh			Ava.	Standard	Standard	Standard	Standard	Standard	Standard
	G4 , Bag , Hepa , Ulpa, Carbon Active , UV Lamp & Ect			Type	Optional	Optional	Optional	Optional	Optional	Optional
Dimension	LxWxH			CM	370x180x155	395x210x155	435x210x180	435x210x210	435x245x210	450x275x210
Weight	Gross			Kg	1300	1400	1500	1600	1800	2000

Mini Chiller

Cooling Capacity
3 - 12 Ton

Mini Air Cooled Chiller									
Naminal ton				3	4	5	6	8	10
Models				ACMC3T1-LCX	ACMC4T1-LCX	ACMC5T1-LCX	ACMC6T1-LCX	ACMC8T1-LCX	ACMC10T1-LCX
Capacity	Cooling Capacity		Ton	2/0	2/9	3/7	4/2	5/9	7/7
			KW	7/0	10/2	12/9	14/8	20/6	27/0
			KBtu/h	24/0	34/9	44/0	50/5	70/3	92/1
Electrical Data	Power Supply		V,Hz	220 V, 1 , 50	220 V, 1 , 50	380 V, 3 , 50	380 V ,3 , 50	380 V ,3 , 50	380 V ,3 , 50
	M. C. A. (with standard motor)		A	12/04	17/91	8/36	11/6	13/9	16/83
	Power Input		KW	2/78	3/89	4/64	5/67	7/20	9/05
	EER Comperessor	Cooling	KBtu/(KW.h)	9/7	10/0	10/5	10/4	10/8	11/0
	COP	Cooling	W/W	2/52	2/63	2/78	2/61	2/86	2/98
	Sound Rating		bell	6	6	6	6	6	6
Compressor	Type			SCROLL	SCROLL	SCROLL	SCROLL	SCROLL	SCROLL
	Quantity			1	1	1	1	1	1
	Brand			Copeland	Copeland	Copeland	Copeland	Copeland	Copeland
Condenser Coil	Type			High Efficiency DX	High Efficiency DX	High Efficiency DX	High Efficiency DX	High Efficiency DX	High Efficiency DX
	No. of Coils		Qty.	1	1	1	1	2	2
	Face Area		sq. ft.	9/33	9/33	9/33	9/33	9/33	9/33
	Row/FPI/Feed			2R/14FPI/4	2R/14FPI/4	2R/14FPI/4	2R/14FPI/4	2R/14FPI/4	2R/14FPI/4
Outdoor Fan	Type			Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
	No. of Fans			1	2	2	2	1	1
	Diameter/Width(in.)		in	20"	18"	20"	20"	25"	25"
	Drive Type/Motor Step			Direct / 1 / 1Φ	Direct / 1 / 1Φ	Direct/1/1Φ	Direct/1/1Φ	Direct/1/3Φ	Direct/1/3Φ
	Air Flow Each		cfm	1500	1100	1500	2000	4800	6500
	Motor Power Each		kw	0/12	0/105	0/12	0/3	0/68	0/68
	Motor Current Each		A	0/55	0/48	0/55	1/5	1/6	1/6
	Velocity		rpm	920	920	920	1320	950	950
	IP Protected			IP54	IP54	IP54	IP54	IP54	IP54
Hydraulic Module	Water Pump	Input Power	kw	0/193	0/193	0/193	0/23	-	-
		Pump Max. Head	m	6	6	6	8/0	-	-
	Expansion vessel	Volume	L	6	6	6	6	6	6
Heat Exchanger	Type			Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate	Brazed Plate
	Rated Water Flow		gpm	5	7/70	9/72	11/16	15/73	20/35
	Water Pressure Drop		m. w. c. (Kpa)	0.98 (9.8)	1.12 (11)	2.34 (23)	2.39 (23.4)	2.53 (24.8)	3 (29.4)
	Water In/Out Size		inch		1"	1"	1"	1"	1"
Refrigerant	Refrigerant Charge		Type	R22 / R407c	R22 / R407c	R22 / R407c	R22 / R407c	R22 / R407c	R22 / R407c
Dimensions & Connection	Inlet/ Outlet Connection size		in	1"	1"	1"	1"	1"	1"
	Dimensions LxWxH		cm	112x45x150	112x45x150	112x45x150	112x45x150	110x110x150	110x110x150
	Weight		(kg)	400	500	550	600	650	700

Remark:

1) Nominal Conditions - evap. Entering/leaving water temperature 12/7°C ,outdoor air temperture 35°C evaporator fouling factor 0.018m2k/kw

2)Capable to Work With Ambient Temperature 60°C(140°F)

Ducted Split

R 410a

R 407c

Cooling Capacity
18000 - 60000 But

MODEL			TDS-18-HC	TDS-24-HC	TDS-30-HC	TDS-36-HC	TDS-48-HC	TDS-60-HC
NOMINAL CAPACITY		(TON)	1/5	2	2/5	3	4	5
		(BTU)	18000	24000	30000	36000	48000	60000
Electrical Data	Power Supply	V,PH,Hz	(220-240),1,50	(220-240),1,50	(220-240),1,50	(220-240),1,50	(380-415),3,50	(220-240),1,50
	Power Input(Cooling)	(KW)	1/6	1/7	2/24	2/5	3/8	4/5
	Power Input(Heating)		1/4	1/5	2/01	2/2	3/5	4/2
	Operating Current(Cooling)	(A)	7/4	9/8	4/14	14/5	6/09	9
	Operating Current(Heating)		7/1	9/3	3/72	13/4	5/4	8/4
PERFORMANC	Air Flow Volume	(m3/h)	1274/850/680	1530/1274/767	2378/2038/1614	1869/2039/2548	3228/2378/1868	3738/3898/2888
		(CFM)	750/500/400	900/750/1020	1400/1200/950	1100/1200/1500	1900/1400/1100	2200/2000/1700
	Noise Level	[dB (A)]	35/33/31	36/34/32	35/33/31	35/32/30	41/39/37	42/40/38
			54	54	54	49	57	58
COMPRESSOR		TYPE	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY
REFRIGERANT	Gas type	TYPE	R410A	R410A	R410A	R410A	R410A	R410A
	Gas weight	(gr)	1500	1800	2500	3200	3000	3300
DIMENSIONS	Indoor (LxWxH)	(mm)	880×674×210	1100×700×250	1000×750×270	1000×750×290	1150×800×300	1250×850×350
	Outdoor (LxWxH)		770×300×555	800×300×900	800×300×900	800×300×900	1200×330×950	1200×330×950
Net Weight	Indoor	(kg)	24	29	25	35	45	62
	Outdoor		38	47	60	75	83	93
Piping Size	Indoor	(inch)	(1/4")	(3/8")	(3/8")	(3/4")	(1/2")	(1/2")
	Outdoor		(1/2")	(5/8")	(5/8")	(3/8")	(3/4")	(3/4")
Max. Pipe Length		(mm)	25	25	50	50	50	60
Max. Difference In Level			15	20	25	20	20	30
CLIMATE CLASSES	Weather		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL

1. Cooling capacity is based on following condition: Indoor Air Temperatures 27°C (DB) / 19°C (WB) and Outdoor Air temperatures 35°C (DB) / 24°C (WB)

2. We reserve the right to change these specifications without notice and without incurring any liability

Fan Coil

Air Flow
200 - 1000 CFM

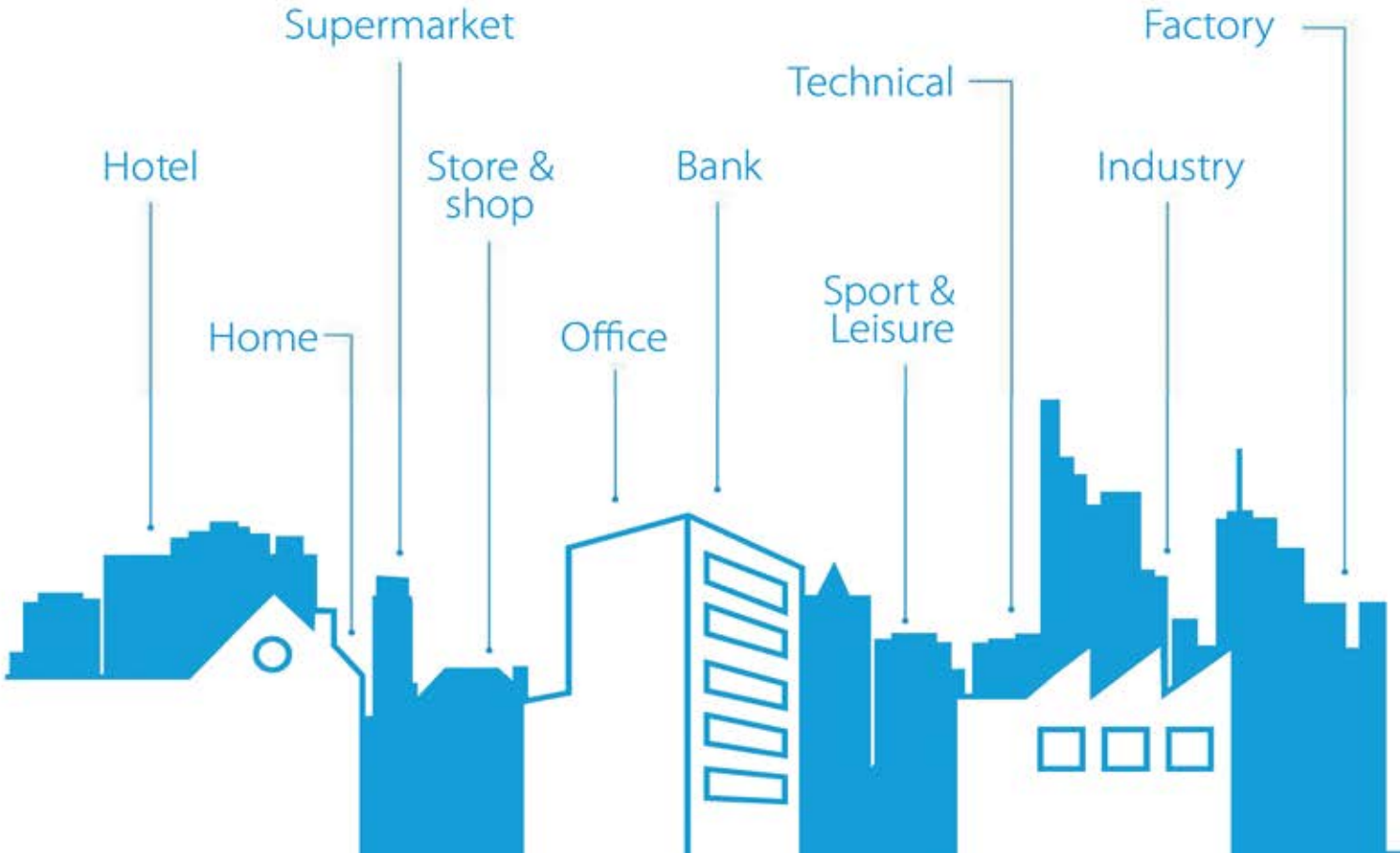
MODEL		TFC200-CD	TFC300-CD	TFC400-CD	TFC600-CD	TFC800-CD	TFC1000-CD
AIR FLOW (CFM)	H	200	300	400	600	800	1000
	M	163	254	340	524	670	850
	L	137	224	306	450	590	760
COOLING CAPACITY	(BTU)	900	11800	15400	19700	24400	30500
	(KW)	2/7	3/5	4/5	5/8	7/2	8/94
HEATING CAPACITY	(BTU)	21800	30750	38750	48250	62750	75000
	(KW)	6/4	9/1	11/4	14/2	18/4	22
FAN	TYPE	DOUBLE INLET FORWARD CURVED					
	NUMBER	1	1	2	2	2	3
MOTOR	VOLTAGE/Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz
COIL	TYPE	ALUMINUM FIN AND COPPER TUBE					
PIPING CONNECTIONS (IN)	INLET/OUTLET	3.4"	3.4"	3.4"	3.4"	3.4"	3.4"
	CONDENSATE	3.4"	3.4"	3.4"	3.4"	3.4"	3.4"
DIMENSIONS	L/W/H	62/50/23.5	72/50/23.5	85/50/23.5	97/50/23.5	135/50/23.5	172/50/23.5

Specification Notes:
COOLING: 80°F DB, 67°F WB, 45°F ENTERING WATER, 10°F TEMPERATURE DIFFERENTIAL
HEATING: 70°F DB, 180°F ENTERING WATER

Nomenclature

AC C - 80T 1 - W A X E H 2 F ~ 1 ~ G

- E — Economizer
- X — Direct Expansion
- A — Refrigerant
  - A = R134a
  - B = R22
  - C = R407c
  - D = R410A
- W — Compressor Type
  - W = Screw
  - L = Scroll
  - R = Reciprocating
- 1 — BTC Standard Test Condition
  - 1 = T1
  - 2 = T2
  - 3 = T3
- 80T — Cooling Capacity
  - 5T = 5 Ton
  - 50T = 50 Ton
  - 100T = 100 Ton
- C — System Type
  - C = Chiller
  - P = Package Unit
  - M = Mini Chiller
- AC — Cooling Type
  - AC = Air Cooled
  - WC = Water Cooled
- G — Sheet Material
  - G = Galvanized
  - S = Stainless Steel
  - A = Aluminium
- 1 — Filter Box Number
  - I-Type = 1
  - I-Type + Bag = 2
  - I-Type + Bag + ... = 3
  - CA(Hepa,Ulpa,Carbon Active
- F — Fan Type
  - F = Forward
  - B = Backward
  - P = Plug
- 2 — Air Flow
  - 2 = 2000 CFM
  - 5 = 5000 CFM
  - 10 = 10000 CFM
- H — System Type
  - H = Air Handling Unit
  - HR = Heat Recovery A.c



Note: _____

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