

Certified Drawing --- Type: NYWC --- Date: Oct 2016 --- Applied Comfort Products Inc.

Applied Comfort Packaged Terminal Air Conditioner with Top-Mounted Hydronic Heat 16" x 42" Model NYWC Flat Top --- Size 7, 9, 12, 15, 17,000 Nominal Cooling --- R-410a

General Specifications

Equipment. – “NYWC” Series Packaged Terminal Air Conditioners (PTACs), as manufactured by Applied Comfort Products Inc.

Heating/Cooling Chassis. – Factory-assembled and tested, self-contained, complete air cooled refrigeration system with R-410A refrigerant and filled with oil, two low noise high-static pressure dual-inlet evaporator blowers, and one dual-inlet condensate blower with efficient condensate removal system (low-static cross-flow tangential fan designs are not acceptable). Optional manual fresh air damper or optional automatic damper. Hydronic heat has a 24V valve signal, with hydronic coil mounting via brackets to top of sleeve above chassis. Power cord exists from under right side. The unit complies with ASHRAE 15 and UL 484B. Surfaces in contact with the airstream comply with requirements in ASHRAE 62.1-2004.

Wall Sleeve – Industry standard 16" x 42", made of 1.3mm (18 gauge) galvanized, phosphatized, steel, to comply with US DOE requirements for new construction PTACs. Coated with electrostatically applied, baked on, industry standard beige urethane powder paint for maximum corrosion protection. Completely insulated. Smaller dimension wall sleeves are not acceptable under DOE regulations. Wall sleeves to be pitched at least ¼" to ensure drainage to the outside of the building envelope. Wall sleeves for masonry locations to be factory fabricated to match the full wall depth at each location; wall sleeves with field-installed extension pieces are not acceptable. Wall sleeves for panel wall locations are to be provided with optional adjustable-height support legs and galvanized steel sleeve support angles to attach to the building panel wall system.

Room Cabinet – Top discharge, flat-top, with stamped one-piece grille. Control access door on right side. Enclosure completely encloses controls and piping. 4" nominal height, black kickplate adjustable from 3" to 5". Front panel is removable with use of tools to provide full access to filters and cooling unit. Made of 1.3mm (18 gauge) phosphatized steel. Coated with electrostatically applied, baked on, industry standard beige urethane powder paint. Surfaces in contact with the airstream comply with requirements in ASHRAE 62.1-2004.

Louvers – Exterior louver to be horizontal, architectural type extruded aluminum with silver powder-coating baked on. Louver must be capable of being installed from within the wall sleeve. Louvers at panel wall locations to be supplied by others.

Power Cord/Source – 230-208V and 115v units to be supplied with LCDI power cords. 277V to be supplied with non-LCDI power cords. Standby-Power chassis will have separate 115V and 230-208V entering electrical services, or separate 115V and 277V entering electrical services, hard-wired to a proprietary connection system using a locking 4-pole grounded receptacle and armoured cable/plug assembly.

Power Air Damper for Fresh Air (optional) – An optional power motorized door for fresh air opens when evaporator blowers are energized, and automatically closes when the evaporator blower is not energized.

Refrigeration System -- Direct expansion indoor coil with capillary restrictor; and rotary compressor with vibration isolation and overload protection.

Indoor and Outdoor Coils -- Seamless copper tubes mechanically expanded into aluminum fins.

Charge – Unit with R410A. R22 and R407 are not acceptable.

Evaporator Fan: One direct drive, dual-shaft with permanent split capacitor two-speed motor. The evaporator fan consists of two centrifugal dual-inlet blower type with high-static characteristics. (tangential fans are not acceptable).

Condenser Fans: One direct drive with permanent split capacitor two-speed motor. The condenser fan is a centrifugal dual-inlet blower type, with positive condensate pickup in blower housing, and evaporation against condenser coil. The blower housing is phosphatized powder-coated for durability. (propeller fans with slinger rings are not acceptable)

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Filters – A permanent washable aluminum weave filter in a durable aluminum frame is supplied with each unit. Optional pleated MERV13 filters are available.

Condensate Drain -- Drain pan to direct condensate to outdoor coil for re-evaporation. Drain pan complies with ASHREA 62.1-2004 for construction and connections. Optional drain kit allows for industry standard connection to indoor or outdoor drains.

Heating Assembly (hydronic heat) – Heating Assembly to consist of a snap-in galvanized steel cradle and heating coil, with optional (Normally Open) (Normally Closed) motorized heating control valve. Motorized to be field supplied, and to be actuated by the chassis thermostat. Heating coil to be fabricated of copper tubing, mechanically expanded into aluminum fins. Steam coils are to be headered type // Hot Water coil to be serpentine type. Coils to be supplied either right- or left-handed in quantities specified in the building plans. Entire heat assembly to be permanently mounted onto the wall sleeve horizontally above cooling chassis and to have proper pitch built into the cradle assembly to ensure correct drainage of condensate water towards the return line in steam systems. Supply of all required valves and fittings, including the motorized valve, is by others.

Digital Touchpad Control – The NYWC Digital Control is used to control the integral air conditioner and heat source via a touchpad, or optional remote 24-volt wall mounted thermostats. Unit-mounted digital panel with touchpad temperature control and with touchpad for heating, cooling, and fan operation. Includes the following features:

- Low Ambient Lockout Control: Prevent cooling-cycle operation below 5 degrees C (40 degrees F) outdoor air temperature.
- Temperature-Limit Control: Prevent occupant from exceeding preset, setback, or setup temperature.
- Remote Control Ready: -- molex with standard 7-wire lead connection to wireless or wired thermostats. Chassis can be enslaved to external control by a change of DIP-switch setting.

Sound-Power Level Ratings -- OITC sound rating test performed by ETL labs (Intertek Labs USA) to comply with ARI 300 standards.

Unit Performance Ratings -- Factory test according to AHRI 310/380/CSA C744, "Packaged Terminal Air-Conditioners and Heat Pumps." 3rd Party energy performance verification tests to be conducted by ETL labs.

Warranty – Unit to be guaranteed free of defects in material and workmanship for one year from date of delivery. Compressor parts warranty is supplied as part of standard warranty for additional 2nd through 6th year.

Test Data – All Test Data is Verified by ETL labs – All Test Data is chassis performance with hydronic coils in place. **Performance (Btuh & EER) test data MUST BE generated using chassis with COIL-IN-PLACE (data supplied from free-flow without coil-in-place is not acceptable), and verified for energy performance by 3rd party labs (ie. ETL).**

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16" x 42" Model NYWC Flat Top --- Size 7, 9, 12, 15, 17,000 Nominal Cooling --- R-410a

NYWC Air Conditioner for use with TOP-MOUNTED Hydronic Heat Coil -- Separate Room Cabinet

CORD CONNECTED with LCDI Cord.

Model	Voltage	Hz	Min. Circuit Amps	MOP Fuse Amps	Electrical Plug (NEMA)	Cooling					Resistance Heat			Indoor CFM HIGH*	Indoor CFM LOW*	Vent CFM	Net Wt. lbs.	Ship Wt. lbs.
						BTU/Hr.	EER	Amps	S/T	Pts./hr.	BTU/Hr.	kW	Amps					
NYWC07L00E7	115	60	8.3	15	#5-20P	7000	11.5	6.4	0.83	1.1	N/A	N/A	N/A	310	265	90	118	126
NYWC09L00E7	"	"	11.9	"	"	9600	11.3	8.4	0.73	2.2	N/A	N/A	N/A	"	"	"	"	"
NYWC12L00E7	"	"	16.3	20	"	12600	10.6	12	0.7	3.4	N/A	N/A	N/A	360	310	"	"	"
NYWC07K00E7	230 - 208	"	4.1	15	#6-20P	7000	11.5	3.2/3.4	0.83	1.1	N/A	N/A	N/A	325/300	290/250	"	"	"
NYWC09K00E7	"	"	5.7	"	"	9600	11.3	4.2/4.4	0.73	2.2	N/A	N/A	N/A	"	"	"	"	"
NYWC12K00E7	"	"	8.1	"	"	12600	10.6	6.0/6.2	0.7	3.4	N/A	N/A	N/A	370/350	325/300	"	"	"
NYWC15K00E7	"	"	9.9	"	"	14800	9.8	7.5/7.7	0.66	4.5	N/A	N/A	N/A	"	"	"	"	"
NYWC17K00E7	"	"	12.2	"	"	16100	8.4	9.2/9.4	0.65	5.0	N/A	N/A	N/A	420/410	380/360	"	"	"

NOTE: Chassis can be built with 15Amp cords (NEMA#5-15P for 115V; #6-15P for 208-230V) as special order for models with MOP fuse amps listed above as 15.

Non-LCDI Cord plugs into hard-wired receptacle in Subbase.

Model	Voltage	Hz	Min. Circuit Amps	MOP Fuse Amps	Electrical Plug (NEMA)	Cooling					Resistance Heat			Indoor CFM HIGH*	Indoor CFM LOW*	Vent CFM	Net Wt. lbs.	Ship Wt. lbs.
						BTU/Hr.	EER	Amps	S/T	Pts./hr.	BTU/Hr.	kW	Amps					
NYWC07R00E2	277	"	3.7	15	#7-20P	7000	11.5	3	0.88	0.8	N/A	N/A	N/A	360	310	90	118	126
NYWC09R00E2	"	"	5.4	"	"	9600	11.3	4	0.77	1.9	N/A	N/A	N/A	"	"	"	"	"
NYWC12R00E2	"	"	7.2	"	"	12600	10.6	5.3	0.72	3.4	N/A	N/A	N/A	"	"	"	"	"
NYWC15R00E2	"	"	8.8	"	"	14800	9.8	6.6	0.66	4.5	N/A	N/A	N/A	"	"	"	"	"
NYWC17R00E2	"	"	10.4	"	"	16100	8.4	8.1	0.65	5.0	N/A	N/A	N/A	410	370	"	"	"

STANDBY POWER. Separate 115V and 230-208V entering electrical services, or Separate 115V and 277V entering electrical services hard-wired to a proprietary connection system using a locking 4-pole grounded receptacle and armoured cable/plug assembly.

Model	Voltage	Hz	Min. Circuit Amps	MOP Fuse Amps	Electrical Plug (NEMA)	Cooling					Resistance Heat			Indoor CFM HIGH*	Indoor CFM LOW*	Vent CFM	Net Wt. lbs.	Ship Wt. lbs.
						BTU/Hr.	EER	Amps	S/T	Pts./hr.	BTU/Hr.	kW	Amps					
NYWC07S00E0	115	"	1.1	15	N/A	7000	11.5	0.9	0.83	1.1	N/A	N/A	N/A	310	265	"	"	"
	230 - 208		4.1					2.8/3.0										
NYWC09S00E0	115	"	1.1	15	N/A	9600	11.3	0.9	0.73	2.2	N/A	N/A	N/A	360	310	"	"	"
	230 - 208		5.3					3.8/4.0										
NYWC12S00E0	115	"	1.1	15	N/A	12600	10.6	0.9	0.7	3.4	N/A	N/A	N/A	360	310	"	"	"
	230 - 208		7.8					5.6/5.8										
NYWC15S00E0	115	"	1.1	15	N/A	14800	9.8	0.9	0.66	4.5	N/A	N/A	N/A	360	310	"	"	"
	230 - 208		9.6					7.1/7.3										
NYWC17S00E0	115	"	1.2	15	N/A	16100	8.4	1	0.65	5.0	N/A	N/A	N/A	410	370	"	"	"
	230 - 208		11.7					8.8/9.0										
NYWC07U00E0	115	"	1.1	15	N/A	7000	11.5	0.9	0.83	1.1	N/A	N/A	N/A	360	310	"	"	"
	277		3.4					3										
NYWC09U00E0	115	"	1.1	15	N/A	9600	11.3	0.9	0.73	2.2	N/A	N/A	N/A	360	310	"	"	"
	277		5					3.7										
NYWC12U00E0	115	"	1.1	15	N/A	12600	10.6	0.9	0.7	3.4	N/A	N/A	N/A	360	310	"	"	"
	277		6.8					5										
NYWC15U00E0	115	"	1.1	15	N/A	14800	9.8	0.9	0.66	4.5	N/A	N/A	N/A	360	310	"	"	"
	277		8.4					6.3										
NYWC17U00E0	115	"	1.2	15	N/A	16100	8.4	1	0.65	5.0	N/A	N/A	N/A	410	370	"	"	"
	277		9.9					7.8										

*Time Delay Fuse or HCAR Circuit Breaker --- *Dry Coil

Hydronic Heat Performance

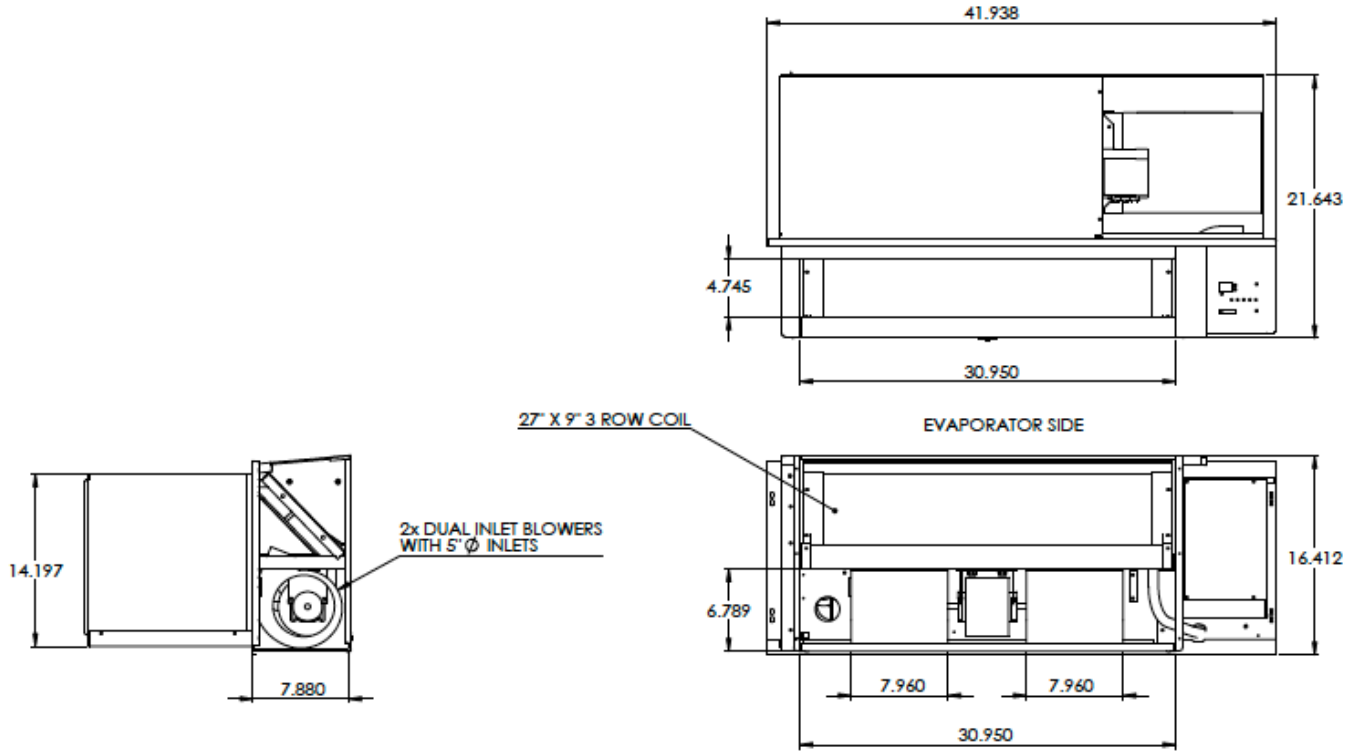
Model	Voltage	Hz	Hot Water Heat HIGH SPEED	Hot Water Heat LOW SPEED	Water Flow Rate	Coil Pressure Drop (HIGH SPEED)	Steam Heat HIGH SPEED	Steam Heat LOW SPEED	Steam Pressure Drop	Heating Current
			BTU/Hr.	BTU/Hr.	USGPM	Ft of Water	BTU/Hr.	BTU/Hr.	psi	Amps
NYWC07L	115	60	16500	15500	1.7	3.0	19900	18600	0.13	<1
NYWC09L, 12L	"	"	17800	16700	1.8	3.4	21400	19600	"	"
NYWC07	230 - 208	"	16900/16300	16100/15100	1.8 - 1.7	3.1 - 2.9	20400/19600	19400/18100	"	"
NYWC09K, 12K, 15K			18100/17600	17100/16500	1.9 - 1.8	3.5 - 3.3	21600/21100	20400/19600	"	"
NYWC17K			18900/18400	18100/17500	2.0 - 1.9	3.6 - 3.5	22500/22300	21700/21200	"	"
NYWC07R, 09R, 12R, 15R	277	"	17800	16700	1.8	3.4	21400	19900	"	"
NYWC17R			18600	18000	1.9	3.9	22400	21300	"	"
NYWC07S, 09S, 12S, 15S	115	"	18100	17100	1.9	3.5	21600	20400	"	"
NYWC17S	230-208	"	18900	18100	2.0	3.6	22500	21700	"	"
	115	"	18100	17100	1.8	3.4	21400	19900	"	"
NYWC07U, 09U, 12U, 15U	277	"	18600	18000	1.9	3.9	22400	21300	"	"
NYWC17U	115	"	18600	18000	1.9	3.9	22400	21300	"	"
	277	"	18600	18000	1.9	3.9	22400	21300	"	"

Cooling performance is rated in accordance with ASHRAE/AHRI Standard 310/380 and tested with **HYDRONIC COIL IN PLACE**. Maximum Steam Pressure: 2 psig --- Steam ratings based on 70°F entering air, and 2 psig steam pressure with heat output automatically adjusting for blower speed. Maximum Water Temperature: 210°F --- HIGH SPEED Water ratings based on ASHRAE/AHRI conditions of 70°F entering air, 200°F entering water and 180°F leaving water temperatures. LOW SPEED Water ratings based on water flow rate set for HIGH SPEED rating condition operating point.

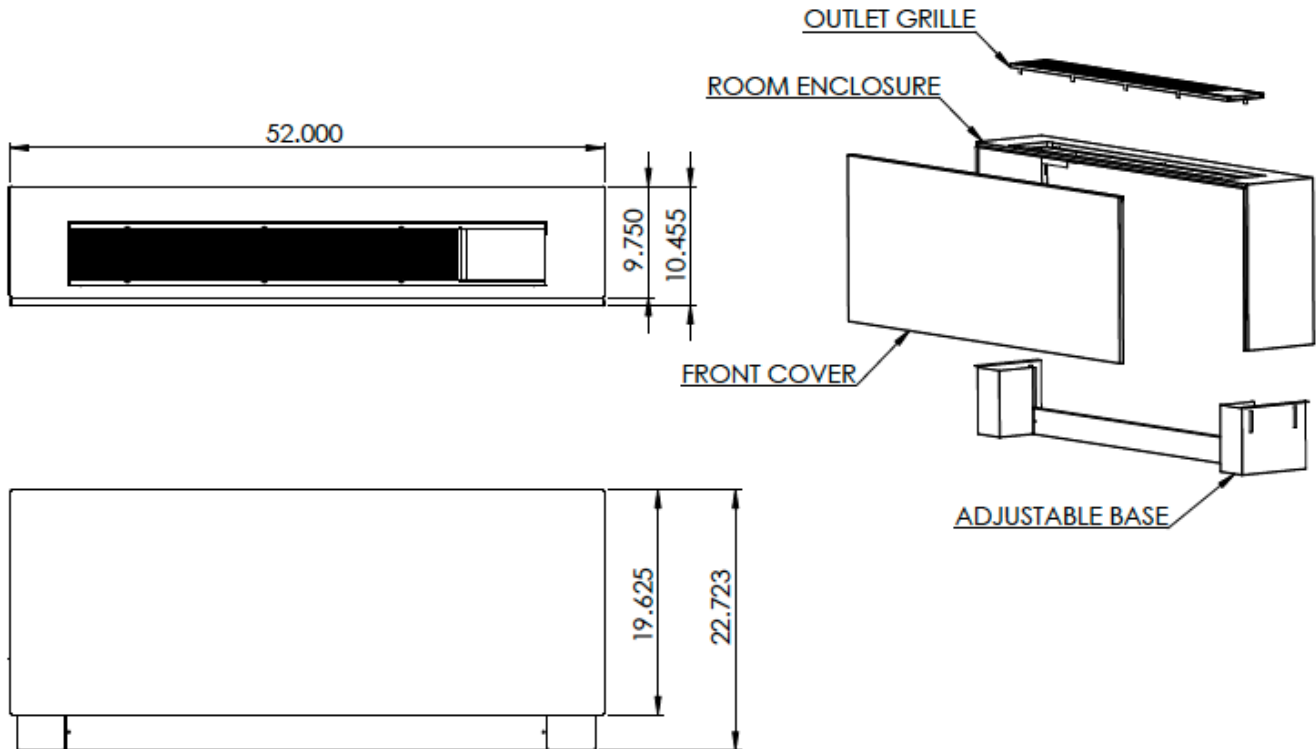
Maximum Output to Valve: 25 VA or 24 VAC.

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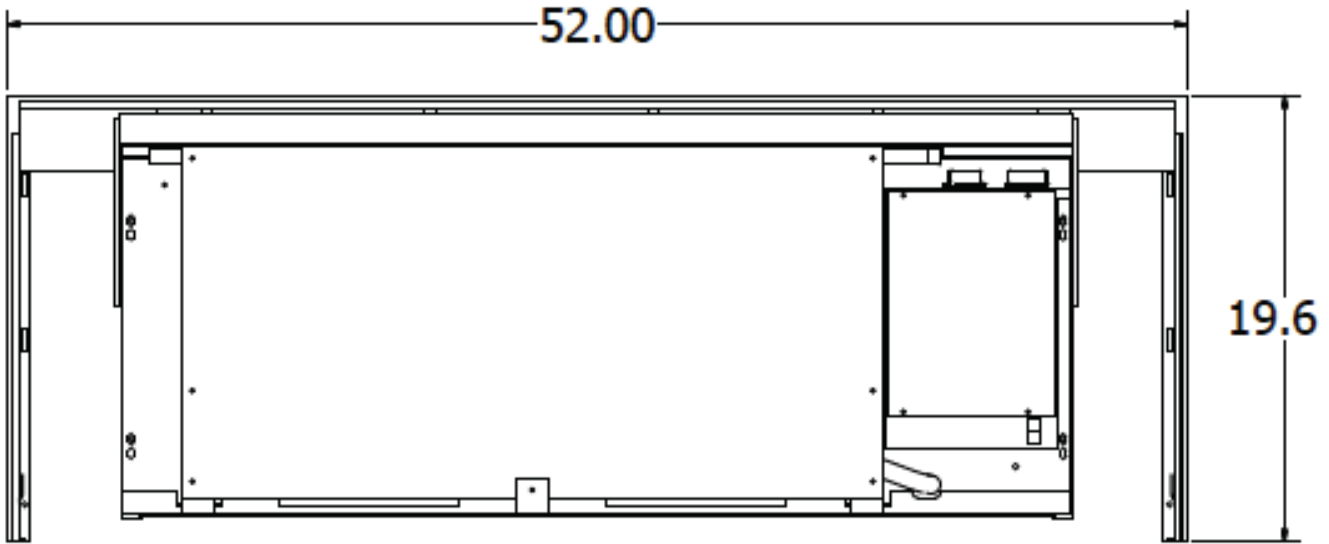
Dimensional Data - Chassis



Unit Dimensions - Wall Sleeve, Cabinet

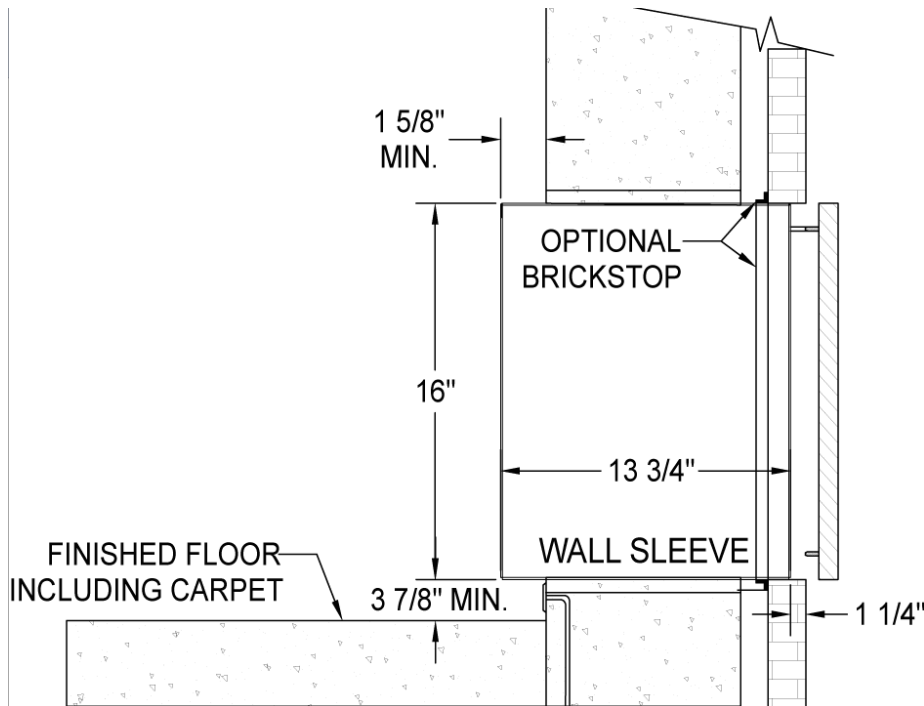


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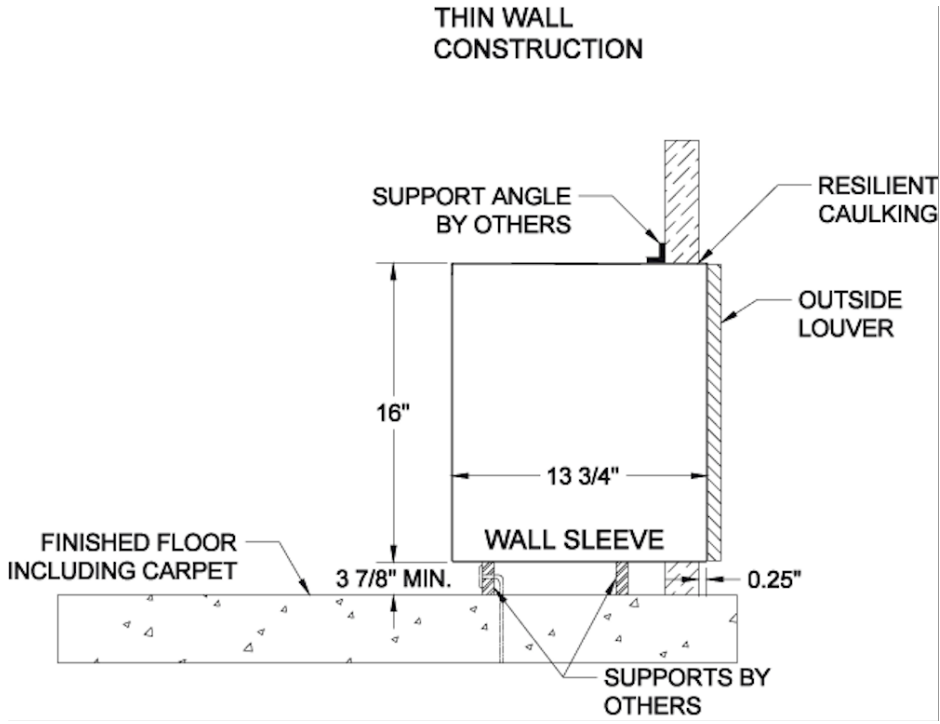


Unit Dimensions - Wall Profile

NOTE: Sleeve must be installed a minimum of 3 7/8" off the floor.

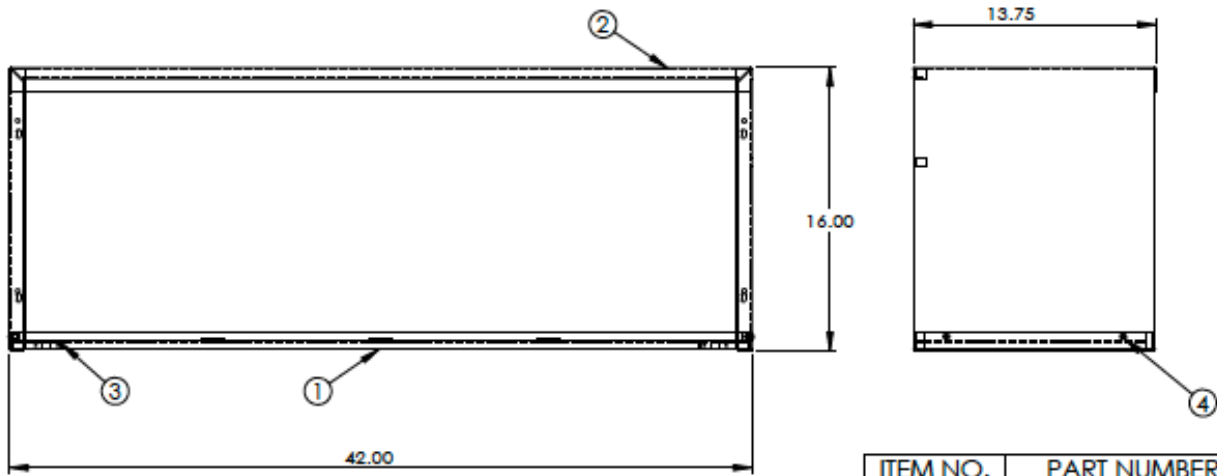


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Unit Dimensions - Sleeve

NOTE: Sleeve must be installed a minimum of 3 7/8" off the floor.

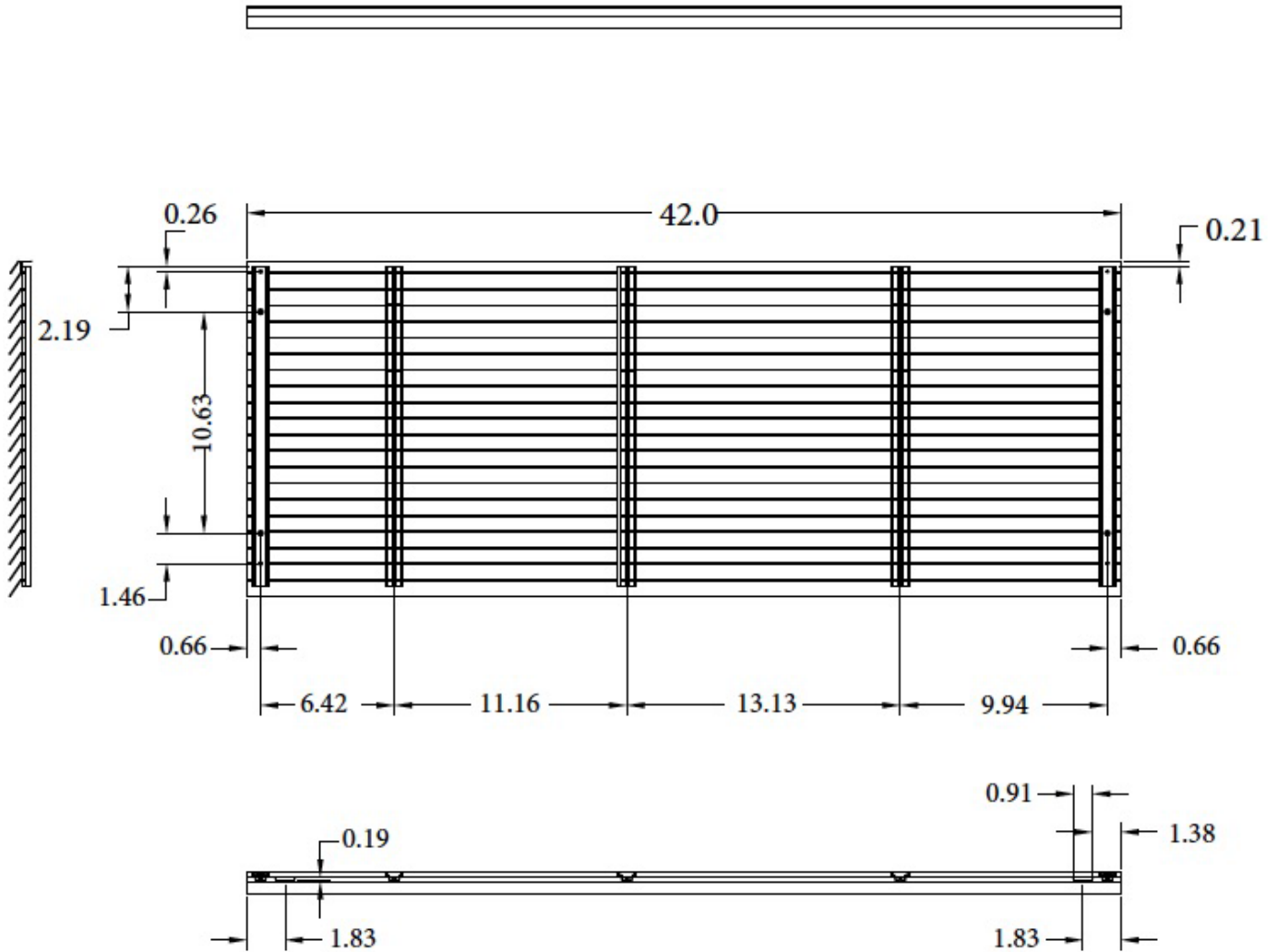


ITEM NO.	PART NUMBER	QTY.
1	802820	1
2	802822	1
3	802821	2
4	85589 SM SCREW	4

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Unit Dimensions - Architectural Grille

Part#: ACC42AAGRILLE-SILVER [Extruded Aluminum 6063-T5; Powder-coated Silver]
 Part#: ACC42AAGRILLE-CUSTOMCOLOR [Extruded Aluminum 6063-T5; Powder-coated Custom Color]



Physical Data

Heating/Cooling Chassis

Size Nominal 7000//9000//12000//15000//17000Btuh.....130//130//132//136//136lbs

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Wiring Diagram

