



SUBMITTAL DATA: DUCT12HP230V1BD 12000 BTU/H Slim Duct (HS) Heat Pump System

Job Name	Location	Date
Purchaser	Engineer	
Submitted To	For	
Unit Designation	Schedule No.	

YT1F / XK76 DUCT12HP230V1BD 3VIR12HP230V1AO



GENERAL FEATURES

- AHRI Certificate: [207201627](#)**
- High Efficiency DC Inverter Technology**
- Compact and Quiet Design**
- Slim Line Construction 11-7/8" high**
- High Static E.S.P Capability -Adjustable**
- Internal Condensate Drain Pump**
- Flexible Return Air From Bottom Or Rear**
- Wireless Remote with LCD Display Included**
- XK76 Wired Controller Included**
- Low Ambient Cooling down to -20°F (Range -20°F to 122°F)**
- Low Ambient Heating down to -22°F (Range -22°F to 86°F)**
- Coil (Indoor and Outdoor) Copper Tube / Aluminum Fin***
- * (Blue Fin) 500 Hrs Salt Spray Tested**

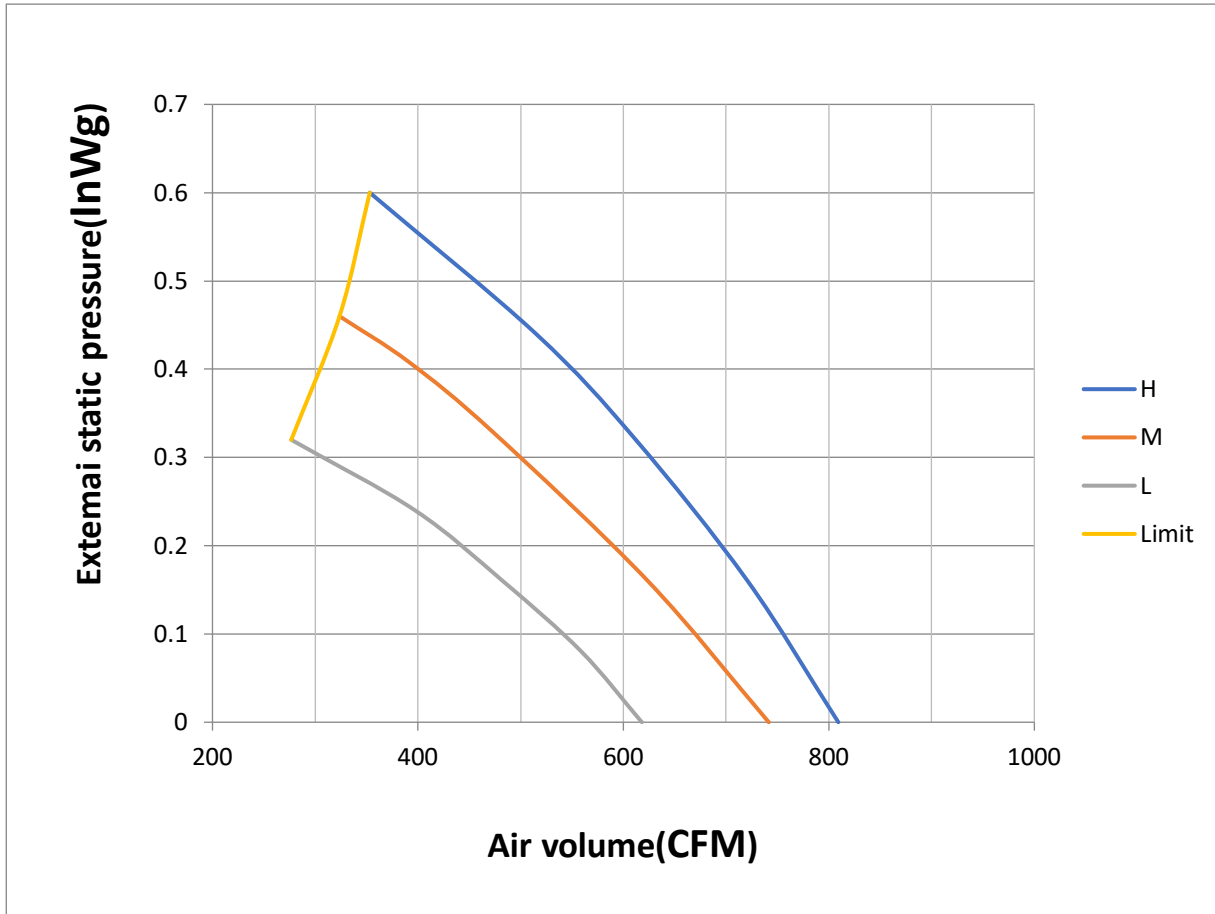
5 Year Limited Compressor & Parts Warranty (Residential Only)

SPECIFICATIONS

3VIR12HP230V1A0 / DUCT12HP230V1BD

System Type		HEAT PUMP	
SYSTEM PERFORMANCE			
Cooling	Rated Capacity @ 95°F	Btu/h	12000
	Min-Max Capacity	Btu/h	900 - 14100
Heating	Rated Capacity @ 47°F	Btu/h	12000
	Rated Capacity @ 17°F	Btu/h	6900
	Min-Max Capacity	Btu/h	900 - 15500
SEER / EER		20.5 / 11.8	
HSPF / COP		10.6 / 3.78	
Energy Star®		NO	
Cooling Temperature Range		°F	-20 - 122
Heating Temperature Range		°F	-22 - 86
INDOOR UNIT		DUCT12HP230V1BD	
Fan Motor Output Power		W	150
Fan Motor FLA		amps	0.4
Air Flow (Min - Max)		CFM	212 / 353
External Static Pressure		In W.c.	0.6
Sound Pressure Level (Cooling / Heating)		dB(A)	26 - 38
Dehumidification		pt/hr	3
Condensate Drain Size (OD)		in	1
Unit Dimension (WxHxD)		in	32 3/4 X 11 7/8 X 29 3/4
Package Dimension (WxHxD)		in	35 1/4 X 13 5/8 X 31 3/4
Weight (Net / Gross)		lbs	71 / 84
OUTDOOR UNIT		3VIR12HP230V1A0	
Compressor Type		G-10 / 1-Stage Inverter	
Compressor RLA		amps	6.6
Fan Motor Output Power		W	30
Fan Motor RLA		amps	0.37
Sound Pressure Level (Cooling / Heating)		dB(A)	52
Unit Dimension (WxHxD)		in	35 3/8 X 23 1/2 X 14 7/8
Package Dimension (WxHxD)		in	35 1/4 X 13 5/8 X 31 3/4
Weight (Net / Gross)		lbs	83.8/90.4
Refrigerant Charge - R410A		oz	47.3
Coil Type		Aluminum Fin / Copper Tube	
REFRIGERANT PIPING			
Line Set Size (Liquid - Gas)		in	1/4 - 1/2
Pre-Charge Length		ft	25
Pipe Length (Min - Max)		ft	10 / 66
Max. Pipe Elevation		ft	33
ELECTRICAL			
Power Supply (Voltage Operating Range)		208-230V / 1Ph / 60Hz	
Rated Current (Cooling / Heating)		amps	4 / 7.5
MCA / MOCP		amps	10 / 15
Main Power Wire Size		AWG	Size Per Local Code
Interconnecting Wire Size		AWG	14 / 4
LIMITED WARRANTY		5 Years Parts and Compressor - Residential	

Rated External Static Pressure - .2 InWc
 External Static Pressure Range- 0 - .4 InWc



Note:

During installation there are 9 dip switches in the control box used set static pressure from 0" to .4". You can select P01, P02, P03, P04, P05, P06, P07, P08, P09 in fan mode of indoor fan motor, which means different fan mode combinations are corresponding to different static pressure.

Ex-factory defaulted mode is P05. You can set the mode through wired controller. S01, S02,

EXTENDED RATINGS

DUCT12HP230V1BD

COOLING PERFORMANCE						HEATING PERFORMANCE					
Outdoor Ambient Temperature (DB)		Return Air Temperature				Outdoor Ambient Temperature (DB)		Return Air Temperature			
		80°F (DB)						70°F (DB)			
		TC (Btu/h)	SHR	EER	Power Input (W)			TC (Btu/h)	COP	Power Input (W)	
MAX OUTPUT	-20°F					MAX OUTPUT	-22°F				
	-15°F						-15°F				
	-10°F						-10°F	5460	1.51	1062	
	-5°F	5820	4210	3.24	526		-5°F	5760	1.57	1077	
	0°F	5980	4350	3.25	539		0°F	7800	2.09	1096	
	5°F	6230	4555	3.32	550		5°F	8990	2.36	1115	
	10°F	6400	4700	3.30	568		10°F	9590	2.61	1077	
	15°F	6550	4846	3.29	584		15°F	10140	2.77	1072	
	20°F	6900	5090	3.34	605		20°F	10800	3.11	1019	
	25°F	7200	5320	3.37	627		25°F	10910	3.23	989	
	30°F	7680	5722	3.41	661		30°F	11160	3.34	980	
	35°F	8020	6011	3.42	688		35°F	11280	3.46	955	
	40°F	8390	6300	3.44	715		40°F	11400	3.57	935	
	45°F	8760	6593	3.31	776		45°F	11760	3.63	951	
	50°F	9110	6885	3.19	836		47°F	11860	3.62	959	
	55°F	9420	7130	3.22	858		50°F	12000	3.63	970	
	60°F	9720	7387	3.24	880		55°F	12960	3.80	999	
	65°F	10360	7916	3.25	935		60°F	13800	3.93	1028	
	70°F	11040	8440	3.27	990		65°F	13200	3.65	1059	
	75°F	12110	9332	3.40	1045		70°F	12700	3.49	1067	
	80°F	12600	9735	3.48	1062		75°F	11880	3.23	1077	
	85°F	13070	10137	3.55	1079		80°F	11160	3.12	1048	
	90°F	12520	9720	3.37	1089		86°F	10340	2.91	1042	
	95°F	12000	9360	3.19	1101						
100°F	11390	8919	2.92	1144							
105°F	10800	8470	2.66	1188							
110°F	10420	8221	2.49	1228							
115°F	10040	7960	2.33	1265							
120°F	9450	7515	2.17	1275							
122°F	8870	7050	2.03	1280							

LEGEND: W - Watts
 DB - Dry Bulb
 TC - Total Capacity
 SHR - Sensible Heat Ratio
 COP - Coefficient of Performance

FEATURES & FUNCTIONS SUMMARY

3VIR12HP230V1AO / DUCT12HP230V1BD

SYSTEM FEATURES

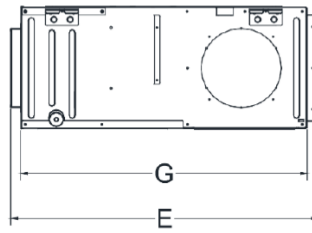
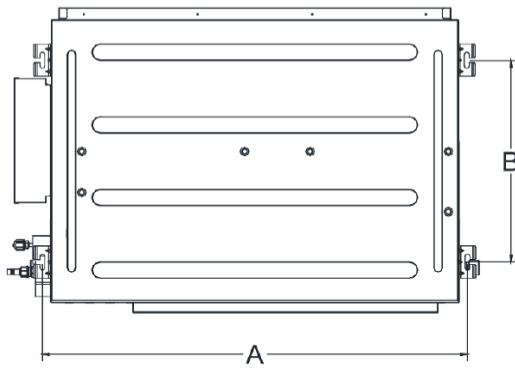
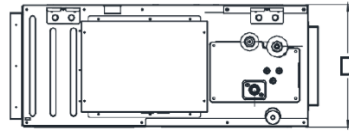
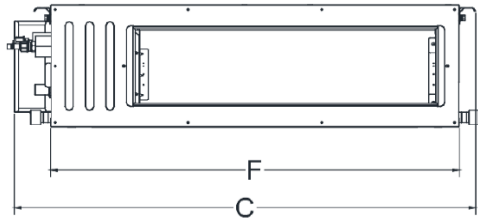
Inverter Type	G10
Ultra Low Frequency Torque Control	Yes
Power Factor Correction	Yes
Compressor Type	High Efficiency Rotary
Basepan With Electric Heater	Yes
Indoor & Outdoor Fin Coating	Yes
Intelligent Defrosting	Yes
Intelligent Preheating	Yes
Low Voltage Startup	Yes
Memory/Power Failure Recovery	Yes
Self Diagnosis	Yes
Wired Controller Interface	Yes
WiFi Included	No
Indoor Fan Type	Centrifugal
Multi Fan Speeds	4 Speeds
Indoor Unit Display	Yes
Auxiliary Electrical Heater	No
Ventilation (Outdoor Air)	Yes

REMOTE CONTROLLER FUNCTIONS

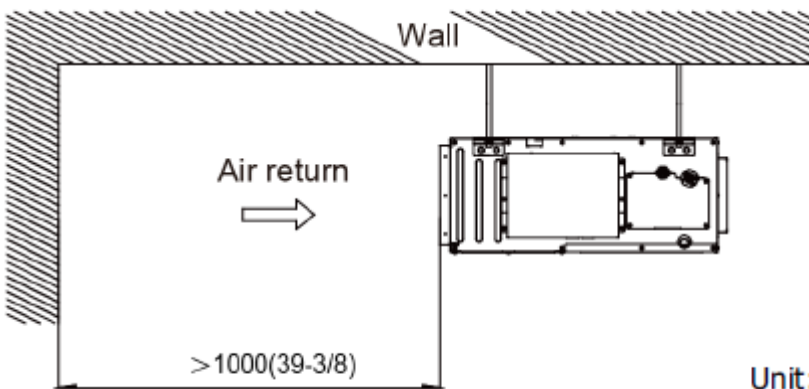
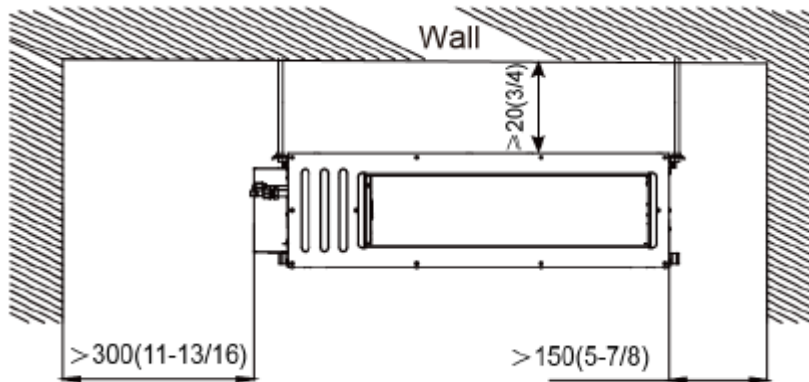
Auto Mode	Yes
Auto Fan	Yes
Auto Swing - (Horizontal Auto Swing)	No
Auto Swing - (Vertical Auto Swing)	No
Clock	Yes
Dry Mode	Yes
Dry Anti-Mildew (X-Fan) Mode	Yes
Energy Saving Mode	Yes
Dirty Filter Alert	No
Fan Speed Control (4 Speeds)	Yes
I Feel Function	Yes
Privacy Lock	Yes
Quiet Mode	Yes
Room Temperature Display	No
Sleep Mode (Normal Sleep)	Yes
4 Sleep Mode Options	No
Timer Mode	Yes
Turbo Mode	Yes
Display On/Off Control	No
Freeze Guard Mode	Yes
Power Failure Mode	Yes

DIMENSIONS & CLEARANCES

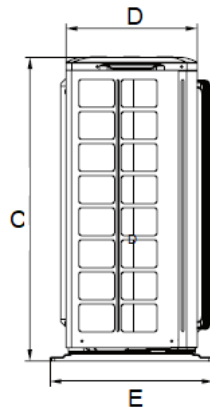
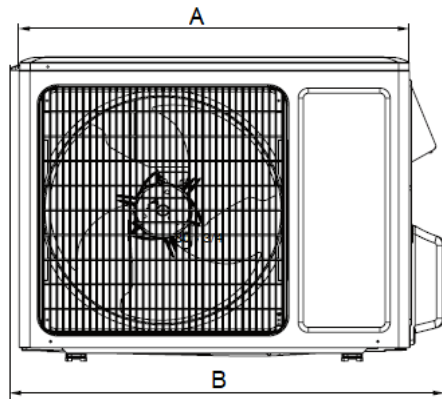
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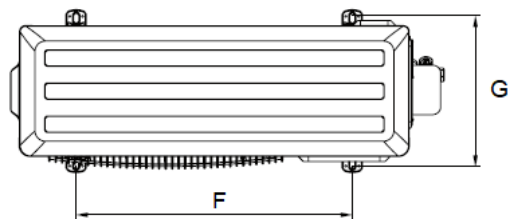
Dimensions	
A	29 18
B	19 3/4
C	32 3/4
D	11 7/8
E	29 3/4
F	27 5/8
G	28 5/8



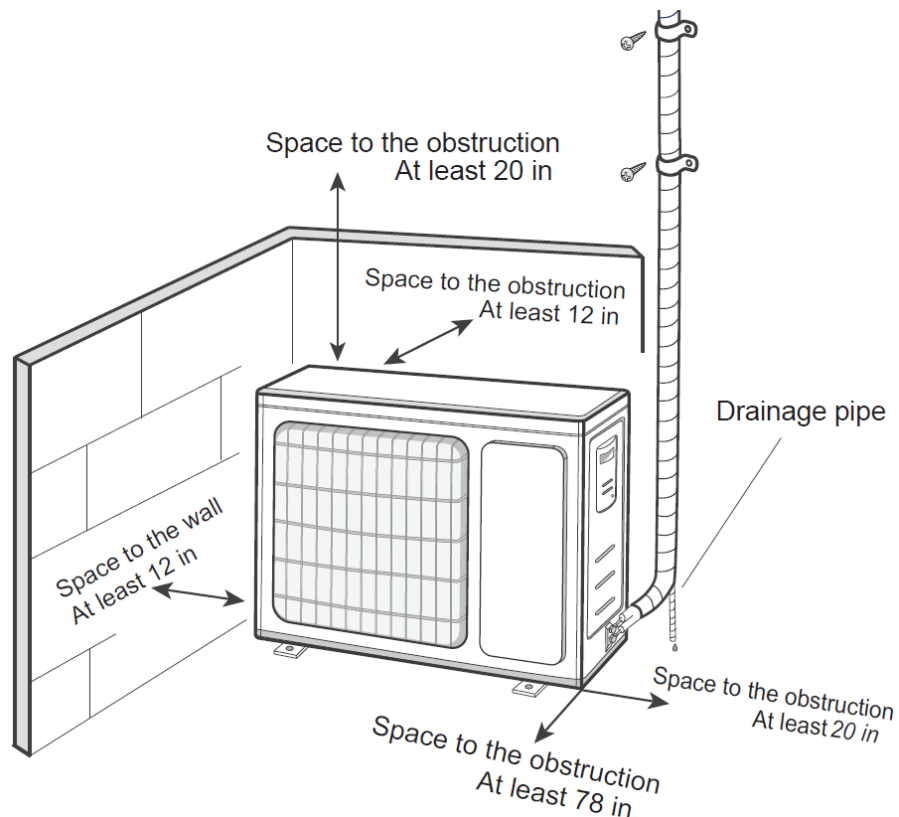
Unit: mm(in.)



Dimensions	
A	30 3/4
B	33 3/8
C	23 1/2
D	10 1/8
E	12 5/8
F	21 5/16
G	11 5/16



Unit:inch



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