

BROCHURE

Basic Air Handling Unit

ThermalTrue®
HVAC & R

Basic AHU Series TSB - E 30, 50, 60,
85, 115, 135, 180, 205





SPECIFICATION

4 ROW OPTION

MODEL TSB-E : 4 Row Option			Model	TSB4-E30	TSB4-E50	TSB4-E60	TSB4-E85
			Row	4R	4R	4R	4R
GENERAL DATA							
CAPACITY	Total Capacity	kW		33,308	52,028	71,789	88,119
		Btu/h		113,681	177,571	245,015	300,749
	Sensible Capacity	kW		24,116	36,637	50,540	62,506
		Btu/h		82,307	125,041	172,493	213,333
	SHR			0.72	0.70	0.70	0.71
AIR FLOW		L/s		1,417	2,172	3,023	3,778
		CMH		5,101	7,821	10,881	13,602
		CFM		3,000	4,600	6,400	8,000
EXTERNAL STATIC PRESSURE		Pa		150	150	150	200
		inWG		0.60	0.60	0.60	0.80
WATER FLOW		kg/s		1.59	2.48	3.42	4.20
		CMH		5.73	8.93	12.32	15.13
		USGpm		25.2	39.3	54.2	66.6
		kPa		4.1	12.2	16.2	11.6
WATER PRESSURE DROP		inWG		16.4	49.0	65.0	46.6
CASING	Frame	Anodised extruded aluminium profile and nylon corner piece					
	Panel	Colorbond Finish					
	Insulation	25mm PU Panel with Thermalbreak profiles					
DIMENSION	Height	mm		820	820	940	1240
	Width	mm		1160	1710	1810	1810
	Depth	mm		785	980	980	1150
CONNECTION	Water Inlet/Outlet	in		1 1/2	2		2 1/2
	Drain Pipe Size	in			1		
COIL SPECIFICATION							
COIL	Type			Aluminium fin mechanically bonded to seamless copper tube			
	OD	in.		1/2	1/2	1/2	1/2
	R			4	4	4	4
	Entering (DB/WB)	°C/°C		26.5 / 19.0			
	Leaving (DB/WB)	°C/°C		12.4/11.6	12.1/11.4	13.0/12.2	12.8/12.0
	Air Flow	cms		1.42	2.17	3.02	3.78
	Face Area	m2		0.60	0.95	1.20	1.52
	Face Velocity	m/s		2.35	2.28	2.51	2.48
	ΔP	Pa		170	122	143	141
FAN & MOTOR SPECIFICATION							
BLOWER	Type			Forward Curve Centrifugal Drive Driven			
	Size			FC 10-8S	FC 15-15S	FC 15-15S	FC 18-18S
	Quantity	set		1			
POWER SUPPLY			V-Ø-Hz	380-415V/3Ø/50Hz			
RUNNING CURRENT			A				
MOTOR	1.10kW-4P-220/380-3-50	90S-4					
	1.50kW-4P-220/380-3-50	90L-4	1				
	2.20kW-4P-220/380-3-50	100L1-4		1			
	3.00kW-4P-220/380-3-50	100L2-4			1		
	5.50kW-4P-380/415-3-50	112M-4				1	
	7.50kW-4P-380/415/3/50	132M-4					1
	11.0kW-4P-380/415-3-50	160M-4					
	15.0kW-4P-380/415-3-50	160L-4					
	18.5kW-4P-380/415-3-50	180MC-4					
AIR FILTER	PZV540W366H046TL1V12		4	6			
	PZV573W426H046TL1V12				6		
	PZV573W576H046TL1V12					6	
	PZV573W467H046TL1V12						
	PZV520W467H046TL1V12						
	PZV520W449H046TL1V12						
	PZV522W524H046TL1V12						

MODEL TSB-E : 4 Row Option			Model	TSB4-E115	TSB4-E135	TSB4-E180	TSB4-E205
			Row	4R	4R	4R	4R
GENERAL DATA							
CAPACITY	Total Capacity	kW	119,649	186,994	208,451	258,178	
		Btu/h	408,363	638,210	711,443	881,162	
	Sensible Capacity	kW	83,954	128,920	144,939	179,790	
		Btu/h	286,536	440,003	494,678	613,622	
SHR			0.70	0.69	0.70	0.70	
AIR FLOW	L/s		4,959	7,084	8,495	10,626	
	CMH		17,852	25,503	30,580	38,255	
	CFM		10,500	15,000	18,000	22,500	
EXTERNAL STATIC PRESSURE		Pa	200	300	350	400	
		inWG	0.80	1.20	1.41	1.61	
WATER FLOW	kg/s		5.71	8.92	9.94	12.30	
	CMH		20.56	32.12	35.80	44.30	
	USGpm		90.5	141.4	157.6	195.0	
WATER PRESSURE DROP		kPa	15.0	38.4	29.9	32.3	
		inWG	60.2	154.2	120.1	129.7	
CASING	Frame		Anodised extruded aluminium profile and nylon corner piece				
	Panel		Colorbond Finish				
	Insulation		25mm PU Panel with Thermalbreak profiles				
DIMENSION	Height	mm	1490	1490	1890	2190	
	Width	mm	1810	2170	2170	2170	
	Depth	mm	1150	1430	1730	1730	
CONNECTION	Water Inlet/Outlet	in	2 1/2	3		4	
	Drain Pipe Size	in	1				
COIL SPECIFICATION							
COIL	Type		Aluminium fin mechanically bonded to seamless copper tube				
	OD	in.	1/2	1/2	1/2	1/2	
	R		4	4	4	4	
	Entering (DB/WB)	°C/°C	26,5 / 19,0				
	Leaving (DB/WB)	°C/°C	12.5/11.7	11.3/10.9	12.3/11.5	12.4/11.6	
	Air Flow	cms	4.96	7.08	8.49	10.63	
	Face Area	m2	2.13	2.61	3.36	3.98	
	Face Velocity	m/s	2.32	2.71	2.53	2.67	
	ΔP	Pa	126	216	145	159	
FAN & MOTOR SPECIFICATION							
BLOWER	Type		Forward Curve Centrifugal Drive Driven				
	Size		FC 18-18S	FC 560R	FC 560R	FC 560R	
	Quantity		set	1			
POWER SUPPLY		V-Ø-Hz	380-415V/3Ø/50Hz				
RUNNING CURRENT		A					
MOTOR	1.10kW-4P-220/380-3-50		90S-4				
	1.50kW-4P-220/380-3-50		90L-4				
	2.20kW-4P-220/380-3-50		100L1-4				
	3.00kW-4P-220/380-3-50		100L2-4				
	5.50kW-4P-380/415-3-50		112M-4				
	7.50kW-4P-380/415/3/50		132M-4	1			
	11.0kW-4P-380/415-3-50		160M-4				
	15.0kW-4P-380/415-3-50		160L-4		1	1	
	18.5kW-4P-380/415-3-50		180MC-4				
AIR FILTER	PZV540W366H046TL1V12						
	PZV573W426H046TL1V12						
	PZV573W576H046TL1V12						
	PZV573W467H046TL1V12		9				
	PZV520W467H046TL1V12			12			
	PZV520W449H046TL1V12				16		
	PZV522W524H046TL1V12					16	

6 ROW OPTION

MODEL TSB-E : 6 Row Option			Model	TSB6-E30	TSB6-E50	TSB6-E60	TSB6-E85
			Row	6R	6R	6R	6R
GENERAL DATA							
CAPACITY	Total Capacity	kW		42,093	64,213	88,794	109,854
		Btu/h		143,664	219,159	303,054	374,930
	Sensible Capacity	kW		28,252	43,189	59,795	74,198
		Btu/h		96,425	147,403	203,957	253,237
	SHR			0.67	0.67	0.67	0.68
AIR FLOW		L/s		1,417	2,172	3,023	3,778
		CMH		5,101	7,821	10,881	13,602
		CFM		3,000	4,600	6,400	8,000
EXTERNAL STATIC PRESSURE		Pa		150	150	150	200
		inWG		0.60	0.60	0.60	0.80
WATER FLOW		kg/s		14.40	15.70	17.90	18.40
		CMH		51.86	56.54	64.47	66.27
		USGpm		228.3	248.9	283.8	291.8
WATER PRESSURE DROP		kPa		21.0	27.0	37.4	6.4
		inWG		84.3	108.4	150.2	25.7
CASING	Frame	Anodised extruded aluminium profile and nylon corner piece					
	Panel	Colorbond Finish					
	Insulation	25mm PU Panel with Thermalbreak profiles					
DIMENSION	Height	mm		820	820	940	1240
	Width	mm		1160	1710	1810	1810
	Depth	mm		785	980	980	1150
CONNECTION	Water Inlet/Outlet	in		1 1/2	2		2 1/2
	Drain Pipe Size	in			1		
COIL SPECIFICATION							
COIL	Type			Aluminium fin mechanically bonded to seamless copper tube			
	OD	in.		1/2	1/2	1/2	1/2
	R			6	6	6	6
	Entering (DB/WB)	°C/°C		26,5 / 19,0			
	Leaving (DB/WB)	°C/°C		9.88/9.65	9.93/9.70	10.0/9.8	10.1/9.9
	Air Flow	cms		1.42	2.17	3.02	3.78
	Face Area	m ²		0.60	0.95	1.20	1.52
	Face Velocity	m/s		2.35	2.28	2.51	2.48
	ΔP	Pa		234	211	210	210
FAN & MOTOR SPECIFICATION							
BLOWER	Type			Forward Curve Centrifugal Drive Driven			
	Size			FC 10-8S	FC 15-15S	FC 15-15S	FC 18-18S
	Quantity	set		1			
POWER SUPPLY			V-Ø-Hz	380-415V/3Ø/50Hz			
RUNNING CURRENT			A				
MOTOR	1.10kW-4P-220/380-3-50	90S-4					
	1.50kW-4P-220/380-3-50	90L-4	1				
	2.20kW-4P-220/380-3-50	100L1-4		1			
	3.00kW-4P-220/380-3-50	100L2-4			1		
	5.50kW-4P-380/415-3-50	112M-4				1	
	7.50kW-4P-380/415/3/50	132M-4					1
	11.0kW-4P-380/415-3-50	160M-4					
	15.0kW-4P-380/415-3-50	160L-4					
	18.5kW-4P-380/415-3-50	180MC-4					
AIR FILTER	PZV540W366H046TL1V12		4	6			
	PZV573W426H046TL1V12				6		
	PZV573W576H046TL1V12					6	
	PZV573W467H046TL1V12						
	PZV520W467H046TL1V12						
	PZV520W449H046TL1V12						
	PZV522W524H046TL1V12						

MODEL TSB-E : 6 Row Option			Model	TSB6-E115	TSB6-E135	TSB6-E180	TSB6-E205
			Row	6R	6R	6R	6R
GENERAL DATA							
CAPACITY	Total Capacity	kW	147,162	194,606	243,894	302,812	
		Btu/h	502,264	664,189	832,409	1,033,498	
	Sensible Capacity	kW	98,823	130,434	165,427	205,689	
		Btu/h	337,282	445,171	564,601	702,016	
	SHR			0.67	0.67	0.68	0.68
AIR FLOW		L/s	4,959	7,084	8,495	10,626	
		CMH	17,852	25,503	30,580	38,255	
		CFM	10,500	15,000	18,000	22,500	
EXTERNAL STATIC PRESSURE		Pa	200	300	350	400	
		inWG	0.80	1.21	1.41	1.61	
WATER FLOW		kg/s	22.70	9.28	11.60	14.40	
		CMH	81.75	33.42	41.78	51.86	
		USGpm	359.9	147.1	183.9	228.3	
WATER PRESSURE DROP		kPa	10.8	20.3	19.4	21.0	
		inWG	43.4	81.5	77.9	84.3	
CASING	Frame		Anodised extruded aluminium profile and nylon corner piece				
	Panel		Colorbond Finish				
	Insulation		25mm PU Panel with Thermalbreak profiles				
DIMENSION	Height	mm	1490	1490	1890	2190	
	Width	mm	1810	2170	2170	2170	
	Depth	mm	1150	1430	1730	1730	
CONNECTION	Water Inlet/Outlet	in	2 1/2	3		4	
	Drain Pipe Size	in	1				
COIL SPECIFICATION							
COIL	Type		Aluminium fin mechanically bonded to seamless copper tube				
	OD	in.	1/2	1/2	1/2	1/2	
	R		6	6	6	6	
	Entering (DB/WB)	°C/°C	26,5 / 19,0				
	Leaving (DB/WB)	°C/°C	9.90/9.67	9.46/9.35	10.3/10.0	10.4/10.1	
	Air Flow	cms	4.95	7.08	8.49	10.63	
	Face Area	m2	2.13	2.61	3.36	3.98	
	Face Velocity	m/s	2.32	2.71	2.53	2.67	
	ΔP	Pa	211	267	213	234	
FAN & MOTOR SPECIFICATION							
BLOWER	Type		Forward Curve Centrifugal Drive Driven				
	Size		FC 18-18S	FC 560R	FC 560R	FC 560R	
	Quantity	set	1				
POWER SUPPLY		V-Ø-Hz	380-415V/3Ø/50Hz				
RUNNING CURRENT		A					
MOTOR	1.10kW-4P-220/380-3-50	90S-4					
	1.50kW-4P-220/380-3-50	90L-4					
	2.20kW-4P-220/380-3-50	100L1-4					
	3.00kW-4P-220/380-3-50	100L2-4					
	5.50kW-4P-380/415-3-50	112M-4					
	7.50kW-4P-380/415/3/50	132M-4	1				
	11.0kW-4P-380/415-3-50	160M-4					
	15.0kW-4P-380/415-3-50	160L-4		1	1	1	
	18.5kW-4P-380/415-3-50	180MC-4					
AIR FILTER	PZV540W366H046TL1V12						
	PZV573W426H046TL1V12						
	PZV573W576H046TL1V12						
	PZV573W467H046TL1V12		9				
	PZV520W467H046TL1V12			12			
	PZV520W449H046TL1V12				16		
	PZV522W524H046TL1V12					16	



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