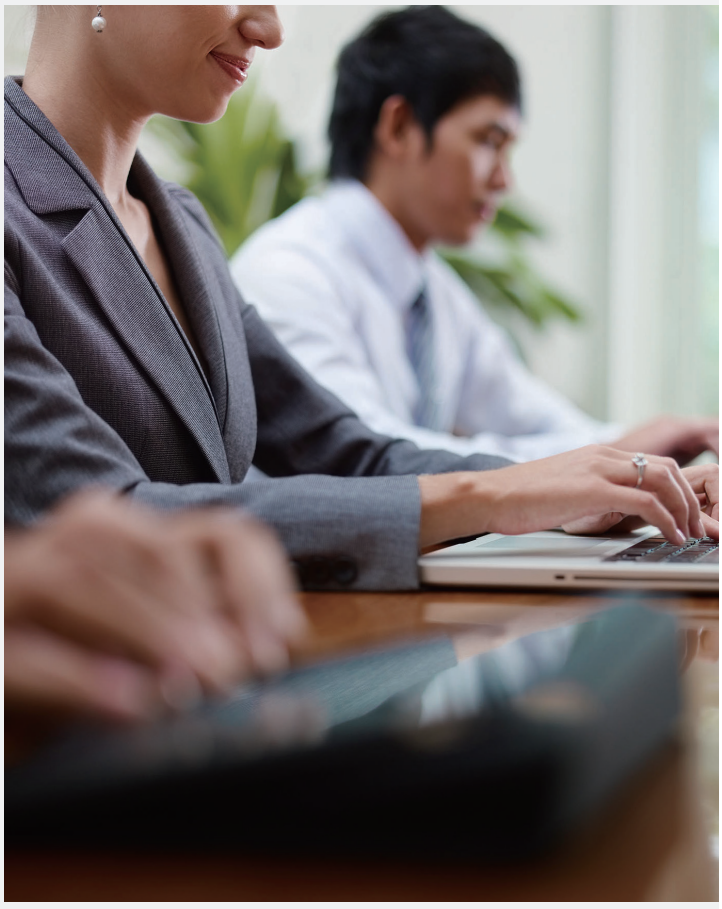
YORK®

INSTALL CONFIDENCE



BUILDING EFFICIENCY

Energy Efficient Variable Speed EC Motor Fan Coil Unit Solutions Model YECFC

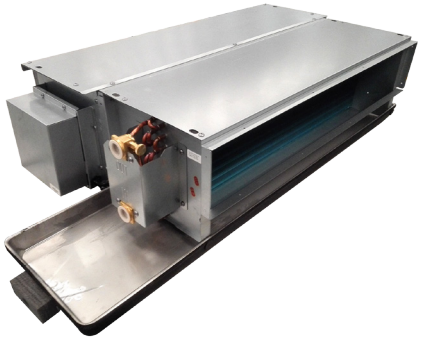
Johnson Controls

Product Introduction

INTRODUCTION

Johnson Controls YORK® YECFC fan coil units are high efficiency, low profile, ceiling mounted, concealed air conditioning units for both ducted and non-ducted HVAC system applications. They are designed, developed and tested in accordance with Australia and New Zealand regulations to meet the increasing energy efficiency levels demanded by today's sustainable buildings. YECFC fan coil units have been designed incorporating variable speed EC motor technology to exceed the stringent European ErP 2015 energy standard. They are the ideal HVAC solution for both new construction and renovation projects for hotels, apartments, retail centers, office buildings, and education facilities.

YECFC fan coils are available in 5 models with integral EC fan(s) incorporate fully variable 0-10V speed control, and are suitable for a wide range of chilled water and hot water flow rates, including wide delta T applications to maximize pump energy savings. YECFC fan coil units are available with multiple coil options for each model (the 2 pipe system has 3 or 4 rows, and the 4 pipe system has 3+1 or 4+1 rows). The air flow ranges from a nominal 150 L/s to 750 L/s, while the external static pressure ranges from 30 Pa to 120 Pa up to size 04, and up to 150 Pa for size 05. YECFC is designed to cater for a wide range of HVAC applications and system types. With integral EC motor technology



and wide RPM range design, one model size can be adapted to both low pressure ductless and higher pressure ducted applications. Significant energy savings are delivered by continuously regulating fan speed via a 0 - 10 VDC control signal.

YECFC series fan coil units are certified by AHRI.

GENERAL	Coils	3R Cooling Coil Only (Wide delta T)	■
		4R Cooling Coil Only (Wide delta T)	▲
		1R Heating Coil	▲
	Motor Protection	IP 44 - 50/60 Hz	■
	Fin Protection	Hydrophilic Fin	■
	Drain Pan	Stainless steel 100mm extended drain pan	■
	Drain Pan Insulation	6mm closed-cell insulation, Class 1	■
	Coil Header	Copper with threaded brass connectors	■
	Return Plenum	Back Return	■
OPTION	Filters & Rails	8mm Base Rail	▲
		8mm Nylon Filter	▲
	Electric Heater	Australia/NZ locally provided option only	▲
	Water Valve	Australia/NZ locally provided option only	▲
	Control Package	Australia/NZ locally provided option only	▲

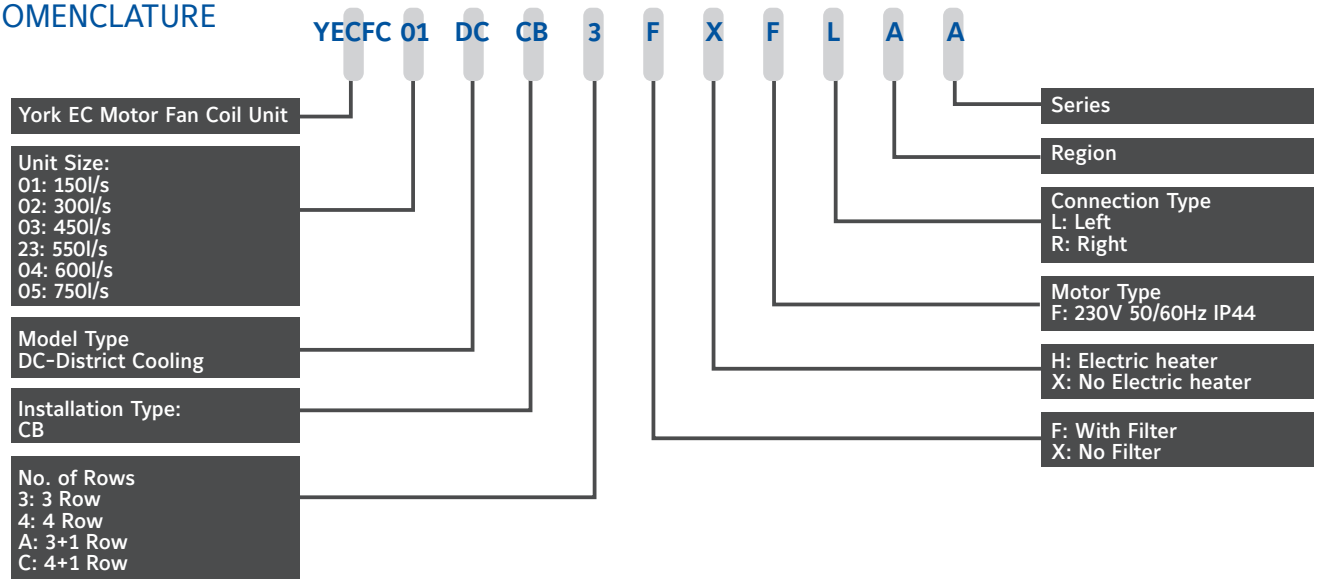
Legend:

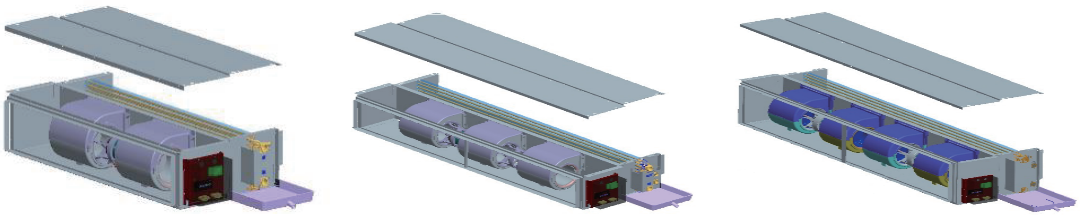
Standard ■

Option ▲

Nomenclature & Feature

NOMENCLATURE





FEATURES AND BENEFITS

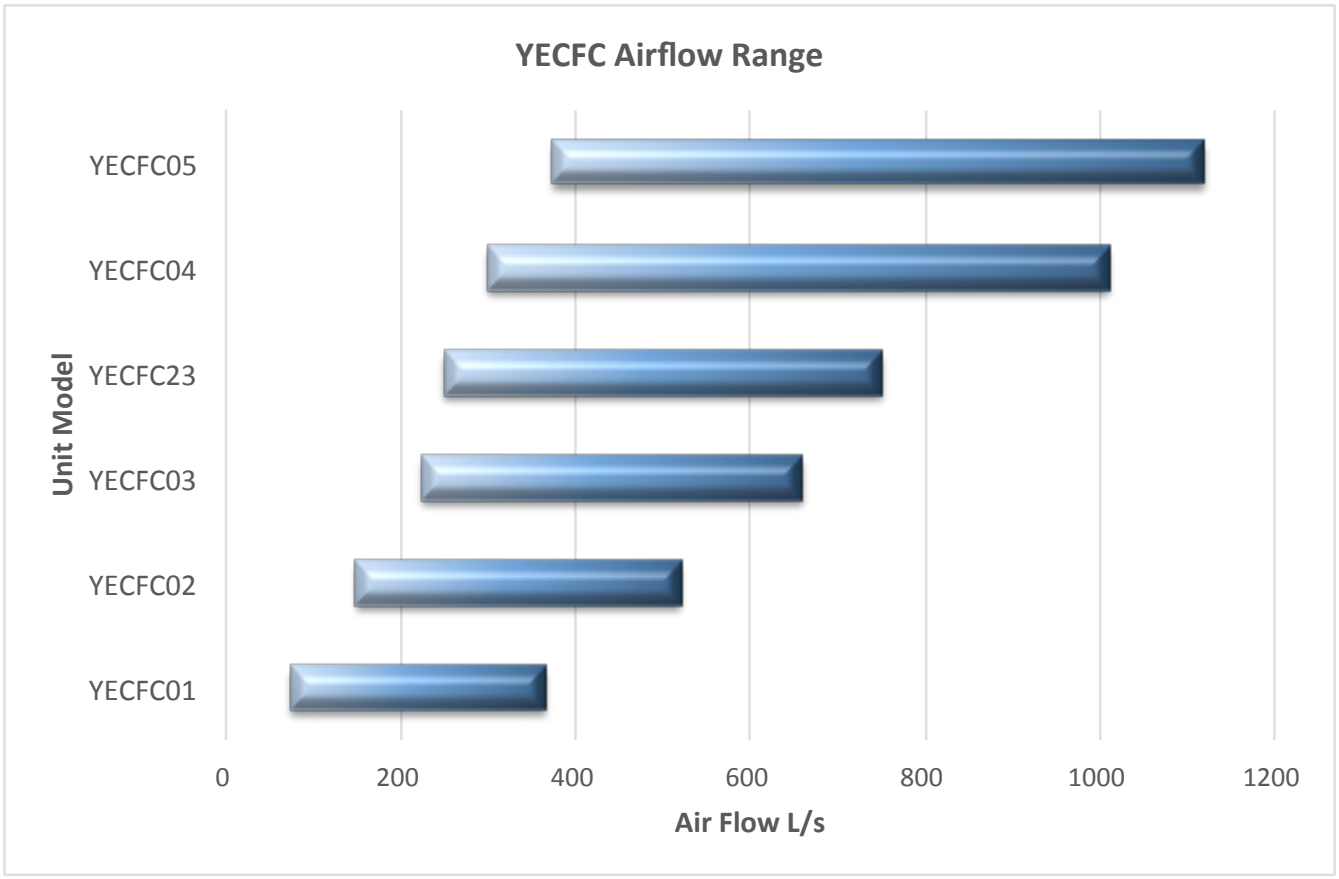
Energy saving	Low velocity coil designs are made of expanded copper tubes and corrugated aluminium hydrophilic (blue) fins to achieve high energy exchange efficiency. EC fans can improve the overall efficiency by up to 70% when compared to standard AC motor fan coil units.	Significant energy savings. Fan and motor performance rating exceeds the 2015 ErP (European Energy- related Products Directive).
Low noise level	Each fan and motor assembly has been dynamically and statically balanced. Variable speed fan operation.	Quiet comfort condition results in satisfied occupants.
Easy drainage	Integral dry pan design allows quick and easy drainage of condensation. Dry pan is made of high quality stainless steel. Extended drain pan design.	Non-corrosive design drain pan has positive drainage and permits easy fitment of control valves above extended section. Lowers installation and maintenance costs.
Compact size & low height	Unit height is restricted to 233mm or 317mm.	Low profile design allows installation in low ceiling height areas.
Ease of installation	Threaded Brass connector is provided for easy piping connection. Drain and purge valves are provided on all units to assist in commissioning.	Reduces installation and commissioning time and cost.
Ease of maintenance	Optional Air Filter can be provided. Extended drain tray permits ease of inspection.	Air filter can protect coil from construction debris during installation. Filters can be easily removed for cleaning. Lowers maintenance cost.

Technical Specifications

MODEL			YECFC01	YECFC02	YECFC03	YECFC23	YECFC04	YECFC05
PERFORMANCE								
Nominal Air Flow		L/S	150	300	450	550	600	750
Nominal External Static Pressure		Pa	60	60	60	120	120	150
External Static Pressure Range		Pa	30~120	30~120	30~120	30~120	30~120	60~150
COIL								
Face Area		sq.m	0.15	0.21	0.32	0.32	0.47	0.54
Face Velocity		m/s	0.99	1.42	1.42	1.74	1.27	1.40
Header Material			Brass					
Max Working Pressure		kPa	1600					
COOLING COIL								
Water Flow Rate	3 Rows	L/S	0.080	0.143	0.210	0.246	0.298	0.378
	4 Rows		0.096	0.172	0.263	0.304	0.363	0.430
Water Pressure Drop	3 Rows	kPa	16.8	14.4	24.1	31.4	31.5	29.6
	4 Rows		30.5	25.8	29.6	38.5	30.8	28.1
Water Content	3 Rows	L	0.75	1.03	1.53	1.53	2.28	2.58
	4 Rows		1.01	1.38	2.04	2.04	3.04	3.44
Air Pressure Drop	3 Rows	Pa	24.8	39.8	39.9	51.9	34.4	39.1
	4 Rows		34.1	58.4	58.5	79.0	49.5	57.2
Nominal Capacity	3 Rows	kW	2.34	4.14	6.26	7.29	8.83	11.10
	4 Rows		2.76	5.04	7.75	9.01	10.58	12.55
HEATING COIL								
Water Flow Rate		L/S	0.050	0.085	0.121	0.138	0.182	0.221
Water Pressure Drop		kPa	7.1	6.7	8.1	9.8	14.5	20.8
Water Content		L	0.25	0.34	0.51	0.51	0.76	0.86
Air Pressure Drop		Pa	22.4	39.7	39.8	54.5	33.2	38.8
Nominal Capacity		kW	4.20	7.07	10.14	11.51	15.18	18.46
MOTOR								
Type			Electronically Commutated					
No. of Motor			1	1	1	2	2	2
Total Rating Input		W	42	99	148	310	275	375
Control Signal Input		V	0~10V DC					
Nameplate Volts		V	230 V AC					
Nameplate Amps (230V / 1 ph. / 50 - 60 Hz.)		A	1.8	1.8	1.9	3.6	3.6	3.6
Nameplate Input Power (230V / 1 ph. / 50 - 60 Hz.)		W	243	243	245	486	486	480
FAN								
Type			FC DWDI Centrifugal					
Quantity			2	2	3	4	4	4
UNIT DIMENSIONS								
Width		mm	1030	1310	1810	1810	1910	2125
Depth		mm	558	558	558	558	558	558
Height		mm	233	233	233	233	317	317
Weight	3 Rows	kg	20.8	24.8	33.4	36.0	43.8	52.8
	4 Rows		21.5	25.7	34.7	37.3	47.9	54.9
	3+1 Rows		21.5	25.7	34.7	37.3	47.9	54.9
	4+1 Rows		22.3	27.0	36.3	38.9	49.1	57.8

Notes:
1. Standard return air cooling conditions: air inlet at 23°C DB/17°C WB; chilled water inlet/outlet at 6°C/13°C.
2. Standard return air heating conditions: air inlet at 21°C DB; hot water inlet/outlet at 80°C/60°C.
3. Power Supply Range: 200~240V ~ 1ph 50/60Hz
4. * Means APD at wet condition, ** Means APD at dry condition.
5. Unit weight is without water content.
6. Chiller water inlet/outlet connection size for 04/05 4/C Rows unit is R1". For other unit, the chiller water inlet/outlet connection size is Rc3/4".
7. Inlet/outlet hot water pipe diameter for 4 pipes unit is Rc 1/2".

Technical Specifications



Technical Specifications

MOTOR POWER INPUT(W)

3 Rows Cooling Coil+1 Row Heating Coil

MODEL	ESP (Pa)	150 L/S	200 L/S	250 L/S	300 L/S	350 L/S	400 L/S	450 L/S	500 L/S	550 L/S	600 L/S	650 L/S	700 L/S	750 L/S	800 L/S	850 L/S	900 L/S	950 L/S
YECFC01	30	28	46	69	95													
	60	42	61	88	117													
	90	55	79															
	120	69	97															
YECFC02	30			51	78	105	140											
	60			71	99	127	168											
	90			88	123													
	120			105	150													
YECFC03	30						91	121	150	186								
	60						120	148	182	226								
	90						152	188										
	120						185	217										
YECFC23	30								136	168	199	260						
	60								179	213	245	315						
	90								221	258	294	363						
	120								265	304								
YECFC04	30									114	143	165	194	227	262			
	60									153	183	209	239	277	315			
	90									189	234	250						
	120									231	275							
YECFC05	60												196	232	259	292	330	374
	90												234	275	299	343		
	120												281	335	346	391		
	150												328	375				

MOTOR POWER INPUT(W)

4 Rows Cooling Coil+1 Row Heating Coil

MODEL	ESP (Pa)	150 L/S	200 L/S	250 L/S	300 L/S	350 L/S	400 L/S	450 L/S	500 L/S	550 L/S	600 L/S	650 L/S	700 L/S	750 L/S	800 L/S	850 L/S	900 L/S	950 L/S
YECFC01	30	30	48	74	109													
	60	43	65	93	128													
	90	57	82															
	120	71	100															
YECFC02	30			57	84	131	158											
	60			77	104	141	189											
	90			94	130													
	120			120	154													
YECFC03	30						100	125	161	194								
	60						125	157	191	241								
	90						155	192										
	120						188	223										
YECFC23	30								139	171	203	265						
	60								183	217	250	321						
	90								226	263	300	370						
	120								270	310								
YECFC04	30									125	148	179	210	236	275			
	60									163	195	221	256	288	325			
	90									205	245	266						
	120									248	293							
YECFC05	60												210	241	274	312	356	406
	90												254	287	322	359		
	120												297	345	369	416		
	150												342	390				

Performance Data

PERFORMANCE RATINGS

Cooling Coil

Model	Airflow	Rows	Air Inlet Temp (Dry Bulb/Wet Bulb) 23℃/17℃				
			Total Cooling Capacity	Sensible Cooling Capacity	Air Off Temp (Dry Bulb/Wet Bulb)	Water Flow Rate	Water Pressure Drop
	L/S		kW	kW	℃	L/S	kPa
YECFC01	150	3	2.34	1.75	13.4/12.2	0.080	16.8
	200		2.95	2.28	13.6/12.5	0.100	25.1
	250		3.52	2.78	13.8/12.7	0.121	33.5
	300		3.99	3.24	14.1/13.0	0.134	41.6
	150	4	2.76	1.97	12.2/11.3	0.096	30.5
	200		3.42	2.51	12.6/11.7	0.118	42.5
	250		4.08	3.06	12.9/12.0	0.137	57.4
	300		4.62	3.55	13.2/12.3	0.159	71.5
YECFC02	250	3	3.62	2.83	13.7/12.6	0.125	11.2
	300		4.14	3.32	13.9/12.8	0.143	14.4
	350		4.71	3.83	14.0/12.9	0.158	17.9
	400		5.03	4.14	14.5/13.2	0.172	20.6
	250	4	4.45	3.24	12.3/11.5	0.149	21.1
	300		5.04	3.76	12.7/11.8	0.172	25.8
	350		5.73	4.35	12.7/12.0	0.194	32.5
	400		6.21	4.82	13.1/12.2	0.210	38.1
YECFC03	400	3	5.79	4.56	13.6/12.6	0.199	21.6
	450		6.26	4.95	13.9/12.8	0.210	24.1
	500		6.76	5.44	14.0/12.9	0.231	28.0
	550		7.29	5.96	14.1/13.0	0.246	31.4
	400	4	6.95	5.20	12.3/11.6	0.239	24.1
	450		7.75	5.83	12.3/11.7	0.263	29.6
	500		8.33	6.36	12.5/11.9	0.286	33.4
	550		9.01	6.99	12.5/12.0	0.304	38.5
YECFC23	400	3	5.79	4.56	13.6/12.6	0.199	21.6
	450		6.26	4.95	13.9/12.8	0.210	24.1
	500		6.76	5.44	14.0/12.9	0.231	28.0
	550		7.29	5.96	14.1/13.0	0.246	31.4
	600		7.70	6.35	14.3/13.1	0.263	34.5
	650		8.15	6.83	14.3/13.2	0.276	37.1
	400	4	6.95	5.20	12.3/11.6	0.239	24.1
	450		7.75	5.83	12.3/11.7	0.263	29.6
	500		8.33	6.36	12.5/11.9	0.286	33.4
	550		9.01	6.99	12.5/12.0	0.304	38.5
	600		9.54	7.48	12.7/12.1	0.326	43.4
	650		9.88	7.87	12.9/12.3	0.338	45.0
YECFC04	550	3	8.41	6.40	13.4/12.3	0.288	28.5
	650		9.60	7.41	13.6/12.5	0.327	36.3
	750		10.35	8.11	14.1/12.8	0.348	41.0
	850		11.28	8.93	14.3/13.0	0.382	47.3
	550	4	9.75	7.15	12.3/11.5	0.330	26.2
	650		11.23	8.34	12.4/11.7	0.384	33.7
	750		12.47	9.34	12.7/11.9	0.424	40.6
	850		13.50	10.35	13.0/12.1	0.458	46.5
YECFC05	750	3	11.10	8.71	13.4/12.5	0.378	29.6
	800		11.74	9.41	13.3/12.5	0.403	31.4
	850		12.29	9.92	13.4/12.6	0.416	34.0
	900		12.55	10.03	13.8/12.8	0.429	35.2
	950		13.12	10.54	13.8/12.8	0.447	38.0
	750	4	12.55	9.38	12.7/11.8	0.430	28.1
	800		13.38	10.08	12.6/11.8	0.458	30.6
	850		13.91	10.52	12.8/12.0	0.473	33.6
	900		14.54	11.09	12.8/12.0	0.496	36.2
	950		14.99	11.55	13.0/12.2	0.509	38.1

Note: Chilled water inlet/outlet temperature is 6/ 13 ℃

PERFORMANCE RATINGS

Model	Airflow	Air Inlet Temp (Dry Bulb) 21℃			
		Total Cooling Capacity	Air Off Temp (Dry Bulb/Wet Bulb)	Water Flow Rate	Water Pressure Drop
	L/S	kW	℃	L/S	kPa
YECFC01	150	4.20	43.7/20.2	0.050	7.1
	200	5.00	41.3/19.3	0.060	9.0
	250	5.58	39.1/18.2	0.067	10.7
	300	6.19	37.7/17.2	0.074	12.3
YECFC02	250	6.31	41.5/19.1	0.076	5.5
	300	7.17	40.1/18.9	0.085	6.7
	350	7.72	38.9/17.5	0.092	7.7
	400	8.38	38.0/17.6	0.100	8.7
YECFC03	400	9.56	40.4/19.5	0.114	7.4
	450	10.14	39.3/19.6	0.121	8.1
	500	10.84	38.6/18.6	0.130	9.0
	550	11.51	38.0/18.4	0.138	9.8
YECFC23	400	9.56	40.4/19.5	0.114	7.4
	450	10.14	39.3/19.6	0.121	8.1
	500	10.84	38.6/18.6	0.130	9.0
	550	11.51	38.0/18.4	0.138	9.8
	600	11.93	37.1/18.3	0.143	9.8
	650	12.33	36.4/18.1	0.147	10.2
YECFC04	550	14.64	42.6/19.8	0.175	13.6
	650	15.88	40.8/19.7	0.190	15.4
	750	17.00	39.4/19.2	0.203	18.2
	850	17.83	38.0/18.9	0.213	19.1
YECFC05	750	18.46	41.0/19.7	0.221	20.8
	800	19.02	40.3/19.2	0.228	21.7
	850	19.90	40.0/18.9	0.238	23.2
	900	20.77	39.7/19.6	0.248	24.9
	950	21.63	39.5/18.6	0.259	26.6

Note: Hot water inlet/outlet temperature is 80/60℃

Acoustics

SOUND PRESSURE LEVEL

3 Rows Cooling Coil+1 Row Heating Coil

Model	ESP (Pa)	Air Flow (L/S)	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dB (A)
YECFC01	30	150	13.6	25.2	30.2	38.3	34.7	28.1	21.6	21.6	40.8
	60		19.5	29.8	35.7	40.6	39.9	36.5	30.7	27.5	45.1
	90		22.1	33.2	38.2	42.1	42.4	40.7	35.6	28.9	47.7
	120		26.6	38.4	42.2	46.1	45.0	42.2	35.2	28.2	50.7
YECFC02	30	300	19.0	29.7	36.2	44.8	42.6	38.5	34.5	26.2	48.1
	60		24.2	33.9	39.2	46.1	45.8	43.6	38.3	28.9	50.8
	90		22.4	37.3	39.7	48.1	47.6	46.0	40.5	32.1	52.8
	120		24.6	39.4	41.7	49.1	48.8	48.5	42.8	34.6	54.4
YECFC03	30	450	24.0	32.6	40.9	44.7	44.9	41.4	36.0	29.9	49.7
	60		28.9	36.0	45.1	46.7	46.5	44.2	39.0	31.5	52.2
	90		33.9	39.1	47.1	48.1	49.7	47.2	42.4	35.5	54.7
	120		34.5	40.1	49.9	48.9	50.4	50.0	44.4	39.0	56.4
YECFC04	30	600	24.5	31.6	43.9	47.3	51.5	44.8	38.2	29.5	54.1
	60		27.1	33.8	45.9	48.6	54.6	47.1	39.5	30.5	56.7
	90		28.9	38.8	48.1	50.5	55.4	49.4	41.9	32.9	58.0
	120		31.3	40.9	49.8	52.4	57.2	51.5	44.0	35.4	59.9
YECFC05	60	750	28.3	33.8	43.5	47.5	45.6	44.5	39.9	32.0	52.0
	90		26.8	36.6	45.8	48.0	47.3	46.5	41.9	33.6	53.5
	120		32.1	39.6	48.9	50.0	48.9	48.6	43.9	35.9	55.6
	150		34.0	41.1	49.9	51.3	50.7	50.4	45.9	38.1	57.2

SOUND PRESSURE LEVEL

4 Rows Cooling Coil+1 Row Heating Coil

Model	ESP (Pa)	Air Flow (L/S)	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dB (A)
YECFC01	30	150	13.7	26.8	32.2	38.6	34.9	28.5	21.4	21.4	41.3
	60		17.1	29.0	33.6	42.5	39.1	35.2	28.6	25.7	45.2
	90		20.3	31.7	37.2	43.4	42.9	40.5	34.6	28.9	48.0
	120		23.9	35.7	41.1	45.7	46.1	44.0	38.3	32.9	51.1
YECFC02	30	300	17.8	31.0	36.1	45.4	42.3	38.9	33.8	25.7	48.3
	60		19.4	33.2	38.4	47.2	46.0	43.1	37.3	29.1	51.1
	90		24.8	36.5	41.7	48.2	48.5	46.0	40.4	31.9	53.2
	120		27.1	39.5	43.7	49.3	50.3	48.8	42.5	34.6	55.1
YECFC03	30	450	26.6	15.0	43.3	44.7	44.7	42.5	37.2	30.5	50.2
	60		38.5	39.1	46.0	47.4	47.5	44.8	40.2	32.5	53.2
	90		38.7	43.2	48.9	47.7	48.3	46.8	42.2	36.3	54.8
	120	390	40.2	44.7	50.4	49.1	50.2	49.1	45.5	41.0	56.7
YECFC04	30	600	26.0	31.6	43.6	48.0	51.7	45.2	37.9	29.5	54.4
	60		30.0	35.3	46.8	49.9	54.8	48.1	40.3	31.8	57.2
	90		31.6	37.8	47.9	51.1	55.6	49.4	41.8	33.4	58.2
	120		35.0	40.3	49.6	52.6	58.0	51.8	44.1	35.7	60.4
YECFC05	60	750	27.9	36.3	43.8	48.0	46.6	44.1	40.0	31.0	52.4
	90		29.9	39.2	45.7	49.0	48.6	46.4	42.0	33.0	54.1
	120		32.3	40.3	48.0	50.2	50.3	48.8	43.8	35.3	55.9
	150		35.8	42.1	50.2	52.3	51.7	49.9	45.0	36.9	57.6

Unit Sound Pressure Test: According to JBT4330-1999, unit sound pressure level is tested with 2m of outlet and 1m of inlet ductwork in hemi-anechoic room.

OCTAVE BAND SOUND POWER LEVEL

4 Rows Cooling Coil+1 Row Heating Coil

Ducted Discharge Sound

Model	ESP(Pa)	Air Flow (L/S)	Ducted Discharge Sound								
			63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dB(A)
YECFC01	30	150	65	53	49	49	43	39	31	25	50
	60		64	58	54	54	48	45	38	29	55
	90		66	61	57	58	52	48	44	34	58
	120		67	62	59	59	53	49	45	36	59
YECFC02	30	300	63	60	55	55	54	50	49	39	58
	60		66	61	57	57	56	51	51	41	60
	90		69	64	60	59	57	53	52	43	62
	120		71	67	62	61	59	56	53	46	64
YECFC03	30	450	69	64	59	58	55	52	50	39	61
	60		77	67	61	61	58	54	52	43	63
	90		75	69	64	62	60	56	54	45	65
	120		75	69	64	63	60	57	55	46	66
YECFC23	30	600	69	67	63	62	58	55	52	44	64
	60		71	69	64	64	60	57	54	47	66
	90		73	72	66	66	62	59	56	49	68
	120	550	73	73	67	67	63	59	56	49	68
YECFC04	30	600	66	64	57	56	54	52	51	41	60
	60		69	67	60	58	57	54	53	44	62
	90		72	69	62	60	59	56	55	46	64
	120		75	71	65	62	61	58	56	48	66
YFCFC05	60	750	72	70	65	60	61	59	58	50	66
	90		74	72	67	62	63	61	59	52	68
	120		76	73	69	64	64	62	60	54	70
	150		78	75	70	65	65	64	61	55	71

Notes:

1. Sound data tested under 230V/50Hz norminal power supply, and in accordance with AHRI 260.
2. Sound levels are expressed in decibels, dB RE:1×10^{-12} watts.

OCTAVE BAND SOUND POWER LEVEL

4 Rows Cooling Coil+1 Row Heating Coil

Casing Radiated Free Inlet Sound

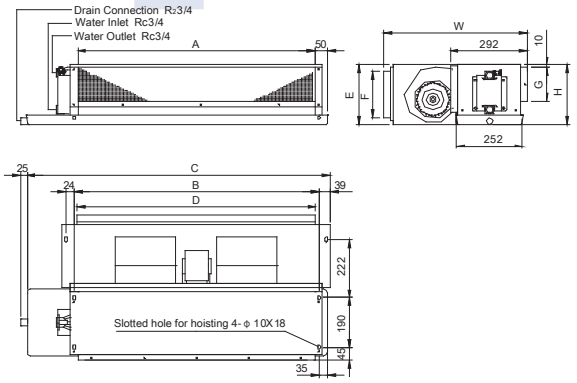
Model	ESP(Pa)	Air Flow (L/S)	Casing Radiated Free Inlet Sound								
			63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dB(A)
YECFC01	30	150	54	51	51	50	47	40	32	26	51
	60		57	55	56	54	51	45	38	29	55
	90		59	59	59	57	55	50	44	34	60
	120		60	61	61	59	57	51	46	37	61
YECFC02	30	300	58	56	60	57	56	51	46	38	60
	60		58	59	62	59	59	53	49	41	62
	90		60	62	64	61	61	55	51	43	65
	120		63	65	67	63	62	57	52	45	66
YECFC03	30	450	61	60	64	61	59	54	49	40	63
	60		75	64	65	61	60	56	52	43	65
	90		66	66	68	63	62	58	53	45	66
	120		65	66	68	63	62	57	53	45	66
YECFC23	30	600	62	64	64	63	62	56	51	42	65
	60		64	67	66	65	63	58	53	45	67
	90		65	69	68	66	65	60	55	47	69
	120	550	66	70	69	66	65	60	55	47	69
YECFC04	30	600	58	61	61	59	55	50	46	37	60
	60		62	64	64	61	58	53	49	41	63
	90		64	67	67	63	60	56	51	44	65
	120		67	69	69	65	61	57	53	46	67
YFCFC05	60	750	63	66	66	61	58	55	51	43	64
	90		65	68	68	63	60	57	54	45	66
	120		68	70	70	65	61	59	56	48	68
	150		70	72	71	66	63	60	57	50	69

Notes:

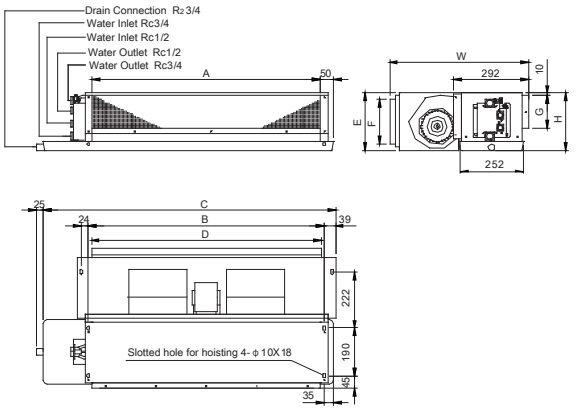
1. Sound data tested under 230V/50Hz norminal power supply, and in accordance with AHRI 260.
2. Sound levels are expressed in decibels, dB RE:1×10^{-12} watts.

Unit Drawings

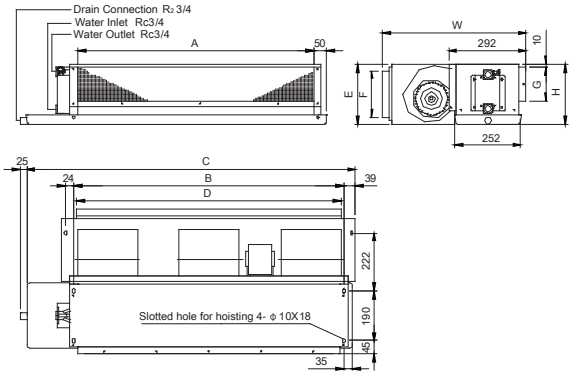
01&02 3/4R Model Cooling



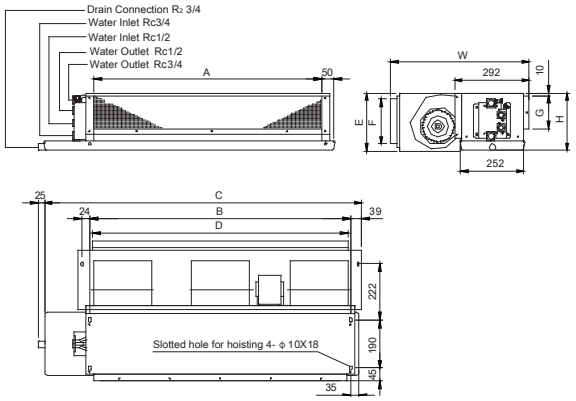
01&02 A/CR Model Cooling and Heating



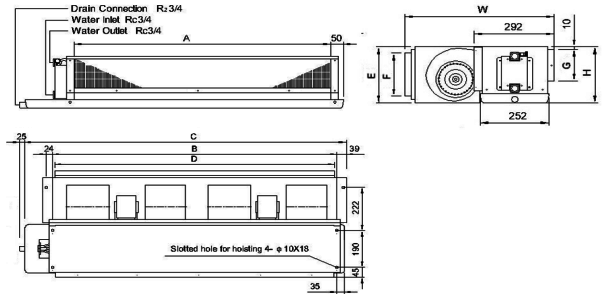
03 3/4R Model Cooling



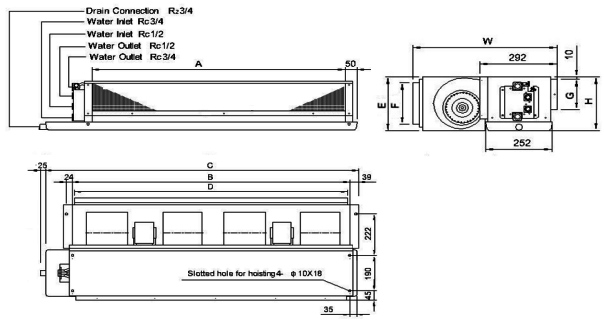
03 A/CR Model Cooling and Heating



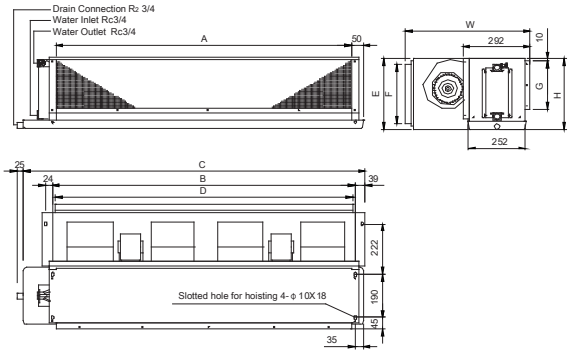
23 3/4R Model Cooling



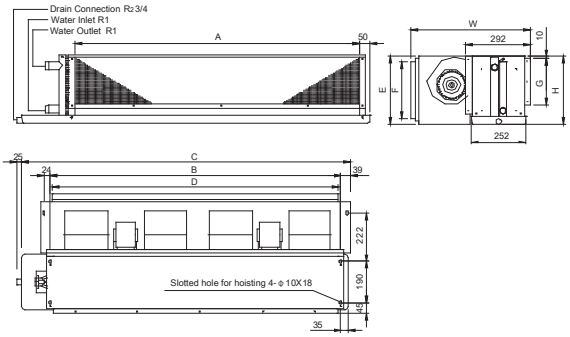
23 A/CR Model Cooling and Heating



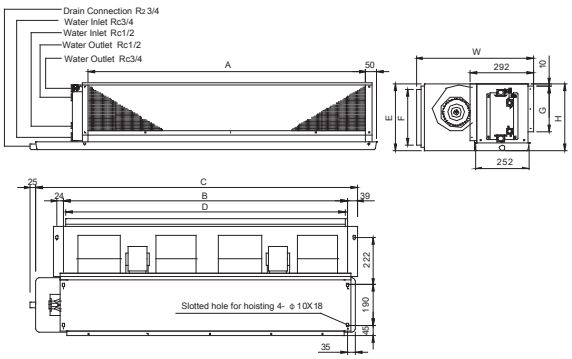
04&05 3R Model Cooling



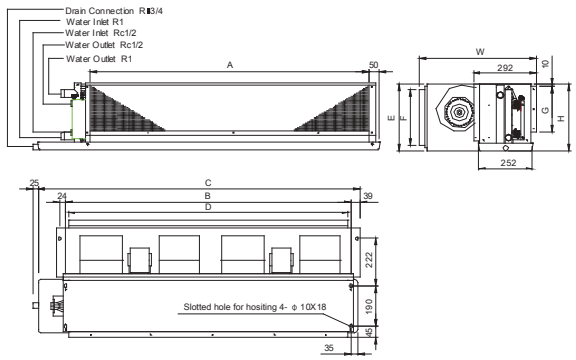
04&05 4R Model Cooling



04&05 AR Model Cooling and Heating



04&05 CR Model Cooling and Heating

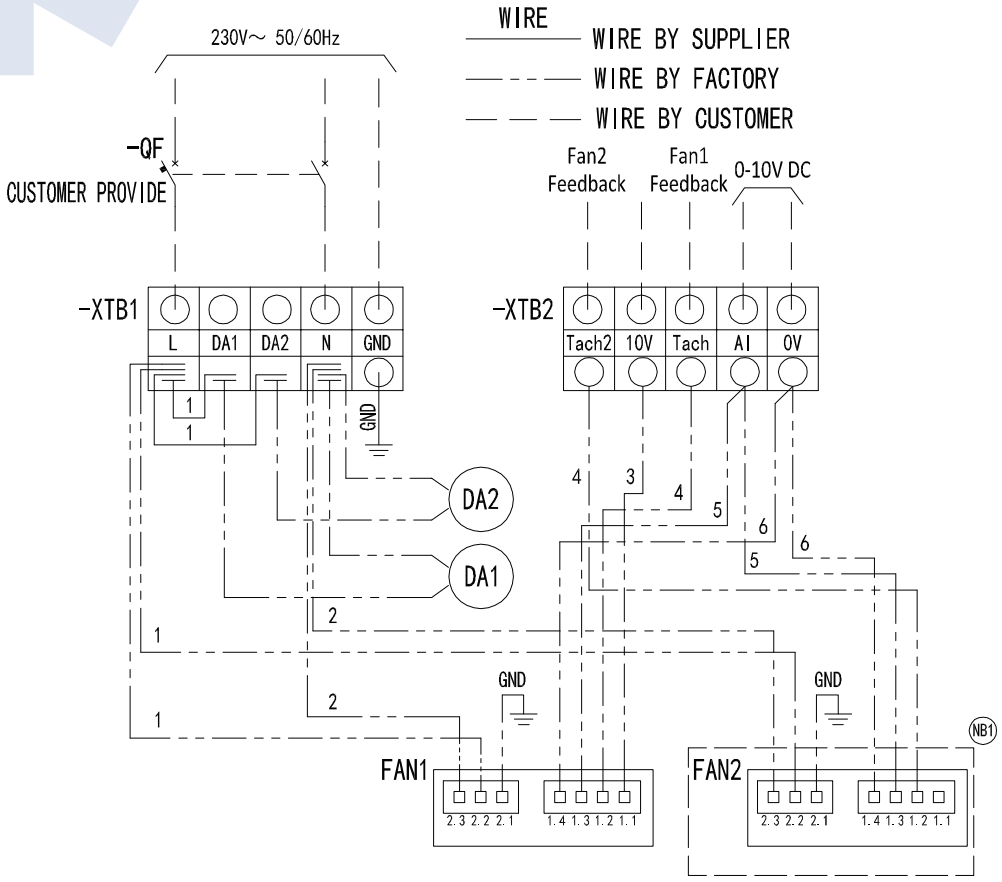


Model	A	B	C (Width)	E	W (Depth)	H	G	Plenum Conn Dim (mm x mm)	Return Plenum Conn Dim (D x F)
YECFC-01CB-(3/4/A/C)	725	755	1030	233	558	233	130	775 x 130	750 x 190
YECFC-02CB-(3/4/A/C)	1005	1035	1310	233	558	233	130	1055 x 130	1030 x 190
YECFC-03CB-(3/4/A/C)	1505	1535	1810	233	558	233	130	1555 x 130	1530 x 190
YECFC-23CB-(3/4/A/C)	1505	1535	1810	233	558	233	130	1555 x 130	1530 x 190
YECFC-04CB-(3/4/A/C)	1605	1635	1910	317	558	317	214	1655 x 214	1630 x 274
YECFC-05CB-(3/4/A/C)	1820	1850	2125	317	558	317	214	1870 x 214	1845 x 274

Notes:

1. Facing the air outlet, the left type unit has pipes on the left side, right type unit opposite.
2. Filter frame is provided as standard. Filter media is provided as an option.

Electrical Data and Wiring



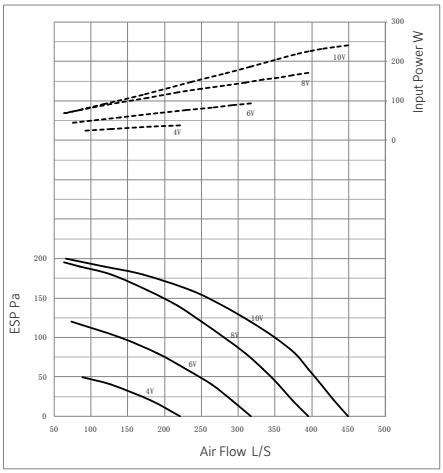
NOTE:

(NB1) FAN2 SHOULD BE INSTALLED ON UNIT YECFC 04 AND YECFC 05.

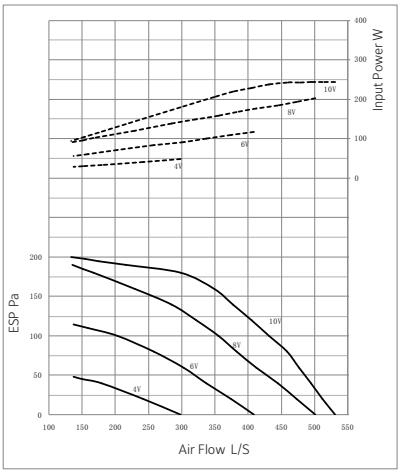
ITEM	DESCRIPTION
DA1/DA2	WATER VALVE
FAN1/FAN2	FAN
XTB1/XTB2	TERMIANL
QF	CIRCUIT BREAKER

Fan Performance Curves

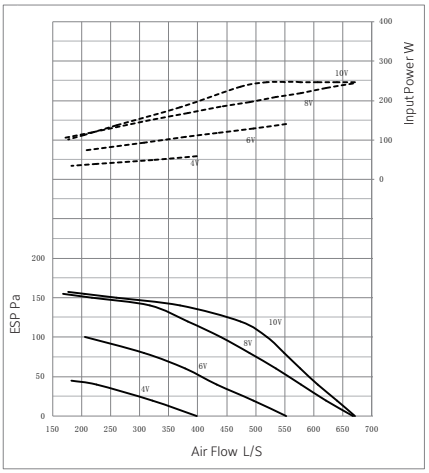
YECFC01 3+1R



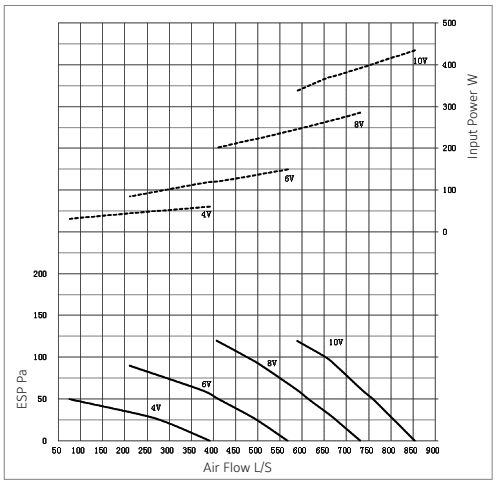
YECFC02 3+1R



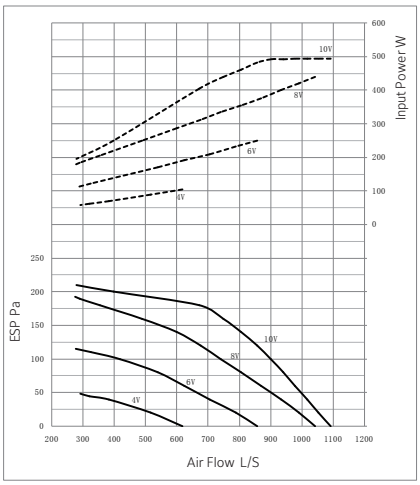
YECFC03 3+1R



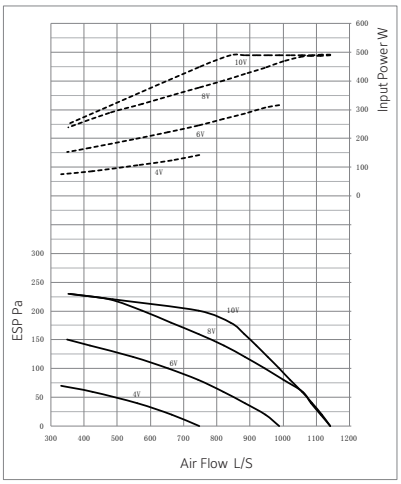
YECFC23 4+1R



YECFC04 3+1R



YECFC05 3+1R



TEC3000 Series Temperature Sensors

TEC3000 Series Thermostat Controllers are stand-alone and field-selectable BACnet® Master-Slave/Token-Passing (MS/TP) or N2 networked devices that provide on/off, floating, and proportional control of two or four-pipe fan coils with variable-speed EC motors (0 to 10 VDC control).

The networked models feature a field-selectable Building Automation System (BAS) BACnet MS/TP or N2 communication capability that enables remote monitoring and programming for efficient space temperature control.

All models include a USB port configuration that reduces installation time by allowing simple backup and restore features from a USB drive, which enables rapid cloning of the configuration between like units.

All models feature an intuitive user interface with backlit display that makes setup and operation quick and easy.

The Backlit Liquid Crystal Display (LCD) offers real-time control status of the environment in easy-to-read, plain text messages with adjustable backlight that brightens during user interaction.

Some models have occupancy sensing capability built into the device.

These thermostat controllers can deliver further energy savings of up to 30% by using additional standby set-points.

These thermostats feature two configurable binary inputs that provide for advanced functions such as remote night setback, service or filter alarms, motion detector, and key switch or window status, and configures the application to respond accordingly.

A full line of remote TE-6300 Series Temperature Sensors supports a wide range of applications.

Guide Specifications

GENERAL

Furnish and install compact low profile concealed fan coil units not exceeding 233 mm height (model 01,02,03) or 317 mm height (model 04,05) as indicated and scheduled in the plans. Units shall be factory assembled with coils that are pressure tested individually to 400 psi (2.8 MPa). The unit shall incorporate one or two directly driven EC forward curved fans with integral variable speed drive(s). The units shall be suitable for operation on 240 volt single phase 50 hz power.

BASIC UNIT

The basic unit shall be fabricated out of galvanized steel. Thermal insulation shall be 6mm PE Class 1 applied to both the fan coil casing and return air plenum sections. The fan motor shall be easily removable for serviceability. A terminal box with terminal strip shall be provided for terminating the wiring. On ceiling concealed units with plenum, the filter shall be easily removable from side.

COILS

Copper tube with corrugated aluminium hydrophilic fins. Aluminium fins shall be 0.110mm thick and the coil shall have maximum spacing of 2.3mm between the fins. The coil shall be pressure tested under water to 2.8 MPa (for a working pressure of 1600 kpa) and dehydrated before assembly. Coil shall be provided with a drain plug in the bottom and a manual air vent on the top. The coil assembly shall be protected on the side on which piping is to be fitted with a cover made of GI sheet. The drain tray below the coils shall be stainless steel to avoid corrosion and shall extend 100mm beyond the unit casing to facilitate easy installation of CHW and HW control valves.

MOTORS

High efficiency electronically commutated (EC) 230 volt single phase 50/60Hz motors shall be fitted as standard on all units. Motor can be regulated by 0-10V DC signal supplied by a BMS, thermostat or DDC controller. The motor is resiliently mounted, self aligning and oiled for life.

FANS

All fans shall be statically and dynamically balanced, forwardly curved, DWDI centrifugal type. The fan motor assembly shall be designed for low-noise operation, while having compact dimension and being easy for installation and replacement. Fans shall be mounted inside the insulated return air plenum.

TERMINAL BOX

All units shall be provided with factory installed terminal box with the fan motor and 0-10VDC speed control input factory wired to the box.

FILTER (OPTION)

8mm Nylon filter media with rack in factory. Located on inlet of unit return air plenum.

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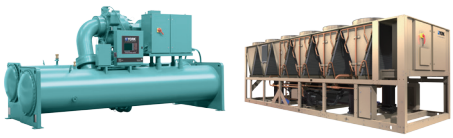

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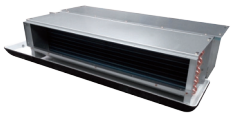
External systems can be easily integrated using BACnet® or proprietary solutions. Our service team is available to you 24 hours a day with one of the largest service networks in the world.

EC Motor AHUs



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EC Motor Ceiling AHUs

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