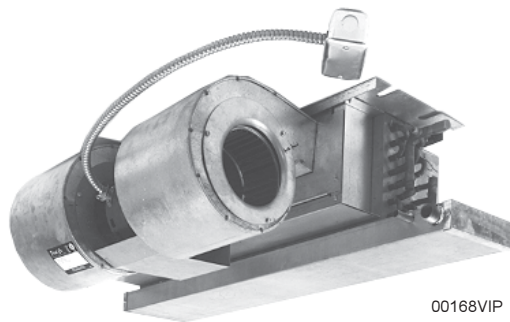




# DIRECT-DRIVE HORIZONTAL FAN COIL AIR CONDITIONERS ENGINEERING GUIDE

Models: YHBC, YPHBC, YRHBC, YCHBC  
YHH, YHHS, YPHH, YPHHS  
High Capacity Models: YHYB, YPHYB  
Ceiling Panel Access: RHH



Capacities from 200-2100 CFM  
(1/2 to 5 Tons)



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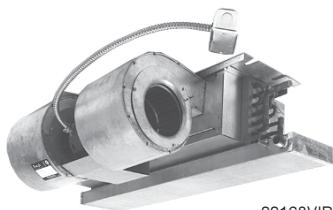
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<b>YPHBC</b> Ceiling Concealed Model with Insulated Return Plenum and Filter	<b>YPHBC</b>
<b>YRHBC</b> Telescoping / Recessed Ceiling Model	<b>YRHBC</b>
<b>YCHBC</b> Ceiling Cabinet Model	<b>YCHBC</b>
<b>Y*HBC COMMON DATA</b>	<b>Y*HBC COMMON DATA</b>
<b>YHH</b> Ceiling Concealed Model with Electric Heat	<b>YHH</b>
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<b>Y*HH COMMON DATA</b>	<b>Y*HH COMMON DATA</b>
<b>YHYB</b> High Capacity Ceiling Concealed Model	<b>YHYB</b>
<b>YPHYB</b> High Capacity Ceiling Concealed Model with Insulated Return Plenum and Filter	<b>YPHYB</b>
<b>Y*HYB COMMON DATA</b>	<b>Y*HYB COMMON DATA</b>
<b>OTHER INFORMATION</b> Valve Package, Accessories, Guide Specifications, Correction Factors	<b>OTHER INFORMATION</b>

# Description

## YORK DIRECT DRIVE FAN COIL UNITS

The YORK fan coil units are designed with the customer in mind. The modular construction allows for a wide variety of options and accessories to be available in all models. This aids in incorporating the YORK fan coil unit into your plan for hotels, apartments, dormitories and office buildings.

YHBC



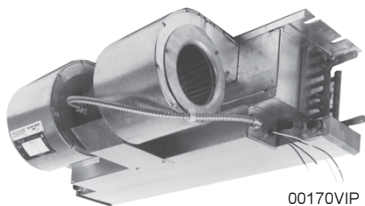
00168VIP

### MODEL YHBC – Ceiling Concealed Model

The **YHBC** model fan coil is designed for a fully concealed ceiling space. The unit is constructed of sturdy galvanized steel. Closed cell foam is used to coat the drain pan to prevent any sweating or corrosion. Duct collar, steel fan wheels and control junction box are standard.

An optional ceiling mounted access / return air panel is available for this model.

YHH



00170VIP

### MODEL YHH – Ceiling Concealed Model with Electric Heat

The **YHH** model fan coil is designed for fully concealed ceiling space. The product is designed for a 2-pipe system requiring electric heat for designs that require heating and cooling with the first cost similar to a 2-pipe chilled-water system. Voltages from 208 to 277 volt have a single-point power supply connection. This model is particularly well suited for hotel applications.

An optional ceiling mounted access / return air panel is available for this model.

YPHBC



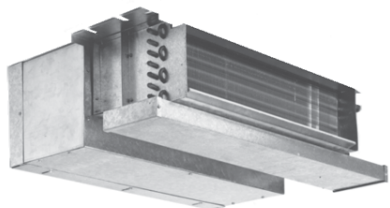
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### MODEL YPHBC – Ceiling Concealed Model with Insulated Return Plenum and Filter

The **YPHBC** model fan coil is the **YHBC** model with the addition of an insulated plenum and filter. Flanges are provided for supply and return air ducting. The insulated plenum is field convertible from rear to bottom return air.

An optional ceiling mounted access / return air panel is available for this model.

YPHH



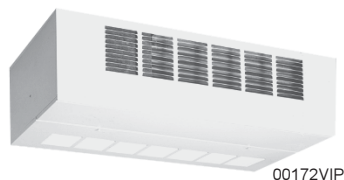
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### MODEL YPHH – Ceiling Concealed Model with Electric Heat, Insulated Return Plenum and Filter

The **YPHH** model fan coil has all of the characteristics of the **YHH** model with the addition of an insulated plenum and filter.

## YORK DIRECT DRIVE FAN COIL UNITS

YCHBC



00172VIP

### MODEL YCHBC – Ceiling Cabinet Model

The **YCHBC** model fan coil is designed for installations where sufficient room for ductwork isn't available. This model includes a fully painted off white epoxy based, baked on enamel finish.

A fully painted hinged filter access / return air grille with filter and door is furnished with this series.

YRHBC



00173VIP

### MODEL YRHBC – Telescoping / Recessed Ceiling Model

The **YRHBC** model fan coil is designed to be used in recessed ceiling applications typically above a T-Bar ceiling. The unit consists of a totally enclosed, insulated cabinet with a telescoping, return air access panel with filter. The cabinet is notched to allow for a ducted rear return a solid, access panel is also available.

YHYB



00174VIP

### MODEL YHYB – High Capacity Ceiling Concealed Model

The **YHYB** model fan-coil has a silhouette (16-1/2") for maximum installation flexibility where space is limited. The unit is constructed of heavy gauge galvanized steel construction. It has quiet operation with four-speed motors for maximum flexibility.

YPHYB



00175VIP

### MODEL YPHYB – High Capacity Ceiling Concealed Model with Insulated Return Plenum and Filter

The **YPHYB** fan model is like the **YHYB** model with the addition of a fully insulated plenum and filter. The plenum is field convertible from rear return to bottom return. A 1" throwaway filter is included.

# General Description

---

## DIRECT DRIVE FAN COIL UNITS

The YORK Fan Coil Unit is designed for many exposed and concealed applications. The fan-coil market of today demands the high-performance, flexibility and quality available in this completely redesigned product that sets it apart from the competition.

### IMPROVED COIL TECHNOLOGY

Today's need for high performance units to do more within less space required a new coil design. By incorporating a smaller, high-output coil, the YORK Fan Coil Unit produces unmatched cooling and heating performance within a slim, space-saving envelope. Our new design of the coil header of our Horizontal Fan Coil allows for valve packages to be field installed. New low-energy motors have been carefully matched to forward-curved fans for the quietest operation possible.

### INDOOR AIR QUALITY FEATURES

Designing buildings with indoor air quality in mind has become the standard for engineers all over the world. To meet the exacting requirements that today's engineers demand, the YORK Fan Coil Unit was designed with a wide range of features to incorporate into Indoor Air Quality plans. Some of the options available include:

- 1/2" permanent washable filter and outside air mixing capability.
- Steel Drain Pans (coated with closed cell foam). All YORK Fan Coil Unit drain pans are pitched towards the drain connection to minimize the amount of standing water. Galvanized steel drain pans with closed cell foam to help minimize the corrosion that gives bacteria a foothold in the airstream.

The YORK Fan Coil Unit is designed for long, safe and efficient product life. With today's focus on Indoor Air Quality, the YORK Fan Coil Unit gives you the flexibility to incorporate one or more IAQ features into your building's design.

### FLEXIBILITY AND QUALITY CONSTRUCTION

All models are constructed of precisely formed, heavy gauge galvanized steel. Individual fan and coil modules are securely fastened together to create a solid, high-performance unit. Cabinet models are painted with the latest in electrostatic painting techniques. It's the same process used to paint our rugged, outdoor chillers, and provide a durable attractive finish.

# Features & Benefits

## FILTERS

1" thick throw-away filters are available for all horizontal units and all sizes. The filters fit exactly into the YORK Fan Coil Unit's full perimeter filter rack to ensure that contaminants do not bypass the filter and enter the airstream, the motor or the coil.

## WHISPER QUIET OPERATION

Blowers and motor speeds were carefully selected for high performance with quiet operation.

## INSULATED CEILING ACCESS PANELS

Most horizontal units are now available with optional ceiling access panels. The ceiling panels can be louvered for return air or solid for remote return air. The panels are electrostatically painted off-white and come with an outer face frame for mounting so the panel can be hung from the right or left side for ease of accessibility.

## DETERMINATION OF RIGHT-HAND / LEFT-HAND REFERENCES

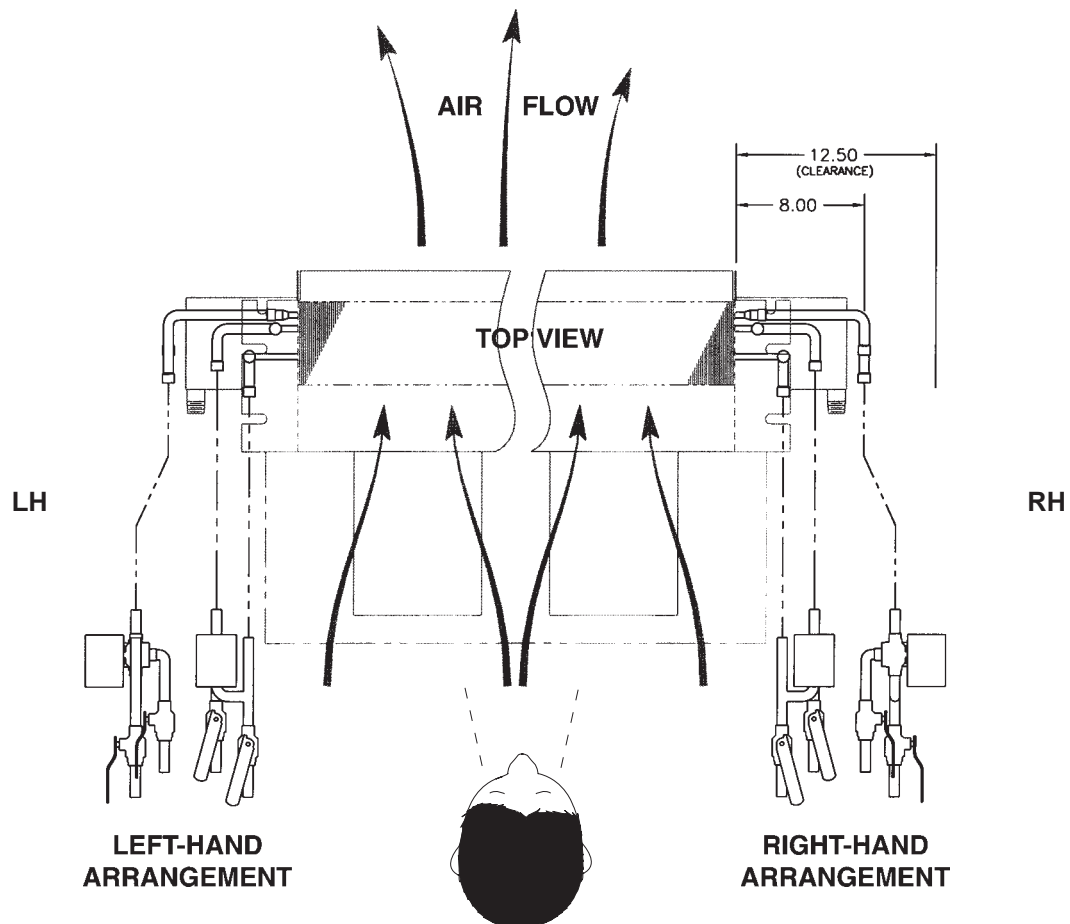
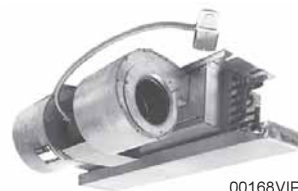
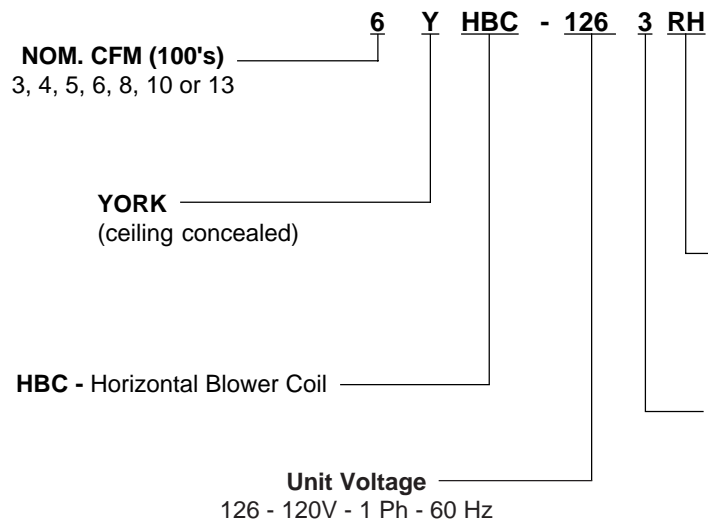


FIG. 1 – HORIZONTAL UNITS ONLY – Y\*HBC, Y\*HH, Y\*HYB

LD04775

# YHBC - Nomenclature



**Coil Connections** (looking with airflow, from blower end)  
 RH = Right Hand  
 LH = Left Hand

**Coil Configuration**

- 3 = 2 Pipe Coil, 3 Row
- 4 = 2 Pipe Coil, 4 Row
- 31 = 4 Pipe Coil, 3 Row Cool  
1 Row Heat
- 32 = 4 Pipe Coil, 3 Row Cool  
2 Row Heat
- 41 = 4 Pipe Coil, 4 Row Cool  
1 Row Heat

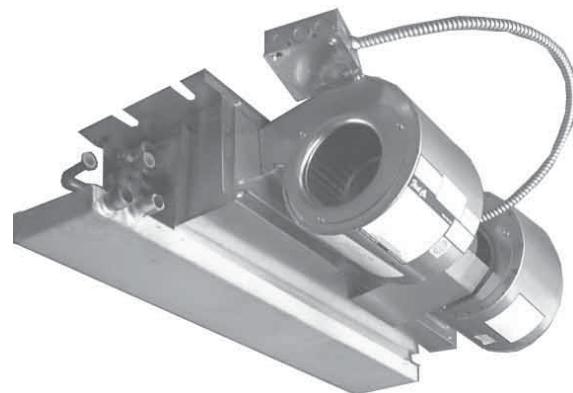


# YHBC - Blower Data

## YHBC Series - Ceiling Concealed Model

The YHBC Series unit is designed for a fully concealed installation, in a furred-down ceiling space. This is an open blower type fan coil requiring a sealed return air space. Filter, return plenum, and access panel are not provided with the base unit.

The space-saving HBC is only 10" high and is designed to provide easy access for service and maintenance of the entire assembly.



00774VIP

## YHBC — 120 Volt

YHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (3 ROW 120 Volt)											
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YHBC-3	1/20	1050	0.9	HI	335	300	270	235	---	---	---	---	---
				MED	275	245	220	---	---	---	---	---	
				LOW	230	210	---	---	---	---	---		
4YHBC-3	1/12	1050	1.1	HI	525	480	425	350	---	---	---	---	---
				MED	410	375	330	260	---	---	---	---	
				LOW	350	325	280	---	---	---	---		
5YHBC-3	1/12	1050	1.3	HI	610	560	510	450	375	---	---	---	---
				MED	500	465	425	370	---	---	---	---	
				LOW	355	345	325	290	---	---	---	---	
6YHBC-3	1/8	1550	1.9	HI	755	730	705	680	650	620	---	---	---
				MED	675	650	620	595	565	540	---	---	
				LOW	570	550	530	510	485	450	---	---	
8YHBC-3	1/5	1550	3.0	HI	950	920	895	870	840	810	775	740	655
				MED	775	755	730	710	690	665	635	605	530
				LOW	630	605	585	560	540	515	485	460	405
10YHBC-3	1/4	1550	3.6	HI	1175	1145	1115	1085	1055	1025	995	960	890
				MED	950	930	915	900	885	870	850	820	745
				LOW	805	795	785	775	755	735	710	680	620
13YHBC-3	1/5 (two)	1550	2.3 Ea.	HI	1545	1500	1455	1450	1365	1320	1280	1235	1120
				MED	1355	1320	1280	1240	1205	1165	1125	1085	975
				LOW	1190	1160	1130	1150	1075	1035	990	940	830

- Notes:**
1. Motors are 120v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

# YHBC - Blower Data

## YHBC — 120 Volt

YHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 120 Volt)											
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YHBC-4 -31	1/20	1050	0.9	HI	315	280	250	---	---	---	---	---	---
				MED	260	230	200	---	---	---	---	---	
				LOW	220	195	---	---	---	---	---		
4YHBC-4 -31	1/12	1050	1.1	HI	490	450	395	320	---	---	---	---	---
				MED	405	370	320	250	---	---	---	---	
				LOW	350	320	280	---	---	---	---		
5YHBC-4 -31	1/12	1050	1.3	HI	605	550	500	445	375	---	---	---	---
				MED	500	455	415	365	---	---	---	---	
				LOW	360	340	315	275	---	---	---		
6YHBC-4 -31	1/8	1550	1.9	HI	745	710	675	645	610	580	---	---	---
				MED	745	615	590	560	535	500	---	---	
				LOW	650	535	510	485	455	420	---	---	
8YHBC-4 -31	1/5	1550	3.0	HI	915	885	855	825	800	765	735	705	625
				MED	755	730	705	675	650	620	590	555	480
				LOW	620	595	575	550	530	500	475	440	370
10YHBC-4 -31	1/4	1550	3.6	HI	1140	1110	1080	1045	1010	975	935	890	825
				MED	940	915	895	875	850	825	795	765	680
				LOW	790	775	755	735	715	690	660	630	555
13YHBC-4 -31	1/5 (two)	1550	2.3 Ea.	HI	1495	1450	1405	1360	1310	1265	1215	1165	1055
				MED	1310	1270	1235	1200	1160	1115	1070	1020	930
				LOW	1165	1130	1095	1060	1020	985	940	895	780

- Notes: 1. Motors are 120v / 60Hz, high efficiency PSC type  
 2. Maximum HACR breaker is 15 amp  
 3. Coil fins-per-inch varies to allow consistent air flow

YHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 120 Volt)											
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YHBC-41 -32	1/20	1050	0.9	HI	305	270	240	---	---	---	---	---	---
				MED	250	225	200	---	---	---	---	---	
				LOW	210	190	---	---	---	---	---		
4YHBC-41 -32	1/12	1050	1.1	HI	470	420	365	290	---	---	---	---	---
				MED	395	355	300	235	---	---	---	---	
				LOW	345	305	270	---	---	---	---		
5YHBC-41 -32	1/12	1050	1.3	HI	575	520	470	415	---	---	---	---	---
				MED	480	440	400	350	---	---	---	---	
				LOW	345	325	300	---	---	---	---		
6YHBC-41 -32	1/8	1550	1.9	HI	660	625	595	565	530	495	---	---	---
				MED	555	520	485	445	425	395	---	---	
				LOW	475	440	410	380	350	320	---	---	
8YHBC-41 -32	1/5	1550	3.0	HI	905	875	845	815	785	750	715	680	605
				MED	755	725	705	680	650	620	590	555	495
				LOW	635	615	595	570	550	525	495	465	405
10YHBC-41 -32	1/4	1550	3.6	HI	1115	1075	1040	1005	970	935	900	860	765
				MED	925	905	880	860	835	805	765	725	630
				LOW	790	765	745	725	700	675	640	605	530
13YHBC-41 -32	1/5 (two)	1550	2.3 Ea.	HI	1470	1420	1370	1320	1270	1220	1165	1105	965
				MED	1355	1315	1265	1220	1170	1115	1060	1005	870
				LOW	1195	1160	1120	1080	1035	985	935	875	745

- Notes: 1. Motors are 120v / 60Hz, high efficiency PSC type  
 2. Maximum HACR breaker is 15 amp  
 3. Coil fins-per-inch varies to allow consistent air flow

## YHBC — 277 Volt

YHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (3 ROW 277 Volt)											
MODEL	HP	MAX RPM	AMPS (277V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YHBC-3	1/20	1100	0.48	HI	315	285	255	---	---	---	---	---	---
				MED	245	220	195	---	---	---	---	---	---
				LOW	180	160	---	---	---	---	---	---	
4YHBC-3	1/15	1050	0.52	HI	510	450	390	---	---	---	---	---	---
				MED	410	365	305	---	---	---	---	---	---
				LOW	350	315	265	---	---	---	---	---	---
5YHBC-3	1/15	1050	0.52	HI	575	535	490	---	---	---	---	---	---
				MED	405	375	340	---	---	---	---	---	---
				LOW	335	305	275	---	---	---	---	---	---
6YHBC-3	1/12	1625	0.56	HI	700	670	640	615	590	560	530	495	---
				MED	570	545	520	490	465	430	400	360	---
				LOW	475	455	430	400	370	340	300	255	---
8YHBC-3	1/6	1550	0.80	HI	905	880	855	830	800	765	725	685	---
				MED	720	700	675	650	625	595	565	535	---
				LOW	605	585	560	530	505	475	450	420	---
10YHBC-3	1/4	1625	1.26	HI	1170	1140	1105	1070	1035	995	950	905	---
				MED	945	920	900	875	850	820	785	740	---
				LOW	780	755	730	705	680	655	625	590	---
13YHBC-3	1/6 (two)	1550	0.80 Ea.	HI	1580	1535	1490	1450	1400	1355	1300	1245	1130
				MED	1380	1340	1300	1260	1215	1170	1125	1075	960
				LOW	1180	1140	1105	1070	1030	990	945	895	775

- Notes:**
1. Motors are 277v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

YHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 277 Volt)											
MODEL	HP	MAX RPM	AMPS (277V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YHBC-4 -31	1/20	1100	0.48	HI	300	270	---	---	---	---	---	---	---
				MED	240	215	---	---	---	---	---	---	---
				LOW	195	175	---	---	---	---	---	---	---
4YHBC-4 -31	1/15	1050	0.52	HI	485	435	380	---	---	---	---	---	---
				MED	395	355	300	---	---	---	---	---	---
				LOW	350	315	265	---	---	---	---	---	---
5YHBC-4 -31	1/15	1050	0.52	HI	565	525	480	---	---	---	---	---	---
				MED	390	360	325	---	---	---	---	---	---
				LOW	330	300	270	---	---	---	---	---	---
6YHBC-4 -31	1/12	1625	0.56	HI	700	665	635	600	575	545	510	470	---
				MED	570	540	515	490	465	435	400	355	---
				LOW	470	445	420	390	360	330	290	255	---
8YHBC-4 -31	1/6	1550	0.80	HI	865	835	805	780	745	710	670	625	---
				MED	705	680	660	630	605	570	535	495	---
				LOW	580	555	535	505	475	445	415	395	---
10YHBC-4 -31	1/4	1625	1.26	HI	1140	1100	1065	1025	990	950	915	880	---
				MED	915	890	870	845	820	790	755	715	---
				LOW	770	745	720	695	670	640	615	585	---
13YHBC-4 -31	1/6 (two)	1550	0.80 Ea.	HI	1510	1465	1420	1370	1325	1275	1225	1170	1050
				MED	1320	1280	1245	1205	1165	1120	1075	1025	905
				LOW	1140	1110	1075	1040	1005	965	920	865	745

- Notes:**
1. Motors are 277v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

# YHBC - Blower Data

## YHBC — 277 Volt

YHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 277 Volt)												
MODEL	HP	MAX RPM	AMPS (277V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)									
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50	
3YHBC-41 -32	1/20	1100	0.48	HI	295	265	---	---	---	---	---	---	---	---
				MED	235	210	---	---	---	---	---	---	---	---
				LOW	190	160	---	---	---	---	---	---	---	---
4YHBC-41 -32	1/15	1050	0.52	HI	485	440	390	---	---	---	---	---	---	---
				MED	400	360	310	---	---	---	---	---	---	---
				LOW	345	315	270	---	---	---	---	---	---	---
5YHBC-41 -32	1/15	1050	0.52	HI	525	475	430	---	---	---	---	---	---	---
				MED	385	350	310	---	---	---	---	---	---	---
				LOW	320	285	250	---	---	---	---	---	---	---
6YHBC-41 -32	1/12	1625	0.56	HI	660	630	600	575	545	515	480	---	---	
				MED	540	510	485	460	430	395	360	---	---	
				LOW	455	430	405	380	350	315	280	---	---	
8YHBC-41 -32	1/6	1550	0.80	HI	865	830	800	775	740	705	665	625	---	
				MED	690	660	630	605	575	545	515	485	---	
				LOW	580	550	525	495	470	440	415	385	---	
10YHBC-41 -32	1/4	1625	1.26	HI	1100	1065	1030	995	950	900	850	795	---	
				MED	940	905	870	845	820	790	750	675	---	
				LOW	770	750	730	710	685	645	600	545	---	
13YHBC-41 -32	1/6 (two)	1550	0.80 Ea.	HI	1460	1415	1365	1320	1270	1225	1175	1120	1005	
				MED	1285	1245	1210	1170	1125	1085	1035	985	855	
				LOW	1130	1090	1050	1005	970	930	885	840	710	

- Notes:**
1. Motors are 277v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

# YHBC — 220 Volt / 50Hz

YHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (3 ROW 220 Volt)											
MODEL	HP	MAX RPM	AMPS (220V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YHBC-3	1/20	1075	0.40	HI	240	220	---	---	---	---	---	---	---
				MED	205	175	---	---	---	---	---	---	
				LOW	155	---	---	---	---	---	---		
4YHBC-3	1/12	1050	0.55	HI	470	430	390	335	---	---	---	---	
				MED	380	340	300	250	---	---	---	---	
				LOW	310	265	220	---	---	---	---		
5YHBC-3	1/12	1050	0.55	HI	455	405	355	---	---	---	---	---	
				MED	365	325	275	---	---	---	---	---	
				LOW	285	245	210	---	---	---	---		
6YHBC-3	1/5	1550	1.02	HI	675	630	585	540	495	450	---	---	
				MED	570	530	495	455	415	365	---	---	
				LOW	490	455	415	370	320	265	---	---	
8YHBC-3	1/5	1550	1.02	HI	860	825	790	750	715	675	630	---	
				MED	630	610	585	560	535	500	455	---	
				LOW	435	415	400	375	350	320	---	---	
10YHBC-3	1/4	1625	1.53	HI	1080	1025	975	915	860	795	735	665	
				MED	850	815	775	735	685	635	575	520	
				LOW	675	645	615	580	540	500	455	410	
13YHBC-3	1/5 (two)	1550	1.02 Ea.	HI	1355	1295	1225	1160	1100	1030	955	865	
				MED	1165	1115	1070	1020	965	895	810	710	
				LOW	890	865	830	795	745	690	615	520	

- Notes:**
1. Motors are 220v / 50Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

YHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 220 Volt)											
MODEL	HP	MAX RPM	AMPS (220V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YHBC-4 -31	1/20	1075	0.40	HI	240	215	---	---	---	---	---	---	
				MED	205	180	---	---	---	---	---	---	
				LOW	160	---	---	---	---	---	---		
4YHBC-4 -31	1/12	1050	0.55	HI	460	425	390	345	---	---	---	---	
				MED	380	345	300	255	---	---	---	---	
				LOW	305	265	225	---	---	---	---		
5YHBC-4 -31	1/12	1050	0.55	HI	440	395	345	---	---	---	---	---	
				MED	360	320	275	---	---	---	---	---	
				LOW	310	245	200	---	---	---	---		
6YHBC-4 -31	1/5	1550	1.02	HI	665	620	575	535	490	440	---	---	
				MED	575	535	495	460	420	370	---	---	
				LOW	485	450	415	370	310	250	---	---	
8YHBC-4 -31	1/5	1550	1.02	HI	810	765	725	690	650	610	565	---	
				MED	615	585	560	530	495	460	415	---	
				LOW	420	400	385	365	340	300	---	---	
10YHBC-4 -31	1/4	1625	1.53	HI	1015	965	915	865	815	760	700	640	
				MED	875	840	805	765	720	670	615	555	
				LOW	730	695	665	625	585	540	475	390	
13YHBC-4 -31	1/5 (two)	1550	1.02 Ea.	HI	1240	1185	1125	1065	1000	920	830	730	
				MED	1085	1035	990	930	860	775	680	590	
				LOW	860	830	795	745	685	610	525	440	

- Notes:**
1. Motors are 220v / 50Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

# YHBC - Blower Data

## YHBC — 220 Volt / 50Hz

YHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 220 Volt)												
MODEL	HP	MAX RPM	AMPS (220V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)									
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50	
3YHBC-41 -32	1/20	1075	0.40	HI	235	210	---	---	---	---	---	---	---	---
				MED	200	170	---	---	---	---	---	---	---	---
				LOW	160	---	---	---	---	---	---	---	---	---
4YHBC-41 -32	1/12	1050	0.55	HI	450	410	370	---	---	---	---	---	---	
				MED	365	325	290	---	---	---	---	---	---	---
				LOW	295	255	220	---	---	---	---	---	---	---
5YHBC-41 -32	1/12	1050	0.55	HI	425	375	325	---	---	---	---	---	---	
				MED	350	305	260	---	---	---	---	---	---	---
				LOW	280	240	200	---	---	---	---	---	---	---
6YHBC-41 -32	1/5	1550	1.02	HI	605	570	535	495	450	395	---	---	---	
				MED	535	500	465	425	385	330	---	---	---	---
				LOW	460	420	380	345	300	---	---	---	---	---
8YHBC-41 -32	1/5	1550	1.02	HI	805	760	720	680	645	610	565	---	---	
				MED	620	590	560	530	495	460	420	---	---	---
				LOW	425	405	390	365	340	305	---	---	---	---
10YHBC-41 -32	1/4	1625	1.53	HI	985	940	895	850	790	725	645	555	---	
				MED	875	835	795	755	710	650	580	485	---	---
				LOW	715	690	660	625	580	535	490	450	---	---
13YHBC-41 -32	1/5 (two)	1550	1.02 Ea.	HI	1195	1140	1085	1025	960	885	795	690	---	
				MED	1060	1010	955	900	830	750	660	555	---	---
				LOW	835	805	770	720	665	590	510	415	---	---

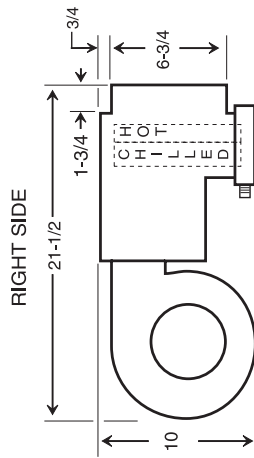
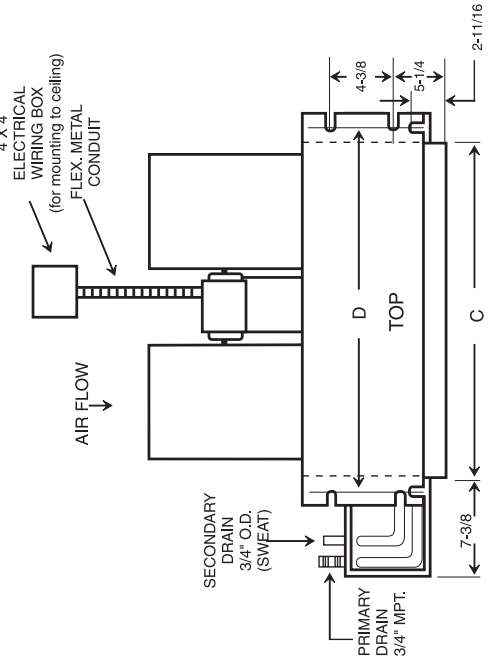
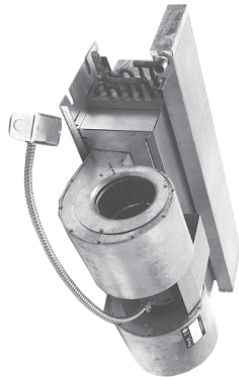
- Notes:**
1. Motors are 220v / 50Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

# YHBC - Product Dimensions

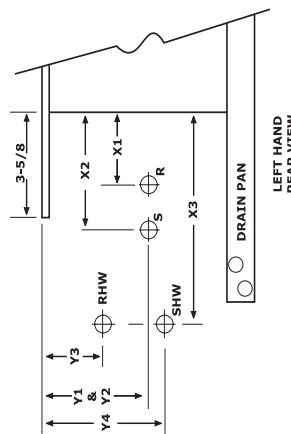
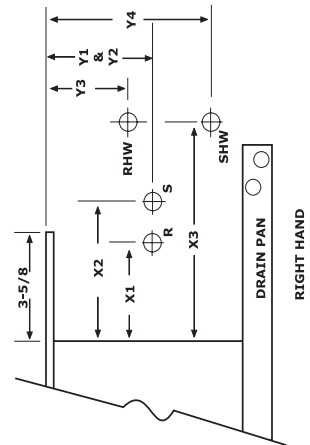
**NOTES:**

- 1) All dimensions in inches.
- 2) Coil connection tolerance  $\pm 1/4"$ .
- 3) Right hand unit shown, left hand mirror image.

GENERAL DIMENSIONS				APPROX. SHIPPING WEIGHTS	
MODEL	A	B	C	D	
3YHBC	30-1/8	27-1/4	20-1/8	25-1/4	40
4YHBC	36-1/8	33-1/4	26-1/8	31-1/4	50
5YHBC	40-1/8	37-1/4	30-1/8	35-1/4	50
6YHBC	40-1/8	37-1/4	30-1/8	35-1/4	55
8YHBC	46-1/8	43-1/4	36-1/8	41-1/4	60
10YHBC	52-1/8	49-1/4	42-1/8	47-1/4	75
13YHBC	59-1/8	56-1/4	49-1/8	54-1/4	90



4 - PIPE UNIT SHOWN



NOTE: RIGHT HAND MODEL SHOWN - LEFT HAND MODEL HAS DRAIN AND PIPING CONNECTIONS ON OPPOSITE SIDE OF FAN COIL.

YHBC PIPE LOCATIONS									
LEFT HAND	X1	Y1	X2	Y2	X3	Y3	X4	Y4	
3 ROW	3	4	5	4	---	---	---	---	4
3/1 Split	3	4	5	4	8	2-1/2	8	4-1/2	4-1/2
3/2 Split	3	4	5	4	8	2-1/2	8	4-1/2	4-1/2
4 ROW	3	4	5	4	---	---	---	---	4
4/1 Split	3	4	5	4	---	---	---	---	4

YHBC PIPE LOCATIONS									
RIGHT HAND	X1	Y1	X2	Y2	X3	Y3	X4	Y4	
3 ROW	3	4	5	4	---	---	---	---	6
3/1 Split	3	4	5	4	8	3-1/2	8	5-1/2	5-1/2
3/2 Split	3	4	5	4	8	3-1/2	8	5-1/2	5-1/2
4 ROW	3	4	5	4	---	---	---	---	6
4/1 Split	3	4	5	4	---	---	---	---	6

**PRODUCT DRAWING:**  
 FAN COIL UNITS - DIRECT DRIVE  
 MODEL YHBC  
 NOT FOR CONSTRUCTION

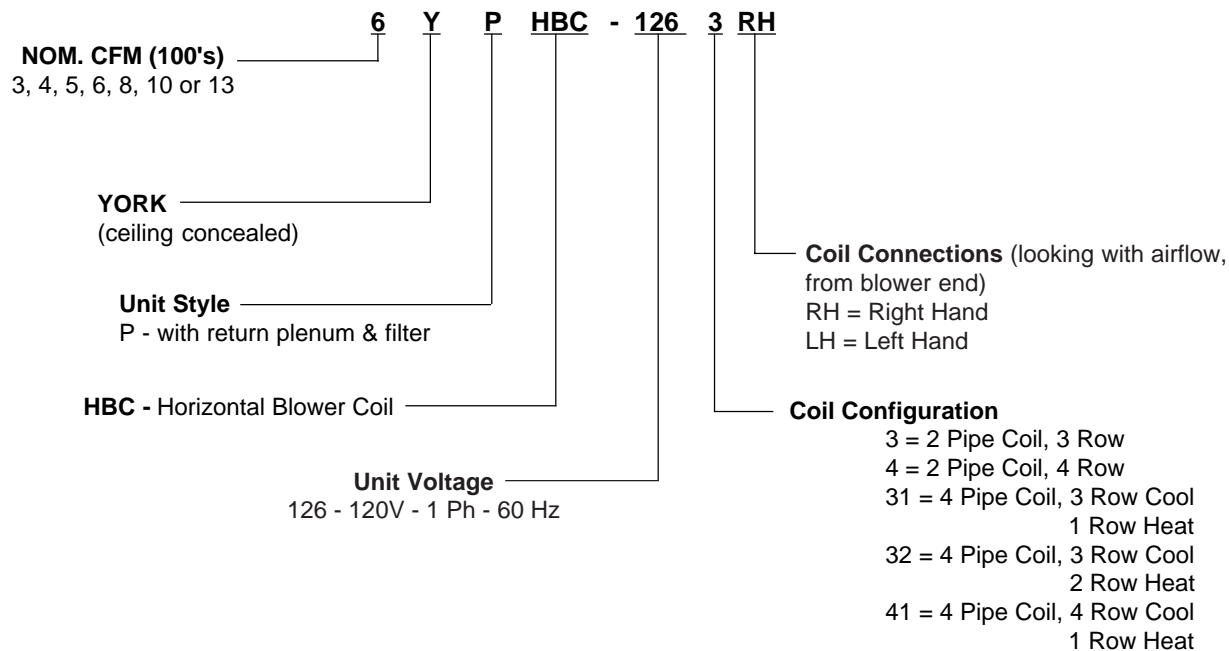
Sold To:  
 Cust Purch Order #:

Quote Date:  
 Rev. Date:  
 Form No.:  
 Dwg. Lev.:  
 Dwg. Scale: NTS



# YPHBC - Nomenclature

YPHBC

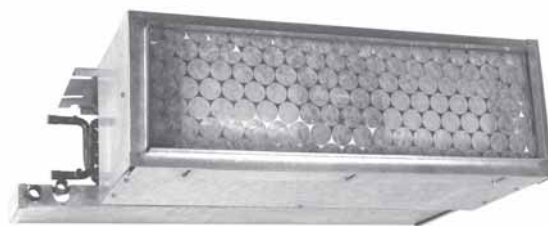




# YPHBC - Blower Data

## YPHBC Series - Ceiling Concealed Model with Insulated Return Plenum

This unit consists of a YHBC Series fan coil with factory installed return air plenum. Return air ducting can be easily attached to the unit plenum. The plenum is also field-convertible from end to bottom return air.



00775VIP

YPHBC

## YPHBC — 120 Volt

YPHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (3 ROW 120 Volt)											
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YPHBC-3	1/20	1050	0.9	HI	320	285	250	---	---	---	---	---	---
				MED	260	230	205	---	---	---	---	---	
				LOW	220	200	---	---	---	---	---		
4YPHBC-3	1/12	1050	1.1	HI	405	355	295	---	---	---	---	---	
				MED	360	315	255	---	---	---	---	---	
				LOW	340	305	245	---	---	---	---		
5YPHBC-3	1/12	1050	1.3	HI	545	500	445	385	---	---	---	---	
				MED	475	440	395	335	---	---	---	---	
				LOW	345	320	290	250	---	---	---		
6YPHBC-3	1/8	1550	1.9	HI	705	675	650	620	590	555	---	---	
				MED	645	620	595	565	535	505	---	---	
				LOW	560	540	515	490	460	430	---	---	
8YPHBC-3	1/5	1550	3.0	HI	890	855	820	780	745	710	670	630	
				MED	760	725	695	665	630	595	565	530	
				LOW	620	595	565	540	515	485	455	420	
10YPHBC-3	1/4	1550	3.6	HI	1165	1130	1095	1060	1020	975	930	880	
				MED	1065	1025	990	955	915	875	835	795	
				LOW	890	865	840	815	790	765	735	700	
13YPHBC-3	1/5 (two)	1550	2.3 Ea.	HI	1345	1295	1250	1205	1155	1100	1045	980	
				MED	1255	1210	1170	1120	1075	1025	970	915	
				LOW	1165	1125	1080	1035	985	930	875	820	

- Notes:**
1. Motors are 120v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

# YPHBC - Blower Data

## YPHBC — 120 Volt

YPHBC

YPHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 120 Volt)											
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YPHBC-4-31	1/20	1050	0.9	HI	290	260	230	---	---	---	---	---	---
				MED	245	220	---	---	---	---	---	---	
				LOW	215	185	---	---	---	---	---	---	
4YPHBC-4-31	1/12	1050	1.1	HI	380	335	285	---	---	---	---	---	---
				MED	345	295	---	---	---	---	---	---	
				LOW	315	275	---	---	---	---	---	---	
5YPHBC-4-31	1/12	1050	1.3	HI	540	490	435	370	---	---	---	---	---
				MED	475	435	365	290	---	---	---	---	---
				LOW	365	340	305	---	---	---	---	---	---
6YPHBC-4-31	1/8	1550	1.9	HI	695	660	630	595	560	520	---	---	---
				MED	620	590	560	530	500	465	---	---	---
				LOW	560	525	490	460	425	390	---	---	---
8YPHBC-4-31	1/5	1550	3.0	HI	870	830	795	755	720	685	645	605	520
				MED	745	715	680	645	615	580	545	510	440
				LOW	605	580	555	535	505	480	445	415	355
10YPHBC-4-31	1/4	1550	3.6	HI	1120	1075	1030	990	945	905	865	820	725
				MED	1035	1000	960	920	880	840	795	755	675
				LOW	905	875	845	815	780	750	715	675	600
13YPHBC-4-31	1/5 (two)	1550	2.3 Ea.	HI	1300	1255	1210	1165	1115	1060	1005	940	820
				MED	1225	1180	1130	1080	1035	950	935	880	755
				LOW	1125	1080	1035	990	945	895	845	795	690

- Notes: 1. Motors are 120v / 60Hz, high efficiency PSC type  
 2. Maximum HACR breaker is 15 amp  
 3. Coil fins-per-inch varies to allow consistent air flow

YPHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 120 Volt)											
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YPHBC-41-32	1/20	1050	0.9	HI	285	250	220	---	---	---	---	---	---
				MED	235	210	---	---	---	---	---	---	
				LOW	205	180	---	---	---	---	---	---	
4YPHBC-41-32	1/12	1050	1.1	HI	370	320	265	---	---	---	---	---	---
				MED	325	280	---	---	---	---	---	---	
				LOW	295	250	---	---	---	---	---	---	
5YPHBC-41-32	1/12	1050	1.3	HI	505	450	395	335	---	---	---	---	---
				MED	445	400	350	295	---	---	---	---	---
				LOW	325	300	270	---	---	---	---	---	---
6YPHBC-41-32	1/8	1550	1.9	HI	665	625	590	555	515	480	---	---	---
				MED	605	570	535	505	470	430	---	---	---
				LOW	535	505	470	440	405	370	---	---	---
8YPHBC-41-32	1/5	1550	3.0	HI	845	810	780	750	715	680	640	605	530
				MED	725	700	670	640	610	580	550	520	455
				LOW	605	580	560	535	505	480	455	425	370
10YPHBC-41-32	1/4	1550	3.6	HI	1015	975	940	900	865	825	785	750	670
				MED	890	855	825	795	765	735	700	665	590
				LOW	770	740	710	685	660	630	600	570	510
13YPHBC-41-32	1/5 (two)	1550	2.3 Ea.	HI	1295	1245	1195	1145	1090	1035	975	915	795
				MED	1215	1165	1120	1065	1015	960	905	845	725
				LOW	1120	1075	1025	975	930	885	835	785	655

- Notes: 1. Motors are 120v / 60Hz, high efficiency PSC type  
 2. Maximum HACR breaker is 15 amp  
 3. Coil fins-per-inch varies to allow consistent air flow

## YPHBC — 277 Volt

YPHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (3 ROW 277 Volt)											
MODEL	HP	MAX RPM	AMPS (277V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YPHBC-3	1/20	1100	0.48	HI	290	260	---	---	---	---	---	---	---
				MED	230	200	---	---	---	---	---	---	
				LOW	180	155	---	---	---	---	---	---	
4YPHBC-3	1/15	1050	0.52	HI	395	340	---	---	---	---	---	---	
				MED	345	295	---	---	---	---	---	---	
				LOW	310	265	---	---	---	---	---	---	
5YPHBC-3	1/15	1050	0.52	HI	500	460	415	---	---	---	---	---	
				MED	385	350	310	---	---	---	---	---	
				LOW	330	295	260	---	---	---	---	---	
6YPHBC-3	1/12	1625	0.56	HI	665	630	595	565	540	510	475	430	
				MED	545	515	490	465	440	410	375	335	
				LOW	460	430	400	375	350	320	290	250	
8YPHBC-3	1/6	1550	0.80	HI	850	820	790	760	725	685	645	605	
				MED	695	665	640	610	585	555	525	490	
				LOW	575	550	525	500	470	445	420	395	
10YPHBC-3	1/4	1625	1.26	HI	1040	1000	960	920	885	850	810	775	
				MED	885	850	810	780	745	720	690	665	
				LOW	710	680	655	635	610	590	565	540	
13YPHBC-3	1/6 (two)	1550	0.80 Ea.	HI	1385	1340	1295	1250	1205	1155	1100	1040	
				MED	1250	1210	1170	1130	1085	1040	985	930	
				LOW	1110	1070	1030	990	945	900	850	800	

- Notes:**
1. Motors are 277v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

YPHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 277 Volt)											
MODEL	HP	MAX RPM	AMPS (277V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YPHBC-4 -31	1/20	1100	0.48	HI	280	255	---	---	---	---	---	---	
				MED	230	200	---	---	---	---	---	---	
				LOW	180	160	---	---	---	---	---	---	
4YPHBC-4 -31	1/15	1050	0.52	HI	395	340	---	---	---	---	---	---	
				MED	345	295	---	---	---	---	---	---	
				LOW	305	255	---	---	---	---	---	---	
5YPHBC-4 -31	1/15	1050	0.52	HI	500	455	405	---	---	---	---	---	
				MED	380	340	305	---	---	---	---	---	
				LOW	330	295	260	---	---	---	---	---	
6YPHBC-4 -31	1/12	1625	0.56	HI	650	615	585	555	525	490	450	405	
				MED	540	510	480	450	425	390	355	320	
				LOW	460	430	400	375	345	315	280	240	
8YPHBC-4 -31	1/6	1550	0.80	HI	825	790	760	725	685	650	610	570	
				MED	670	640	615	585	560	530	495	465	
				LOW	560	530	500	475	445	420	395	365	
10YPHBC-4 -31	1/4	1625	1.26	HI	1020	980	940	905	865	830	790	750	
				MED	890	855	820	790	755	725	695	660	
				LOW	740	710	685	660	635	610	585	555	
13YPHBC-4 -31	1/6 (two)	1550	0.80 Ea.	HI	1335	1290	1245	1200	1155	1105	1045	985	
				MED	1205	1170	1135	1095	1050	1000	940	875	
				LOW	1075	1040	1000	960	915	870	820	765	

- Notes:**
1. Motors are 277v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

# YPHBC - Blower Data

## YPHBC — 220 Volt / 50Hz

YPHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (3 ROW 220 Volt)											
MODEL	HP	MAX RPM	AMPS (220V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YPHBC-3	1/20	1075	0.40	HI	230	200	---	---	---	---	---	---	---
				MED	195	160	---	---	---	---	---	---	
				LOW	150	---	---	---	---	---	---		
4YPHBC-3	1/12	1050	0.55	HI	420	380	335	---	---	---	---	---	
				MED	350	305	265	---	---	---	---	---	
				LOW	275	240	200	---	---	---	---		
5YPHBC-3	1/12	1050	0.55	HI	410	365	---	---	---	---	---	---	
				MED	340	295	---	---	---	---	---		
				LOW	270	230	---	---	---	---	---		
6YPHBC-3	1/5	1550	1.02	HI	585	540	500	455	410	---	---	---	
				MED	520	480	440	400	350	---	---	---	
				LOW	455	415	375	325	275	---	---	---	
8YPHBC-3	1/5	1550	1.02	HI	795	750	700	660	620	580	535	---	
				MED	605	580	555	530	500	460	410	---	
				LOW	425	405	390	365	340	---	---	---	
10YPHBC-3	1/4	1625	1.53	HI	920	865	810	755	700	650	595	545	
				MED	825	775	730	680	635	585	540	490	
				LOW	685	640	605	570	535	495	440	365	
13YPHBC-3	1/5 (two)	1550	1.02 Ea.	HI	1165	1110	1055	1000	935	860	775	680	
				MED	1050	1000	945	890	825	760	680	580	
				LOW	855	815	775	730	680	625	555	465	

- Notes:**
1. Motors are 220v / 50Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

## YPHBC — 220 Volt / 50Hz

YPHBC

YPHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 220 Volt)											
MODEL	HP	MAX RPM	AMPS (220V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YPHBC-4-31	1/20	1075	0.40	HI	225	200	---	---	---	---	---	---	---
				MED	190	165	---	---	---	---	---	---	---
				LOW	150	---	---	---	---	---	---	---	---
4YPHBC-4-31	1/12	1050	0.55	HI	405	370	330	---	---	---	---	---	---
				MED	340	310	275	---	---	---	---	---	---
				LOW	275	240	200	---	---	---	---	---	---
5YPHBC-4-31	1/12	1050	0.55	HI	410	365	---	---	---	---	---	---	---
				MED	330	290	---	---	---	---	---	---	---
				LOW	270	225	---	---	---	---	---	---	---
6YPHBC-4-31	1/5	1550	1.02	HI	585	545	505	460	410	355	---	---	---
				MED	520	480	440	395	345	295	---	---	---
				LOW	455	415	370	325	280	225	---	---	---
8YPHBC-4-31	1/5	1550	1.02	HI	745	705	665	625	580	535	485	---	---
				MED	590	560	535	500	465	420	370	---	---
				LOW	415	395	375	355	325	285	240	---	---
10YPHBC-4-31	1/4	1625	1.53	HI	865	815	770	725	675	625	570	---	---
				MED	785	735	695	650	610	570	520	---	---
				LOW	665	630	595	560	520	475	420	---	---
13YPHBC-4-31	1/5 (two)	1550	1.02 Ea.	HI	1080	1020	965	905	835	760	670	---	---
				MED	985	930	870	810	745	665	585	---	---
				LOW	825	785	740	685	625	555	475	---	---

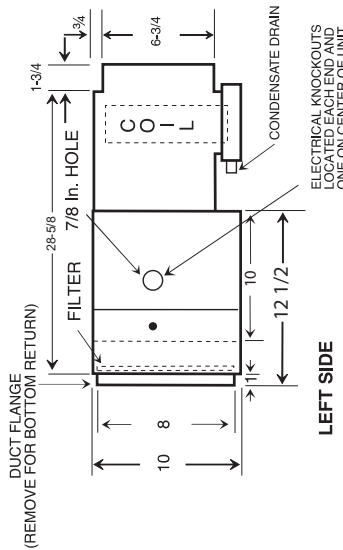
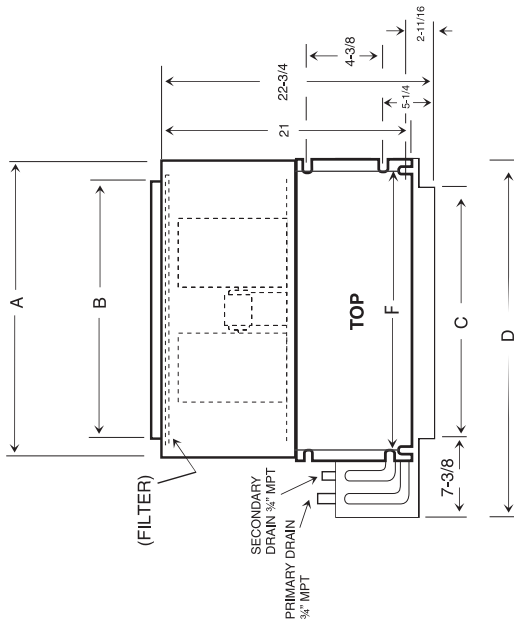
- Notes:**
1. Motors are 220v / 50Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

YPHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 220 Volt)											
MODEL	HP	MAX RPM	AMPS (220V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YPHBC-41-32	1/20	1075	0.40	HI	225	195	---	---	---	---	---	---	---
				MED	190	160	---	---	---	---	---	---	---
				LOW	145	---	---	---	---	---	---	---	---
4YPHBC-41-32	1/12	1050	0.55	HI	395	355	315	---	---	---	---	---	---
				MED	330	295	260	---	---	---	---	---	---
				LOW	260	215	170	---	---	---	---	---	---
5YPHBC-41-32	1/12	1050	0.55	HI	395	345	---	---	---	---	---	---	---
				MED	325	285	---	---	---	---	---	---	---
				LOW	265	225	---	---	---	---	---	---	---
6YPHBC-41-32	1/5	1550	1.02	HI	535	495	460	415	370	---	---	---	---
				MED	485	445	405	365	320	---	---	---	---
				LOW	430	390	350	305	260	---	---	---	---
8YPHBC-41-32	1/5	1550	1.02	HI	740	700	660	615	575	525	---	---	---
				MED	590	560	530	500	470	430	---	---	---
				LOW	420	400	380	360	330	300	---	---	---
10YPHBC-41-32	1/4	1625	1.53	HI	850	800	755	705	655	600	540	---	---
				MED	785	735	680	635	590	545	490	---	---
				LOW	660	615	575	540	505	465	410	---	---
13YPHBC-41-32	1/5 (two)	1550	1.02 Ea.	HI	1030	975	920	860	790	715	630	---	---
				MED	950	895	835	775	705	630	550	---	---
				LOW	800	755	705	650	595	530	455	---	---

- Notes:**
1. Motors are 220v / 50Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

# YPHBC - Product Dimensions

YPHBC



**YPHBC PIPE LOCATIONS**

RIGHT HAND	X1	Y1	X2	X3	Y3	Y4
3 ROW	3	4	5	---	---	---
3/1 Split	3	4	5	8	3-1/2	5-1/2
3/2 Split	3	4	5	8	3-1/2	5-1/2
4 ROW	3	4	5	---	---	---
4/1 Split	3	4	5	8	4	6

**YPHBC PIPE LOCATIONS**

LEFT HAND	X1	Y1	X2	X3	Y3	Y4
3 ROW	3	4	5	---	---	---
3/1 Split	3	4	5	8	2-1/2	4-1/2
3/2 Split	3	4	5	8	2-1/2	4-1/2
4 ROW	3	4	5	---	---	---
4/1 Split	3	4	5	8	2	4

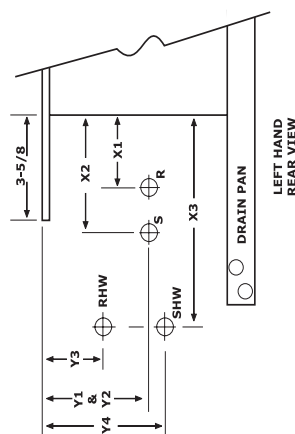
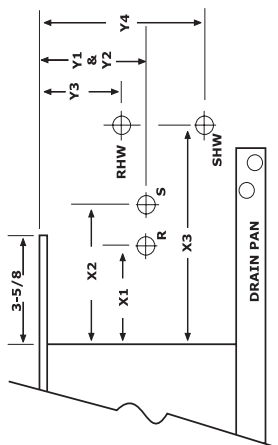
- FEATURES:**
- 1) Return plenums are insulated.
  - 2) All plenums include throw-away filter.
  - 3) Standard plenums are end return and can be field converted to bottom return.
  - 4) Filter has separate filter access panel for easier service.



**GENERAL DIMENSIONS**

MODEL	A	B	C	D	E	F	CONNECTIONS PRIMARY O.D.	APPROX. SHIPPING WEIGHT
3YPHBC	24	22	20-1/8	30-1/8	27-1/4	25-1/4		60
4YPHBC	30	28	26-1/8	36-1/8	33-1/4	31-1/4		70
5YPHBC	34	32	30-1/8	40-1/8	37-1/4	35-1/4		75
6YPHBC	34	32	30-1/8	40-1/8	37-1/4	35-1/4	5/8"	75
8YPHBC	40	38	36-1/8	46-1/8	43-1/4	41-1/4		80
10YPHBC	46	44	42-1/8	52-1/8	49-1/4	47-1/4		100
13YPHBC	53	51	49-1/8	59-1/8	56-1/4	54-1/4		105

- NOTES:**
- 1) All dimensions in inches.
  - 2) Coil connection tolerance  $\pm 1/4"$ .
  - 3) Right hand unit shown, left hand mirror image.



NOTE: RIGHT HAND MODEL SHOWN - LEFT HAND MODEL HAS DRAIN AND PIPING CONNECTIONS ON OPPOSITE SIDE OF FAN COIL.

ELECTRICAL KNOCKOUTS LOCATED EACH END AND ONE ON CENTER OF UNIT.



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Quote Date:  
Rev. Date:  
Form No.:  
Dwg. Lev.:  
Dwg. Scale: NTS

Sold To:  
Cust Purch Order #:

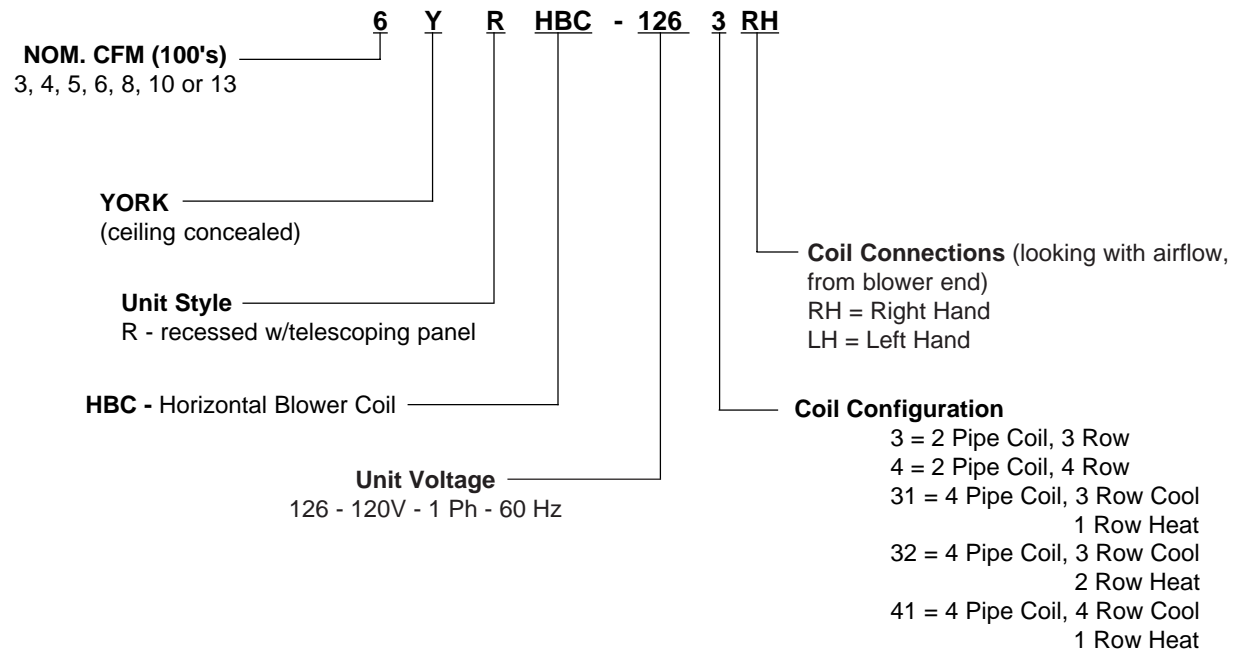
Project Name:  
Location:  
Engineer:  
Contractor:  
For: REFERENCE

**PRODUCT DRAWING:**  
FAN COIL UNITS - DIRECT DRIVE  
MODEL YPHBC  
NOT FOR CONSTRUCTION

Supersedes: 115.20-PA2 (1202)

FORM 115.20-PA2 (404)

# YRHBC - Nomenclature



# YRHBC - Blower Data

YRHBC

## YRHBC Series - Telescoping Recessed Ceiling Model

The YRHBC Series fan coil with hinged ceiling panel is designed for recessed ceiling applications.

The unit consists of a YHBC fan coil totally enclosed in a cabinet with decorator style hinged access panel that also serves as a return air panel.

The ceiling frame and access panel are adjustable to permit easy field adaptation to most ceiling types for custom fit and maximum accessibility to the unit and controls. The cabinet is notched to allow for a ducted rear return and a solid bottom access panel is also available.



00776VIP

## YRHBC — 120 Volt

YRHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (3 ROW 120 Volt)											
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YRHBC-3	1/20	1050	0.9	HI	320	285	250	---	---	---	---	---	---
				MED	260	230	205	---	---	---	---	---	
				LOW	220	200	---	---	---	---	---		
4YRHBC-3	1/12	1050	1.1	HI	405	355	295	---	---	---	---	---	
				MED	360	315	255	---	---	---	---	---	
				LOW	340	305	245	---	---	---	---	---	
5YRHBC-3	1/12	1050	1.3	HI	545	500	445	385	---	---	---	---	
				MED	475	440	395	335	---	---	---	---	
				LOW	345	320	290	250	---	---	---	---	
6YRHBC-3	1/8	1550	1.9	HI	705	675	650	620	590	555	---	---	
				MED	645	620	595	565	535	505	---	---	
				LOW	560	540	515	490	460	430	---	---	
8YRHBC-3	1/5	1550	3.0	HI	890	855	820	780	745	710	670	630	
				MED	745	725	695	665	630	600	565	530	
				LOW	620	595	565	540	515	485	455	420	
10YRHBC-3	1/4	1550	3.6	HI	1165	1130	1095	1060	1020	975	930	880	
				MED	1065	1025	990	955	915	875	835	795	
				LOW	890	865	840	815	790	765	735	700	
13YRHBC-3	1/5 (two)	1550	2.3 Ea.	HI	1345	1295	1250	1200	1155	1100	1045	980	
				MED	1255	1210	1170	1120	1075	1025	970	915	
				LOW	1165	1125	1080	1035	985	930	875	820	

- Notes: 1. Motors are 120v / 60Hz, high efficiency PSC type  
 2. Maximum HACR breaker is 15 amp  
 3. Coil fins-per-inch varies to allow consistent air flow



## YRHBC — 120 Volt

YRHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 120 Volt)											
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YRHBC-4 -31	1/20	1050	0.9	HI	290	260	230	---	---	---	---	---	---
				MED	245	220	---	---	---	---	---	---	
				LOW	215	185	---	---	---	---	---	---	
4YRHBC-4 -31	1/12	1050	1.1	HI	380	335	285	---	---	---	---	---	---
				MED	345	295	---	---	---	---	---	---	
				LOW	315	275	---	---	---	---	---	---	
5YRHBC-4 -31	1/12	1050	1.3	HI	540	490	435	370	---	---	---	---	---
				MED	475	435	365	290	---	---	---	---	---
				LOW	365	340	305	---	---	---	---	---	
6YRHBC-4 -31	1/8	1550	1.9	HI	695	660	630	595	560	520	---	---	---
				MED	620	590	560	530	500	465	---	---	---
				LOW	560	525	490	460	425	390	---	---	---
8YRHBC-4 -31	1/5	1550	3.0	HI	870	830	795	755	720	685	645	605	520
				MED	745	715	680	645	615	580	545	510	440
				LOW	605	580	555	535	505	480	445	415	355
10YRHBC-4 -31	1/4	1550	3.6	HI	1120	1075	1030	990	945	905	865	820	725
				MED	1035	1000	960	920	880	840	795	755	675
				LOW	905	875	845	815	780	750	715	675	600
13YRHBC-4 -31	1/5 (two)	1550	2.3 Ea.	HI	1300	1255	1210	1165	1115	1060	1005	940	820
				MED	1225	1180	1130	1080	1035	950	935	880	755
				LOW	1125	1080	1035	990	945	895	845	795	690

- Notes:**
1. Motors are 120v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

YRHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 120 Volt)											
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YRHBC-41 -32	1/20	1050	0.9	HI	285	250	220	---	---	---	---	---	---
				MED	235	210	---	---	---	---	---	---	
				LOW	205	180	---	---	---	---	---	---	
4YRHBC-41 -32	1/12	1050	1.1	HI	370	320	265	---	---	---	---	---	---
				MED	325	280	---	---	---	---	---	---	
				LOW	295	250	---	---	---	---	---	---	
5YRHBC-41 -32	1/12	1050	1.3	HI	505	450	395	335	---	---	---	---	---
				MED	445	400	350	295	---	---	---	---	---
				LOW	325	300	270	---	---	---	---	---	
6YRHBC-41 -32	1/8	1550	1.9	HI	665	625	590	555	515	480	---	---	---
				MED	605	570	535	505	470	430	---	---	---
				LOW	535	505	470	440	405	370	---	---	---
8YRHBC-41 -32	1/5	1550	3.0	HI	845	810	780	750	715	680	640	605	530
				MED	725	700	670	640	610	580	550	520	455
				LOW	605	580	560	535	505	480	455	425	370
10YRHBC-41 -32	1/4	1550	3.6	HI	1015	975	940	900	865	825	785	750	670
				MED	890	855	825	795	765	735	700	665	590
				LOW	770	740	710	685	660	630	600	570	510
13YRHBC-41 -32	1/5 (two)	1550	2.3 Ea.	HI	1295	1245	1195	1145	1090	1035	975	915	795
				MED	1215	1165	1120	1065	1015	960	905	845	725
				LOW	1120	1075	1025	975	930	885	835	785	655

- Notes:**
1. Motors are 120v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

# YRHBC - Blower Data

## YRHBC — 277 Volt

YRHBC

YRHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (3 ROW 277 Volt)											
MODEL	HP	MAX RPM	AMPS (277V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YRHBC-3	1/20	1100	0.48	HI	290	260	---	---	---	---	---	---	---
				MED	230	200	---	---	---	---	---	---	---
				LOW	180	155	---	---	---	---	---	---	---
4YRHBC-3	1/15	1050	0.52	HI	395	340	---	---	---	---	---	---	
				MED	345	295	---	---	---	---	---	---	
				LOW	310	265	---	---	---	---	---	---	
5YRHBC-3	1/15	1050	0.52	HI	500	460	415	---	---	---	---	---	
				MED	385	350	310	---	---	---	---	---	
				LOW	330	295	260	---	---	---	---	---	
6YRHBC-3	1/12	1625	0.56	HI	665	630	595	565	540	510	475	430	
				MED	545	515	490	465	440	410	375	335	
				LOW	460	430	400	375	350	320	290	250	
8YRHBC-3	1/6	1550	0.80	HI	850	820	790	760	725	685	645	605	
				MED	695	665	640	610	585	555	525	490	
				LOW	575	550	525	500	470	445	420	395	
10YRHBC-3	1/4	1625	1.26	HI	1040	1000	960	920	885	850	810	775	
				MED	885	850	810	780	745	720	690	665	
				LOW	710	680	655	635	610	590	565	540	
13YRHBC-3	1/6 (two)	1550	0.80 Ea.	HI	1385	1340	1295	1250	1205	1155	1100	1040	
				MED	1250	1210	1170	1130	1085	1040	985	930	
				LOW	1110	1070	1030	990	945	900	850	800	

- Notes: 1. Motors are 277v / 60Hz, high efficiency PSC type  
 2. Maximum HACR breaker is 15 amp  
 3. Coil fins-per-inch varies to allow consistent air flow

YRHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 277 Volt)											
MODEL	HP	MAX RPM	AMPS (277V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YRHBC-4 -31	1/20	1100	0.48	HI	280	255	---	---	---	---	---	---	
				MED	230	200	---	---	---	---	---	---	
				LOW	185	160	---	---	---	---	---	---	
4YRHBC-4 -31	1/15	1050	0.52	HI	395	340	---	---	---	---	---	---	
				MED	345	295	---	---	---	---	---	---	
				LOW	305	255	---	---	---	---	---	---	
5YRHBC-4 -31	1/15	1050	0.52	HI	500	455	405	---	---	---	---	---	
				MED	380	340	305	---	---	---	---	---	
				LOW	330	295	260	---	---	---	---	---	
6YRHBC-4 -31	1/12	1625	0.56	HI	650	615	585	555	525	490	450	405	
				MED	540	510	480	450	425	390	355	320	
				LOW	460	430	400	375	345	315	280	240	
8YRHBC-4 -31	1/6	1550	0.80	HI	825	790	760	725	685	650	610	570	
				MED	670	640	615	585	560	530	495	465	
				LOW	560	530	500	475	445	420	395	365	
10YRHBC-4 -31	1/4	1625	1.26	HI	1020	980	940	905	865	830	790	750	
				MED	890	855	820	790	755	725	695	660	
				LOW	740	710	685	660	635	610	585	555	
13YRHBC-4 -31	1/6 (two)	1550	0.80 Ea.	HI	1335	1290	1245	1200	1155	1105	1045	985	
				MED	1205	1170	1135	1095	1050	1000	940	875	
				LOW	1075	1040	1000	960	915	870	820	765	

- Notes: 1. Motors are 277v / 60Hz, high efficiency PSC type  
 2. Maximum HACR breaker is 15 amp  
 3. Coil fins-per-inch varies to allow consistent air flow

## YRHBC — 277 Volt

YRHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 277 Volt)												
MODEL	HP	MAX RPM	AMPS (277V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)									
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50	
3YRHBC-41 -32	1/20	1100	0.48	HI	275	245	---	---	---	---	---	---	---	---
				MED	225	200	---	---	---	---	---	---	---	---
				LOW	185	155	---	---	---	---	---	---	---	---
4YRHBC-41 -32	1/15	1050	0.52	HI	395	345	---	---	---	---	---	---	---	---
				MED	340	300	---	---	---	---	---	---	---	---
				LOW	300	260	---	---	---	---	---	---	---	---
5YRHBC-41 -32	1/15	1050	0.52	HI	465	415	365	---	---	---	---	---	---	---
				MED	365	325	280	---	---	---	---	---	---	---
				LOW	305	270	235	---	---	---	---	---	---	---
6YRHBC-41 -32	1/12	1625	0.56	HI	610	580	550	520	485	450	415	370	---	
				MED	515	485	455	430	400	370	335	300	---	
				LOW	440	410	385	355	325	295	260	215	---	
8YRHBC-41 -32	1/6	1550	0.80	HI	805	775	740	710	675	640	605	570	---	
				MED	665	635	605	575	550	520	490	460	---	
				LOW	560	530	505	475	450	425	400	370	---	
10YRHBC-41 -32	1/4	1625	1.26	HI	990	950	915	885	850	815	760	690	---	
				MED	875	835	805	775	745	715	680	620	---	
				LOW	735	700	675	650	625	595	560	510	---	
13YRHBC-41 -32	1/6 (two)	1550	0.80 Ea.	HI	1285	1240	1195	1150	1100	1045	990	925	795	
				MED	1170	1130	1090	1050	1005	955	900	840	730	
				LOW	1045	1010	975	940	895	845	795	735	625	

- Notes:**
1. Motors are 277v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

# YRHBC - Blower Data

## YRHBC — 220 Volt / 50Hz

YRHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (3 ROW 220 Volt)											
MODEL	HP	MAX RPM	AMPS (220V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YRHBC-3	1/20	1075	0.40	HI	230	200	---	---	---	---	---	---	---
				MED	195	160	---	---	---	---	---	---	---
				LOW	150	---	---	---	---	---	---	---	---
4YRHBC-3	1/12	1050	0.55	HI	420	380	335	---	---	---	---	---	---
				MED	350	305	265	---	---	---	---	---	---
				LOW	275	240	200	---	---	---	---	---	---
5YRHBC-3	1/12	1050	0.55	HI	410	365	---	---	---	---	---	---	---
				MED	340	295	---	---	---	---	---	---	---
				LOW	270	230	---	---	---	---	---	---	---
6YRHBC-3	1/5	1550	1.02	HI	585	540	500	455	410	---	---	---	---
				MED	520	480	440	400	350	---	---	---	---
				LOW	455	415	375	325	275	---	---	---	---
8YRHBC-3	1/5	1550	1.02	HI	795	750	700	660	620	580	535	---	---
				MED	605	580	555	530	500	460	410	---	---
				LOW	425	405	390	365	340	---	---	---	---
10YRHBC-3	1/4	1625	1.53	HI	920	865	810	755	700	650	595	545	---
				MED	825	775	730	680	635	585	540	490	---
				LOW	685	640	605	570	535	495	440	365	---
13YRHBC-3	1/5 (two)	1550	1.02 Ea.	HI	1165	1110	1055	1000	935	860	775	680	---
				MED	1050	1000	945	890	825	760	680	580	---
				LOW	855	815	775	730	680	625	555	465	---

- Notes:**
1. Motors are 220v / 50Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

YRHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4 ROW or 3/1 Split 220 Volt)											
MODEL	HP	MAX RPM	AMPS (220V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YRHBC-4 -31	1/20	1075	0.40	HI	225	200	---	---	---	---	---	---	---
				MED	190	165	---	---	---	---	---	---	---
				LOW	150	---	---	---	---	---	---	---	---
4YRHBC-4 -31	1/12	1050	0.55	HI	405	370	330	---	---	---	---	---	---
				MED	340	310	275	---	---	---	---	---	---
				LOW	275	240	200	---	---	---	---	---	---
5YRHBC-4 -31	1/12	1050	0.55	HI	410	365	---	---	---	---	---	---	---
				MED	330	290	---	---	---	---	---	---	---
				LOW	270	225	---	---	---	---	---	---	---
6YRHBC-4 -31	1/5	1550	1.02	HI	585	545	505	460	410	355	---	---	---
				MED	520	480	440	395	345	295	---	---	---
				LOW	455	415	370	325	280	225	---	---	---
8YRHBC-4 -31	1/5	1550	1.02	HI	745	705	665	625	580	535	485	---	---
				MED	590	560	535	500	465	420	370	---	---
				LOW	415	395	375	355	325	285	240	---	---
10YRHBC-4 -31	1/4	1625	1.53	HI	865	815	770	725	675	625	570	---	---
				MED	785	735	695	650	610	570	520	---	---
				LOW	665	630	595	560	520	475	420	---	---
13YRHBC-4 -31	1/5 (two)	1550	1.02 Ea.	HI	1080	1020	965	905	835	760	670	---	---
				MED	985	930	870	810	745	665	585	---	---
				LOW	825	785	740	685	625	555	475	---	---

- Notes:**
1. Motors are 220v / 50Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

## YRHBC — 220 Volt / 50Hz

YRHBC SERIES		CFM vs EXTERNAL STATIC PRESSURE (4/1 or 3/2 Split 220 Volt)											
MODEL	HP	MAX RPM	AMPS (220V)	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)								
					0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.50
3YRHBC-41 -32	1/20	1075	0.40	HI	225	195	---	---	---	---	---	---	---
				MED	190	160	---	---	---	---	---	---	---
				LOW	145	---	---	---	---	---	---	---	---
4YRHBC-41 -32	1/12	1050	0.55	HI	395	355	315	---	---	---	---	---	---
				MED	330	295	260	---	---	---	---	---	---
				LOW	260	215	170	---	---	---	---	---	---
5YRHBC-41 -32	1/12	1050	0.55	HI	395	345	---	---	---	---	---	---	---
				MED	325	285	---	---	---	---	---	---	---
				LOW	265	225	---	---	---	---	---	---	---
6YRHBC-41 -32	1/5	1550	1.02	HI	535	495	460	415	370	---	---	---	---
				MED	485	445	405	365	320	---	---	---	---
				LOW	430	390	350	305	260	---	---	---	---
8YRHBC-41 -32	1/5	1550	1.02	HI	740	700	660	615	575	525	---	---	---
				MED	590	560	530	500	470	430	---	---	---
				LOW	420	400	380	360	330	300	---	---	---
10YRHBC-41 -32	1/4	1625	1.53	HI	850	800	755	705	655	600	540	---	---
				MED	785	735	680	635	590	545	490	---	---
				LOW	660	615	575	540	505	465	410	---	---
13YRHBC-41 -32	1/5 (two)	1550	1.02 Ea.	HI	1030	975	920	860	790	715	630	---	---
				MED	950	895	835	775	705	630	550	---	---
				LOW	800	755	705	650	595	530	455	---	---

- Notes:**
1. Motors are 220v / 50Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

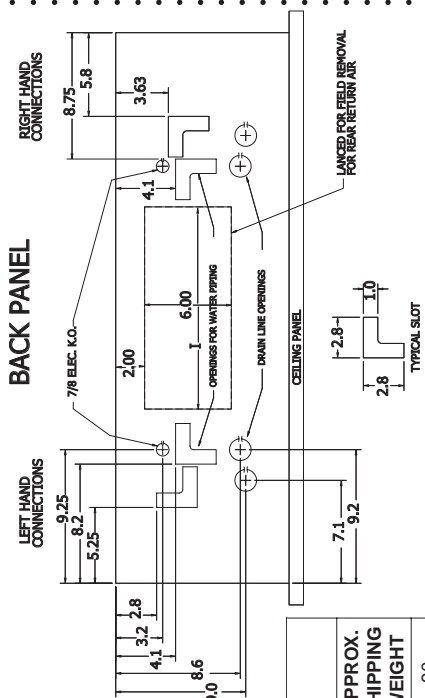
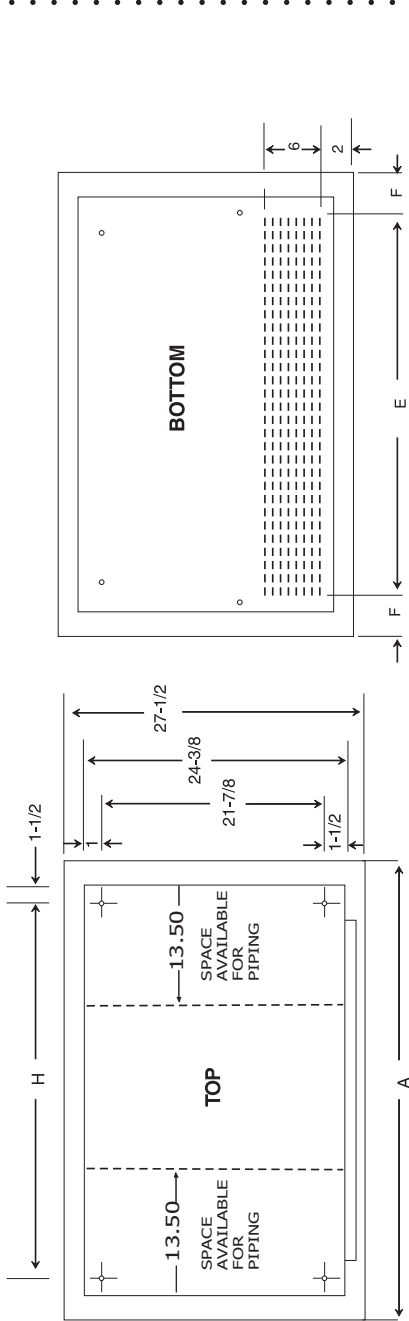
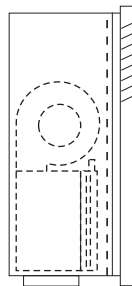
YRHBC

# YRHBC - Product Dimensions

YRHBC

- NOTES:**
- 1) All dimensions in inches.
  - 2) Coil connection tolerance  $\pm 1/4"$ .
  - 3) Right hand unit shown, left hand mirror image. (hand is determined by facing the blower end)

LEFT SIDE



- FEATURES:**
- 1) Telescoping panel allows the cabinet to be installed to within 2 inches of the ceiling line. The adjustable panel frame ensures a flush installation.
  - 2) Louvered access panel (bottom return) is standard. Specify solid panel if ducted rear return air is required.

MODEL	GENERAL DIMENSIONS										TELESCOPING SOLID ACCESS PANEL	FILTER SIZE (INCL)	APPROX. SHIPPING WEIGHT
	A	B	C	D	E	F	G	H	I	TELESCOPING LOUVERED ACCESS PANEL			
3YRHBC	41	38-3/8	29	4-1/2	36-5/8	1-7/16	5-1/2	35	14	968-1	968-1S	10 X 37	90
4YRHBC	47	44-3/8	35	4-1/2	41-3/4	1-7/16	5-1/2	41	20	968-2	968-2S	10 X 43	100
5YRHBC	51	48-3/8	39	4-1/2	47-1/4	1-1/8	5-1/2	45	24	968-3	968-3S	10 X 47.5	105
6YRHBC	51	48-3/8	39	4-1/2	47-1/4	1-1/8	5-1/2	45	24	968-3	968-3S	10 X 47.5	105
8YRHBC	57	54-3/8	45	4-1/2	52-1/2	1-7/16	5-1/2	51	30	968-4	968-4S	10 X 53	120
10YRHBC	67	60-3/8	51	4-1/2	57-7/8	1-13/16	5-1/2	57	36	968-5	968-5S	10 X 59	140
13YRHBC	70	67-3/8	58	4-1/2	63-1/8	2-11/16	5-1/2	64	42	968-6	968-6S	10 X 65	160

**PRODUCT DRAWING:**

FAN COIL UNITS - DIRECT DRIVE  
 MODEL YRHBC  
 NOT FOR CONSTRUCTION

Project Name:  
 Location:  
 Engineer:  
 Contractor:  
 For: REFERENCE

Sold To:  
 Cust Purch Order #:

Quote Date:  
 Rev. Date:  
 Form No.:  
 Dwg. Lev.:  
 Scale: NTS

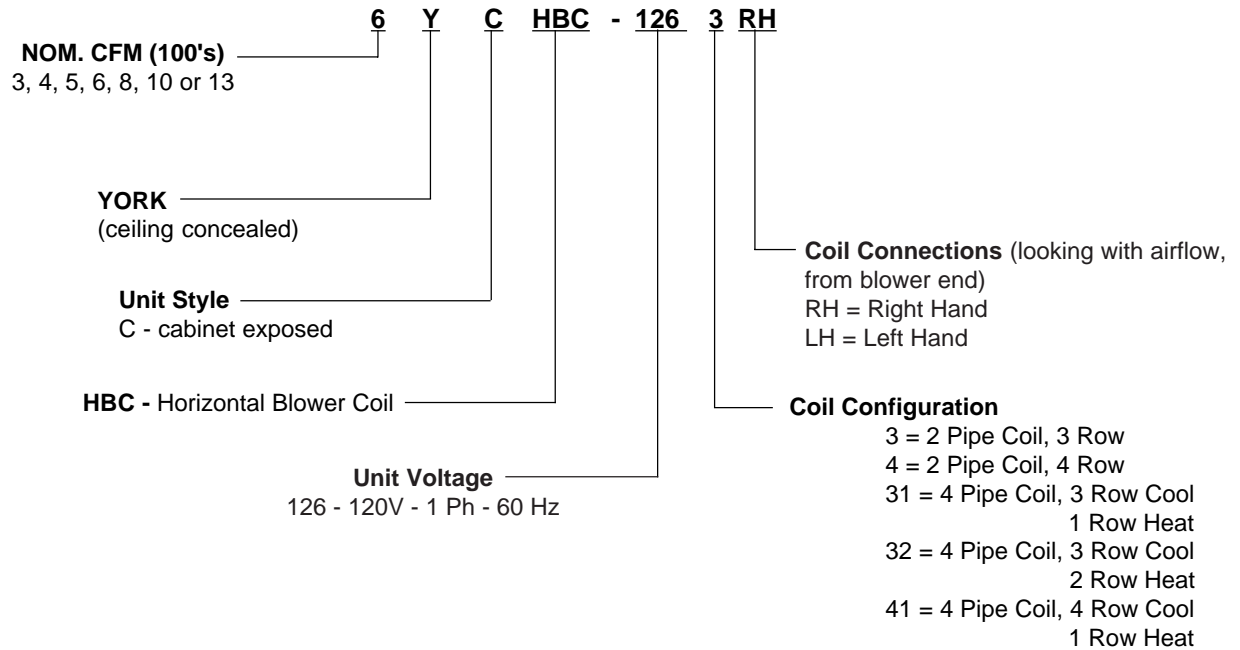


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Supersedes: 115.20-PA4 (1202)

FORM 115.20-PA4 (404)

# YCHBC - Nomenclature



# YCHBC - Blower Data

## YCHBC Series - Ceiling Cabinet Model

The YCHBC Series fan coil is designed for installations where sufficient room for ductwork isn't available. It contains all of the features of the YHBC Series and includes a decorative cabinet with stamped discharge grille. The cabinet has an attractive baked on off white enamel finish. An attractive stamped return air grille in the hinged bottom panel is standard.



00777VIP

YCHBC

## YCHBC — 120 Volt

YCHBC SERIES		(3 ROW 120 Volt)			
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	CFM
3YCHBC-3	1/20	1050	0.9	HI MED LOW	300 245 210
4YCHBC-3	1/12	1050	1.1	HI MED LOW	480 375 325
5YCHBC-3	1/12	1050	1.3	HI MED LOW	560 465 345
6YCHBC-3	1/8	1550	1.9	HI MED LOW	730 650 550
8YCHBC-3	1/5	1550	3.0	HI MED LOW	920 750 605
10YCHBC-3	1/4	1550	3.6	HI MED LOW	1145 930 795
13YCHBC-3	1/5 (two)	1550	4.6	HI MED LOW	1500 1320 1160

- Notes:**
1. Motors are 120v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow



## YCHBC — 120 Volt

YCHBC SERIES		(4 ROW or 3/1 Split 120 Volt)			
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	CFM
3YCHBC-4 -31	1/20	1050	0.9	HI	280
				MED	230
				LOW	195
4YCHBC-4 -31	1/12	1050	1.1	HI	450
				MED	370
				LOW	320
5YCHBC-4 -31	1/12	1050	1.3	HI	550
				MED	455
				LOW	340
6YCHBC-4 -31	1/8	1550	1.9	HI	710
				MED	615
				LOW	535
8YCHBC-4 -31	1/5	1550	3.0	HI	885
				MED	730
				LOW	595
10YCHBC-4 -31	1/4	1550	3.6	HI	1110
				MED	915
				LOW	770
13YCHBC-4 -31	1/5 (two)	1550	2.3 Ea.	HI	1450
				MED	1270
				LOW	1130

- Notes:**
1. Motors are 120v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

YCHBC SERIES		(4/1 or 3/2 Split 120 Volt)			
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	CFM
3YCHBC-41 -32	1/20	1050	0.9	HI	270
				MED	225
				LOW	190
4YCHBC-41 -32	1/12	1050	1.1	HI	420
				MED	355
				LOW	305
5YCHBC-41 -32	1/12	1050	1.3	HI	520
				MED	440
				LOW	325
6YCHBC-41 -32	1/8	1550	1.9	HI	625
				MED	520
				LOW	440
8YCHBC-41 -32	1/5	1550	3.0	HI	875
				MED	725
				LOW	615
10YCHBC-41 -32	1/4	1550	3.6	HI	1075
				MED	900
				LOW	765
13YCHBC-41 -32	1/5 (two)	1550	2.3 Ea.	HI	1420
				MED	1315
				LOW	1160

- Notes:**
1. Motors are 120v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

# YCHBC - Blower Data

## YCHBC — 277 Volt

YCHBC SERIES		(3 ROW 277 Volt)			
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	CFM
3YCHBC-3	1/20	1100	0.48	HI MED LOW	285 220 160
4YCHBC-3	1/15	1050	0.52	HI MED LOW	450 365 315
5YCHBC-3	1/15	1050	0.52	HI MED LOW	535 375 305
6YCHBC-3	1/12	1625	0.56	HI MED LOW	670 545 455
8YCHBC-3	1/6	1550	0.80	HI MED LOW	880 700 585
10YCHBC-3	1/4	1625	1.26	HI MED LOW	1140 920 755
13YCHBC-3	1/6 (two)	1550	0.80 Ea.	HI MED LOW	1535 1340 1140

- Notes:**
1. Motors are 277v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

YCHBC SERIES		(4 ROW or 3/1 Split 277 Volt)			
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	CFM
3YCHBC-4 -31	1/20	1100	0.48	HI MED LOW	270 215 175
4YCHBC-4 -31	1/15	1050	0.52	HI MED LOW	435 355 315
5YCHBC-4 -31	1/15	1050	0.52	HI MED LOW	525 360 300
6YCHBC-4 -31	1/12	1625	0.56	HI MED LOW	665 540 445
8YCHBC-4 -31	1/6	1550	0.80	HI MED LOW	835 680 555
10YCHBC-4 -31	1/4	1625	1.26	HI MED LOW	1100 890 745
13YCHBC-4 -31	1/6 (two)	1550	0.80 Ea.	HI MED LOW	1465 1280 1110

- Notes:**
1. Motors are 277v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

## YCHBC — 277 Volt

YCHBC SERIES		(4/1 or 3/2 Split 277 Volt)			
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	CFM
3YCHBC-41 -32	1/20	1100	0.48	HI MED LOW	265 210 160
4YCHBC-41 -32	1/15	1050	0.52	HI MED LOW	440 355 315
5YCHBC-41 -32	1/15	1050	0.52	HI MED LOW	480 350 285
6YCHBC-41 -32	1/12	1625	0.56	HI MED LOW	630 510 430
8YCHBC-41 -32	1/6	1550	0.80	HI MED LOW	830 660 550
10YCHBC-41 -32	1/4	1625	1.26	HI MED LOW	1065 905 750
13YCHBC-41 -32	1/6 (two)	1550	0.80 Ea.	HI MED LOW	1415 1245 1090

- Notes:**
1. Motors are 120v / 60Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

# YCHBC - Blower Data

## YCHBC — 220 Volt / 50 Hz

YCHBC SERIES		(3 ROW 220 Volt)			
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	CFM
3YCHBC-3	1/20	1075	0.40	HI MED LOW	225 175 125
4YCHBC-3	1/12	1050	0.55	HI MED LOW	430 340 265
5YCHBC-3	1/12	1050	0.55	HI MED LOW	405 325 245
6YCHBC-3	1/5	1550	1.02	HI MED LOW	630 530 455
8YCHBC-3	1/5	1550	1.02	HI MED LOW	825 610 415
10YCHBC-3	1/4	1625	1.53	HI MED LOW	1025 815 645
13YCHBC-3	1/5 (two)	1550	1.02 Ea.	HI MED LOW	1295 1115 865

- Notes:**
1. Motors are 220v / 50Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

YCHBC SERIES		(4 ROW or 3/1 Split 220 Volt)			
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	CFM
3YCHBC-4 -31	1/20	1075	0.40	HI MED LOW	225 180 130
4YCHBC-4 -31	1/12	1050	0.55	HI MED LOW	425 345 265
5YCHBC-4 -31	1/12	1050	0.55	HI MED LOW	395 320 245
6YCHBC-4 -31	1/5	1550	1.02	HI MED LOW	620 535 450
8YCHBC-4 -31	1/5	1550	1.02	HI MED LOW	765 585 400
10YCHBC-4 -31	1/4	1625	1.53	HI MED LOW	965 840 695
13YCHBC-4 -31	1/5 (two)	1550	1.02 Ea.	HI MED LOW	1185 1035 830

- Notes:**
1. Motors are 220v / 50Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

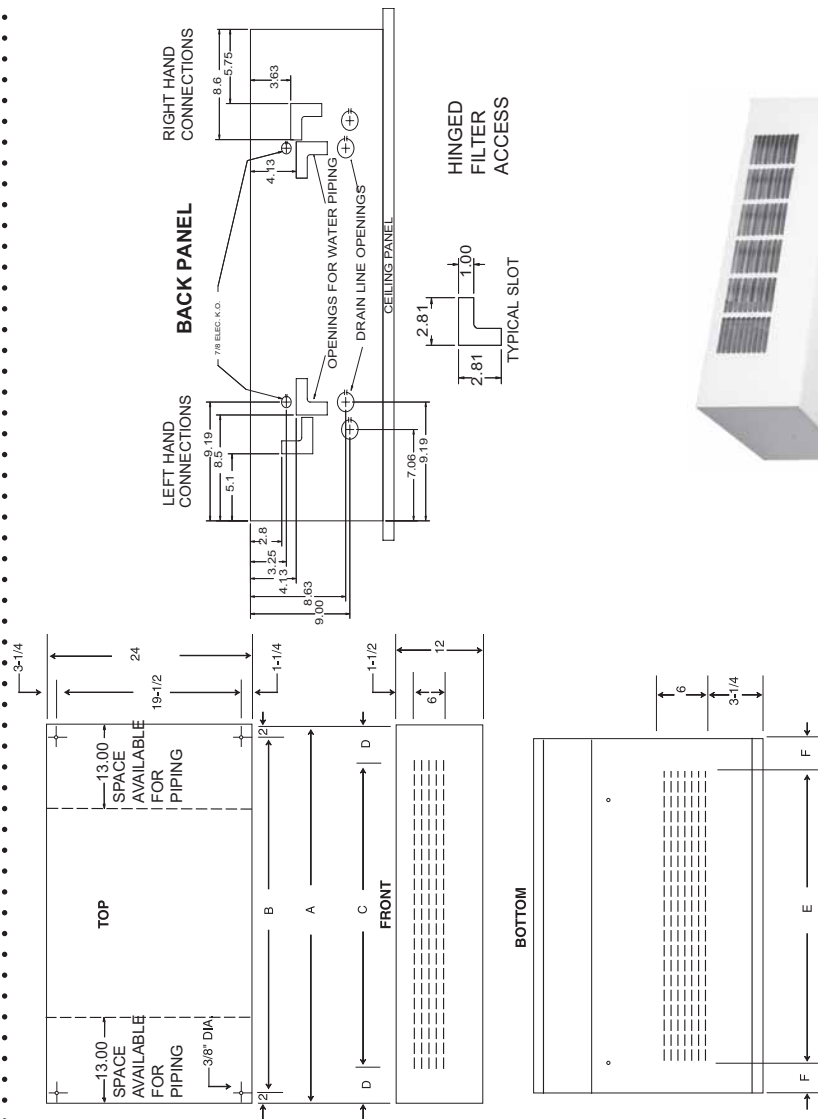
## YCHBC — 220 Volt / 50Hz

YCHBC SERIES		(4/1 or 3/2 Split 220 Volt)			
MODEL	HP	MAX RPM	AMPS (120V)	FAN SPEED	CFM
3YCHBC-41 -32	1/20	1075	0.40	HI	225
				MED	175
				LOW	125
4YCHBC-41 -32	1/12	1050	0.55	HI	410
				MED	325
				LOW	255
5YCHBC-41 -32	1/12	1050	0.55	HI	375
				MED	305
				LOW	240
6YCHBC-41 -32	1/5	1550	1.02	HI	570
				MED	500
				LOW	420
8YCHBC-41 -32	1/5	1550	1.02	HI	760
				MED	590
				LOW	405
10YCHBC-41 -32	1/4	1625	1.53	HI	940
				MED	835
				LOW	690
13YCHBC-41 -32	1/5 (two)	1550	1.02 Ea.	HI	1140
				MED	1000
				LOW	805

- Notes:**
1. Motors are 220v / 50Hz, high efficiency PSC type
  2. Maximum HACR breaker is 15 amp
  3. Coil fins-per-inch varies to allow consistent air flow

# YCHBC - Product Dimensions

YCHBC



**FEATURES:**

- 1) Side panels are removable for easier valve access.
- 2) Plastic thumb screws are provided for easy filter access.

- NOTES:**
- 1) All dimensions in inches.
  - 2) Coil connection tolerance  $\pm 1/4"$ .
  - 3) Right hand unit shown, left hand mirror image. (hand is determined by facing the blower end)

GENERAL DIMENSIONS							APPROX. SHIPPING WEIGHT	
MODEL	A	B	C	D	E	F		CONNECTIONS PRIMARY O.D.
3YCHBC	38	34	26	6	31-1/2	3-1/2	90	5/8"
4YCHBC	44	40	31-1/2	6	37	3-1/2	100	
5YCHBC	48	44	37	5-1/2	42-1/2	3	105	
6YCHBC	48	44	37	5-1/2	42-1/2	3	115	
8YCHBC	54	50	42-1/2	6	48	3	120	
10YCHBC	60	56	48	6	53	3-1/2	140	
13YCHBC	67	63	53	7	58-1/2	4	160	

**PRODUCT DRAWING:** Project Name:  
 Location:  
 Engineer:  
 Contractor:  
 For: REFERENCE

Sold To:  
 Cust Purch Order #:

Quote Date:  
 Rev. Date:  
 Form No.:  
 Dwg. Lev.:  
 Dwg. Scale: NTS



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Supersedes: 115.20-PA3 (1202)

FORM 115.20-PA3 (404)

# Cooling Capacity

## Y\*HBC-3 (3-Row Coil) All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)																	
MODEL	NOMINAL CFM	45°F ENTERING WATER									42°F ENTERING WATER						
		GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)			GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
3Y*HBC-3	300	3.0	12.6	10.8	7.4	7.2	8.3	6.5	5.5	3.0	12.6	11.8	7.8	7.9	9.0	6.8	6.0
		2.5	9.0	10.4	7.3	8.3	8.0	6.3	6.4	2.5	9.0	11.4	7.6	9.1	8.7	6.6	6.9
		2.0	6.0	9.9	7.1	9.9	7.5	6.2	7.5	2.0	6.0	10.8	7.4	10.8	8.2	6.4	8.2
		1.5	3.6	9.0	6.7	12.1	6.9	5.9	9.2	1.5	3.6	9.9	7.1	13.1	7.5	6.2	10.0
4Y*HBC-3	400	3.0	14.7	13.8	9.6	9.2	10.6	8.4	7.0	3.0	14.7	15.1	10.1	10.1	11.5	8.8	7.7
		2.5	10.7	13.2	9.4	10.5	10.0	8.2	8.0	2.5	10.7	14.3	9.8	11.5	11.0	8.6	8.8
		2.0	7.2	12.3	9.1	12.3	9.4	8.0	9.4	2.0	7.2	13.4	9.5	13.4	10.2	8.3	10.2
		1.5	4.4	10.5	8.5	14.4	8.3	7.5	11.0	1.5	4.4	11.8	8.9	15.7	9.0	7.8	12.0
5Y*HBC-3	500	6.0	13.8	17.9	12.2	6.0	13.7	10.7	4.6	6.0	13.8	19.6	12.9	6.5	14.9	11.1	5.0
		5.0	9.8	17.3	12.0	6.9	13.2	10.5	5.3	5.0	9.8	18.9	12.6	7.5	14.4	10.9	5.8
		4.0	6.5	16.5	11.7	8.2	12.6	10.2	6.3	4.0	6.5	17.9	12.3	9.0	13.7	10.7	6.9
		3.0	3.8	15.0	11.2	10.0	11.5	9.8	7.7	3.0	3.8	16.4	11.7	10.9	12.5	10.2	8.3
6Y*HBC-3	600	6.0	13.8	20.6	14.1	6.9	15.7	12.3	5.2	6.0	13.8	22.4	14.8	7.5	17.1	12.9	5.7
		5.0	9.8	19.8	13.8	7.9	15.1	12.1	6.0	5.0	9.8	21.6	14.5	8.6	16.5	12.6	6.6
		4.0	6.5	18.7	13.4	9.4	14.3	11.8	7.2	4.0	6.5	20.4	14.1	10.2	15.6	12.3	7.8
		3.0	3.8	17.0	12.8	11.3	13.0	11.2	8.6	3.0	3.8	18.5	13.4	12.3	14.1	11.7	9.4
8Y*HBC-3	800	6.5	13.7	24.7	17.6	7.6	18.9	15.5	5.8	6.5	13.7	27.0	18.5	8.3	20.6	16.1	6.3
		5.5	10.0	23.7	17.3	8.6	18.1	15.1	6.6	5.5	10.0	25.8	18.1	9.4	19.7	15.8	7.2
		4.5	6.9	22.3	16.8	9.9	17.0	14.7	7.6	4.5	6.9	24.3	17.5	10.8	18.6	15.3	8.3
		3.5	4.3	20.1	16.0	11.5	15.4	14.1	8.8	3.5	4.3	21.9	16.6	12.5	16.7	14.6	9.6
10Y*HBC-3	1000	8.0	17.9	30.3	21.7	7.6	23.2	19.0	5.8	8.0	17.9	33.0	22.7	8.3	25.2	19.8	6.3
		7.0	13.7	29.2	21.3	8.4	22.3	18.7	6.4	7.0	13.7	31.9	22.3	9.1	24.3	19.4	7.0
		6.0	10.1	27.9	20.8	9.3	21.3	18.3	7.1	6.0	10.1	30.4	21.7	10.1	23.2	19.0	7.7
		5.0	7.0	26.2	20.1	10.5	20.0	17.8	8.0	5.0	7.0	28.5	21.0	11.4	21.8	18.5	8.7
13Y*HBC-3	1300	8.0	18.2	35.0	25.4	8.8	26.7	22.3	6.7	8.0	18.2	38.2	26.6	9.5	29.1	23.2	7.3
		7.0	14.1	33.6	24.9	9.6	25.7	21.9	7.3	7.0	14.1	36.7	26.0	10.5	28.0	22.8	8.0
		6.0	10.5	31.9	24.3	10.6	24.4	21.4	8.1	6.0	10.5	34.8	25.3	11.6	26.6	22.3	8.9
		5.0	7.4	29.7	23.5	11.9	22.7	20.8	9.1	5.0	7.4	32.4	24.4	12.9	24.7	21.5	9.9

TH - Total Cooling Capacity    SH - Sensible Cooling Capacity    TR - Water temp. rise

Y\*HBC COMMON DATA

# Heating Capacity

- \* - P - with insulated return plenum
- R - recessed with telescoping panel
- C - cabinet exposed

## Y\*HBC-3 (3-Row Coil)

HEATING CAPACITY (1000 BTUH)							
MODEL	NOMINAL CFM	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMP.			
				180°F	160°F	140°F	120°F
3Y*HBC-3	300	3.0	12.6	26.9	22.0	17.1	12.2
		2.0	6.0	26.0	21.2	16.5	11.8
		1.0	1.7	23.4	19.1	14.9	10.6
4Y*HBC-3	400	3.5	19.3	35.8	29.3	22.8	16.3
		2.5	10.7	34.6	28.3	22.0	15.7
		1.5	4.4	32.1	26.3	20.4	14.6
5Y*HBC-3	500	5.0	9.8	43.7	35.7	27.8	19.8
		3.5	5.1	42.2	34.5	26.8	19.2
		2.0	1.8	38.6	31.6	24.6	17.5
6Y*HBC-3	600	5.0	9.8	49.7	40.6	31.6	22.6
		3.5	5.1	47.8	39.1	30.4	21.7
		2.0	1.8	43.5	35.6	27.7	19.8
8Y*HBC-3	800	7.0	15.7	65.0	53.2	41.4	29.6
		5.0	8.4	62.7	51.3	39.9	28.5
		3.0	3.2	57.7	47.2	36.7	26.2
10Y*HBC-3	1000	8.0	17.9	79.2	64.8	50.4	36.0
		6.0	10.1	76.6	62.7	48.8	34.8
		4.0	4.5	71.9	58.8	45.7	32.7
13Y*HBC-3	1300	8.0	18.2	93.3	76.4	59.4	42.4
		6.0	10.5	90.0	73.6	57.2	40.9
		4.0	4.9	83.8	68.6	53.3	38.1

**NOTES:**

1. Ratings at 70 degree ent. air temp.
2. Contact factory for capacities at other conditions

- \* - P - with insulated return plenum
- R - recessed with telescoping panel
- C - cabinet exposed

# Cooling Capacity

## Y\*HBC-4 (4-Row Coil) All capacities are based on nominal CFM.

Y\*HBC  
COMMON  
DATA

COOLING CAPACITY (1000 BTUH)																	
MODEL	NOMINAL CFM	45°F ENTERING WATER									42°F ENTERING WATER						
		GPM	P.D. (FT. WTR.)	80°F D.B. ( 67°F W.B.)			75°F D.B. (63°F W.B.)			GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
3Y*HBC-4	300	2.5	11.4	11.5	7.8	9.2	8.8	6.8	7.0	2.5	11.4	12.5	8.2	10.0	9.6	7.1	7.7
		2.0	7.6	10.9	7.6	10.9	8.3	6.6	8.3	2.0	7.6	11.9	8.0	11.9	9.1	6.9	9.1
		1.5	4.5	10.0	7.2	13.3	7.6	6.3	10.1	1.5	4.5	10.9	7.6	14.5	8.3	6.6	11.1
		1.0	2.2	8.3	6.6	16.5	6.3	5.8	12.6	1.0	2.2	9.0	6.9	18.0	6.9	6.1	13.7
4Y*HBC-4	400	2.5	13.2	14.5	10.1	11.6	11.1	8.8	8.9	2.5	13.2	15.8	10.6	12.7	12.1	9.2	9.7
		2.0	8.9	13.5	9.7	13.5	10.3	8.5	10.3	2.0	8.9	14.7	10.2	14.7	11.3	8.9	11.3
		1.5	5.3	11.9	9.1	15.9	9.1	8.0	12.2	1.5	5.3	13.0	9.6	17.4	9.9	8.4	13.3
		1.2	3.6	10.5	8.6	17.5	8.0	7.6	17.1	1.2	3.6	11.5	9.0	19.1	8.8	7.9	14.6
5Y*HBC-4	500	3.5	6.5	17.5	12.4	10.0	13.4	10.8	7.7	3.5	6.5	19.1	13.3	10.9	14.6	11.3	8.3
		3.0	4.9	16.6	12.0	11.1	12.7	10.5	8.5	3.0	4.9	18.1	12.6	12.1	13.8	11.0	9.2
		2.5	3.5	15.4	11.6	12.3	11.8	10.2	9.4	2.5	3.5	16.8	12.1	13.5	12.9	10.6	10.3
		2.0	2.3	13.9	11.0	13.9	10.6	9.7	10.6	2.0	2.3	15.2	11.5	15.2	11.6	10.1	11.6
6Y*HBC-4	600	5.0	12.6	21.9	15.1	8.8	16.8	13.1	6.7	5.0	12.6	23.9	15.8	9.6	18.3	13.7	7.3
		4.0	8.3	20.8	14.6	10.4	15.9	12.7	7.9	4.0	8.3	22.6	15.3	11.3	17.3	13.3	8.6
		3.0	4.9	18.8	13.9	12.5	14.4	12.2	9.6	3.0	4.9	20.5	14.5	13.7	15.7	12.7	10.4
		2.0	2.3	15.6	12.7	15.6	11.9	11.2	11.9	2.0	2.3	17.0	13.2	17.0	13.0	11.6	13.0
8Y*HBC-4	800	6.0	14.7	27.0	19.1	9.0	20.6	16.7	6.9	6.0	14.7	29.4	20.0	9.8	22.5	17.4	7.5
		5.0	10.7	25.7	18.6	10.3	19.6	16.3	7.8	5.0	10.7	28.0	19.5	11.2	21.4	17.0	8.6
		4.0	7.2	23.7	17.8	11.9	18.1	15.7	7.2	4.0	7.2	25.9	18.6	12.9	19.7	16.3	9.9
		3.0	4.4	20.8	16.8	13.9	15.9	14.8	10.6	3.0	4.4	22.7	17.5	15.1	17.3	15.4	11.5
10Y*HBC-4	1000	7.0	14.1	32.6	23.3	9.3	24.9	20.4	7.1	7.0	14.1	35.5	24.4	10.2	27.1	21.3	7.8
		6.0	10.5	31.1	22.8	10.4	23.8	19.9	7.9	6.0	10.5	33.9	23.8	11.3	25.9	20.8	8.6
		5.0	7.4	29.2	22.0	11.7	22.3	19.4	8.9	5.0	7.4	31.8	23.0	12.7	24.3	20.1	9.7
		4.0	4.9	26.4	21.0	13.2	20.2	18.6	10.1	4.0	4.9	28.8	21.9	14.4	22.0	19.3	11.0
13Y*HBC-4	1300	7.0	16.1	37.5	27.3	10.7	28.7	23.9	8.2	7.0	16.1	40.9	28.6	11.7	31.2	24.9	8.9
		6.0	12.0	35.7	26.6	11.9	27.2	23.4	9.1	6.0	12.0	38.9	27.8	13.0	29.7	24.3	9.9
		5.0	8.5	33.1	25.7	13.3	25.3	22.6	10.1	5.0	8.5	36.1	26.8	14.4	27.6	23.5	11.0
		4.0	5.6	29.7	24.4	14.8	24.6	24.6	12.3	4.0	5.6	32.3	25.4	16.2	24.7	22.4	12.4

TH - Total Cooling Capacity

SH - Sensible Cooling Capacity

TR - Water temp. rise

# Heating Capacity

## Y\*HBC-4 (4-Row Coil)

HEATING CAPACITY (1000 BTUH)							
MODEL	NOMINAL CFM	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMP.			
				180°F	160°F	140°F	120°F
3Y*HBC-4	300	3.0	15.9	28.6	23.4	18.2	13.0
		2.0	7.6	27.6	22.6	17.6	12.6
		1.0	2.2	24.9	20.3	15.8	11.3
4Y*HBC-4	400	3.0	18.2	37.6	30.7	23.9	17.1
		2.0	8.9	35.8	29.3	22.8	16.3
		1.0	2.6	31.3	25.6	19.9	14.2
5Y*HBC-4	500	4.0	8.3	45.6	37.3	29.0	20.7
		3.0	4.9	44.0	36.0	28.0	20.0
		2.0	2.3	41.2	33.7	26.2	18.7
6Y*HBC-4	600	5.0	12.6	53.2	43.5	33.9	24.2
		4.0	8.3	52.0	42.6	33.1	23.6
		3.0	4.9	50.1	41.0	31.9	22.8
8Y*HBC-4	800	6.0	14.7	68.8	56.3	43.8	31.3
		4.5	8.9	66.4	54.3	42.3	30.2
		3.0	4.4	62.0	50.7	39.4	28.2
10Y*HBC-4	1000	7.5	16.1	84.7	69.3	53.9	38.5
		6.0	10.5	82.5	67.5	52.5	37.5
		4.5	4.5	79.0	64.6	50.3	35.9
13Y*HBC-4	1300	8.0	20.8	100.5	82.2	63.9	45.7
		6.5	14.0	97.9	80.1	62.3	44.5
		5.0	8.5	94.1	77.0	69.9	42.8

**NOTES:**

1. Ratings at 70 degree ent. air temp.
2. Contact factory for capacities at other conditions

- \* - P - with insulated return plenum
- R - recessed with telescoping panel
- C - cabinet exposed



# Cooling Capacity

## Y\*HBC-31 (3-Row Coil) All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)																	
MODEL	NOMINAL CFM	45°F ENTERING WATER									42°F ENTERING WATER						
		GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)			GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
3Y*HBC-31	300	3.0	12.6	10.4	7.1	6.9	7.9	6.2	5.3	3.0	12.6	11.3	7.5	7.5	8.6	6.5	5.8
		2.5	9.0	10.0	7.0	8.0	7.6	6.1	6.1	2.5	9.0	10.9	7.3	8.7	8.3	6.3	6.6
		2.0	6.0	9.4	6.8	9.4	7.2	5.9	7.2	2.0	6.0	10.3	7.1	10.3	7.9	6.2	7.9
		1.5	3.6	8.6	6.5	11.5	6.6	5.7	8.8	1.5	3.6	9.4	6.7	12.6	7.2	5.9	9.6
4Y*HBC-31	400	3.0	14.7	13.2	9.2	8.8	10.1	8.0	6.7	3.0	14.7	14.4	9.7	9.6	11.0	8.4	7.3
		2.5	10.7	12.6	9.0	10.0	9.6	7.9	7.7	2.5	10.7	13.7	9.4	11.0	10.5	8.2	8.4
		2.0	7.2	11.7	8.7	11.7	8.9	7.6	8.9	2.0	7.2	12.8	9.1	12.8	9.7	7.9	9.7
		1.5	4.4	10.3	8.2	13.8	7.9	7.2	10.5	1.5	4.4	11.3	8.5	15.0	8.6	7.5	11.5
5Y*HBC-31	500	6.0	13.8	17.1	11.7	5.7	13.0	10.2	4.3	6.0	13.8	18.6	12.3	6.2	14.2	10.6	4.7
		5.0	9.8	16.5	11.5	6.6	12.6	10.0	5.0	5.0	9.8	18.0	12.0	7.2	13.7	10.4	5.5
		4.0	6.5	15.7	11.2	7.8	12.0	9.8	6.0	4.0	6.5	17.1	11.7	8.5	13.1	10.2	6.5
		3.0	3.8	14.3	10.7	9.5	10.9	9.4	7.3	3.0	3.8	15.6	11.1	10.4	11.9	9.7	8.0
6Y*HBC-31	600	6.0	13.8	19.5	13.4	6.5	14.9	11.7	5.0	6.0	13.8	21.3	14.1	7.1	16.2	12.3	5.4
		5.0	9.8	18.8	13.2	7.5	14.3	11.5	5.7	5.0	9.8	20.5	13.8	8.2	15.6	12.0	6.2
		4.0	6.5	17.8	12.8	8.9	13.6	11.2	6.8	4.0	6.5	19.4	13.4	9.7	14.8	11.7	7.4
		3.0	3.8	16.1	12.2	10.7	12.3	10.7	8.2	3.0	3.8	17.5	12.7	11.7	13.4	11.2	8.9
8Y*HBC-31	800	6.5	13.7	23.4	16.8	7.2	17.9	14.7	5.5	6.5	13.7	25.5	17.6	7.9	19.5	15.3	6.0
		5.5	10.0	22.4	16.4	8.2	17.1	14.4	6.2	5.5	10.0	24.5	17.2	8.9	18.7	15.0	6.8
		4.5	6.9	21.1	15.9	9.4	16.1	14.0	7.2	4.5	6.9	23.0	16.6	10.2	17.6	14.6	7.8
		3.5	4.3	29.1	15.2	10.9	14.6	13.4	8.3	3.5	4.3	20.8	15.8	11.9	15.9	13.9	9.1
10Y*HBC-31	1000	8.0	17.9	28.7	20.6	7.2	21.9	18.1	5.5	8.0	17.9	31.3	21.6	7.8	23.9	18.8	6.0
		7.0	13.7	27.7	20.2	7.9	21.1	17.8	6.0	7.0	13.7	30.2	21.1	8.6	23.0	18.5	6.6
		6.0	10.1	26.4	19.8	8.8	20.2	17.4	6.7	6.0	10.1	28.8	20.6	9.6	22.0	18.1	7.3
		5.0	7.0	24.8	19.2	9.9	18.9	16.9	7.6	5.0	7.0	27.0	20.0	10.8	20.6	17.6	8.2
13Y*HBC-31	1300	8.0	18.2	33.1	24.4	8.3	25.3	21.2	6.3	8.0	18.2	36.1	25.3	9.0	27.6	22.1	6.9
		7.0	14.1	31.8	23.7	9.1	24.3	20.9	6.9	7.0	14.1	34.7	24.7	9.9	26.5	21.7	7.6
		6.0	10.5	30.2	23.1	10.1	23.1	20.4	7.7	6.0	10.5	33.0	24.1	11.0	25.2	21.2	8.4
		5.0	7.4	28.1	22.3	11.2	21.5	19.8	8.6	5.0	7.4	30.6	23.2	12.3	23.4	20.5	9.4

TH - Total Cooling Capacity

SH - Sensible Cooling Capacity

TR - Water temp. rise

Y\*HBC  
COMMON  
DATA

# Heating Capacity

## Y\*HBC-31 (1-Row Coil)

HEATING CAPACITY (1000 BTUH)							
MODEL	NOMINAL CFM	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMP.			
				180°F	160°F	140°F	120°F
				3Y*HBC-31	300	2.0	11.3
1.5	6.7	14.7	12.0			9.4	6.7
1.0	3.2	13.9	11.4			8.8	6.3
4Y*HBC-31	400	2.0	14.4	19.6	16.1	12.5	8.9
		1.5	8.9	18.9	15.5	12.0	8.6
		1.0	4.5	17.5	14.4	11.2	8.0
5Y*HBC-31	500	2.0	15.0	23.3	19.1	14.8	10.6
		1.5	9.0	22.3	18.2	14.2	10.1
		1.0	4.4	20.4	16.7	13.0	9.3
6Y*HBC-31	600	2.0	15.0	25.7	21.0	16.4	11.7
		1.5	9.0	24.5	20.0	15.6	11.1
		1.0	4.4	22.4	18.3	14.2	10.2
8Y*HBC-31	800	2.0	18.8	31.6	25.9	20.1	14.4
		1.5	11.3	29.8	24.4	19.0	13.6
		1.0	5.5	26.8	21.9	17.0	12.2
10Y*HBC-31	1000	2.0	19.9	37.0	30.3	23.5	16.8
		1.5	12.3	34.6	28.3	22.0	15.7
		1.0	6.2	30.8	25.2	19.6	14.0
13Y*HBC-31	1300	2.0	23.4	42.3	34.6	26.9	19.2
		1.5	14.0	39.4	32.2	25.1	17.9
		1.0	6.8	35.2	28.8	22.4	16.0

**NOTES:**

1. Ratings at 70 degree ent. air temp.
2. Contact factory for capacities at other conditions

- \* - P - with insulated return plenum
- R - recessed with telescoping panel
- C - cabinet exposed

# Cooling Capacity

## Y\*HBC-32 (3-Row Coil) All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)																	
MODEL	NOMINAL CFM	45°F ENTERING WATER									42°F ENTERING WATER						
		GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)			GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
3Y*HBC-32	300	3.0	12.6	9.6	6.5	6.4	7.3	5.7	4.9	3.0	12.6	10.5	6.9	7.0	8.0	6.0	5.3
		2.5	9.0	9.3	6.4	7.4	7.1	5.6	5.7	2.5	9.0	10.1	6.7	8.1	7.7	5.8	6.2
		2.0	6.0	8.8	6.2	8.8	6.7	5.4	6.7	2.0	6.0	9.6	6.5	9.6	7.3	5.7	7.3
		1.5	3.6	8.0	5.9	10.7	6.1	5.2	8.2	1.5	3.6	8.7	6.2	11.7	6.7	5.4	8.9
4Y*HBC-32	400	3.0	14.7	12.2	8.5	8.2	9.4	7.4	6.2	3.0	14.7	13.4	8.9	8.9	10.2	7.7	6.8
		2.5	10.7	11.7	8.2	9.3	8.9	7.2	7.1	2.5	10.7	12.7	8.6	10.2	9.7	7.5	7.8
		2.0	7.2	10.9	8.0	10.9	8.3	7.0	8.3	2.0	7.2	11.9	8.3	11.9	9.1	7.3	9.1
		1.5	4.4	9.6	7.5	12.8	7.3	6.6	9.8	1.5	4.4	10.5	7.8	14.0	8.0	6.9	10.7
5Y*HBC-32	500	6.0	13.8	15.9	10.7	5.3	12.1	9.4	4.0	6.0	13.8	17.3	11.3	5.8	13.2	9.8	4.4
		5.0	9.8	15.3	10.5	6.1	11.7	9.2	4.7	5.0	9.8	16.7	11.0	6.7	12.8	9.6	5.1
		4.0	6.5	14.6	10.2	7.3	11.1	9.0	5.6	4.0	6.5	15.9	10.7	7.9	12.1	9.4	6.1
		3.0	3.8	13.3	9.8	8.9	10.2	8.6	6.8	3.0	3.8	14.5	10.2	9.7	11.1	8.9	7.4
6Y*HBC-32	600	6.0	13.8	18.2	12.3	6.1	13.9	10.7	5.1	6.0	13.8	19.8	12.9	6.6	15.2	11.2	5.1
		5.0	9.8	17.5	12.0	7.0	13.4	10.5	5.8	5.0	9.8	19.1	12.6	7.6	14.6	11.0	5.8
		4.0	6.5	16.6	11.7	8.3	12.6	10.3	6.7	4.0	6.5	18.1	12.2	9.0	13.8	10.7	6.9
		3.0	3.8	15.0	11.1	10.0	11.5	9.8	7.8	3.0	3.8	16.4	11.6	10.9	12.5	10.2	8.3
8Y*HBC-32	800	6.5	13.7	21.9	15.3	7.2	16.7	13.4	5.1	6.5	13.7	23.8	16.0	7.3	18.2	14.0	5.6
		5.5	10.0	20.9	14.9	7.6	16.0	13.1	5.8	5.5	10.0	22.8	15.6	8.3	17.4	13.7	6.3
		4.5	6.9	19.7	14.5	8.8	15.1	12.8	6.7	4.5	6.9	21.5	15.1	9.6	16.4	13.3	7.3
		3.5	4.3	17.8	13.8	10.2	13.6	12.2	7.8	3.5	4.3	19.4	14.4	11.1	14.8	12.7	8.5
10Y*HBC-32	1000	8.0	17.9	26.8	18.7	6.7	20.5	16.4	5.1	8.0	17.9	29.2	19.6	7.3	22.3	17.1	5.6
		7.0	13.7	25.8	18.3	7.4	19.7	16.1	5.8	7.0	13.7	28.2	19.2	8.0	21.5	16.8	6.1
		6.0	10.1	24.7	17.9	8.2	18.8	15.8	6.7	6.0	10.1	26.9	18.7	9.0	20.5	16.4	6.8
		5.0	7.0	23.1	17.4	9.2	17.6	15.3	7.1	5.0	7.0	25.2	18.1	10.1	19.2	15.9	7.7
13Y*HBC-32	1300	8.0	18.2	30.9	21.9	7.7	23.6	19.2	5.9	8.0	18.2	33.7	22.9	8.4	25.8	20.0	6.4
		7.0	14.1	29.7	21.4	8.5	22.7	18.9	6.5	7.0	14.1	32.4	22.4	9.3	24.7	19.7	7.1
		6.0	10.5	28.2	20.9	9.4	21.6	18.5	7.2	6.0	10.5	30.8	21.8	10.3	23.5	19.2	7.8
		5.0	7.4	26.2	20.2	10.5	20.0	17.9	8.0	5.0	7.4	28.6	21.0	11.4	21.8	18.6	8.7

Y\*HBC COMMON DATA

# Heating Capacity

## Y\*HBC-32 (2-Row Coil)

HEATING CAPACITY (1000 BTUH)							
MODEL	NOMINAL CFM	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMP.			
				180°F	160°F	140°F	120°F
				3Y*HBC-32	300	3.0	10.5
2.0	5.1	17.7	14.5			11.2	8.0
1.0	1.5	15.9	13.0			10.1	7.2
4Y*HBC-32	400	3.0	11.2	24.0	19.6	15.2	10.9
		2.0	5.4	22.8	18.7	14.5	10.4
		1.0	1.6	20.0	16.4	12.7	9.1
5Y*HBC-32	500	3.0	13.4	28.8	23.5	18.3	13.1
		2.0	6.4	27.2	22.3	17.3	12.4
		1.0	1.9	23.4	19.1	14.9	10.6
6Y*HBC-32	600	3.0	13.4	32.1	26.2	20.4	14.6
		2.0	6.4	30.3	24.8	19.3	13.8
		1.0	1.9	25.8	21.1	16.4	11.7
8Y*HBC-32	800	4.0	8.4	40.5	33.1	25.8	18.4
		3.0	4.8	38.6	21.6	24.6	17.5
		2.0	2.2	35.4	28.9	22.5	16.1
10Y*HBC-32	1000	4.0	8.1	48.2	39.5	30.7	21.9
		3.0	4.7	45.7	37.4	29.1	20.8
		2.0	2.2	41.3	33.8	26.3	18.8
13Y*HBC-32	1300	4.0	7.8	56.1	45.9	35.7	25.5
		3.0	4.3	52.8	43.2	33.6	24.0
		2.0	1.9	47.3	38.7	30.1	21.5

**NOTES:**

1. Ratings at 70 degree ent. air temp.
2. Contact factory for capacities at other conditions

- \* - P - with insulated return plenum
- R - recessed with telescoping panel
- C - cabinet exposed

# Cooling Capacity

## Y\*HBC-41 (4-Row Coil) All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)																	
MODEL	NOMINAL CFM	45°F ENTERING WATER									42°F ENTERING WATER						
		GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)			GPM	P.D. (FT. WTR.)	80°F D.B. (67°F W.B.)			75°F D.B. (63°F W.B.)		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
3Y*HBC-41	300	3.0	15.9	11.2	7.5	7.5	8.6	6.5	5.7	3.0	15.9	12.3	7.9	8.2	9.4	6.8	6.2
		2.5	11.4	10.8	7.4	8.7	8.3	6.4	6.6	2.5	11.4	11.8	7.7	9.4	9.0	6.7	7.2
		2.0	7.6	10.2	7.1	10.2	7.8	6.2	7.8	2.0	7.6	11.2	7.5	11.2	8.5	6.5	8.5
		1.5	4.5	9.4	6.8	12.5	7.2	6.0	9.5	1.5	4.5	10.2	7.1	13.6	7.8	6.2	10.4
4Y*HBC-41	400	3.0	18.2	14.3	9.8	9.6	10.9	8.5	7.3	3.0	18.2	15.6	10.3	10.4	11.9	8.9	8.0
		2.5	13.2	13.6	9.5	10.9	10.4	8.3	8.3	2.5	13.2	14.9	10.0	11.9	11.4	8.7	9.1
		2.0	8.9	12.7	9.2	12.7	9.7	8.0	9.7	2.0	8.9	13.9	9.6	13.9	10.6	8.4	10.6
		1.5	5.3	11.2	8.6	15.0	8.6	7.6	11.4	1.5	5.3	12.2	9.0	16.3	9.4	7.9	12.5
5Y*HBC-41	500	6.0	17.6	18.9	12.6	6.3	14.5	10.9	4.8	6.0	17.6	20.6	13.3	6.9	15.8	11.5	5.3
		5.0	12.6	18.3	12.3	7.3	14.0	10.7	5.6	5.0	12.6	19.9	13.0	8.0	15.2	11.2	6.1
		4.0	8.3	17.4	12.0	8.7	13.3	10.5	6.6	4.0	8.3	19.0	12.6	9.5	14.5	10.9	7.2
		3.0	4.9	15.9	11.4	10.6	12.1	10.0	8.1	3.0	4.9	17.3	12.0	11.5	13.2	10.4	8.8
6Y*HBC-41	600	6.0	17.6	21.5	14.4	7.2	16.4	12.6	5.5	6.0	17.6	23.5	15.2	7.8	17.9	13.1	6.0
		5.0	12.6	20.7	14.1	8.3	15.8	12.3	6.3	5.0	12.6	22.6	14.8	9.0	17.2	12.9	6.9
		4.0	8.3	19.6	13.7	9.8	15.0	12.0	7.5	4.0	8.3	21.3	14.4	10.7	16.3	12.5	8.2
		3.0	4.9	17.7	13.0	11.8	13.6	11.4	9.0	3.0	4.9	19.3	13.6	12.9	14.8	11.9	9.8
8Y*HBC-41	800	6.5	16.9	26.0	18.1	8.0	19.6	15.8	6.1	6.5	16.9	28.3	19.0	8.7	21.6	16.5	6.7
		5.5	12.6	24.9	17.7	9.1	19.0	15.5	6.9	5.5	12.6	27.1	18.5	9.9	20.7	16.1	7.5
		4.5	8.9	23.4	17.1	10.4	17.9	15.0	8.0	4.5	8.9	25.6	17.9	11.4	19.5	16.7	8.7
		3.5	5.7	21.1	16.3	12.1	16.1	14.4	9.2	3.5	5.7	23.0	17.0	13.2	17.6	14.9	10.1
10Y*HBC-41	1000	8.0	18.2	31.9	22.3	8.0	24.4	19.5	6.1	8.0	18.2	34.8	23.3	8.7	26.6	20.3	6.6
		7.0	14.1	30.8	21.8	8.8	23.5	19.1	6.7	7.0	14.1	33.6	22.9	9.6	25.7	19.9	7.3
		6.0	10.5	29.4	21.3	9.8	22.5	18.7	7.5	6.0	10.5	32.1	22.3	10.7	24.5	19.5	8.2
		5.0	7.4	27.6	20.6	11.0	21.1	18.2	8.4	5.0	7.4	20.0	21.6	12.0	22.9	18.9	9.2
13Y*HBC-41	1300	8.0	20.8	37.0	26.1	9.2	28.2	22.9	7.1	8.0	20.8	40.3	27.4	10.1	30.8	23.9	7.7
		7.0	16.1	35.5	25.6	10.1	27.1	22.4	7.7	7.0	16.1	38.7	26.8	11.1	29.6	23.4	8.4
		6.0	12.0	33.7	24.9	11.2	25.8	21.9	8.6	6.0	12.0	36.8	26.1	12.3	28.1	22.8	9.4
		5.0	8.5	31.3	24.1	12.5	23.9	21.2	9.6	5.0	8.5	34.2	25.1	13.7	26.1	22.0	10.4

Y\*HBC COMMON DATA

# Heating Capacity

## Y\*HBC-41 (1-Row Coil)

HEATING CAPACITY (1000 BTUH)							
MODEL	NOMINAL CFM	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMP.			
				180°F	160°F	140°F	120°F
				3Y*HBC-41	300	2.0	11.3
1.5	6.7	13.7	11.2			8.7	6.2
1.0	3.2	13.0	10.6			8.2	5.9
4Y*HBC-41	400	2.0	14.4	18.2	14.9	11.6	8.3
		1.5	8.9	17.6	14.4	11.2	8.0
		1.0	4.5	16.3	13.3	10.4	7.4
5Y*HBC-41	500	2.0	15.0	21.4	17.5	13.6	9.7
		1.5	9.0	20.5	16.8	13.0	9.3
		1.0	4.4	18.8	15.3	11.9	8.5
6Y*HBC-41	600	2.0	15.0	23.2	19.0	14.8	10.5
		1.5	9.0	22.1	18.1	14.1	10.0
		1.0	4.4	20.2	16.5	12.8	9.2
8Y*HBC-41	800	2.0	18.8	28.4	23.2	18.1	12.9
		1.5	11.3	26.8	21.9	17.1	12.2
		1.0	5.5	24.1	19.7	15.3	10.9
10Y*HBC-41	1000	2.0	19.9	33.3	27.2	21.2	15.1
		1.5	12.3	31.1	25.5	19.8	14.1
		1.0	6.2	27.7	22.7	17.6	12.6
13Y*HBC-41	1300	2.0	23.4	38.1	31.2	24.2	17.3
		1.5	14.0	35.4	29.0	22.5	16.1
		1.0	6.8	31.6	25.9	20.1	14.4

**NOTES:**

1. Ratings at 70 degree ent. air temp.
2. Contact factory for capacities at other conditions

- \* - P - with insulated return plenum
- R - recessed with telescoping panel
- C - cabinet exposed

# Motor Data

## OVERLOAD PROTECTION AND U.L. LISTING

All PSC motors furnished by YORK contain an internal overload protector, which is calibrated to trip-out when the winding reaches a predetermined temperature, and will automatically reset when the temperature returns to a safe limit or are designed to operate within safe limits upon locked conditions.

Underwriters' Laboratories, Inc. approves the motor and overload combination at locked rotor conditions only. These combinations are "yellow-card listed", and evidence of such protection is stamped directly on the motor.

## EFFICIENCY AND POWER FACTOR

The efficiency and power factor of a permanent split capacitor motor are higher than that of a shaded pole motor. Permanent split capacitor motors have an efficiency in the range of 35% to 55% as compared to 20% to 35% for shaded pole motors. The power factor of a shaded pole motor may be in the range of 0.50 to 0.65 while the power factor of a permanent split motor approaches 0.89 – 1.00.

When current input is critical, the motor selection should be made on the basis of efficiency. This is one reason for the increasing use of permanent split capacitor motors in fan coil units.

## Y\*HBC Models – 120V/220V

Y\*HBC  
COMMON  
DATA

VOLTAGE	RATINGS		UNIT SIZE						
			03	04	05	06	08	10	13
120V 60 HZ 1-Phase	Nominal HP		1/20	1/12	1/12	1/8	1/5	1/4	1/5 (two)
	High Speed	Amps	<b>0.93</b>	<b>0.89</b>	<b>1.24</b>	<b>1.70</b>	<b>2.30</b>	<b>3.60</b>	<b>4.60</b>
		Watts	120	120	130	240	340	450	530
	Medium Speed	Amps	<b>0.56</b>	<b>0.63</b>	<b>0.70</b>	<b>1.35</b>	<b>1.91</b>	<b>2.95</b>	<b>4.07</b>
		Watts	61	62	72	152	215	330	445
	Low Speed	Amps	<b>0.45</b>	<b>0.51</b>	<b>0.61</b>	<b>1.10</b>	<b>1.55</b>	<b>2.63</b>	<b>3.75</b>
Watts		50	52	63	122	171	291	390	
220 V 50 HZ 1-Phase	Nominal HP		1/20	1/30	1/30	1/10	1/5	1/4	1/5 (two)
	High Speed	Amps	<b>0.36</b>	<b>0.41</b>	<b>0.41</b>	<b>0.62</b>	<b>0.84</b>	<b>1.22</b>	<b>1.72</b>
		Watts	55	137	130	132	175	250	349
	Medium Speed	Amps	<b>0.28</b>	<b>0.29</b>	<b>0.27</b>	<b>0.44</b>	<b>0.60</b>	<b>0.86</b>	<b>1.23</b>
		Watts	49	107	80	93	120	180	242
	Low Speed	Amps	<b>0.20</b>	<b>0.23</b>	<b>0.19</b>	<b>0.37</b>	<b>0.49</b>	<b>0.78</b>	<b>1.01</b>
Watts		39	83	80	75	97	155	196	

- NOTES:**
1. Combined values of both motors.
  2. The above amperage and wattages are actual operating values as tested and certified. Nameplate values for amperage may be higher.

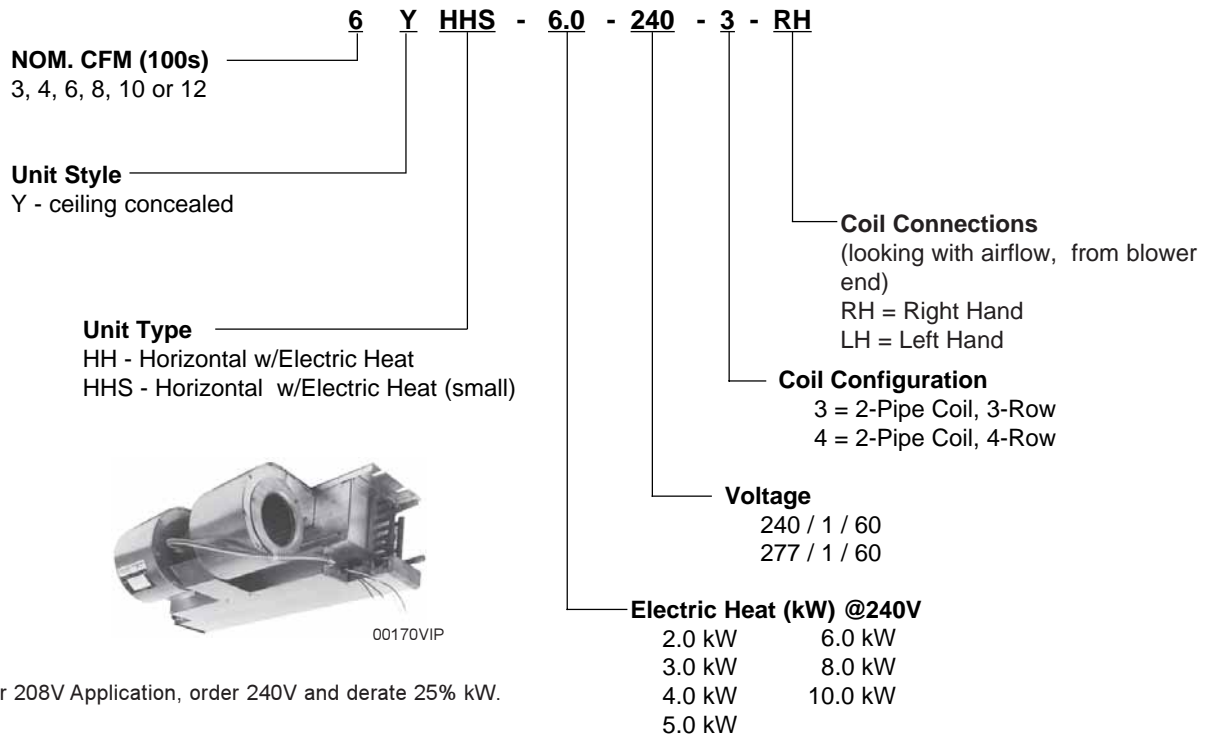
- \* - P - with insulated return plenum
- R - recessed with telescoping panel
- C - cabinet exposed

## Y\*HBC Models – 277V

VOLTAGE	RATINGS**		UNIT SIZE						
			03	04	05	06	08	10	13
277V 60 HZ 1-Phase	Nominal HP		1/20	1/15	1/15	1/12	1/6	1/4	1/6 (two)
	High Speed	Amps	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.7</b>	<b>0.9</b>	<b>1.4</b>	<b>1.4</b>
		Watts	98	95	100	195	240	365	390
	Medium Speed	Amps	<b>0.25</b>	<b>0.3</b>	<b>0.3</b>	<b>0.55</b>	<b>0.7</b>	<b>1.2</b>	<b>1.2</b>
		Watts	58	65	60	150	190	295	325
	Low Speed	Amps	<b>0.15</b>	<b>0.25</b>	<b>0.25</b>	<b>0.2</b>	<b>0.6</b>	<b>0.9</b>	<b>1.1</b>
Watts		40	55	50	120	145	230	280	

- NOTES:**
1. Combined values of both motors.
  2. The above amperage and wattages are actual operating values as tested and certified. Nameplate values for amperage may be higher.

# YHH - Nomenclature

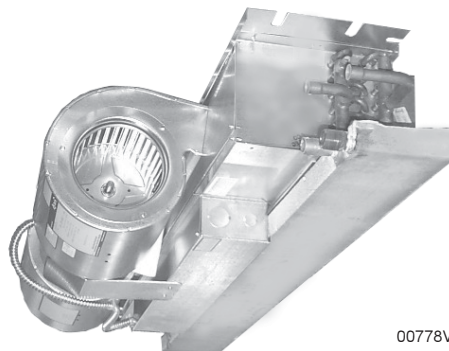


YHH

## YHH - Blower Data

### YHH Series - Ceiling Concealed Model w/ Electric Heat

The YHH series fan coil is a completely factory assembled chilled water fan coil with factory installed electric heat. It is designed for minimum installation cost and optimum serviceability. The space-saving YHH is only 10" high [without R/A plenum] and is engineered to provide easy access for service and maintenance of the entire assembly. All standard models include 240V 2-speed motor, electric heat and controls, 24/240V relay / transformer, insulated drain pan, and copper tube coil. All models are dual rated for 208/240V.



00778VIP

YHH

TABULAR DATA STARTS ON PAGE 47.

## YHH — 240 Volt

YHH SERIES			CFM vs EXTERNAL STATIC PRESSURE (3 ROW)							
MODEL	H.P.	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)							
			0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35
3YHHS-3	1/30	COOL	300	270	235	205	---	---	---	---
		HEAT	265	240	210	200	---	---	---	---
4YHHS-3	1/50	COOL	425	410	380	330	---	---	---	---
		HEAT	395	360	320	285	---	---	---	---
6YHHS-3	1/12	COOL	605	535	485	425	---	---	---	---
		HEAT	500	390	320	270	---	---	---	---
6YHH-3	1/8	COOL	---	---	805	770	735	700	665	625
		HEAT	---	---	700	670	640	610	580	550
8YHH-3	1/4	COOL	---	---	895	860	825	795	760	725
		HEAT	---	---	775	750	720	690	655	625
10YHH-3	1/4	COOL	---	---	1110	1075	1040	1000	955	915
		HEAT	---	---	715	695	670	645	620	600
12YHH-3	1/3	COOL	---	---	1395	1345	1295	1245	1195	1145
		HEAT	---	---	950	920	890	855	820	775

YHH

YHH SERIES			CFM vs EXTERNAL STATIC PRESSURE (4 ROW)							
MODEL	H.P.	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)							
			0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35
3YHHS-4	1/30	COOL	255	215	200	175	---	---	---	---
		HEAT	230	200	175	150	---	---	---	---
4YHHS-4	1/50	COOL	440	390	335	265	---	---	---	---
		HEAT	325	320	290	235	---	---	---	---
6YHHS-4	1/12	COOL	535	490	435	365	---	---	---	---
		HEAT	350	335	320	290	---	---	---	---
6YHH-4	1/8	COOL	---	---	740	705	675	640	605	565
		HEAT	---	---	650	625	600	570	535	495
8YHH-4	1/4	COOL	---	---	810	780	750	715	680	645
		HEAT	---	---	730	700	670	640	610	580
10YHH-4	1/4	COOL	---	---	1070	1030	995	960	930	895
		HEAT	---	---	775	750	725	700	670	640
12YHH-4	1/3	COOL	---	---	1270	1215	1165	1115	1070	1025
		HEAT	---	---	950	915	880	850	820	790

# YHH - Blower Data

## YHH — 277 Volt

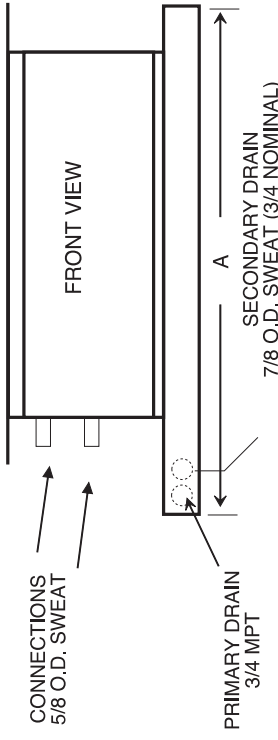
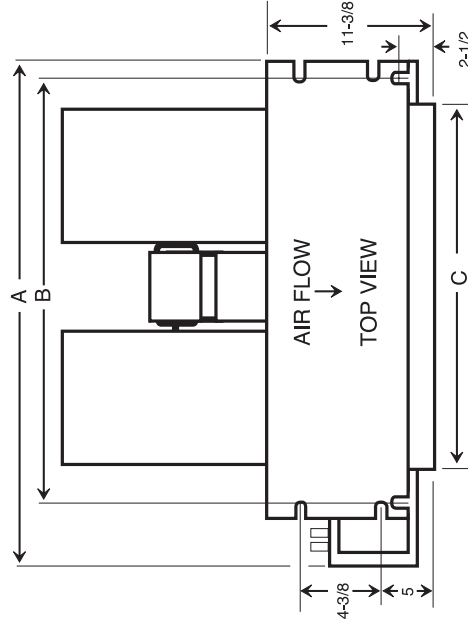
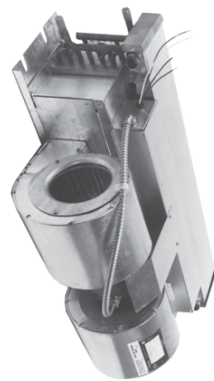
YHH SERIES		CFM vs EXTERNAL STATIC PRESSURE (3 ROW)								
MODEL	H.P.	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)							
			0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35
3YHHS-3	1/20	COOL	295	260	230	195	---	---	---	---
		HEAT	250	215	185	150	---	---	---	---
4YHHS-3	1/15	COOL	575	510	455	395	---	---	---	---
		HEAT	460	410	370	325	---	---	---	---
6YHHS-3	1/15	COOL	550	480	415	345	---	---	---	---
		HEAT	445	395	335	265	---	---	---	---
6YHH-3	1/12	COOL	---	---	630	600	570	540	510	---
		HEAT	---	---	525	495	465	440	---	---
8YHH-3	1/6	COOL	---	---	795	760	730	695	660	620
		HEAT	---	---	705	675	645	615	580	540
10YHH-3	1/4	COOL	---	---	1045	1005	960	920	880	840
		HEAT	---	---	875	830	790	750	710	670
12YHH-3	1/3	COOL	---	---	1410	1370	1330	1290	1245	1195
		HEAT	---	---	1230	1200	1165	1130	1090	1040

YHH SERIES		CFM vs EXTERNAL STATIC PRESSURE (4 ROW)								
MODEL	H.P.	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)							
			0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35
3YHHS-4	1/20	COOL	260	230	200	175	---	---	---	---
		HEAT	225	195	170	145	---	---	---	---
4YHHS-4	1/15	COOL	520	440	380	330	---	---	---	---
		HEAT	435	385	330	260	---	---	---	---
6YHHS-4	1/15	COOL	510	430	365	290	---	---	---	---
		HEAT	440	380	310	215	---	---	---	---
6YHH-4	1/12	COOL	---	---	600	570	540	510	470	435
		HEAT	---	---	505	475	450	420	385	350
8YHH-4	1/6	COOL	---	---	755	720	685	650	615	570
		HEAT	---	---	665	635	605	570	535	500
10YHH-4	1/4	COOL	---	---	985	975	910	875	845	810
		HEAT	---	---	860	820	785	750	720	685
12YHH-4	1/3	COOL	---	---	1300	1255	1210	1165	1125	1075
		HEAT	---	---	1160	1120	1085	1045	1005	960

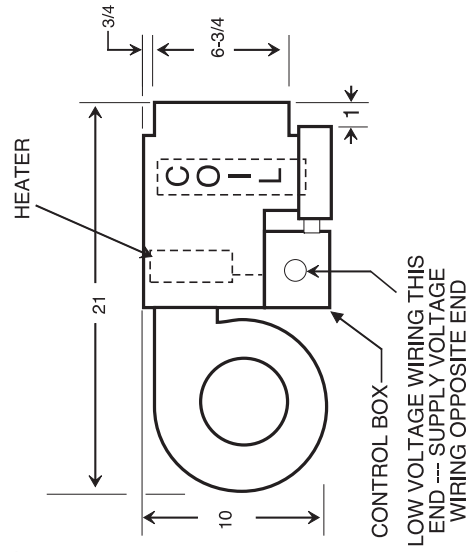


# YHH - Product Dimensions

GENERAL DIMENSIONS						
MODEL	A	B	C	NUMBER OF MOTORS	NUMBER OF BLOWERS	APPROX. SHIPPING WEIGHT
3YHHS	25	19-11/16	15	1	1	45
4YHHS, 6YHHS, 6YHH, 8YHH	40	34-11/16	30	1	2	55 65 70
10YHH	46	40-11/16	36	1	2	75
12YHH	52	46-11/16	42	1	2	80



NOTE: RIGHT HAND MODEL SHOWN - LEFT HAND MODEL HAS DRAIN AND PIPING CONNECTIONS ON OPPOSITE SIDE OF FAN COIL.



**YORK**  
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**PRODUCT DRAWING:**  
FAN COIL UNITS - DIRECT DRIVE  
MODEL YHH(S)  
NOT FOR CONSTRUCTION

Project Name: \_\_\_\_\_  
Location: \_\_\_\_\_  
Engineer: \_\_\_\_\_  
Contractor: \_\_\_\_\_  
For: REFERENCE

Sold To: \_\_\_\_\_  
Cust Purch Order #: \_\_\_\_\_

Quote Date: \_\_\_\_\_  
Rev. Date: \_\_\_\_\_  
Form No.: \_\_\_\_\_  
Dwg. Lev.: \_\_\_\_\_  
Dwg. Scale: NTS

Supersedes: 115.20-PA7 (1202)

FORM 115.20-PA7 (404)



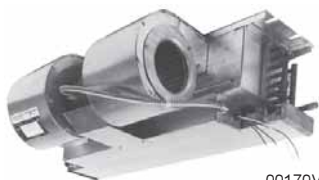
# YPHH - Nomenclature

**6 Y P HHS - 6.0 - 240 - 3 - RH**

**NOM. CFM (100s)**  
3, 4, 6, 8, 10 or 12

**Unit Style**  
Y - ceiling concealed  
P - with return plenum and filter

**Unit Type**  
HH - Horizontal w/Electric Heat  
HHS - Horizontal w/Electric Heat (small)



00170VIP

**Coil Connections**  
(looking with airflow, from blower end)  
RH = Right Hand  
LH = Left Hand

**Coil Configuration**  
3 = 2-Pipe Coil, 3-Row  
4 = 2-Pipe Coil, 4-Row

**Voltage**  
240 / 1 / 60  
277 / 1 / 60

**Electric Heat (kW) @240V**

2.0 kW	6.0 kW
3.0 kW	8.0 kW
4.0 kW	10.0 kW
5.0 kW	

\* For 208V Application, order 240V and derate 25% kW.

# YPHH - Blower Data

## YPHH Series - Ceiling Concealed Model w/ Electric Heat

The YPHH series fan coil is a completely factory assembled chilled water fan coil with factory installed electric heat. It is designed for minimum installation cost and optimum serviceability. The space-saving YPHH is only 10" high [with R/A plenum] and is engineered to provide easy access for service and maintenance of the entire assembly. All standard models include 240V 2-speed motor, electric heat and controls, 24/240V relay / transformer, insulated drain pan, and copper tube coil. All models are dual rated for 208/240V.



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YPHH

# YPHH - Blower Data

## YPHH — 240 Volt

YPHH SERIES			CFM vs EXTERNAL STATIC PRESSURE (3 ROW)							
MODEL	H.P.	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)							
			0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35
3YPHHS-3	1/30	COOL	270	255	215	180	---	---	---	---
		HEAT	250	215	185	160	---	---	---	---
4YPHHS-3	1/50	COOL	430	395	350	295	---	---	---	---
		HEAT	340	320	295	255	---	---	---	---
6YPHHS-3	1/12	COOL	570	490	415	335	---	---	---	---
		HEAT	290	285	270	240	---	---	---	---
6YPHH-3	1/8	COOL	---	---	710	660	615	570	530	485
		HEAT	---	---	625	575	535	495	460	415
8YPHH-3	1/4	COOL	---	---	860	830	800	770	740	710
		HEAT	---	---	555	540	525	505	490	470
10YPHH-3	1/4	COOL	---	---	1050	1010	965	920	875	825
		HEAT	---	---	760	735	710	675	640	600
12YPHH-3	1/3	COOL	---	---	1240	1205	1165	1115	1065	1005
		HEAT	---	---	910	870	835	805	765	720

YPHH

YPHH SERIES			CFM vs EXTERNAL STATIC PRESSURE (4 ROW)							
MODEL	H.P.	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)							
			0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35
3YPHHS-4	1/30	COOL	225	195	165	---	---	---	---	---
		HEAT	210	175	145	---	---	---	---	---
4YPHHS-4	1/50	COOL	420	375	315	---	---	---	---	---
		HEAT	330	305	265	---	---	---	---	---
6YPHHS-4	1/12	COOL	500	450	395	---	---	---	---	---
		HEAT	325	320	300	---	---	---	---	---
6YPHH-4	1/8	COOL	---	---	680	645	610	570	530	490
		HEAT	---	---	645	565	485	430	395	360
8YPHH-4	1/4	COOL	---	---	740	690	645	605	560	515
		HEAT	---	---	650	610	570	530	490	445
10YPHH-4	1/4	COOL	---	---	990	950	915	875	840	800
		HEAT	---	---	750	725	700	675	650	620
12YPHH-4	1/3	COOL	---	---	1200	1150	1110	1065	1020	975
		HEAT	---	---	900	870	840	800	760	710

## YPHH — 277 Volt

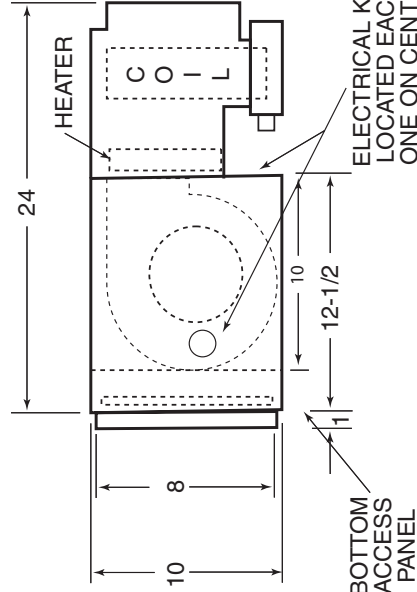
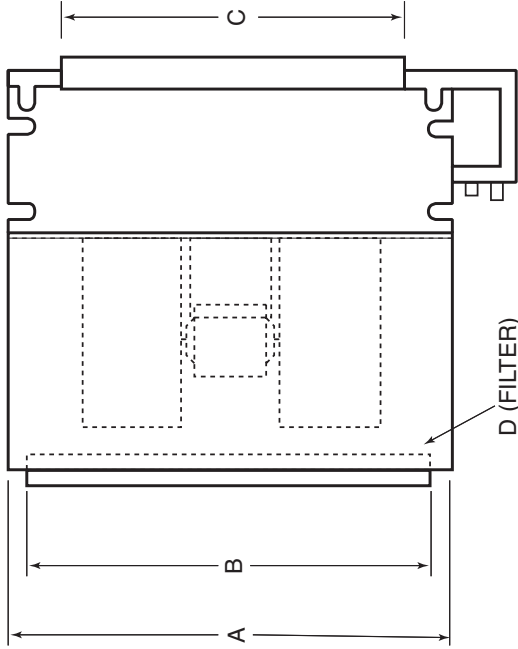
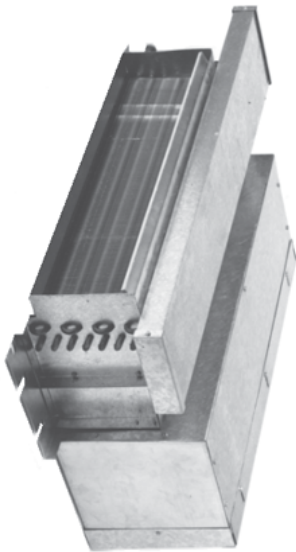
YPHH SERIES		CFM vs EXTERNAL STATIC PRESSURE (3 ROW)								
MODEL	H.P.	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)							
			0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35
3YPHHS-3	1/20	COOL	265	235	205	170	---	---	---	---
		HEAT	230	195	165	135	---	---	---	---
4YPHHS-3	1/15	COOL	530	465	415	365	---	---	---	---
		HEAT	445	390	335	280	---	---	---	---
6YPHHS-3	1/15	COOL	525	445	375	300	---	---	---	---
		HEAT	425	370	305	225	---	---	---	---
6YPHH-3	1/12	COOL	---	---	565	515	470	420	375	---
		HEAT	---	---	445	400	360	---	---	---
8YPHH-3	1/6	COOL	---	---	745	715	690	665	650	635
		HEAT	---	---	660	630	600	570	535	495
10YPHH-3	1/4	COOL	---	---	990	950	910	870	830	795
		HEAT	---	---	870	830	795	765	730	700
12YPHH-3	1/3	COOL	---	---	1305	1260	1220	1185	1145	1100
		HEAT	---	---	1180	1140	1105	1070	1030	990

YPHH

YPHH SERIES		CFM vs EXTERNAL STATIC PRESSURE (4 ROW)								
MODEL	H.P.	FAN SPEED	EXTERNAL STATIC PRESSURE (inches of water)							
			0.0	0.05	0.10	0.15	0.20	0.25	0.30	0.35
3YPHHS-4	1/20	COOL	240	215	180	160	---	---	---	---
		HEAT	205	180	150	125	---	---	---	---
4YPHHS-4	1/15	COOL	490	420	360	295	---	---	---	---
		HEAT	415	365	310	240	---	---	---	---
6YPHHS-4	1/15	COOL	485	410	330	250	---	---	---	---
		HEAT	420	345	280	210	---	---	---	---
6YPHH-4	1/12	COOL	---	---	560	525	490	455	415	370
		HEAT	---	---	480	445	415	380	350	---
8YPHH-4	1/6	COOL	---	---	660	610	565	520	470	415
		HEAT	---	---	585	535	490	445	395	350
10YPHH-4	1/4	COOL	---	---	925	890	860	830	795	765
		HEAT	---	---	820	790	765	740	710	680
12YPHH-4	1/3	COOL	---	---	1190	1145	1105	1065	1030	995
		HEAT	---	---	1070	1030	995	960	920	885

# YPHH - Product Dimensions

YPHH



GENERAL DIMENSIONS					
MODEL	A	B	C	D (FILTER)	APPROX. SHIPPING WEIGHT
3YPHHS	20	18	15	10 X 20 X 1	63
4YPHHS, 6YPHHS, 6YPHH, 8YPHH	34	32	30	10 X 34 X 1	77
10YPHH	40	38	36	10 X 40 X 1	99
12YPHH	46	44	42	10 X 46 X 1	107

- FEATURES:** 1) Return plenums are insulated  
2) All plenums include throw away filter



Quote Date:  
Rev. Date:  
Form No.:  
Dwg. Lev.:  
Dwg. Scale: NTS

Sold To:  
Cust Purch Order #:

Project Name:  
Location:  
Engineer:  
Contractor:  
For: REFERENCE

**PRODUCT DRAWING:**  
FAN COIL UNITS - DIRECT DRIVE  
MODEL YPHH(S)  
NOT FOR CONSTRUCTION

FORM 115.20-PA8 (404)

Supersedes: Form 115.20-PA8 (1202)

# Cooling Capacity

**Y\*HH(S)-3 (3-Row Coil)** All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)								
MODEL (CFM) <sup>(1)</sup>	GPM	P.D (FT. WTR)	45°F ENTERING WATER 80°F DB 67°F WB			45°F ENTERING WATER 75°F DB 63°F WB		
			TH <sup>(2)</sup>	SH	TR	TH <sup>(2)</sup>	SH	TR
			3Y*HHS-3	1.0	1.4	6.5	5.5	12.9
1.5	3.0	7.8		6.0	5.9	5.9	5.3	7.9
2.0	5.0	8.6		6.3	8.6	6.5	5.5	6.6
4Y*HHS-3	1.5	4.2	11.0	8.5	14.7	8.4	7.5	11.2
	2.0	7.0	12.4	9.0	12.4	9.5	7.9	9.5
	2.5	10.5	13.3	9.3	10.6	10.2	8.2	8.1
6Y*HHS-3	3.0	5.7	16.3	12.3	10.9	12.4	10.8	8.3
	4.0	9.5	17.7	12.8	8.9	13.5	11.2	6.8
	5.0	14.2	18.7	13.1	7.5	14.2	11.5	5.7
6Y*HH-3	3.0	5.7	17.3	13.4	11.5	13.2	11.9	8.8
	4.0	9.5	19.1	14.1	9.5	14.6	12.4	7.3
	5.0	14.2	20.3	14.5	8.1	15.5	12.7	6.2
8Y*HH-3	4.0	5.4	19.6	15.0	9.8	15.0	13.3	7.5
	5.0	8.0	21.1	15.6	8.4	16.1	13.7	6.4
	6.0	11.0	22.1	15.9	7.4	16.9	14.0	5.6
10Y*HH-3	5.5	10.0	25.6	19.1	9.3	19.6	16.8	7.1
	6.5	13.6	26.8	19.5	8.3	20.5	17.1	6.3
	7.5	17.7	27.7	19.8	7.4	21.2	17.4	5.6
12Y*HH-3	6.5	9.2	27.4	25.6	8.4	23.8	21.5	7.3
	8.0	13.3	29.3	26.3	7.3	25.5	22.1	6.4
	9.5	18.1	30.7	26.8	6.5	26.7	22.5	5.6

\* - P - with insulated return plenum

**Y\*HH(S)-4 (4-Row Coil)** All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)								
MODEL (CFM) <sup>(1)</sup>	GPM	P.D (FT. WTR)	45°F ENTERING WATER 80°F DB 67°F WB			45°F ENTERING WATER 75°F DB 63°F WB		
			TH <sup>(2)</sup>	SH	TR	TH <sup>(2)</sup>	SH	TR
			3Y*HHS-4	1.0	1.8	7.6	6.3	15.1
1.5	3.8	9.1		6.8	12.1	7.0	6.0	9.3
2.0	6.3	10.0		7.2	10.0	7.7	6.3	7.7
4Y*HHS-4	1.5	5.8	12.6	9.5	16.8	9.6	8.3	12.8
	2.0	9.7	14.2	10.1	14.2	10.8	8.8	10.8
	2.5	14.5	15.2	10.5	12.2	11.6	9.1	9.3
6Y*HHS-4	3.0	3.9	18.2	13.7	12.2	13.9	12.0	9.3
	4.0	6.5	20.1	14.4	10.1	15.4	12.6	7.7
	5.0	9.7	21.3	14.8	8.5	16.3	12.9	9.7
6Y*HH-4	3.0	3.9	19.4	15.1	13.0	14.8	13.3	9.9
	4.0	6.5	21.7	15.9	10.9	16.6	14.0	8.3
	5.0	9.7	23.2	16.5	9.3	17.7	14.4	7.1
8Y*HH-4	4.0	6.5	23.2	17.4	11.6	17.8	15.3	8.9
	5.0	9.6	24.9	18.0	10.0	19.0	15.8	7.6
	6.0	13.3	26.2	18.5	8.7	20.0	16.2	6.7
10Y*HH-4	5.5	7.7	29.5	21.9	10.7	22.5	19.2	8.2
	6.5	10.5	31.0	22.4	9.5	23.7	19.6	7.3
	7.5	13.6	32.2	22.9	8.6	24.6	20.0	6.6
12Y*HH-4	6.5	11.5	37.2	28.5	11.4	28.4	25.2	8.7
	8.0	16.5	39.8	29.5	9.90	30.4	25.9	7.6
	9.5	22.3	41.6	30.2	8.8	31.8	26.5	6.7

\* - P - with insulated return plenum

TH - Total Cooling Capacity

SH - Sensible Cooling Capacity

TR - Water temp. rise

# Motor Data

## Y\*HH and Y\*HHS Models — 240V

VOLTAGE	RATINGS		UNIT SIZE						
			MODEL Y*HHS			MODEL Y*HH			
			03S	04S	06S	06	08	10	12
240 V 60 HZ 1-Phase	Nominal HP		1/30	1/50	1/12	1/8	1/4	1/4	1/3
	High Speed	Amps	<b>0.20</b>	<b>0.67</b>	<b>1.02</b>	<b>1.20</b>	<b>1.20</b>	<b>1.83</b>	<b>2.53</b>
		Watts	135	90	145	290	320	398	490
	Low Speed	Amps	<b>0.50</b>	<b>0.55</b>	<b>0.55</b>	<b>0.92</b>	<b>0.85</b>	<b>1.28</b>	<b>1.72</b>
		Watts	65	74	68	185	173	252	350

### NOTES:

- The above amperage and wattages are actual operating values as tested and certified. Nameplate values for amperage may be higher.

\* - P - with insulated return plenum



# Supplemental Electric Heat

## "Twilight Electric" Fan Coil Installations (Supplemental Seasonal Electric Heat)

Developers in many parts of the country are giving a great deal of attention to the "twilight electric" fan coil system for heating and cooling. The interest in this system is a result of being able to offer individual unit control which provides the room comfort of a four-pipe fan coil system yet maintains most of the economic advantages of a two-pipe installation. Often mortgage money has a restriction of individual unit control as a condition of the mortgage and the twilight electric system provides one way to satisfy this requirement without greatly increasing either installation or operating costs as compared to the familiar two-pipe system.

The twilight electric system is a two-pipe fan coil unit with a small kilowatt electric resistance heater element added. When properly furnished with adequate controls, the electric heating element provides limited heating capability for use in mild weather during seasonal changeover of the central-chiller-boiler system. During the winter season, with the central boiler operational, the system functions as a standard two-pipe system utilizing hot water as the heating source. Because the electric heat is only intended to provide a limited amount of heat during mild weather, the size of the heater is relatively small, usually selected to provide adequate heat with about a 50 degree outdoor temperature.

The operational advantage of a twilight system is obvious when the requirements of the heating-cooling system during the Spring and Fall seasons are considered. During the morning hours heating may be required in some or all of the separate units while the afternoon hours may require cooling. Once again the evening hours may again require heating. The normal two-pipe system simply cannot cope with rapid changes in demand from heating to cooling. With the addition of electric heat, the central system is simply operated in its cooling mode and all demands for heat are satisfied with the electric heaters. Should an extended period of cold weather develop, the central system is then changed over to its heating mode and hot water is again used to provide the necessary heat. This changeover can be achieved with automatic controls on the central equipment.

The included diagram illustrates the typical control arrangement. Both aquastats are strapped to the water supply piping and the 3-way motorized valve is also located in the supply line.

The system functions as follows:

**I. Central system in cooling mode.** Chilled water available to the fan coil units.

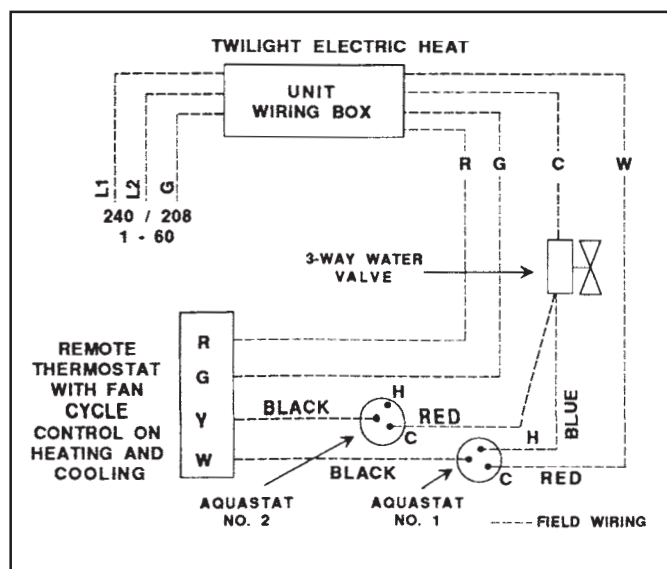
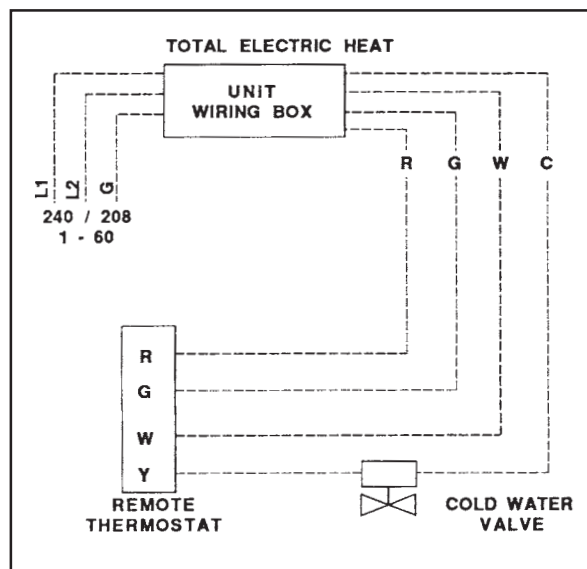
**A. Thermostat calls for cooling** - The (Y) terminal at the thermostat is energized and voltage is applied to the motorized valve by aquastat No. 2 which is in the cold position. The valve opens and allows a flow of water through the unit coil. At the same time the (G) terminal at the thermostat is energized which causes the fan relay to start the fan motor. When the thermostat is satisfied both the fan motor and motorized valve cycle off.

**B. Thermostat calls for heating** - The (W) terminal of the thermostat is energized and voltage is applied to aquastat No. 1. Since the aquastat senses the cold water, its contact is closed in the cold position and voltage is fed to the (W) connection at the control box which causes the electric heat contactor to close energizing the electric heaters. At this time the (G) connection is also energized bringing the fan on. The factory wired box is wired to provide fan operation any time the electric heaters are energized. This interlock is necessary during the cycling operation of the silent contactors.

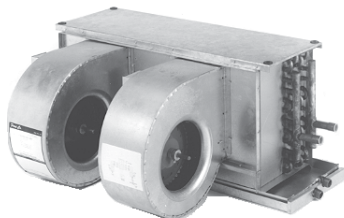
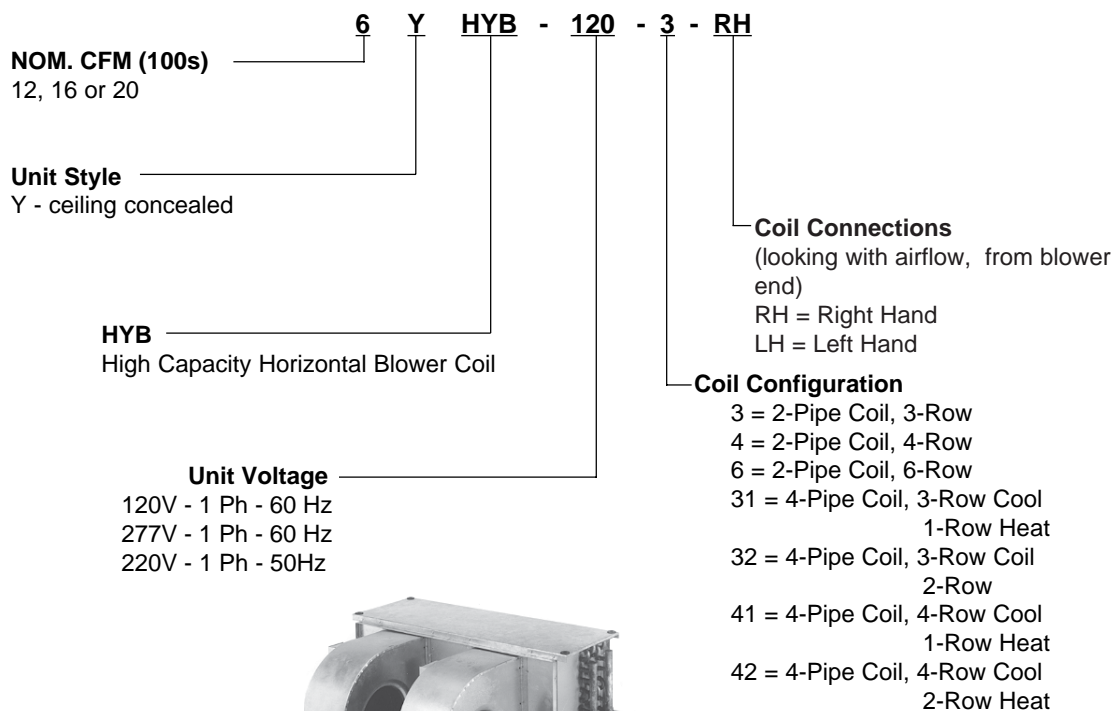
**II. Central system in heating mode.** Hot water available to the fan coil units.

**A. Thermostat calls for heat** - The (W) terminal at the thermostat is energized and voltage is applied to aquastat No. 1. Since the aquastat senses the hot water, its contact is closed to the hot position and voltage is fed to the motorized valve which opens and allows a flow of water through the unit coil. At the same time the (G) terminal of the thermostat is energized which causes the fan relay to start the fan motor. When the thermostat is satisfied both the fan motor and motorized valve cycle off.

**B. Thermostat calls for cooling** - Should the thermostat call for cooling while hot water is in the system the (Y) terminal of the thermostat is energized but aquastat No. 2 is in the hot position and no power can get through to the motorized valve. Since the (G) terminal at the thermostat is also energized the fan motor will run but this is the only response.



# YHYB - Nomenclature



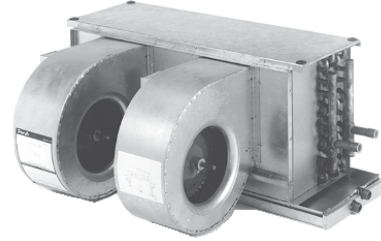
00174VIP

# YHYB - Blower Data

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## **YHYB Series - High Capacity Ceiling Concealed Model**

The YHYB Series fan coil units are for projects that need a higher CFM for a fully concealed installation. This is an open blower type fan coil requiring a scaled return air space. Manual air vents, rubber isolation grommets, and primary and secondary drain connections are standard with the unit.



00174VIP

TABULAR DATA STARTS ON PAGE 60.

YHYB

# YHYB - Blower Data

## YHYB — 120 Volt



YHYB SERIES		CFM vs. EXTERNAL STATIC PRESSURE (4-row coil)							
MODEL	H.P.	AMPS*	SPEED	EXTERNAL STATIC PRESSURE					
				0.10	0.20	0.30	0.40	0.50	0.60
12YHYB-4	1/5	5.2	HIGH	1595	1510	1410	1310	1180	1010
			MED. HI	1310	1250	1190	1100	1000	850
			MED. LOW	1010	980	940	860	760	640
			LOW	690	640	580	510	440	340
16YHYB-4	1/5	5.2	HIGH	1820	1740	1660	1560	1440	1300
			MED. HI	1420	1380	1320	1260	1160	1040
			MED. LOW	1060	1020	960	900	800	700
			LOW	720	660	580	500	400	260
20YHYB-4	1/4	8.8	HIGH	2510	2400	2260	2120	1960	1760
			MED. HI	2040	2040	1960	1850	1720	1540
			MED. LOW	1580	1580	1540	1480	1380	1180
			LOW	1200	1190	1160	1100	1010	880

120V-1PH-60HZ

\* Amps is total for (2) motors

3-row coil - add 0.05 to ESP shown

6-row coil - deduct 0.10 from ESP shown

## YHYB — 220 Volt / 50 Hz.



YHYB SERIES		CFM vs. EXTERNAL STATIC PRESSURE (4-row coil)							
MODEL	H.P.	AMPS*	SPEED	EXTERNAL STATIC PRESSURE					
				0.10	0.20	0.30	0.40	0.50	0.60
12YHYB50-4	1/5	4.4	HIGH	1600	1540	1470	1410	1340	1250
			MED. HI	1280	1220	1170	1110	1040	970
			MED. LOW	1000	940	880	820	750	680
			LOW	670	610	540	470	400	320
16YHYB50-4	1/5	4.4	HIGH	1820	1770	1710	1650	1580	1480
			MED. HI	1350	1350	1300	1230	1150	1060
			MED. LOW	1040	1040	960	890	810	720
			LOW	640	640	550	460	360	260
20YHYB50-4	1/4	6.0	HIGH	2340	2340	2250	2150	2040	1920
			MED. HI	1830	1830	1760	1680	1580	1480
			MED. LOW	1500	1500	1440	1360	1260	1160
			LOW	1140	1140	1060	960	880	760

220V-1PH-50HZ

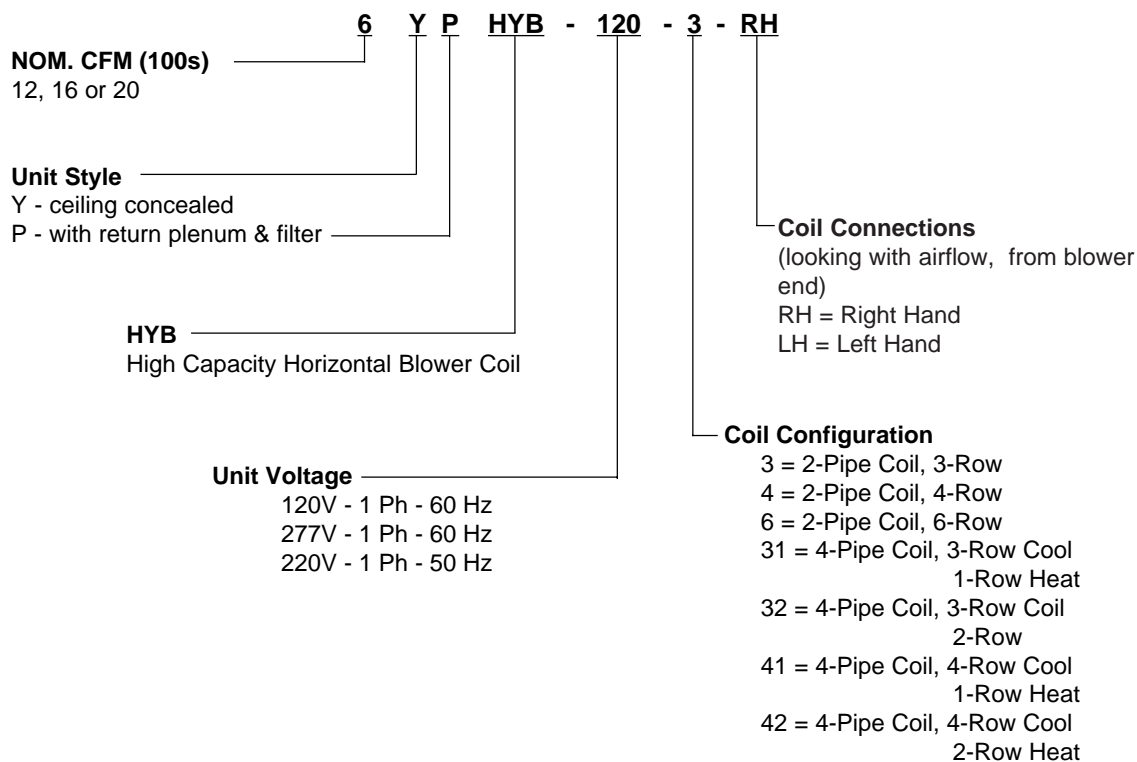
\* Amps is total for (2) motors

3-row coil - add 0.05 to ESP shown

6-row coil - deduct 0.10 from ESP shown



# YPHYB - Nomenclature



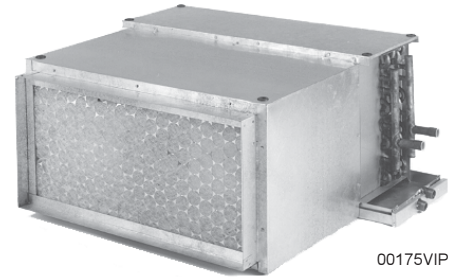
YPHYB

## YPHYB - Blower Data

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### **YPHYB Series - High Capacity Ceiling Concealed Model with Insulated Return Plenum**

This unit consists of a YHYB series fan coil with factory installed return air plenum. Return air ducting can be easily attached to the unit plenum. The plenum is also field-convertible from end to bottom return air.



00175VIP

# YPHYB - Blower Data



## YPHYB — 120 Volt

YPHYB SERIES		CFM vs. EXTERNAL STATIC PRESSURE (4-row coil)							
MODEL	H.P.	AMPS*	SPEED	EXTERNAL STATIC PRESSURE					
				0.10	0.20	0.30	0.40	0.50	0.60
12YPHYB-4	1/5	5.2	HIGH	1400	1320	1220	1110	980	820
			MED. HI	1220	1150	1080	980	860	710
			MED. LOW	980	930	860	790	680	560
			LOW	600	600	550	490	420	340
16YPHYB-4	1/5	5.2	HIGH	1700	1620	1520	1420	1290	1130
			MED. HI	1370	1320	1260	1180	1060	910
			MED. LOW	1030	980	920	850	760	640
			LOW	690	630	560	480	380	230
20YPHYB-4	1/4	8.8	HIGH	2160	2160	2020	1880	1720	1520
			MED. HI	2000	1900	1800	1680	1520	1310
			MED. LOW	1570	1520	1470	1380	1240	1000
			LOW	1170	1140	1100	1040	940	800

120V-1PH-60HZ

3-row coil - add 0.05 to ESP shown

\* Amps is total for (2) motors

6-row coil - deduct 0.10 from ESP shown

## YPHYB — 220 Volt / 50Hz (with plenum)



YPHYB SERIES		CFM vs. EXTERNAL STATIC PRESSURE (4-row coil)							
MODEL	H.P.	AMPS*	SPEED	EXTERNAL STATIC PRESSURE					
				0.10	0.20	0.30	0.40	0.50	0.60
12YPHYB-4	1/5	4.4	HIGH	1500	1440	1370	1300	1220	1130
			MED. HI	1230	1180	1120	1060	990	900
			MED. LOW	970	920	860	800	720	650
			LOW	650	580	520	450	390	320
16YPHYB-4	1/5	4.4	HIGH	1730	1690	1610	1530	1440	1330
			MED. HI	1350	1300	1220	1150	1070	960
			MED. LOW	1050	990	920	850	770	670
			LOW	700	630	540	460	370	290
20YPHYB-4	1/4	6.0	HIGH	2240	2140	2030	1930	1810	1680
			MED. HI	1830	1740	1650	1550	1430	1300
			MED. LOW	1530	1450	1370	1280	1180	1070
			LOW	1160	1080	990	900	800	680

220V-1PH-50HZ

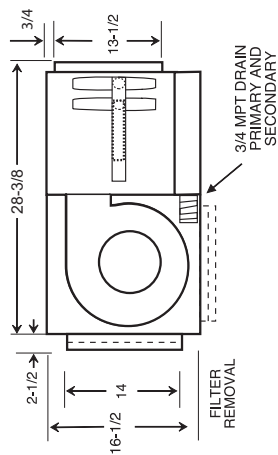
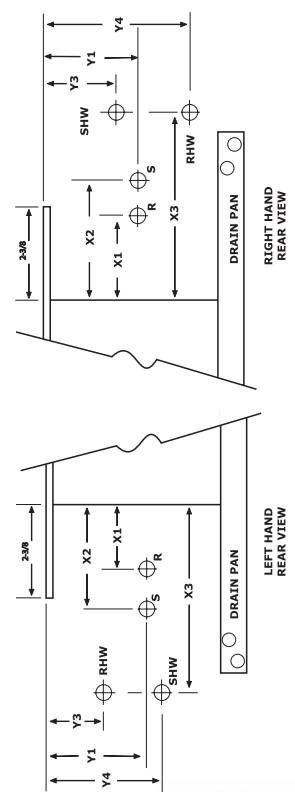
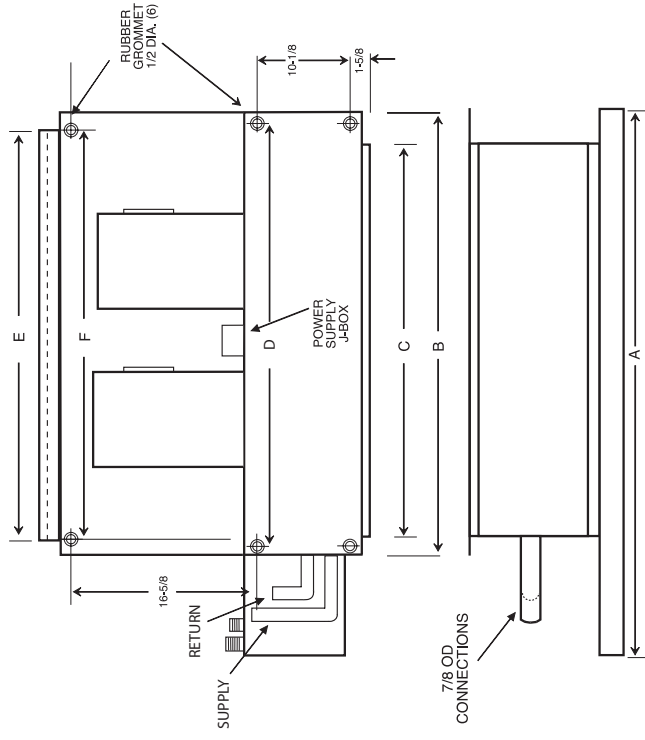
3-row coil - add 0.05 to ESP shown

\* Amps is total for (2) motors

6-row coil - deduct 0.10 from ESP shown



# YPHYB - Product Dimensions



GENERAL DIMENSIONS							
MODEL	A	B	C	D	E	F	APPROX. SHIPPING WEIGHT
12YPHYB	41	32-1/2	28	31-1/4	28-1/4	28	125
16YPHYB	51	42-1/2	38	41-1/4	38-1/4	38	140
20YPHYB	60	51-1/2	47	50-1/4	47-1/4	47	150

PHYB PIPE LOCATIONS						
LEFT HAND	X1	Y1	X2	X3	Y3	Y4
3 ROW	5-1/4	7-9/16	8-1/4	---	---	---
4 ROW	5-1/4	7-9/16	8-1/4	---	---	---
6 ROW	5-1/4	7-9/16	8-1/4	---	---	---
3/1 ROW	5-1/4	7-9/16	8-1/4	13-1/4	5-7/16	8-7/16
3/2 ROW	5-1/4	7-9/16	8-1/4	13-1/4	6-1/16	9-1/16
4/1 ROW	5-1/4	7-9/16	8-1/4	13-1/4	6-1/16	9-1/16
4/2 ROW	5-1/4	7-9/16	8-1/4	13-1/4	6-1/16	9-1/16

PHYB PIPE LOCATIONS						
RIGHT HAND	X1	Y1	X2	X3	Y3	Y4
3 ROW	5-1/4	7-9/16	8-1/4	---	---	---
4 ROW	5-1/4	7-9/16	8-1/4	---	---	---
6 ROW	5-1/4	7-9/16	8-1/4	---	---	---
3/1 ROW	5-1/4	7-9/16	8-1/4	13-1/4	5-7/16	9-11/16
3/2 ROW	5-1/4	7-9/16	8-1/4	13-1/4	6-1/16	9-1/16
4/1 ROW	5-1/4	7-9/16	8-1/4	13-1/4	6-1/16	9-1/16
4/2 ROW	5-1/4	7-9/16	8-1/4	13-1/4	6-1/16	9-1/16

**FEATURES:**

- 1) Manual air vents
- 2) 4-speed direct drive motors
- 3) 1/2" copper tubing
- 4) Primary and secondary condensate drains on one end
- 5) Return air plenum - field convertible from end return to bottom return
- 6) Throwaway filter
- 7) 3-row and 6-row models available
- 8) Rubber isolation grommets
- 9) Insulated and coated drain pan

**PRODUCT DRAWING:**

FAN COIL UNITS - DIRECT DRIVE  
 MODEL YPHYB  
 NOT FOR CONSTRUCTION

Sold To:  
 Cust Purch Order #:

Quote Date:  
 Rev. Date:  
 Form No.:  
 Dwg. Lev.:  
 Dwg. Scale: NTS



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Supersedes: 115.20-PA6 (1199)



# Y\*HYB - Cooling Data

**Y\*HYB-3** (3-Row Coil) All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)																
MODEL (CFM)	45° ENTERING WATER								42° ENTERING WATER							
	GPM	P.D. (FT. WTR.)	80° DB 67° WB			75° DB 63° WB			GPM	P.D. (FT. WTR.)	80° DB 67° WB			75° DB 63° WB		
			TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
12HYB-3 (1200)	5	2.6	30.1	24.2	12.0	23.0	21.4	9.2	6	3.6	35.5	26.2	11.8	27.1	23.0	9.0
	7	4.7	34.5	25.8	10.0	26.4	22.7	7.5	8	6.0	39.3	27.6	9.8	30.0	24.1	7.5
	9	7.4	37.3	26.9	8.3	28.5	23.5	6.3	10	9.0	41.7	28.5	8.3	31.8	24.8	6.4
16HYB-3 (1600)	6	1.8	37.6	31.4	12.5	32.5	32.5	10.8	7	2.4	44.1	33.8	12.6	33.7	29.8	9.6
	9	3.7	44.9	34.1	10.0	34.3	30.0	7.6	10	4.5	50.9	36.3	10.2	38.9	31.8	7.8
	12	6.3	49.4	35.8	8.2	37.8	31.3	6.3	13	7.3	55.1	37.9	8.5	42.1	33.0	6.5
20HYB-3 (2000)	8	2.1	57.7	39.5	11.9	35.0	35.0	8.5	10	3.2	57.5	43.1	11.5	43.9	37.9	8.8
	11	3.8	54.8	42.1	10.0	41.9	37.1	7.6	13	5.2	63.5	45.3	9.8	48.5	39.6	7.5
	14	5.9	59.7	43.9	8.5	45.6	38.5	6.5	16	7.6	67.7	46.9	8.5	51.7	40.9	6.5

TH - Total Heat                      SH - Sensible Heat                      TR - Water Temperature Rise

**Y\*HYB-4** (4-Row Coil) All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)																
MODEL (CFM)	45° ENTERING WATER								42° ENTERING WATER							
	GPM	P.D. (FT. WTR.)	80° DB 67° WB			75° DB 63° WB			GPM	P.D. (FT. WTR.)	80° DB 67° WB			75° DB 63° WB		
			TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
12HYB-4 (1200)	6.5	5.2	39.3	29.5	12.1	30.0	25.8	9.2	7.5	6.7	45.0	31.7	12.0	34.4	27.6	9.2
	8.5	8.5	42.9	30.8	10.1	32.8	26.9	7.7	9.5	10.4	48.2	32.9	10.1	36.8	28.5	7.7
	11.5	14.7	45.9	32.0	8.0	35.1	27.8	6.1	13.0	18.4	51.0	34.0	8.0	39.0	29.4	6.0
16HYB-4 (1600)	8.5	4.2	51.3	38.9	12.1	39.2	34.1	9.2	10.0	5.6	59.4	41.9	11.9	45.4	36.6	9.1
	11.5	7.3	57.0	41.1	9.9	43.5	35.9	7.6	13.0	9.1	64.3	43.9	9.9	49.1	38.1	7.6
	15.0	11.8	61.0	42.6	8.1	46.6	37.1	6.2	17.0	14.9	68.0	45.3	8.0	51.9	39.2	6.1
20HYB-4 (2000)	10.5	4.6	62.8	48.1	12.0	48.0	42.3	9.1	12.0	5.9	72.1	51.7	12.0	55.1	45.1	9.2
	14.0	7.7	69.8	50.7	10.0	53.3	44.4	7.7	16.0	9.8	79.1	54.3	9.9	60.4	47.2	7.6
	19.0	13.4	75.7	23.0	8.0	57.8	46.1	6.1	21.0	16.0	84.1	56.3	8.0	64.3	48.7	6.1

TH - Total Heat                      SH - Sensible Heat                      TR - Water Temperature Rise

**Y\*HYB-6** (6-Row Coil) All capacities are based on nominal CFM.

COOLING CAPACITY (1000 BTUH)																
MODEL (CFM)	45° ENTERING WATER								42° ENTERING WATER							
	GPM	P.D. (FT. WTR.)	80° DB 67° WB			75° DB 63° WB			GPM	P.D. (FT. WTR.)	80° DB 67° WB			75° DB 63° WB		
			TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
12HYB-6 (1200)	8.0	10.2	48.0	33.0	12.0	36.7	28.6	9.2	9.0	12.6	54.1	35.4	12.0	41.3	30.5	9.2
	10.0	15.3	50.9	34.1	10.2	38.9	29.5	7.8	11.5	19.7	57.0	36.6	9.9	43.6	31.4	7.6
	13.0	24.6	53.3	35.1	8.2	40.7	30.3	6.3	14.5	30.1	59.0	37.4	8.1	45.1	32.1	6.2
16HYB-6 (1600)	10.5	7.3	63.0	43.6	12.0	48.1	37.9	9.2	12.0	9.2	71.6	47.0	11.9	54.7	40.5	9.1
	13.5	11.4	67.7	45.0	10.0	51.7	39.3	7.7	15.0	13.8	75.6	48.6	10.1	57.7	41.8	7.7
	18.0	19.2	71.6	47.0	8.0	54.7	40.5	6.1	20.0	23.2	79.2	50.1	7.9	60.5	42.9	6.0
20HYB-6 (2000)	13.0	9.1	77.5	54.0	11.9	59.2	46.9	9.1	14.5	11.1	87.5	58.0	12.1	66.8	50.0	9.2
	17.0	14.9	83.9	56.5	9.9	64.1	48.9	7.5	19.0	18.2	93.9	60.5	9.9	71.7	52.0	7.5
	22.0	23.8	88.6	58.4	8.1	67.6	50.4	6.1	24.5	29.0	98.1	62.3	8.0	74.9	53.4	6.1

TH - Total Heat                      SH - Sensible Heat                      TR - Water Temperature Rise

Y\*HYB  
COMMON  
DATA

# Y\*HYB - Heating Data

## Y\*HYB-3 (3-Row Coil / 2-Pipe)

HEATING CAPACITY (1000 BTUH)						
MODEL (CFM)	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMP.			
			180°F	160°F	140°F	120°F
12HYB-3 (1200)	7	4.7	96	78	61	43
	10	9.0	100	82	63	45
	13	14.4	101	83	64	46
16HYB-3 (1600)	10	4.5	129	105	82	59
	13	7.3	133	109	85	60
	15	9.5	135	110	86	61
20HYB-3 (2000)	12	4.5	159	130	101	72
	16	7.6	165	135	105	75
	20	11.5	168	137	107	76

**NOTES:**

1. Ratings at 70 degree entering air temp.
2. Contact factory for capacities at other conditions

## Y\*HYB-4 (4-Row Coil / 2-Pipe)

HEATING CAPACITY (1000 BTUH)						
MODEL (CFM)	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMP.			
			180°F	160°F	140°F	120°F
12HYB-4 (1200)	6	4.5	107	88	68	49
	8	7.6	111	91	71	50
	10	15.9	115	94	73	52
16HYB-4 (1600)	8	3.7	142	116	90	64
	12	7.9	150	123	95	68
	15	11.8	153	125	97	70
20HYB-4 (2000)	10	4.2	176	144	112	80
	14	7.7	185	151	118	84
	18	12.2	190	155	121	86

**NOTES:**

1. Ratings at 70 degree entering air temp.
2. Contact factory for capacities at other conditions

## Y\*HYB-6 (6-Row Coil / 2-Pipe)

HEATING CAPACITY (1000 BTUH)						
MODEL (CFM)	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMP.			
			180°F	160°F	140°F	120°F
12HYB-6 (1200)	8	10.2	124	101	79	56
	10	15.3	127	104	81	58
	14	28.2	130	106	83	59
16HYB-6 (1600)	10	6.7	165	135	105	75
	14	12.2	171	140	109	78
	18	19.2	174	142	111	79
20HYB-6 (2000)	12	7.9	203	166	129	92
	17	14.9	212	173	135	96
	22	23.8	216	177	137	98

**NOTES:**

1. Ratings at 70 degree entering air temp.
2. Contact factory for capacities at other conditions

## Y\*HYB-1 (1-Row Coil / 4-Pipe)

HEATING CAPACITY (1000 BTUH)						
MODEL (CFM)	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMP.			
			180°F	160°F	140°F	120°F
12HYB (1200)	1.0	1.8	30	24	19	14
	2.5	8.7	39	32	25	18
	4.0	19.8	42	34	27	19
16HYB (1600)	1.0	2.5	38	31	24	17
	2.5	11.8	49	40	31	22
	4.0	26.1	54	44	34	24
20HYB (2000)	1.0	3.1	45	37	29	20
	2.5	14.6	58	47	37	26
	4.0	32.4	65	53	41	30

**NOTES:**

1. Ratings at 70 degree entering air temp.
2. Contact factory for capacities at other conditions

## Y\*HYB-2 (2-Row Coil / 4-Pipe)

HEATING CAPACITY (1000 BTUH)						
MODEL (CFM)	GPM	P.D. (FT. WTR.)	ENTERING WATER TEMP.			
			180°F	160°F	140°F	120°F
12HYB (1200)	4	1.5	69	56	44	31
	8	5.2	77	63	49	35
	12	11.0	80	65	51	36
16HYB (1600)	8	2.7	99	81	63	45
	12	5.5	105	86	67	48
	16	9.3	108	88	69	49
20HYB (2000)	12	4.1	126	103	80	57
	16	6.7	131	107	83	60
	20	10.0	134	110	85	61

**NOTES:**

1. Ratings at 70 degree entering air temp.
2. Contact factory for capacities at other conditions

### CFM FACTORS

% NOMINAL CFM	TOTAL COOLING	SENSIBLE COOLING	HEATING
50	0.68	0.60	0.58
75	0.85	0.81	0.81
100	1.00	1.00	1.00
125	1.12	1.17	1.16
150	1.21	1.33	1.18

Y\*HYB  
COMMON  
DATA

# Motor Data

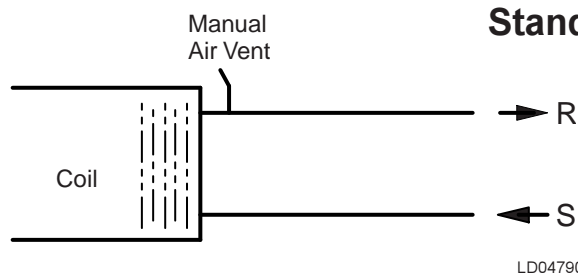
VOLTAGE	RATINGS		UNIT SIZE		
			12	16	20
<b>120 V</b> <b>60 HZ</b> <b>1-Phase</b>	Nominal HP		1/5 (two)	1/5 (two)	1/4 (two)
	High Speed	Amps	<b>4.90</b>	<b>5.60</b>	<b>8.10</b>
		Watts	575	640	840
	Med-Hi Speed	Amps	<b>3.33</b>	<b>3.70</b>	<b>6.20</b>
		Watts	395	425	660
	Med-Low Speed	Amps	<b>2.38</b>	<b>2.54</b>	<b>4.75</b>
		Watts	278	292	510
	Low Speed	Amps	<b>1.35</b>	<b>1.38</b>	<b>3.60</b>
		Watts	160	160	380
	<b>220 V</b> <b>50 HZ</b> <b>1-Phase</b>	Nominal HP		1/5 (two)	1/5 (two)
High Speed		Amps	<b>3.48</b>	<b>3.78</b>	<b>5.32</b>
		Watts	715	785	1030
Med-Hi Speed		Amps	<b>2.39</b>	<b>2.54</b>	<b>3.60</b>
		Watts	500	528	725
Med-Low Speed		Amps	<b>1.77</b>	<b>1.81</b>	<b>2.95</b>
		Watts	365	375	590
Low Speed		Amps	<b>1.07</b>	<b>1.08</b>	<b>2.18</b>
		Watts	224	220	425
<b>277 V</b> <b>50 HZ</b> <b>1-Phase</b>		Nominal HP		1/5 (two)	1/5 (two)
	High Speed	Amps	<b>2.20</b>	<b>2.70</b>	<b>3.60</b>
		Watts	600	720	855
	Med-Hi Speed	Amps	<b>1.67</b>	<b>1.92</b>	<b>2.90</b>
		Watts	450	510	715
	Med-Low Speed	Amps	<b>1.30</b>	<b>1.40</b>	<b>2.50</b>
		Watts	340	360	610
	Low Speed	Amps	<b>0.82</b>	<b>0.85</b>	<b>2.10</b>
		Watts	210	210	500

**NOTES:**

1. The above amperage and wattages are actual operating values as tested and certified. Nameplate values for amperage may be higher.

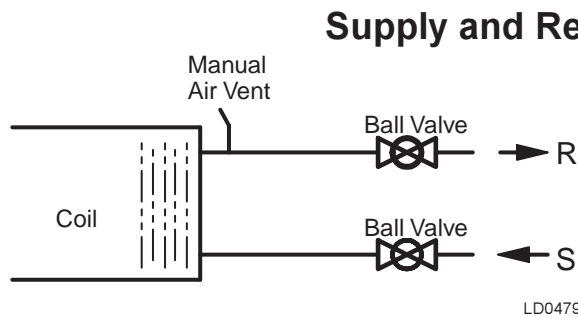
# Valve Packages

R = Right Hand  
 L = Left Hand  
 (\*) C = Y\*HBC/Y\*HH  
 Y = Y\*HYB

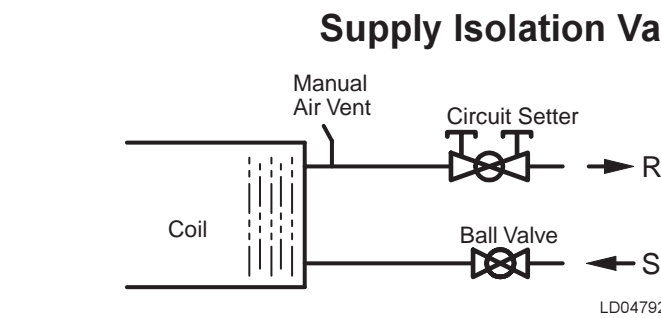


Valve Package Order Code	
N	

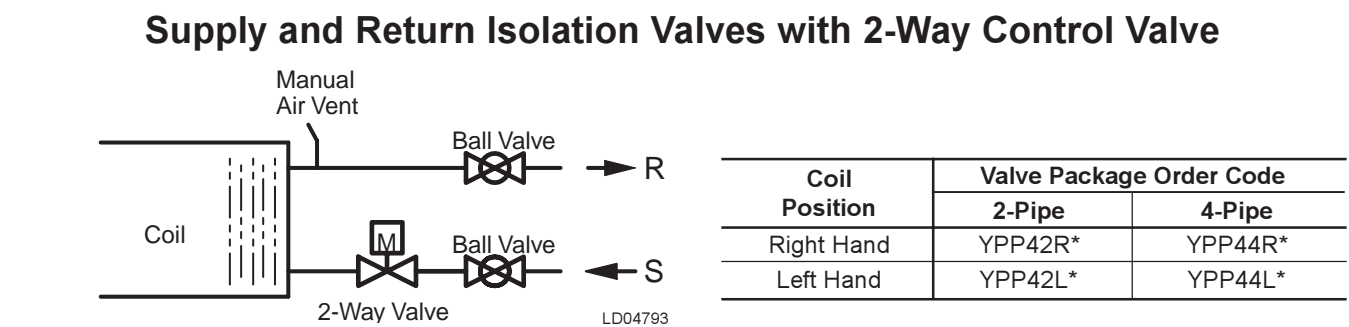
<sup>1</sup>For floor or vertical consoles only.



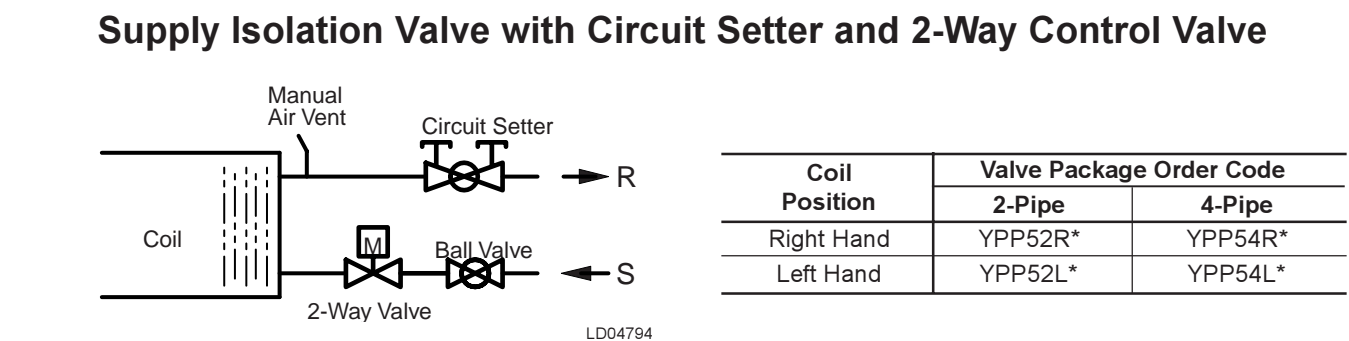
Coil Position	Valve Package Order Code	
	2-Pipe	4-Pipe
Right Hand	YPP22R*	YPP24R*
Left Hand	YPP22L*	YPP24L*



Coil Position	Valve Package Order Code	
	2-Pipe	4-Pipe
Right Hand	YPP32R*	YPP34R*
Left Hand	YPP32L*	YPP34L*



Coil Position	Valve Package Order Code	
	2-Pipe	4-Pipe
Right Hand	YPP42R*	YPP44R*
Left Hand	YPP42L*	YPP44L*

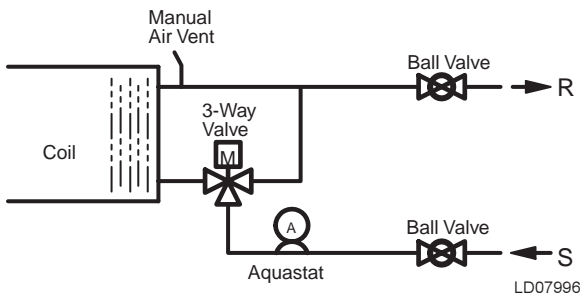


Coil Position	Valve Package Order Code	
	2-Pipe	4-Pipe
Right Hand	YPP52R*	YPP54R*
Left Hand	YPP52L*	YPP54L*

# Valve Packages

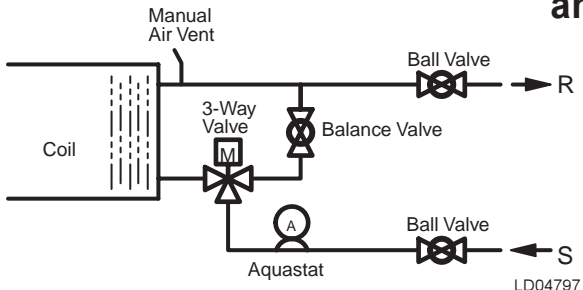
R = Right Hand  
 L = Left Hand  
 (\*) C = Y\*HBC/Y\*HH  
 Y = Y\*HYB

## Supply and Return Isolation Valves with 3-Way Control Valve



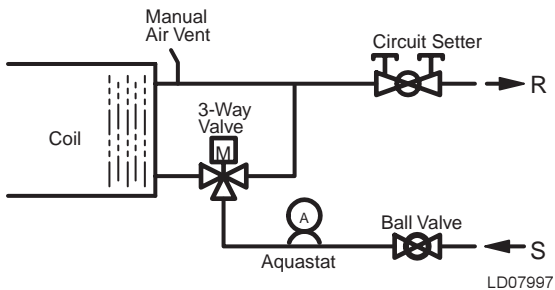
Coil Position	Valve Package Order Code	
	2-Pipe	4-Pipe
Right Hand	YPP62R*	YPP64R*
Left Hand	YPP62L*	YPP64L*

## Supply and Return Isolation Valves with 3-Way Control Valve and Balancing Valve



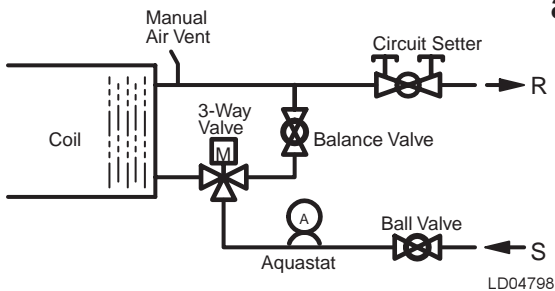
Coil Position	Valve Package Order Code	
	2-Pipe	4-Pipe
Right Hand	YPP82R*	YPP84R*
Left Hand	YPP82L*	YPP84L*

## Supply Isolation Valve with Circuit Setter and 3-Way Control Valve



Coil Position	Valve Package Order Code	
	2-Pipe	4-Pipe
Right Hand	YPP72R*	YPP74R*
Left Hand	YPP72L*	YPP74L*

## Supply Isolation Valves with Circuit Setter and 3-Way Control Valve and Balancing Valve



Coil Position	Valve Package Order Code	
	2-Pipe	4-Pipe
Right Hand	YPP92R*	YPP94R*
Left Hand	YPP92L*	YPP94L*

**NOTES:**

1. (A) Indicates typical aquastat location.
2. Contact factory for special request options.
3. Control Valves are normally closed, and 2 position.
4. 2-Pipe Auto changeover applications must use 3-way valve clusters with aquastats.

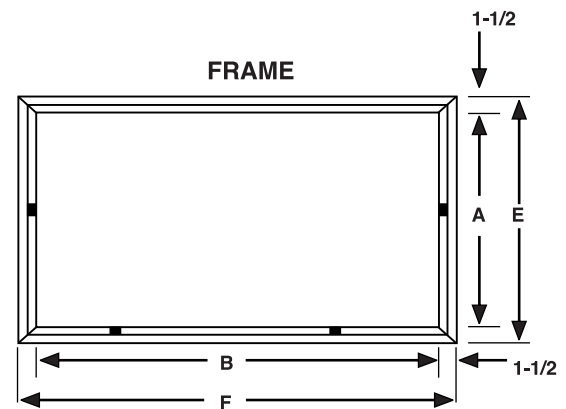
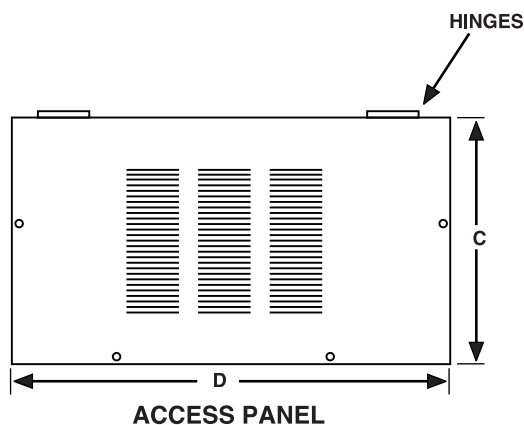
OTHER INFORMATION

# Accessories

## CEILING ACCESS PANELS

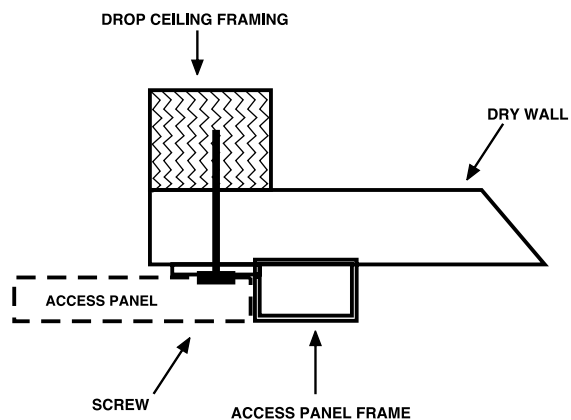
### PHYSICAL DATA

FOR YORK FAN COIL MODELS	DESCRIPTION (LOUVERED OR SOLID)	PANEL NUMBER	OPENING SIZE		PANEL DIMENSION		FRAME DIMENSION	
			A	B	C	D	E	F
3YHBC, 4YHBC, 5YHBC, 6YHBC 3YHH-8YHH	LOUVERED SOLID	<b>965</b> <b>965-1</b>	24-1/2	40	25-7/8	41-3/8	27-1/2	43
8YHBC, 10YHH	LOUVERED SOLID	<b>966</b> <b>966-1</b>	24-1/2	46	25-7/8	47-3/8	27-1/2	49
10YHBC, 12YHH	LOUVERED SOLID	<b>967</b> <b>967-1</b>	24-1/2	52-1/2	25-7/8	53-7/8	27-1/2	55-1/2
13YHBC	LOUVERED SOLID	<b>967-4</b> <b>967-5</b>	24-5/8	67-1/8	25-3/4	68-1/2	27-5/8	70-1/8



LD04787

### ACCESS PANEL FRAME INSTALLATION DETAIL



LD04788

### FEATURES:

- 1) **Louvered** models available for bottom return air.
- 2) **Hinged** panel is removable from frame and can be reversed for better clearance.
- 3) **Surface mount** - does not have to perfectly match opening.
- 4) **No frame screws** show after installation.
- 5) Heavy gauge **galvanized steel**.
- 6) Attractive **baked-on white** epoxy coating can be latex painted in the field.
- 7) **Filter clips** on 965, 966 and 967 models accept 20 x 20 x 1 filter (field installed). 967-3 accepts 25 x 20 x 1 filter (field installed). 967-4 includes a 10 x 65 x 1 filter (installed).

# Correction Factors

## Ethylene Glycol Correction Factors

%	Temp Rise °F	ENTERING FLUID TEMPERATURE (°F)													
		40°		42°		44°		45°		46°		48°		50°	
		Gt	Gs	Gt	Gs	Gt	Gs	Gt	Gs	Gt	Gs	Gt	Gs	Gt	Gs
10	6	0.985	0.992	0.985	0.992	0.985	0.992	0.985	0.992	0.985	0.992	0.985	0.992	0.985	0.992
	8	0.979	0.990	0.979	0.989	0.979	0.989	0.979	0.988	0.979	0.988	0.979	0.987	0.979	0.987
	10	0.972	0.987	0.972	0.986	0.972	0.985	0.972	0.984	0.972	0.984	0.972	0.983	0.972	0.983
	12	0.967	0.984	0.967	0.982	0.967	0.980	0.967	0.980	0.967	0.979	0.967	0.978	0.967	0.977
	14	0.961	0.980	0.961	0.978	0.961	0.976	0.961	0.975	0.961	0.975	0.961	0.974	0.961	0.972
	16	0.955	0.977	0.955	0.975	0.955	0.972	0.955	0.970	0.955	0.970	0.955	0.967	0.955	0.965
20	6	0.950	0.980	0.952	0.979	0.954	0.979	0.954	0.978	0.958	0.978	0.961	0.977	0.965	0.977
	8	0.941	0.975	0.942	0.974	0.944	0.974	0.945	0.973	0.946	0.973	0.948	0.972	0.951	0.971
	10	0.928	0.966	0.930	0.965	0.932	0.964	0.932	0.963	0.933	0.962	0.935	0.960	0.938	0.958
	12	0.914	0.960	0.916	0.959	0.918	0.956	0.921	0.953	0.920	0.951	0.922	0.947	0.925	0.945
	14	0.904	0.954	0.905	0.951	0.907	0.948	0.910	0.945	0.909	0.941	0.912	0.933	0.915	0.928
	16	0.899	0.948	0.900	0.945	0.900	0.941	0.901	0.937	0.902	0.933	0.903	0.923	0.904	0.917
30	6	0.908	0.961	0.911	0.961	0.913	0.961	0.917	0.960	0.921	0.960	0.926	0.959	0.931	0.959
	8	0.890	0.950	0.891	0.949	0.895	0.948	0.898	0.947	0.902	0.946	0.906	0.946	0.911	0.945
	10	0.871	0.939	0.874	0.936	0.877	0.933	0.878	0.931	0.881	0.928	0.885	0.926	0.889	0.924
	12	0.859	0.929	0.860	0.924	0.863	0.919	0.865	0.916	0.867	0.913	0.870	0.910	0.873	0.906
	14	0.846	0.918	0.847	0.910	0.848	0.903	0.849	0.895	0.850	0.893	0.852	0.889	0.854	0.885
	16	0.832	0.907	0.833	0.896	0.834	0.886	0.835	0.875	0.836	0.873	0.837	0.866	0.838	0.857
40	6	0.852	0.936	0.855	0.935	0.862	0.934	0.867	0.933	0.873	0.932	0.880	0.931	0.887	0.931
	8	0.829	0.921	0.831	0.919	0.836	0.916	0.840	0.914	0.845	0.912	0.851	0.910	0.857	0.910
	10	0.808	0.906	0.811	0.904	0.815	0.901	0.816	0.899	0.820	0.897	0.825	0.893	0.830	0.890
	12	0.792	0.889	0.794	0.884	0.797	0.879	0.800	0.875	0.802	0.873	0.805	0.867	0.809	0.861
	14	0.775	0.872	0.777	0.865	0.779	0.858	0.781	0.850	0.783	0.846	0.785	0.839	0.787	0.829
	16	0.754	0.855	0.755	0.845	0.756	0.836	0.757	0.826	0.758	0.819	0.760	0.807	0.762	0.796
50	6	0.788	0.905	0.793	0.902	0.801	0.899	0.807	0.897	0.814	0.895	0.822	0.892	0.831	0.891
	8	0.763	0.886	0.767	0.882	0.775	0.878	0.779	0.875	0.784	0.872	0.790	0.868	0.797	0.866
	10	0.738	0.866	0.742	0.861	0.746	0.856	0.748	0.851	0.752	0.851	0.757	0.845	0.762	0.840
	12	0.730	0.853	0.732	0.847	0.736	0.840	0.738	0.834	0.740	0.831	0.743	0.824	0.747	0.818
	14	0.723	0.841	0.725	0.833	0.729	0.824	0.731	0.816	0.732	0.812	0.734	0.803	0.736	0.795
	16	0.718	0.828	0.720	0.818	0.721	0.809	0.722	0.799	0.722	0.792	0.723	0.780	0.724	0.769

**NOTES:** When using numerous correction factors, it is possible for the calculations to give sensible performance higher than total performance. In that case, the cooling is sensible only and the total cooling should be corrected to equal the sensible.

**Gt** - Glycol correction factor for total capacity

**Gs** - Glycol correction factor for sensible capacity



## Propylene Glycol Correction Factors

%	Temp Rise °F	ENTERING FLUID TEMPERATURE (°F)													
		40°		42°		44°		45°		46°		48°		50°	
		Gt	Gs	Gt	Gs	Gt	Gs	Gt	Gs	Gt	Gs	Gt	Gs	Gt	Gs
10	6	0.980	0.989	0.980	0.989	0.980	0.989	0.980	0.989	0.980	0.989	0.980	0.989	0.980	0.989
	8	0.971	0.985	0.971	0.984	0.971	0.984	0.971	0.984	0.971	0.983	0.971	0.983	0.971	0.983
	10	0.962	0.980	0.962	0.979	0.962	0.979	0.962	0.979	0.962	0.978	0.962	0.978	0.962	0.977
	12	0.954	0.976	0.954	0.974	0.954	0.972	0.954	0.971	0.954	0.971	0.954	0.970	0.954	0.969
	14	0.947	0.973	0.947	0.971	0.947	0.969	0.947	0.968	0.947	0.968	0.947	0.966	0.947	0.965
	16	0.938	0.969	0.938	0.967	0.938	0.965	0.938	0.964	0.938	0.962	0.938	0.959	0.938	0.956
20	6	0.946	0.969	0.948	0.968	0.950	0.967	0.952	0.966	0.954	0.966	0.958	0.965	0.964	0.964
	8	0.927	0.960	0.929	0.959	0.931	0.958	0.933	0.957	0.935	0.956	0.939	0.955	0.943	0.954
	10	0.907	0.950	0.905	0.949	0.907	0.948	0.908	0.947	0.909	0.946	0.912	0.944	0.915	0.942
	12	0.891	0.942	0.892	0.941	0.893	0.939	0.894	0.937	0.895	0.936	0.897	0.933	0.900	0.930
	14	0.877	0.933	0.878	0.931	0.879	0.929	0.880	0.927	0.881	0.926	0.882	0.923	0.884	0.919
	16	0.863	0.925	0.864	0.922	0.865	0.918	0.866	0.916	0.866	0.914	0.867	0.910	0.869	0.905
30	6	0.891	0.939	0.894	0.938	0.897	0.937	0.900	0.936	0.902	0.935	0.907	0.934	0.913	0.933
	8	0.857	0.924	0.860	0.921	0.863	0.918	0.865	0.915	0.867	0.913	0.871	0.910	0.875	0.906
	10	0.829	0.909	0.831	0.905	0.833	0.901	0.835	0.898	0.836	0.896	0.839	0.891	0.842	0.886
	12	0.813	0.896	0.815	0.890	0.817	0.884	0.818	0.880	0.819	0.878	0.821	0.872	0.824	0.866
	14	0.796	0.883	0.797	0.875	0.798	0.867	0.799	0.861	0.801	0.859	0.803	0.851	0.805	0.843
	16	0.778	0.872	0.779	0.863	0.780	0.854	0.780	0.849	0.781	0.845	0.782	0.835	0.783	0.825
40	6	0.816	0.897	0.819	0.895	0.822	0.893	0.824	0.891	0.826	0.890	0.832	0.887	0.838	0.884
	8	0.776	0.875	0.779	0.873	0.782	0.871	0.784	0.870	0.786	0.868	0.790	0.862	0.795	0.858
	10	0.736	0.853	0.738	0.850	0.740	0.847	0.742	0.845	0.744	0.843	0.748	0.838	0.751	0.833
	12	0.745	0.838	0.747	0.834	0.749	0.830	0.750	0.827	0.751	0.825	0.753	0.820	0.756	0.814
	14	0.711	0.824	0.713	0.819	0.715	0.814	0.716	0.811	0.717	0.808	0.718	0.801	0.720	0.794
	16	0.695	0.809	0.696	0.803	0.697	0.797	0.697	0.794	0.698	0.790	0.698	0.783	0.699	0.775
50	6	0.731	0.856	0.736	0.853	0.741	0.851	0.744	0.849	0.747	0.848	0.755	0.845	0.764	0.841
	8	0.701	0.829	0.705	0.826	0.710	0.822	0.712	0.820	0.715	0.818	0.722	0.814	0.730	0.809
	10	0.671	0.802	0.675	0.799	0.679	0.795	0.681	0.797	0.683	0.794	0.687	0.789	0.692	0.783
	12	0.658	0.788	0.661	0.784	0.664	0.779	0.665	0.776	0.667	0.773	0.671	0.767	0.676	0.760
	14	0.645	0.773	0.647	0.767	0.649	0.761	0.651	0.758	0.652	0.753	0.655	0.755	0.658	0.747
	16	0.632	0.759	0.633	0.753	0.634	0.746	0.635	0.740	0.636	0.738	0.638	0.730	0.641	0.721

**Gt** - Glycol correction factor for total capacity

**Gs** - Glycol correction factor for sensible capacity

### GLYCOL PRESSURE DROP CORRECTION

%	ETHYLENE	PROPYLENE
10	1.054	1.072
20	1.119	1.159
30	1.188	1.254
40	1.262	1.363
50	1.347	1.483

# Correction Factors

## Airflow Correction Factors

% OF NOMINAL CFM	CORRECTION MULTIPLIER	
	Q <sub>tf</sub>	Q <sub>sf</sub>
130	1.13	1.18
125	1.11	1.17
120	1.09	1.15
115	1.07	1.12
110	1.05	1.08
105	1.03	1.03
100	1.00	1.00
95	0.97	0.96
90	0.95	0.93
85	0.92	0.89
80	0.89	0.85
75	0.86	0.82
70	0.83	0.78
65	0.81	0.74
60	0.78	0.70
55	0.75	0.67
50	0.72	0.63

**NOTES:** These correction multipliers are averaged. Results may differ when compared to the selection program.

## Altitude Correction Factors \*

ELEVATION	TOTAL CAPACITY	SENSIBLE CAPACITY
1000	0.99	0.96
2000	0.98	0.93
3000	0.97	0.89
4000	0.96	0.86
5000	0.94	0.83
6000	0.92	0.80

\*In Feet Above Sea Level

## Nominal Airflows

UNIT SIZE	CFM
3	300
4	400
5	500
6	600
8	800
10	1000
12	1200
13	1300
16	1600
20	2000

# Guide Specifications

## UNIT SERIES – YHBC, YPHBC, YRHBC and YCHBC (Ceiling Fan Coil Units)

Furnish and install fan coil units as indicated on the plans and specifications. Types, sizes, and performance shall be as indicated in the schedule. Units shall be certified to deliver published capabilities when tested in accordance with latest ARI standard 440.

### Basic Unit

All fan coils shall be manufactured with heavy gauge galvanized steel to resist corrosion.

Piping, drain, and wiring connections are readily accessible and mounting holes and/or slots are pre-drilled to save installation time and field labor expense.

### Electrical Box

Units shall have electrical box providing a single location for line voltage field wiring connections. A 120V or 240V to 24V transformer is available for low voltage control.

### Motors

Standard motors are 120V, 3-speed, PSC type with internal thermal overload protection and are mounted with rubber bushings.

### Fan Assembly

Fans shall be centrifugal, forward curved, and dynamically balanced for smooth, quiet operation. Fan housings shall be fabricated of heavy gauge galvanized steel and be easily removed, thus allowing complete service access to the fans and motors.

### Coils

Coils have 3/8" O.D. copper tubing expanded to high efficiency aluminum fins. Each coil is factory tested to 350 PSIG. Manual air vents are standard on all coils. Tube connections are 5/8" O.D.

### Drain Pans

All drain pans shall be coated on the inside surface with a closed cell, fire retardant foam insulation. This insulation provides superior corrosion resistance. All drain pans include both primary and secondary (overflow) drain connections. All drain pans are sloped toward the drain connections to facilitate condensate removal.

### OPTIONS

#### Return Plenums with Filter and Cabinets

Plenums and cabinets are insulated to increase efficiency and to insure quiet operation. Exposed cabinets and access panels are coated with baked-on finish. All models (except YHBC Series) have throwaway filters. Hinged panels are included with the YRHBC and YCHBC models for easy access and service.

#### Valve Packages

Valve packages shall consist of various combinations of 2-way or 3-way motorized valves and / or combination balance / isolation valves on the supply / return piping and circuit setter. Field installed.

#### Ceiling Access Panels

Panels furnished with or without return air grill.

# Guide Specifications

## UNIT SERIES – YHH - PYHH (Ceiling Fan Coil Unit with Electric Heat)

Furnish and install fan coil units as indicated on the plans and specifications. Types, sizes, and performance shall be as indicated in the schedule. Units shall be certified to deliver published capabilities when tested in accordance with latest ARI standard 440.

### Basic Unit

All fan coils shall be manufactured with heavy gauge galvanized steel to resist corrosion.

Piping, drain, and wiring connections are readily accessible and mounting holes and/or slots are pre-drilled to save installation time and field labor expense.

### Electrical Box

Units shall have electrical box providing a single location for line voltage field wiring connections. A 240V or 277V to 24V transformer is provided for low voltage control.

### Heating Element

Unit shall include factory installed electric heater in either 208 - 240 - 277 Volts. Electric element to include built-in overload protection. Derate 25% for 208V applications.

### Motors

Standard motors in all units to be (240 / 208 - 1PH - 60 Hz), Two speed motors (high speed for cooling, low speed for heating) with permanently lubricated sleeve bearing, permanent split capacitor, inherent thermal overload protection with automatic reset, and resilient number motor mounts.

### Fan Assembly

Fans shall be centrifugal, forward curved, and dynamically balanced for smooth, quiet operation. Fan

housings shall be fabricated of heavy gauge galvanized steel and be easily removed, thus allowing complete service access to the fans and motors.

### Coils

Coils shall have 3/8" O.D. copper tubing expanded to high efficiency aluminum fins. Each coil is factory tested to 350 PSIG. Manual air vents are standard on all coils. Tube connections are 5/8" O.D.

### Drain Pans

All drain pans shall be coated on the inside surface with a closed cell, fire retardant foam insulation. This insulation provides superior corrosion resistance. Threaded primary and secondary drain connections shall be factory installed. All drain pans are sloped toward the drain connections to facilitate condensate removal.

### OPTIONS

#### Return Plenums with Filter and Cabinets

All YPHH models shall have factory installed return air plenums. These plenums shall be capable of being field converted from end return to bottom return. One inch throwaway filters shall be installed inside the plenum.

#### Valve Packages

Valve packages shall consist of various combinations of 2-way or 3-way motorized valves and / or combination balance / isolation valves on the supply / return piping and circuit setter. Field installed.

#### Ceiling Access Panels

Panels furnished with or without return air grill.

## UNIT SERIES – YHYB - YPHYB (High Capacity Ceiling Fan Coil Unit)

Furnish and install York International Corp. horizontal fan coils as indicated on the plans and specifications. Types, sizes, and performance shall be as indicated in the schedule. Each unit shall be ARI certified and consist of and comply with the following:

### Basic Unit

All units shall be manufactured with heavy gauge galvanized steel to resist corrosion.

All piping, drain, and wiring connections shall be readily accessible. Mounting holes with rubber grommets shall be provided to save installation time and expense.

### Electrical Box

Unit shall have an electrical box providing a single location for line voltage field wiring connections. 120V or 240V to 24V transformer is available for low voltage control.

### Motors

All units shall have (120/1/60) (220/1/50) four speed motors with permanently lubricated sleeve bearings, permanent split capacitor, inherent thermal overload protection with automatic reset, and resilient rubber motor mounts.

### Fan Assembly

Fans shall be centrifugal, forward curved, and dynamically balanced for smooth, quiet operation. Fan housings shall be fabricated of heavy gauge galvanized steel and be easily removed, thus allowing complete service access to the fans and motors.

### Coils

Coils shall have high efficiency aluminum fins with mechanically expanded 1/2" O.D. copper tubes. All coils shall have a manual air vent. Tube connections are 7/8" O.D.

### Drain Pan

All drain pans shall be coated on the inside surface with a closed cell, fire retardant foam insulation. This insulation provides superior corrosion resistance. All drain pans include both primary and secondary (overflow) drain connections. All drain pans are sloped toward the drain connections to facilitate condensate removal.

### OPTIONS

#### Return Plenum with Filter

All **YPHYB** models shall have factory installed return air plenums. These plenums shall be capable of being field converted from end return to bottom return. One inch throwaway filters shall be installed within the plenums.

#### Valve Packages

Valve packages shall consist of various combinations of 2-way or 3-way motorized valves and / or combination balance / isolation valves on the supply / return piping and circuit setter. Field installed.

#### Ceiling Access Panels

Not Available.

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