

GESCOOL

Your Hot & Cold World



www.gescool.ir

Air Conditioner



شرکت انرژی سبز صدر (سهامی خاص) با هدف طراحی، تولید و اجرای تاسیسات مکانیکال، الکتریکال و سیستمهای سرمایش گرمایشی در ساختمان های مسکونی، اداری، تجاری، فرهنگی، تفریحی و... آغاز به کار نموده است.

این مجموعه با مأموریت صرفه جویی بیشتر در مصرف انرژی سوخت های فسیلی و برق در صنعت ساختمان و استفاده از انرژی های تجدیدپذیر نظیر انرژی خورشیدی توانسته است گام بزرگی در بهینه سازی مصرف انرژی در صنعت ساختمان کشور داشته باشد و مسیر استفاده مفید تر از این نعمات الهی را مهیا سازد.

شرکت انرژی سبز صدر متشکل از مدیرانی متعهد، متخصص و مجرب می باشد که هر یک پس از سالیان متمادی تلاش بیوقفه و مدیریت در سطوح بالا، برای خدمت رسانی بیشتر و خدمت به صنعت و جامعه ایرانی گردهم آمده اند.

محصولات

- چیلر تراکمی آب خنک و هوا خنک
- مینی چیلر تراکمی
- داکت اسپلیت
- فن کوئل
- پکیج پشت بامی
- هواساز
- سرمایش خورشیدی
- آبگرمکن خورشیدی

خدمات

- طراحی و اجرای سیستم های تاسیسات مکانیکی ساختمان
- اجرای لوله کشی مسی، متناسب با دستگاه های اسپلیت و داکت اسپلیت
- طراحی و کانال کشی متناسب با انواع سیستم ها
- طراحی و اجرای تاسیسات مکانیکی ساختمان های سبز (N.Z.E.B)
- طراحی و اجرای تاسیسات الکتریکی

چیلر & فن کوئل Fancoil & Chiller



5



داکت اسپلت Ducted Split



4

The concealed ducted split units are of compact and energy efficient design, delivering ultimate performance. The units provide solutions for most of the domestic and commercial applications, designed with the optimum comfort, installation time-savings and reduced running costs for the end-user.



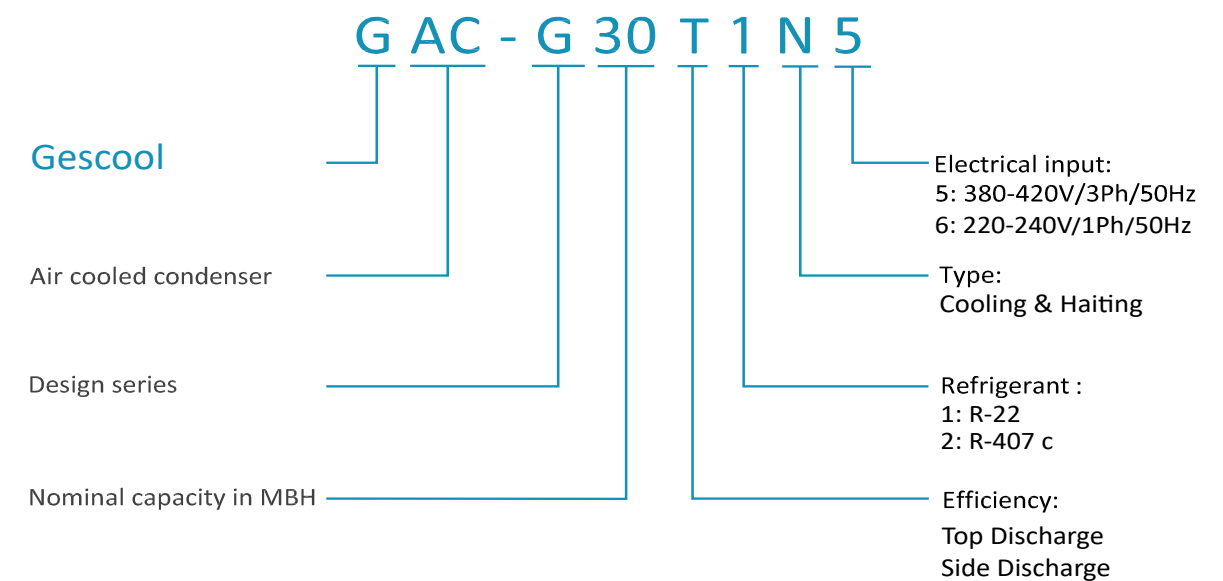
The concealed ducted indoor units are designed using the latest fan coil technology, highly efficient in performance and ideal for whisper quiet operation. The indoor air compartment is completely insulated with fire retardant polyethylene insulation. Units are designed with advanced refrigerant circuiting offering minimal pressure drop for ideal performance. The units are made out of high quality galvanized steel for reliability and durability.



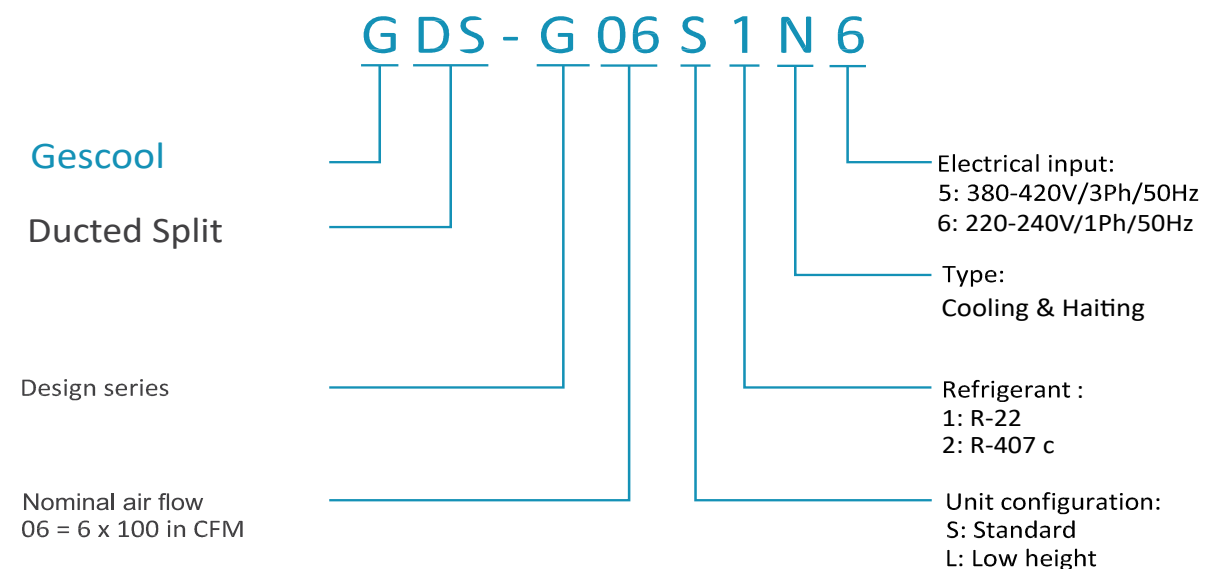
The concealed ducted indoor units are available with the electrical characteristics of 220-240 volts, 1 phase, 50 hz operation. The control voltage is 220 volts. Factory assembled controls with 220 volts wired remote controller (wireless remote controller is optional). Units are completely factory wired with single point power input, provided with knockouts for utility, main power supply and control connections.

The evaporator coils are made out of seamless, inner grooved copper tube / corrugated aluminum fins. Efficient and dependable metering of the refrigerant is provided by thermostatic expansion device or flow restrictor, a device which improves overall system reliability and is easily accessible for routine maintenance.

Outdoor Unit



Indoor Unit





The outdoor condensing units of TAC series are suitable for side and top discharge installation on the roof or on the ground. Units have been incorporated with high efficiency rotary / scroll compressor in single stage operation for improved comfort, performance and reliability. Units are designed & tested in accordance with AHRI standards.

The outdoor condensing units are available with the electrical characteristics of 220-240 volts, 1 phase, 50 Hz operation up to 11 kW nominal cooling capacity and thereafter by 380-420 volts, 3 phase, 50 Hz operation.

Compressors are fully hermetic rotary or scroll type designed for high efficiency and provided with standard controls & safety devices. Higher capacity compressors are provided with crankcase heaters to warm oil and prevent dilution by refrigerant. HP and LP controls for models above 11 kW are provided for the safe operation of the compressor. Units are provided with easy accessible control box, compressor and High pressure switch.



Condenser fans are propeller type, direct driven, draw through side / vertical discharge with fan guard mounted to the panel. The fan design provides an efficient airflow rate while operating at low rotational speeds to reduce fan noise. The design incorporates robust characteristics that provide good performance over a range of static pressure. Condenser coils are made of seamless, inner grooved copper tube and aluminum corrugated fins, mechanically bonded for maximum heat transfer



TAC units have significant performance advantages in terms of efficiency, noise performance and power consumption. The condenser coils are factory tested for leaks and pressure tested at 600 psig. The outdoor units are leak tested with electronic machines and fully charged with refrigerant R410a. The outdoor units are made out of high quality galvanized steel, powder coated for long lasting protection and durability.

Ducted Split

داکت اسپلیت (یونیت داخلی)



- ظرفیت کویل منطبق بر اقلیم ایران
- قابلیت اتصال به هوای تازه
- کویل DX چهاررديفه برای دستگاه های داکت اسپلیت ۳ و ۳.۵ تن و سه ردیفه برای دستگاه های ۲ و ۲.۵ تن برودتی
- مجهز به کویل آبگرم فابریک سه ردیفه برای دستگاه های ۳ و ۳.۵ تن و سه ردیفه برای دستگاه های ۲ و ۲.۵ تن برودتی
- فیلتر های تصفیه هوای چندلایه آنتی باکتریال و قابل شستشو، ضد حساسیت و آلرژی
- داکت اسپلیت دارای دو دمنده فلزی با حداقل صدا (دارای دور خواب ، سوپر سایلنت)
- عایق بندی بدنه داخلی جهت کاهش صدا و اتلاف انرژی
- طراحی اواپراتور بر مبنای ضریب میانبر (B.F نزدیک صفر)
- طراحی موتور براساس افت فشار کانال انعطاف پذیری و کویل گرمایشی مناسب
- طراحی براساس معماری ایرانی با حداقل ارتفاع دستگاه
- مجهز به ترموستات دیجیتال لمسی با قابلیت هوشمندسازی

Model Indoor				GDFG24	GDFG3036	GDFG3036	GDFG42	GDFG48	GDFG60			
Nominal Cooling Capacity (DX Coil)				Btu/h	24,000	30,000	36,000	42,000	48,000	60,000		
Nominal Heating Capacity (Hot Water Coil)				Btu/h	32,000	38,000	38,000	54,000	72,000	72,000		
EER				Btu/w	10	10	11.8	11.8	12	12		
Indoor Unit	Dimension		W x H x D	mm	880 × 280 × 680	1070 × 280 × 680	1070 × 280 × 680	1070 × 280 × 680	1070 × 350 × 680	1070 × 400 × 680		
	Net Weight		Kg		30	40	40	46	60	66		
	Drain		Diameter		in		1/2					
			type		Metal with drain connection							
	Fan	blower		Type		Galvanized-Multi blade centrifugal blower						
		flow rate(volume)		Cfm		500 / 600 / 700	700 / 800 / 900	700 / 800 / 900	1200/1300/1400	1800/1900/2000	1900/2000/2100	
		Static Pressure		in.wg		0.39	0.39	0.39	0.49	0.55	0.62	
		Sound Pressure Level (L/M/H)		dBA		26 / 31 / 35	36 / 42 / 46	36 / 42 / 46	36 / 44 / 50	42 / 46 / 52	42 / 46 / 52	
		Dimension		D × L	cm	15 × 15	15 × 20	15 × 20	18 × 20	20 × 20	20 × 20	
	Fan Motor		Type		Mega							
			Rated Output Power		W	80	160		180	250		
			Rated Running Current		A	1.3	1.5		1.7	2.2		
			Capacitor		μ F	5				8		
	DX Coil		Tube	Material		plain copper						
				Diameter		in		3/8				
			Fin	Material		Alluminium corrugated						
				Face Area		ft^2	1.88	2.42	2.42	2.42	2.9	3.4
				H × L		cm	25 × 70	25 × 90	25 × 90	25 × 90	30 × 90	35 × 90
				Row/FPI		3/16		3/16	3/16	4/15	4/15	4/15
	Hot Water Coil		Tube	Material		plain copper						
				Diameter		in		3/8				
			Fin	Material		Alluminium corrugated						
				H × L		cm	25 × 70	25 × 90	25 × 90	25 × 90	30 × 90	35 × 90
				Row/FPI		2/10		2/10	2/10	3/10	3/10	3/10
			Connection Size		in		3/4					
Filter		Type		Washable & Anti Fungus								

Ducted Split

داکت اسپلیت (یونیت خارجی)



- دارای ضریب عملکرد بالا
- طراحی یونیت خارجی به صورت بالا زن (American Style)
- دارای فیلتر درایر در خط مایع
- داکت اسپلیت ۳ تن مجهز به کمپرسور اسکرال کویلند ساخت کشور تایلند با مصرف برق پایین
- عملکرد مناسب در دمای محیط بین ۱۰- تا ۵۴+ درجه سانتی گراد
- استفاده از لوله مسی ۳۰ استاندارد در کویل اواپراتور و کندانسور
- امکان حفاظت کویل ها در شرایط جغرافیایی خاص با پوشش مواد ضد خوردگی (Anti Corrosion)
- قابلیت استفاده با گاز R۲۲ و R۴۰VC

Model Outdoor				GACG24	GACG30	GACG36	GACG42	GACG48	GACG60
Nominal Cooling Capacity		Btu/h		24,000	30,000	36,000	42,000	48,000	60,000
Power Source		V~ / P / Hz		220 / 1/ 50			220&380 / 1&3 / 50	220&380 / 1&3 / 50	380/ 3 / 50
Outdoor Unit	Dimension		W x H x D mm	620 × 690 × 620	620 × 690 × 620	620 × 690 × 620	620 × 690 × 620	720× 690 × 720	820 × 690 × 820
	Max Length - Height		M	30 - 20					
	Net Weight		Kg	60	60	80	80	100	100
	Fan Motor	Power	W	180	180	250	250	380 & 414	780
		Rated Running Current	A	0.82	0.82	1.15	1.15 & 0.75	1.75 & 0.85	1.57
		Air Flow	cfm	2328	2328	3157	3157	4152	6174
		Sound Pressure Level	dBa	60	60	60	60	63	65
			rpm	1380	1380	1380	1320	1320	1360
	Compressor	Type		Rotary		Scroll Manufactured by copeland			
		Refrigerant Type/Charge	gr	R22/ ~ 1500	R22/ ~ 1900	R22/ ~ 2250	R22/ ~ 2600	R22/ ~ 3000	R22/ ~ 3750
		Rated Running Current	A	7	9	11	11.5 & 4.3	13.5 & 6	7
	Coil	Tube	Material	Plain Copper Tube					
			Diameter in	3/8					
		Fin	Material	Alluminium Corrugated					
			Row/FPI	1/17	1/17	1/17	1/17	1/17	1/17
Pipe Connection	Size	Gas	in	1/2		5/8		3/4	
		Liquid	in	3/8		3/8		1/2	



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مینی چیلر

● ۵۰Hz-GCH-LC

● راندمان انرژی (ERR) بسیار بالا

● دارای منبع انبساط بسته

● نصب کنترل و تنظیم آسان

● مجهز به پمپ سیر کولاسیون

● کارکرد با گاز R۴۰۷C و R۲۲

● گسترده‌ی عملکرد دستگاه تا دمای ۵۴ سانتی گراد

● مجهز به کمپرسور حلزونی (SCROLL) کویلند با مصرف برق پایین

● شیرآلات و قطعات کنترلی از برند های معتبر مینی چیلر نظیر دانفوس . کستل و

● تابلو برق اشنایدر یا هیوندای

● فن خنک کننده ی کندانسور زیلاپگ



Model		GCH-LC-24A	GCH-LC-15A	GCH-LC-10A	GCH-LC-7.5A	GCH-LC-5A	
T.R.		Nominal Capacity	20	15	10	8	5
Type		Compressor	Scroll				
Quantity / Hp			10*2	7.5*2	10*1	1*7.2	1*5
cm	H*W*L	Dimensions	220*120*200	180*120*200	96*96*180	140*86*86	130*86*86
Kg		Net Weight	800	550	300	200	150
Type		Euaprotor	Shell & Tube				
GPM	Water Flow Rate		41.5	31.5	20.9	16.1	9.6
in	Connection Size		2		1,1/2		1,1/4
in	Row Size	Condensor	3-3/8	2-3/8		1-3/8	
ft^2	Face Area		18.2	15	12.1	9.3	7.8
CFM	Air Flow		18000	14000	9000	7000	5000
W	Fan Quantity		4		2		1
mm	Fan Diameter		63	63	63	50	63
Type			Pump	Centriflugal			
Standard		Refrigerant	R314a				
No.Circuits			2		1		
5	Refrigerant Charge		19.4	14.7	9.8	7.9	4.5
V	Power Supply	Elctrical	380				
A	Mx Current		39.7	29.6	19.2	10.5	8.1

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فن کویل

● ظرفیت کویل منطبق بر اقلیم ایران

● قابلیت اتصال به هوای تازه

● DX چهارردیفه برای دستگاه های داکت اسپلیت ۳ و ۳.۵ تن و سه ردیفه برای کویل دستگاه های ۲

و ۲.۵ تن برودتی

● مجهز به کویل آبگرم فابریک سه ردیفه برای دستگاه های ۳ و ۳.۵ تن و سه ردیفه برای دستگاه های

۲ و ۲.۵ تن برودتی

● فیلتر های تصفیه هوای چندلایه آنتی باکتریال و قابل شستشو، ضد حساسیت و آلرژی

● داکت اسپلیت دارای دو دمنده فلزی با حداقل صدا (دارای دور خواب ، سوپر سایلنت)

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● طراحی موتور براساس افت فشار کانال انعطاف پذیری و کویل گرمایشی مناسب

● طراحی براساس معماری ایرانی با حداقل ارتفاع دستگاه

● مجهز به ترموستات دیجیتال لمسی با قابلیت هوشمندسازی



Model			GFC-800	GFC-600	GFC-400	GFC-300	GFC-200
Cfm	Max	Air Flow Ratr	850	650	450	350	250
	Med		650	550	400	300	200
	Min		450	250	250	200	150
GPM	Cooling	Water Flow Rate	5	4	3	2	2
BTU/hr	Cooling	Capacity	24,000	17,500	12,300	8,900	6,100
	Heating		30,300	22,800	16,200	12,400	8,700
Max	dB(A)	Sound Level	38				
mm	W*H*D	Dimensious	520*220*1195	520*22*945	520*220*845	520*220*745	645*220*520
Kg		Net Weight	32	23	21	19	8
inch-mm	Inlet	Diameter	3/4 - 25				
inch-mm	Outlet		3/4 - 25				
mm	Drain		1/2 - 16				
Type		Fan	Forward Cntrifugal				
Quantity			3	1		1	
Quantity		Fan Motor	1				
PH , V , Hz	Power Supply		1 , 220 , 50				
A	Rated Running Current		2*0.55	1*0.55			
inch	Tube Size	Coil	3/8				
inch	Number Of Row		10			8	
FPI	Fine Per inch		12				
		Filter	Washable Filter				





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Indoor GDF - G06S1N6
Outdoor GAC - G18D1N6

1: R-22
2: R-407 c
ESP: 0.1"

Evaporator Airflow Rate CFM / LPS (Fan Speed)	EAT °F (DB / WB)	Cooling Capacity & Power Input		Condenser Air Entering Temperature (°F)								
				95		105		115		125		
				TCC	SCC	TCC	SCC	TCC	SCC	TCC	SCC	
740 / 349 (High)	76 / 63	CC	MBH	19.02	16.91	16.44	14.62	14.95	13.29	13.50	12.00	
			kW	5.57	4.96	4.82	4.28	4.38	3.90	3.96	3.52	
		PI	kW	2.01		2.17		2.32		2.62		
	80.6 / 62.6	CC	MBH	20.52	19.90	18.82	18.25	17.86	17.32	13.90	13.48	
			kW	6.01	5.83	5.51	5.35	5.23	5.08	4.07	3.95	
		PI	kW	2.09		2.24		2.33		2.71		
	80 / 67	CC	MBH	22.36	19.87	19.81	17.61	19.46	16.58	14.63	13.00	
			kW	6.55	5.82	5.81	5.16	5.70	4.86	4.29	3.81	
		PI	kW	2.13		2.22		2.38		2.69		
	680 / 321 (Medium)	76 / 63	CC	MBH	17.50	15.56	15.12	13.45	13.76	12.23	12.42	11.04
				kW	5.13	4.56	4.43	3.94	4.03	3.58	3.64	3.24
			PI	kW	1.95		2.11		2.26		2.55	
80.6 / 62.6		CC	MBH	18.88	18.31	17.31	16.79	15.74	15.27	12.78	12.40	
			kW	5.53	5.37	5.07	4.92	4.61	4.48	3.75	3.63	
		PI	kW	2.03		2.17		2.32		2.64		
80 / 67		CC	MBH	20.57	18.28	18.22	16.20	17.15	15.25	13.46	11.96	
			kW	6.03	5.36	5.34	4.75	5.03	4.47	3.94	3.51	
		PI	kW	2.07		2.15		2.36		2.61		
600 / 283 (Low)	76 / 63	CC	MBH	16.10	14.31	13.91	12.37	12.66	11.25	11.43	10.16	
			kW	4.72	4.19	4.08	3.63	3.71	3.30	3.35	2.98	
		PI	kW	1.90		2.05		2.19		2.48		
	80.6 / 62.6	CC	MBH	17.37	16.85	15.93	15.45	14.49	14.05	11.76	11.41	
			kW	5.09	4.94	4.67	4.53	4.25	4.12	3.45	3.34	
		PI	kW	1.98		2.11		2.25		2.56		
	80 / 67	CC	MBH	18.92	16.82	16.76	14.90	15.78	14.03	12.38	11.01	
			kW	5.55	4.93	4.91	4.37	4.63	4.11	3.63	3.23	
		PI	kW	2.01		2.09		2.30		2.54		

Notes:

EAT - Evaporator Air Entering Temperature
TCC - Total Cooling Capacity
SCC - Sensible Cooling Capacity
CC - Cooling Capacity
PI - Total Power Input (Compressor + Condenser Motor + Evaporator Motor)
ESP - External Static Pressure

Indoor GDF - G06S1N6
Outdoor GAC - G18D1N6

1: R-22
2: R-407 c
ESP: 0.2"

Evaporator Airflow Rate CFM / LPS (Fan Speed)	EAT °F (DB / WB)	Cooling Capacity & Power Input	Condenser Air Entering Temperature (°F)									
			95		105		115		125			
			TCC	SCC	TCC	SCC	TCC	SCC	TCC	SCC		
446 / 210 (High)	76 / 63	CC	MBH	14.69	13.06	12.95	11.51	12.25	10.89	11.06	9.83	
			kW	4.31	3.83	3.79	3.37	3.59	3.19	3.24	2.88	
		PI	kW	1.59		1.79		1.98		2.24		
	80.6 / 62.6	CC	MBH	15.61	15.14	14.82	14.37	14.02	13.60	11.38	11.04	
			kW	4.58	4.44	4.34	4.21	4.11	3.99	3.34	3.24	
		PI	kW	1.65		1.84		1.92		2.32		
	80 / 67	CC	MBH	17.01	15.12	15.60	13.87	15.28	13.58	11.98	10.65	
			kW	4.99	4.43	4.57	4.07	4.48	3.98	3.51	3.12	
		PI	kW	1.69		1.83		1.96		2.29		
	410 / 193 (Medium)	76 / 63	CC	MBH	13.51	12.01	11.91	10.59	11.27	10.02	10.18	9.05
				kW	3.96	3.52	3.49	3.10	3.30	2.94	2.98	2.65
			PI	kW	1.54		1.74		1.93		2.18	
80.6 / 62.6		CC	MBH	14.36	13.93	13.63	13.22	12.90	12.51	10.47	10.16	
			kW	4.21	4.08	4.00	3.88	3.78	3.67	3.07	2.98	
		PI	kW	1.61		1.79		1.98		2.25		
80 / 67		CC	MBH	15.65	13.91	14.35	12.76	14.05	12.49	11.03	9.80	
			kW	4.59	4.08	4.21	3.74	4.12	3.66	3.23	2.87	
		PI	kW	1.64		1.78		2.02		2.23		
364 / 172 (Low)	76 / 63	CC	MBH	12.43	11.05	10.96	9.74	10.37	9.22	9.36	8.32	
			kW	3.64	3.24	3.21	2.85	3.04	2.70	2.74	2.44	
		PI	kW	1.50		1.69		1.87		2.12		
	80.6 / 62.6	CC	MBH	13.22	12.82	12.54	12.16	11.87	11.51	9.64	9.35	
			kW	3.87	3.76	3.68	3.57	3.48	3.37	2.82	2.74	
		PI	kW	1.56		1.74		1.92		2.19		
	80 / 67	CC	MBH	14.40	12.80	13.20	11.74	12.93	11.49	10.14	9.02	
			kW	4.22	3.75	3.87	3.44	3.79	3.37	2.97	2.64	
		PI	kW	1.59		1.73		1.96		2.17		

Notes:

EAT - Evaporator Air Entering Temperature
TCC - Total Cooling Capacity
SCC - Sensible Cooling Capacity
CC - Cooling Capacity
PI - Total Power Input (Compressor + Condenser Motor + Evaporator Motor)
ESP - External Static Pressure



Your Hot & Cold World

Your Hot & Cold World



Indoor GDF - G06S1N6
Outdoor GAC - G18D1N6

1: R-22
2: R-407 c
ESP: 0.1"

Evaporator Airflow Rate CFM / LPS (Fan Speed)	EAT °F (DB / WB)	Cooling Capacity & Power Input		Condenser Air Entering Temperature (°F)								
				95		105		115		125		
				TCC	SCC	TCC	SCC	TCC	SCC	TCC	SCC	
851 / 402 (High)	76 / 63	CC	MBH	22.54	20.04	19.48	17.32	17.72	15.75	16.00	14.23	
			kW	6.61	5.87	5.71	5.08	5.19	4.62	4.69	4.17	
		PI	kW	2.48		2.71		2.91		3.29		
	80.6 / 62.6	CC	MBH	24.32	23.59	22.30	21.63	21.28	20.64	16.47	15.98	
			kW	7.13	6.91	6.54	6.34	6.24	6.05	4.83	4.68	
		PI	kW	2.59		2.79		2.78		3.41		
	80 / 67	CC	MBH	26.50	23.55	23.48	20.87	23.18	19.64	17.34	15.41	
			kW	7.77	6.90	6.88	6.12	6.79	5.76	5.08	4.52	
		PI	kW	2.64		2.76		2.83		3.37		
	780 / 368 (Medium)	76 / 63	CC	MBH	20.74	18.44	17.93	15.94	16.30	14.49	14.72	13.09
				kW	6.08	5.40	5.25	4.67	4.78	4.25	4.31	3.84
			PI	kW	2.41		2.63		2.83		3.20	
80.6 / 62.6		CC	MBH	22.37	21.70	20.52	19.90	18.66	18.10	15.15	14.70	
			kW	6.56	6.36	6.01	5.83	5.47	5.30	4.44	4.31	
		PI	kW	2.51		2.71		2.91		3.31		
80 / 67		CC	MBH	24.38	21.67	21.60	19.20	20.33	18.07	15.95	14.18	
			kW	7.14	6.35	6.33	5.63	5.96	5.30	4.67	4.16	
		PI	kW	2.56		2.68		2.97		3.28		
685 / 323 (Low)	76 / 63	CC	MBH	19.08	16.96	16.49	14.66	15.00	13.33	13.54	12.04	
			kW	5.59	4.97	4.83	4.30	4.40	3.91	3.97	3.53	
		PI	kW	2.35		2.56		2.75		3.11		
	80.6 / 62.6	CC	MBH	20.58	19.97	18.88	18.31	17.17	16.65	13.94	13.52	
			kW	6.03	5.85	5.53	5.37	5.03	4.88	4.09	3.96	
		PI	kW	2.44		2.64		2.83		3.22		
	80 / 67	CC	MBH	22.43	19.94	19.87	17.66	18.70	16.63	14.67	13.04	
			kW	6.57	5.84	5.82	5.18	5.48	4.87	4.30	3.82	
		PI	kW	2.49		2.61		2.88		3.19		

Notes:

EAT - Evaporator Air Entering Temperature
TCC - Total Cooling Capacity
SCC - Sensible Cooling Capacity
CC - Cooling Capacity
PI - Total Power Input (Compressor + Condenser Motor + Evaporator Motor)
ESP - External Static Pressure

Indoor GDF - G06S1N6
Outdoor GAC - G18D1N6

1: R-22
2: R-407 c
ESP: 0.2"

Evaporator Airflow Rate CFM / LPS (Fan Speed)	EAT °F (DB / WB)	Cooling Capacity & Power Input	Condenser Air Entering Temperature (°F)								
			95		105		115		125		
			TCC	SCC	TCC	SCC	TCC	SCC	TCC	SCC	
673 / 317 (High)	76 / 63	CC	MBH	18.07	16.06	15.62	13.88	14.20	12.63	12.83	11.40
			kW	5.30	4.71	4.58	4.07	4.16	3.70	3.76	3.34
		PI	kW	1.99		2.15		2.30		2.60	
	80.6 / 62.6	CC	MBH	19.49	18.91	17.88	17.34	16.26	15.77	13.20	12.81
			kW	5.71	5.54	5.24	5.08	4.76	4.62	3.87	3.75
		PI	kW	2.07		2.22		2.37		2.69	
	80 / 67	CC	MBH	21.24	18.88	18.82	16.73	17.71	15.75	13.90	12.35
			kW	6.22	5.53	5.51	4.90	5.19	4.62	4.07	3.62
		PI	kW	2.12		2.20		2.41		2.66	
619 / 292 (Medium)	76 / 63	CC	MBH	16.62	14.78	14.37	12.77	13.07	11.62	11.80	10.49
			kW	4.87	4.33	4.21	3.74	3.83	3.40	3.46	3.07
		PI	kW	1.94		2.09		2.24		2.53	
	80.6 / 62.6	CC	MBH	17.93	17.40	16.45	15.95	14.96	14.51	12.15	11.78
			kW	5.26	5.10	4.82	4.68	4.38	4.25	3.56	3.45
		PI	kW	2.02		2.16		2.30		2.62	
	80 / 67	CC	MBH	19.54	17.37	17.31	15.39	16.30	14.49	12.78	11.37
			kW	5.73	5.09	5.07	4.51	4.78	4.25	3.75	3.33
		PI	kW	2.06		2.14		2.34		2.59	
546 / 258 (Low)	76 / 63	CC	MBH	15.29	13.60	13.22	11.75	12.02	10.69	10.86	9.65
			kW	4.48	3.98	3.87	3.44	3.52	3.13	3.18	2.83
		PI	kW	1.88		2.03		2.17		2.46	
	80.6 / 62.6	CC	MBH	16.50	16.00	15.13	14.68	13.76	13.35	11.17	10.84
			kW	4.84	4.69	4.43	4.30	4.03	3.91	3.27	3.18
		PI	kW	1.96		2.10		2.23		2.54	
	80 / 67	CC	MBH	17.98	15.98	15.93	14.16	14.99	13.33	11.76	10.46
			kW	5.27	4.68	4.67	4.15	4.39	3.91	3.45	3.06
		PI	kW	2.00		2.08		2.28		2.52	

Notes:

EAT - Evaporator Air Entering Temperature
TCC - Total Cooling Capacity
SCC - Sensible Cooling Capacity
CC - Cooling Capacity
PI - Total Power Input (Compressor + Condenser Motor + Evaporator Motor)
ESP - External Static Pressure



Liquid Line Pipe Selection
(Outdoor unit above indoor unit)

Equivalent Pipe Length (feet) (Vertical + Horizontal)	TDF-G06S TAC-G18D	TDF-G08S TAC-G24D	TDF-G10S TAC-G30D	TDF-G12S TAC-G36D	TDF-G14S TAC-G42D	TDF-G16S TAC-G48D	TDF-G20S TAC-G60D
	Pipe Size						
16'	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	1/2"
25'	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	1/2"
33'	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	1/2"
50'	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	1/2"
66'	-	-	3/8"	3/8"	3/8"	3/8"	1/2"
82'	-	-	3/8"	3/8"	3/8"	1/2"	1/2"
98'	-	-	3/8"	3/8"	3/8"	1/2"	1/2"
115'	-	-	3/8"	3/8"	3/8"	1/2"	1/2"
131'	-	-	3/8"	3/8"	3/8"	1/2"	1/2"

Liquid Line Pipe Selection
(Indoor unit above outdoor unit)

Equivalent Pipe Length (feet) (Vertical + Horizontal)	TDF-G06S TAC-G18D	TDF-G08S TAC-G24D	TDF-G10S TAC-G30D	TDF-G12S TAC-G36D	TDF-G14S TAC-G42D	TDF-G16S TAC-G48D	TDF-G20S TAC-G60D
	Pipe Size						
16'	1/4"	1/4"	3/8"	3/8"	3/8"	1/2"	1/2"
25'	1/4"	1/4"	3/8"	3/8"	3/8"	1/2"	1/2"
33'	1/4"	1/4"	3/8"	3/8"	3/8"	1/2"	1/2"
50'	1/4"	1/4"	3/8"	3/8"	3/8"	1/2"	1/2"
66'	1/4"	1/4"	3/8"	3/8"	3/8"	1/2"	1/2"
82'	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"
98'	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"
115'	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"
131'	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"

General Notes:

- a. Standard pipe size supplied by factory will be 16' (5m)
- b. Total equivalent length of piping should be limited to 131' (40 m)
- c. For rotary compressor the total equivalent length of piping is to be limited to 50' (15 m)
- d. For scroll compressor the total equivalent length of piping is to be limited to 131' (40 m)
- e. Additional Refrigerant Charge

Liquid Line Size	R410a Charge (grams / ft)
1/4"	10
3/8"	17
1/2"	24

Electrical Data For Indoor Units

Indoor Model TDF Series:		G06S1N6	G08S1N6	G10S1N6	G12S1N6	G14S1N6	G16S1N6	G20S1N6
V / Ph / Hz		220 - 240 / 1 / 50						
Operating Voltage	Min	207	207	207	207	207	207	207
	Max	253	253	253	253	253	253	253
Blower Motor	HP	0.07	0.17	0.17	0.58	0.58	0.58	0.75
	FLA	0.6	1.0	1.0	2.6	2.6	2.6	5.0
MCA	Amps	0.8	1.3	1.3	1.3	3.3	3.3	6.3
MOCP	Amps	5.0	5.0	5.0	5.0	5.0	5.0	10.0

Electrical Data For Outdoor Units

Outdoor Model TAC Series:		G18D1N6	G24D1N6	G30D1N6	G36D1N6	G42D1N5	G48D1N5	G60D1N5
V / Ph / Hz		220 - 240 / 1 / 50					380 - 415 / 3 / 50	
Operating Voltage	Min	207	207	207	207	360	360	360
	Max	253	253	253	253	440	440	440
Compressor	RLA	6.85	9.20	15.00	18.60	6.90	8.60	9.50
	LRA	42.0	55.0	67.0	100.0	52.0	51.5	67.1
	Quantity	1	1	1	1	1	1	1
Condenser	HP	0.07	0.07	0.27	0.07	0.07	0.33	0.33
	FLA	0.44	0.44	1.80	0.44	0.44	2.00	2.00
	Quantity	1	1	1	2	2	1	1
MCA	Amps	9.0	11.9	20.6	24.1	9.5	12.8	13.9
MOCP	Amps	16.0	21.0	36.0	42.0	16.0	21.0	23.0

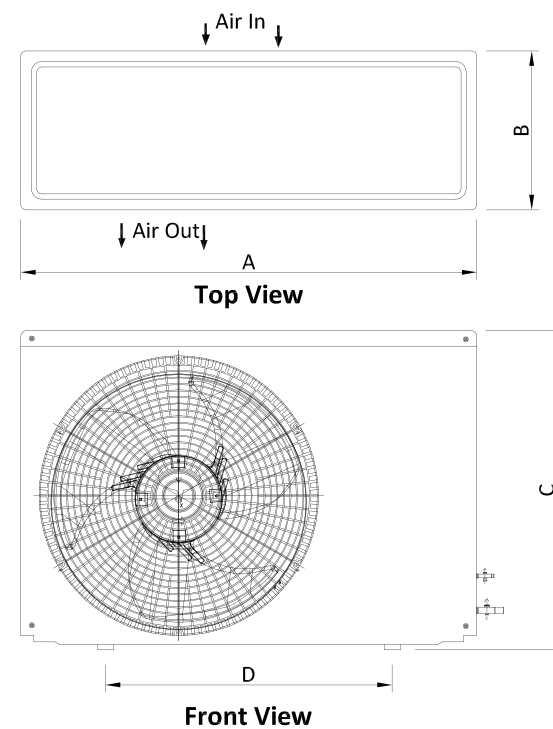
Notes:

- FLA - Full Load Amps
- LRA - Locked Rotor Amps
- RLA - Running Load Amps
- MCA - Minimum Circuit Amps
- MOCP - Maximum Over Current Protection

Model: TAC-G18D1N6 / TAC-G24D1N6
Outdoor Unit - Side Discharge

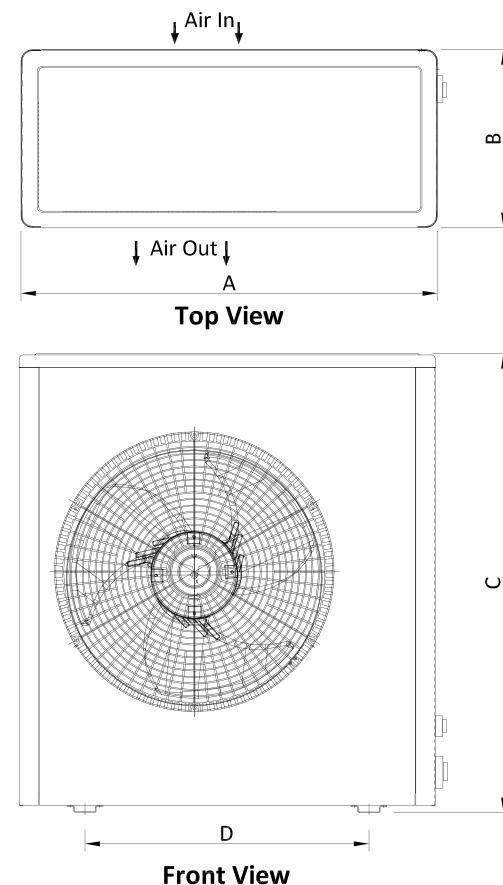
Model	Dimensions (inch)			
	A	B	C	D
TAC-G18D1N6 TAC-G24D1N6	34.3	12.6	25.6	21.7

Model	Dimensions (mm)			
	A	B	C	D
TAC-G18D1N6 TAC-G24D1N6	870	320	650	550


Model: TAC-G30D1N6
Outdoor Unit - Side Discharge

Model	Dimensions (inch)			
	A	B	C	D
TAC-G30D1N6	37.8	16.1	42.9	24.7

Model	Dimensions (mm)			
	A	B	C	D
TAC-G30D1N6	925	395	1050	605


Suction Line Pipe selection

Equivalent Pipe Length (feet) (Vertical + Horizontal)	TDF-G06S TAC-G18D	TDF-G08S TAC-G24D	TDF-G10S TAC-G30D	TDF-G12S TAC-G36D	TDF-G14S TAC-G42D	TDF-G16S TAC-G48D	TDF-G20S TAC-G60D
	Pipe Size						
16'	1/2"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"
25'	1/2"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"
33'	1/2"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"
50'	1/2"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"
66'	-	-	5/8"	5/8"	3/4"	3/4"	7/8"
82'	-	-	5/8"	5/8"	3/4"	3/4"	7/8"
98'	-	-	5/8"	5/8"	3/4"	7/8"	7/8"
115'	-	-	3/4"	3/4"	3/4"	7/8"	7/8"
131'	-	-	3/4"	3/4"	7/8"	7/8"	7/8"

Capacity Loss Multiplier

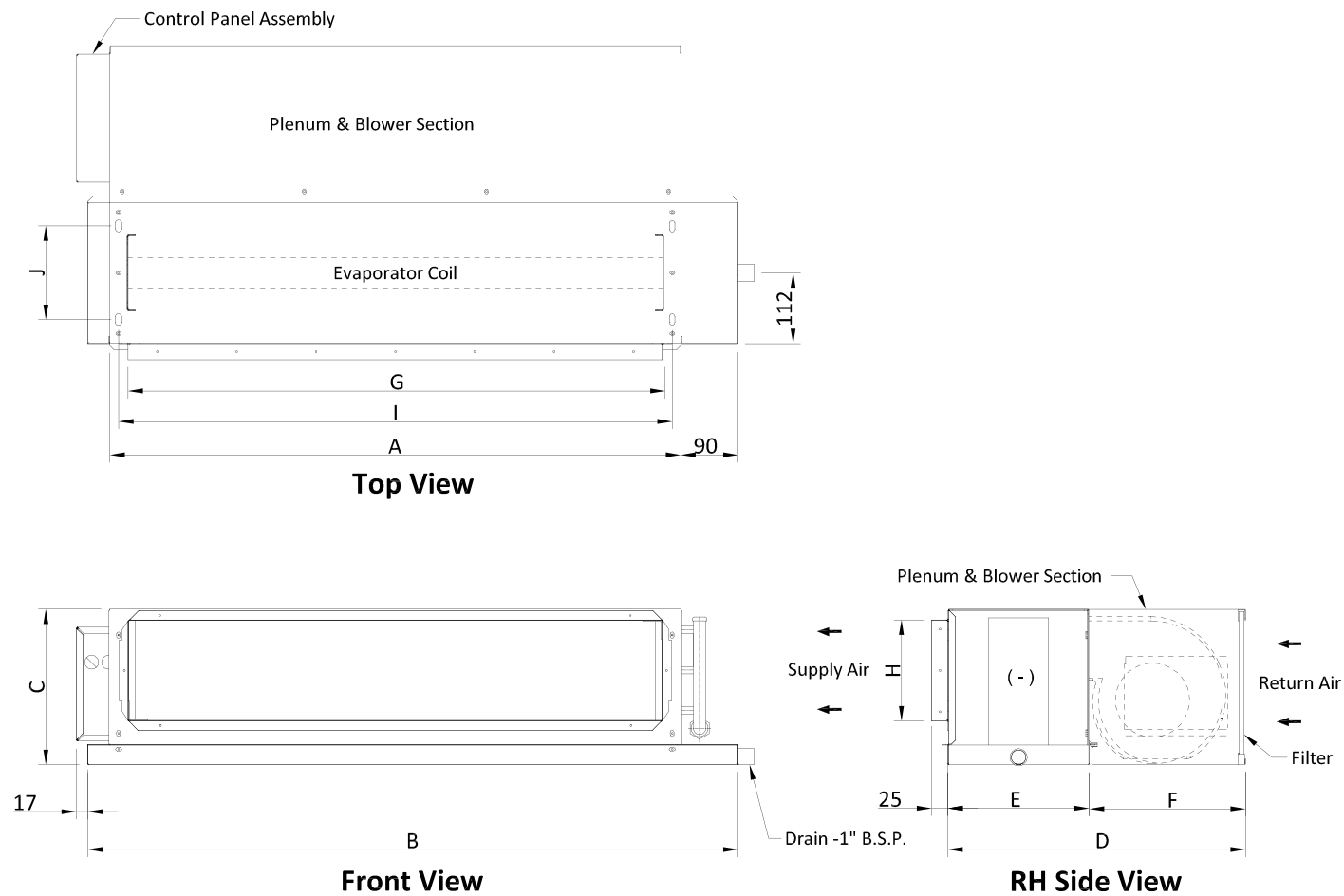
Equivalent Pipe Length (feet) (Vertical + Horizontal)	TDF-G06S TAC-G18D	TDF-G08S TAC-G24D	TDF-G10S TAC-G30D	TDF-G12S TAC-G36D	TDF-G14S TAC-G42D	TDF-G16S TAC-G48D	TDF-G20S TAC-G60D
16'	0	0	0	0	0	0	0
25'	0	0	0	0	0	0	0
33'	0.992	0.994	0.99	0.991	0.989	0.981	0.982
50'	0.984	0.982	0.982	0.988	0.982	0.979	0.978
66'	0.979	0.977	0.977	0.983	0.977	0.974	0.974
82'	0.974	0.972	0.972	0.978	0.972	0.969	0.971
98'	0.969	0.967	0.967	0.973	0.967	0.971	0.965
115'	0.964	0.963	0.972	0.978	0.963	0.969	0.961
131'	0.969	0.958	0.967	0.973	0.967	0.964	0.958

General Notes:

- Standard pipe size supplied by factory will be 16' (5m)
- For rotary compressor the total Equivalent length of piping is to be limited to 15 meters
- For Scroll compressor the total Equivalent length of piping is to be limited to 40 meters
- When the Outdoor unit is located above indoor unit, install a suction riser every 5 meters
- The capacity derating as per the performance chart applicable at various ambient temperatures
- The total length exceed more than 20 mts the following components to be installed at site
- Hard start kit (start capacitor and relay) must be installed on outdoor unit for single phase condensers
- Crankcase heater must be installed on compressors

Model: TDF-G06S1N6 / TDF-G08S1N6 / TDF-G10S1N6

Indoor Unit
Hide Away



Model	Dimensions (Inch)									
	A	B	C	D	E	F	G	H	I	J
TDF-G06S1N6 TDF-G08S1N6	35.4	40.4	9.6	18.5	8.8	9.7	33.1	6.3	34.3	5.8
TDF-G10S1N6	44.5	49.4	9.6	18.5	8.8	9.7	42.2	5.3	43.4	5.8

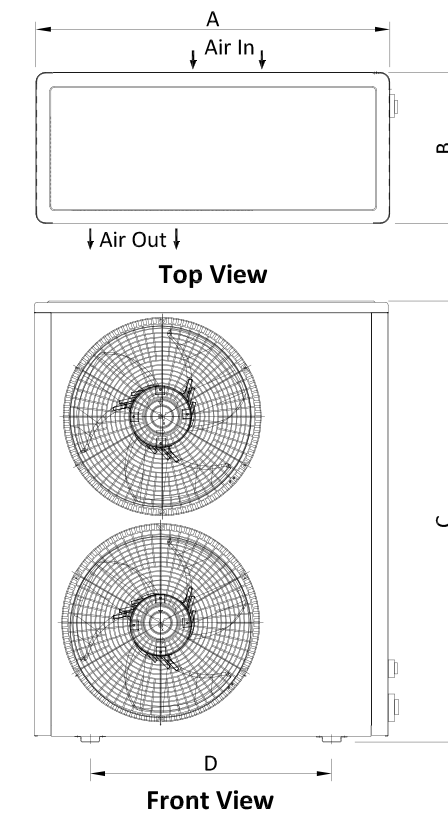
Model	Dimensions (mm)									
	A	B	C	D	E	F	G	H	I	J
TDF-G06S1N6 TDF-G08S1N6	900	1025	245	469	223	246	842	159	872	147
TDF-G10S1N6	1130	1255	245	469	223	246	1072	134	1102	147

Model: TAC-G36D1N6 / TAC-G42D1N5

Outdoor Unit - Side Discharge

Model	Dimensions (inch)			
	A	B	C	D
TAC-G36D1N6 TAC-G42D1N5	36.4	15.6	45.3	23.8

Model	Dimensions (mm)			
	A	B	C	D
TAC-G36D1N6 TAC-G42D1N5	925	395	1150	605

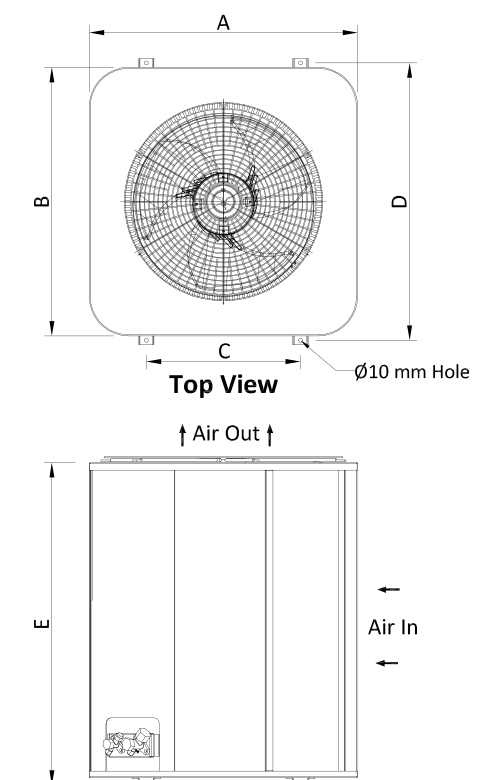


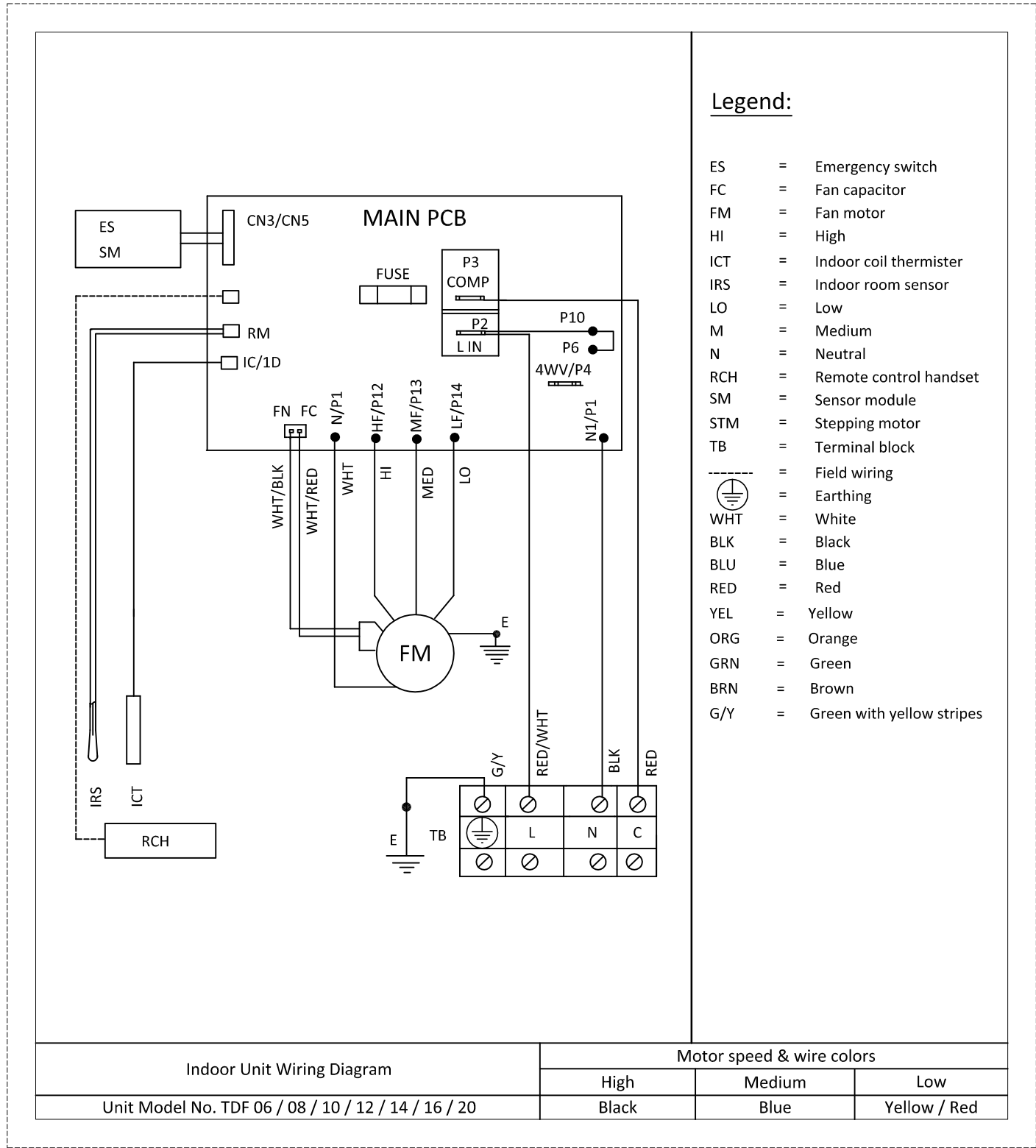
Model: TAC-G48D1N5 / TAC-G60D1N5

Outdoor Unit - Top Discharge

Model	Dimensions (inch)				
	A	B	C	D	E
TAC-G48D1N5 TAC-G60D1N5	30.1	30.1	19.1	31.9	32.7

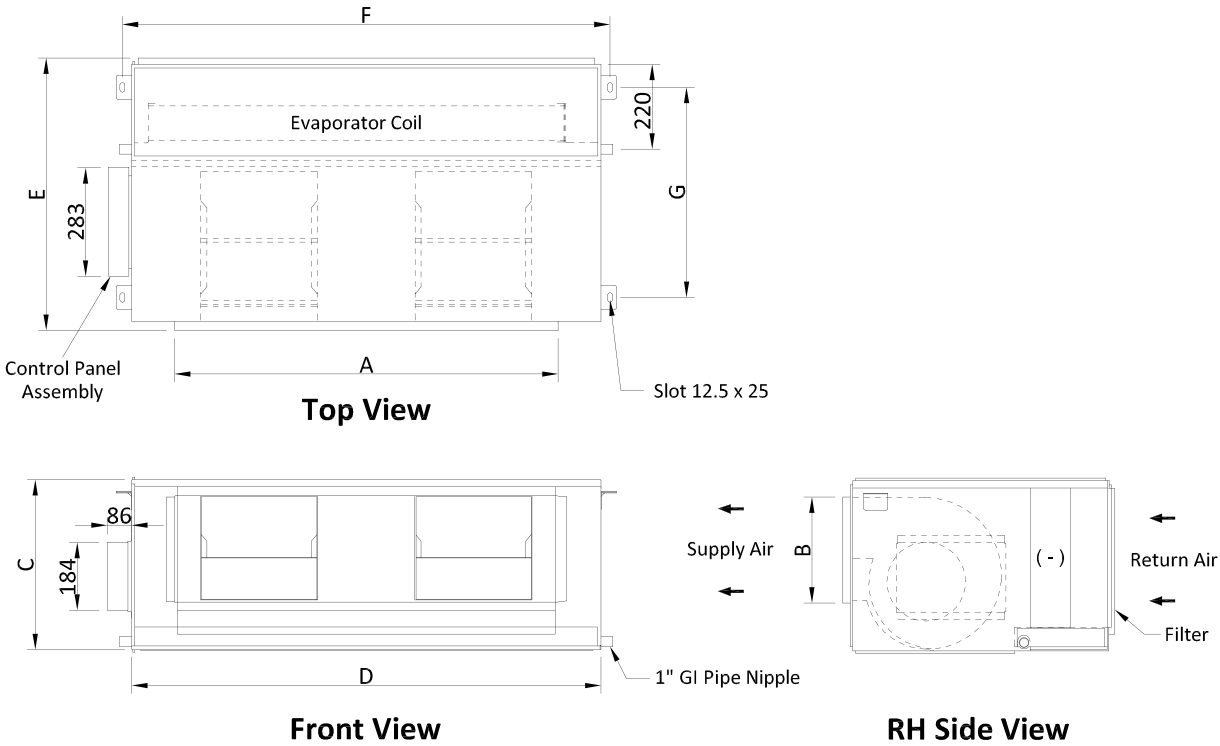
Model	Dimensions (mm)				
	A	B	C	D	E
TAC-G48D1N5 TAC-G60D1N5	765	765	485	810	830





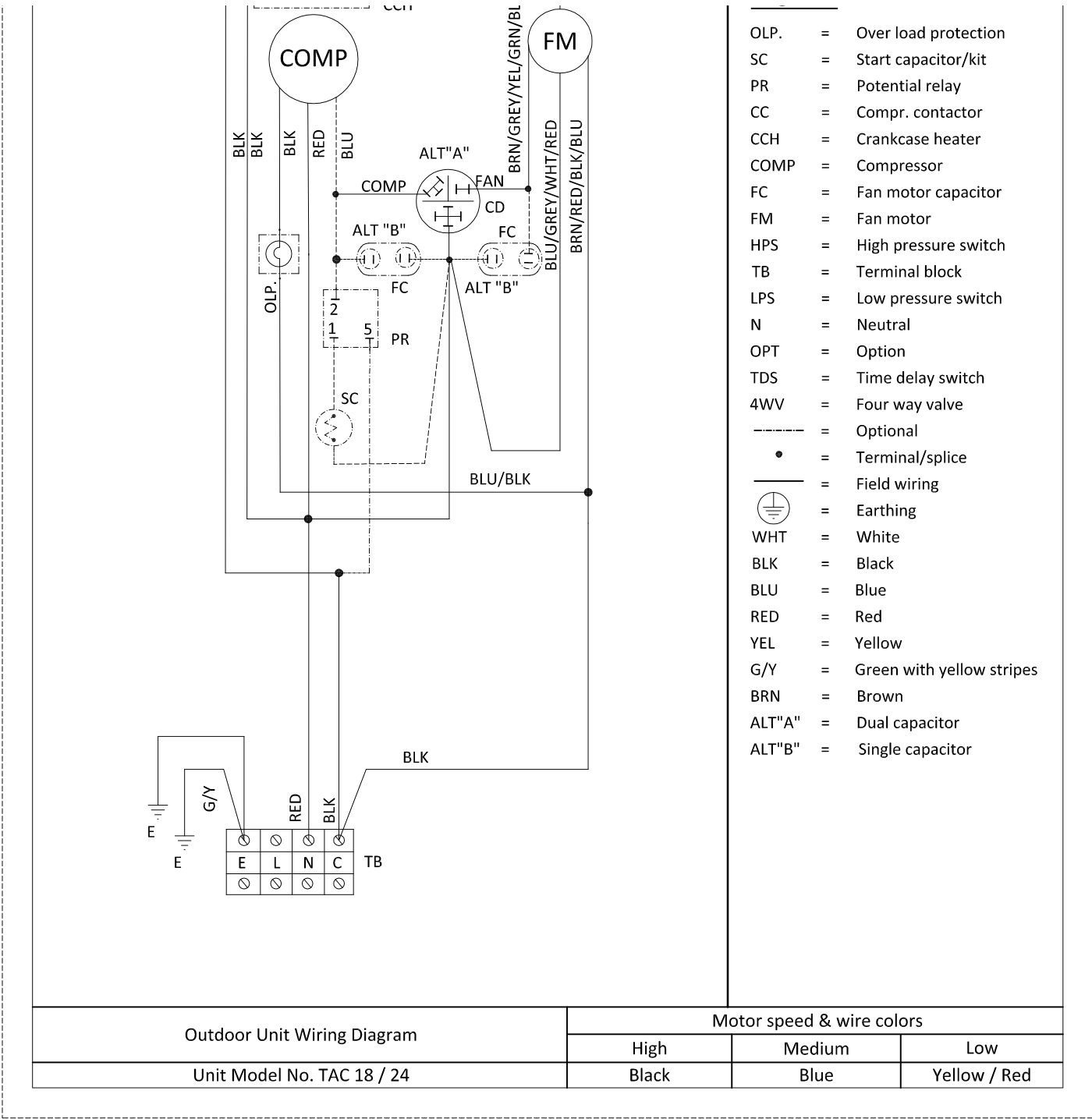
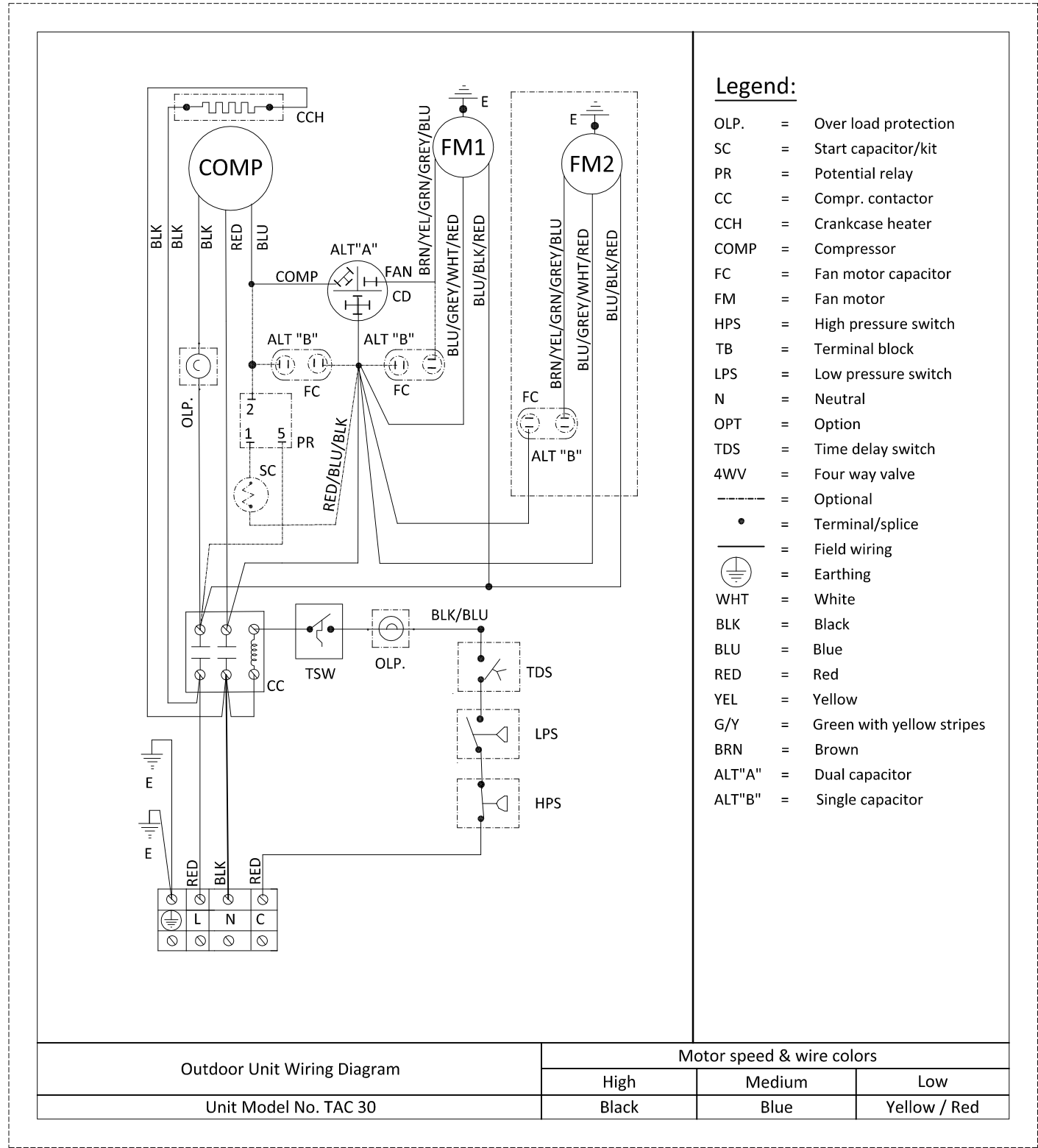
Model: TDF-G12S1N6 / TDF-G14S1N6 / TDF-G16S1N6 / TDF-G20S1N6

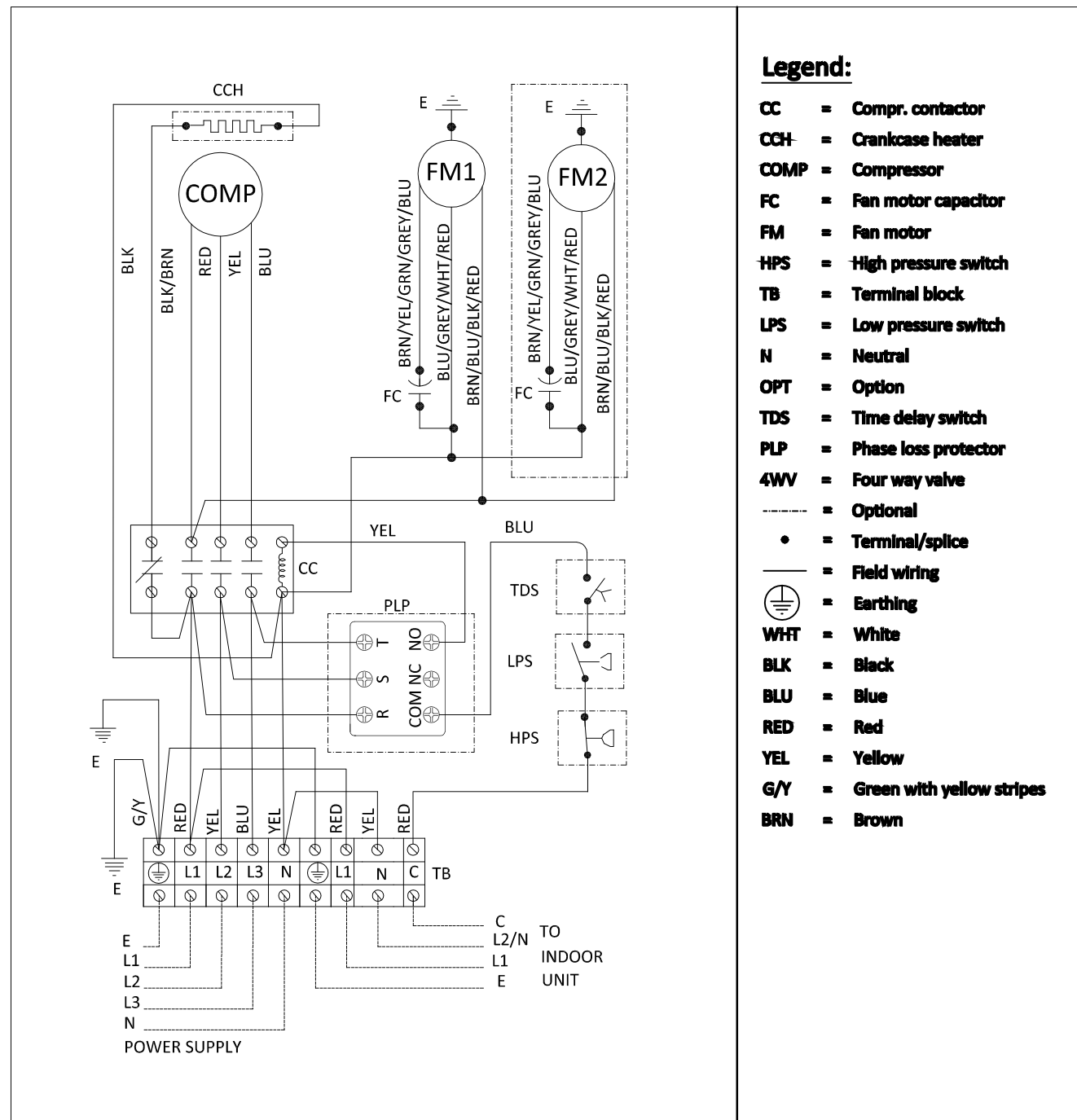
Indoor Unit
Hide Away



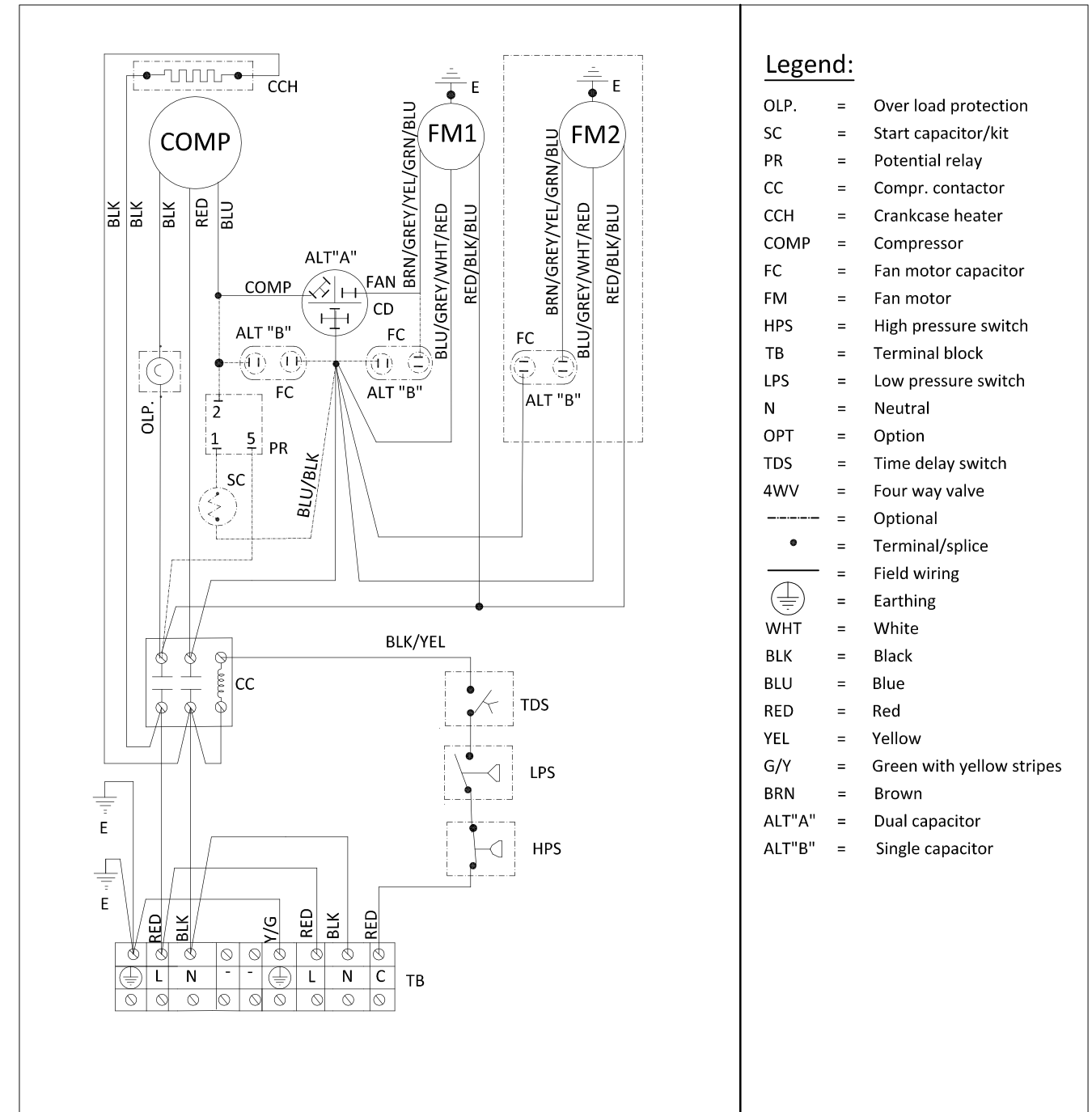
Model	Dimensions (inch)						
	A	B	C	D	E	F	G
TDF-G12S1N6	38.5	9.6	14.9	43.3	25.8	45.2	19.6
TDF-G14S1N6	38.5	9.6	14.9	43.3	25.8	45.2	19.6
TDF-G16S1N6	38.5	9.6	14.9	43.3	25.8	45.2	19.6
TDF-G20S1N6	38.7	10.7	17.1	47.2	27.4	49.1	21.1

Model	Dimensions (mm)						
	A	B	C	D	E	F	G
TDF-G12S1N6	978	243	378	1100	656	1147	497
TDF-G14S1N6	978	243	378	1100	656	1147	497
TDF-G16S1N6	978	243	378	1100	656	1147	497
TDF-G20S1N6	982	272	435	1200	696	1247	537





Outdoor Unit Wiring Diagram	Motor speed & wire colors		
	High	Medium	Low
Unit Model No. TAC 42 / 48 / 60	Black	Blue	Yellow / Red



Outdoor Unit Wiring Diagram	Motor speed & wire colors		
	High	Medium	Low
Unit Model No. TAC 36	Black	Blue	Yellow / Red

Indoor Unit:

Indoor units shall comprise of evaporator coil, fan motor assembly, synthetic washable filter and metering device. Units shall have a compact design and a low profile suitable for horizontal installation in most standard drop ceiling application thus providing flexibility in installation.

The fans shall operate at three different speeds of Low, Medium and High. Fan type shall be double inlet double width (DIDW) and of ABS material.

The motor provided shall be a single phase unit suitable for 220 - 240 Volts / 50 Hz. Unit shall be provided with factory assembled controls with a 220 – 240 Volts wired remote controller. Fan motor shall be internally thermal protected.

Evaporator coil shall be constructed of seamless inner grooved copper tube and corrugated aluminum fins for high efficiency and durability. Units shall be constructed with an advanced refrigerant circuitry, offering minimum pressure drop and delivering the best possible output. The metering device shall be a flowrator / thermostatic expansion valve (TXV)

Low density insulation provided in the units shall habilitate a quiet performance. The air compartment in the indoor unit shall be completely insulated with closed cell elastomeric insulation.

All units shall be completely factory wired with single point power input provided with knockouts for utility, main power supply and control connections. The units shall be leak tested at 600 PSI by electronic machines, piped, internally wired and shall have a holding charge of refrigerant R410a.

General:

Ducted Split Units shall be of high efficiency performance, being suitable for side and up flow installation on the roof or on the ground. Units shall be highly competent in performance and ideal for both commercial and residential application with whisper quiet operation. Units shall be designed to work up to 52°C (125.6°F) without tripping.

Outdoor Unit:

Outdoor units shall be designed and tested, conforming to AHRI Standards. Units shall be leak tested with electronic machines, piped, internally wired and fully charged with refrigerant , R407C or R22

Units shall be made from high quality, corrosion resistant galvanized steel casing and shall be powder coated for weather resistance and resilience. The galvanized steel sheets shall conform to ASTM-A525 and the powder coated panels shall be able to withstand 1000 hours as per ASTM-B117.

Compressors shall be highly efficient rotary / fully hermetic scroll with standard controls and safety devices. Higher capacity compressors shall be provided with crankcase heaters which warm oil and keeps in check attenuation by refrigerant. High pressure and low pressure controls shall be provided for units above 36,000 Btu/hr. Internal thermal overload protection shall be available with the compressor.

Condenser coils shall be constructed out of seamless inner grooved copper tube and aluminum corrugated fins mechanically bonded for maximum heat transfer. Coils shall be designed to have minimum pressure drop for refrigerant flow to induce the best output. Coils shall be factory pressure tested at 600 PSI.

Condenser fans shall be propeller type, direct drive draw through vertical discharge with fan guard mounted to the panel.

The outdoor units shall operate in electrical characteristics of 220 - 240 Volts / 50 Hz / 1Ø upto 36,000 Btu/hr and 380 - 415 Volts / 50Hz / 3Ø for capacities from 42,000 Btu/hr and above.



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