

# **Breezair RPB Series**

**Technical Specifications** 

# **Industrial Airconditioner General Specifications**



#### \* Cabinet.



The cabinet is constructed from marine grade aluminium, incorporating channel section corner pillars, mounted on a heavy gauge base frame for structural stability. Many components are powder coated for extra corrosion protection. Cabinet fasteners are Stainless Steel and Aluminium.



#### \* Fan Wheel.

The Fan wheel is a double inlet, multi-blade, forward curve, centrifugal type. Constructed from galvanised steel, the wheel is statically balanced, The blower shaft is mounted in plumber blocks with, self aligning, single row ball bearings. RPC Coolers are fitted with a Plastic Blower Wheel.



#### \* Water Reservoir.

The water reservoir is a one piece Rotational Moulding of Polyethylene, providing a thick walled, corrosion free component with excellent sound deadening properties.



#### \* Fan Motors.

RPB Models 600-1800 are 415V 3 Phase TEFC tropic proof induction motor, Aluminium or Cast Iron frame, IP55 enclosures to AS1359. Motor current draw can vary depending on supplier.



#### **★ Electrical Control.**

A **Three Phase** DOL starter assembly is pre-wired within the unit and incorporates a dual contactor assembly for control of high and low speeds, Current overloads are fitted to both high and low contactors. The enclosure is hose proof to IP55. All 3 phase models incorporate an isolation switch. **Single phase** is wired directly to mains.

The wall control switch supplied incorporates the Pump, Fan and High/Low mechanisms.



#### \* Water Connection.

Water supply connection is 1/2" BSP, this connects directly to a 1/2" NB standard approved ball valve.



#### **★ Filter Pads.**

Filter pads are Chillcel® with a minimum operating saturation efficiency of 80%. Shredded wood wool fibre is available on some models. All models incorporate Plastic Louvres (UV stabilised) to enhance the appearance of the pad and to prevent water splash.

**★ Special Features.** ★ Bleed off adjustment is by an external valve located at the corner pillar. A mains isolator is provided. Flexible Connectors are fitted on all down discharge models and supplied in kit form for Side and Top Discharge Models.

#### **★ Unit Rating.**

Units are factory set to run (free discharge) at the motor rated current, unless operating conditions are specified. Motor ratings, Pulley and Belt sizes are nominal, and may vary slightly due to manufacturing tolerances. Larger & Smaller motor pulleys and belts are available on request.

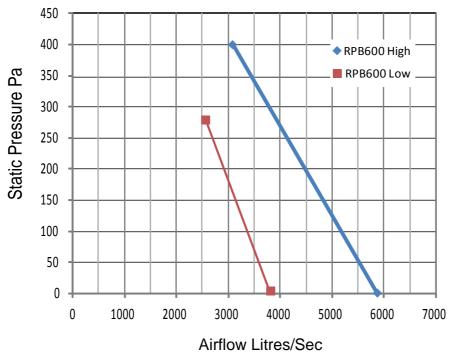


CAPACITY		BLOWER WHEEL		FILTER PADS		
Discharge Type:	D, S, T	Dia x Width mm	760 x635	Size mm	595 x 580 (12	
High L/s	5860	Shaft mm	31.75	Area m2	4.14	
Low L/s	3900	Pulley mm	455 x 2A	Velocity m/s	1.48	
		Speed RPM	285 : 190	Material	Chilcel	
		Outlet mm	775 x 755			
SHIPPING						
Height mm	1630	PUMP		MOTOR		
Length mm	1560	Rating Watt	50	Type:	2 Speed 3 ph	
Width mm	1560	Pump Qty	1	Speed RPM	1440 : 960	
Volume m3	3.97			Rating kW	3.0:1.0	
Mass kg	295	RESERVIOR		Current AMP	6.41 : 3.77	
Net Unit kg	265	Capacity Litres	55	Supply	415V 50 Hz	
Operating kg	330	Drain Size : Thread	48:40	Pulley	90 x 28 x 2A	

# Sound Power Level (SWL)

RPB600	Radiated	80	78	74	74	75	71	61	80		
	In Duct	72	71	71	71	71	65	54	76		
<u>.</u>		125	250	500	1k	2k	4k	8k	dBA		
		OCTAVE BAND CENTRE FREQUENCY (Hz)									

#### **Fan Curves**



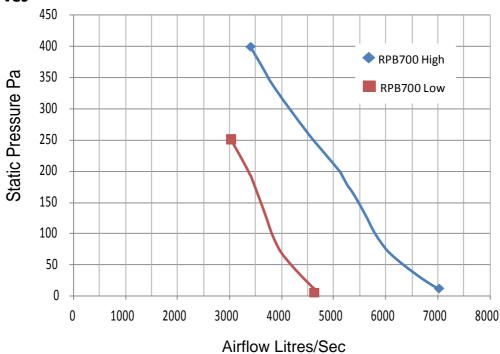


CAPACITY		<b>BLOWER WHEEL</b>		FILTER PADS		
Discharge Type:	D,S, T	Dia x Width mm	760 x 635	Size mm	595 x 580 (1	
High L/s	7200	Shaft mm	31.75	Area m2	4.41	
Low L/s	4620	Pulley mm	455 x 2A	Velocity m/s	1.74	
		Speed RPM	355 : 224	Material	Chilcel	
		Outlet mm	775 x 755			
SHIPPING						
Height mm	1630	PUMP		MOTOR		
Length mm	1560	Rating Watt	50	Type:	2 Speed 3 pl	
Width mm	1560	Pump Qty	1	Speed RPM	1450 : 955	
Volume m3	3.97			Rating kW	3.0:1.0	
Mass kg	295	RESERVIOR		Current AMP	6.41:3.77	
Net Unit kg	265	Capacity Litres	55	Supply	415V 50 Hz	
Operating kg	330	Drain Size : Thread	48:40	Pullev	106 x 28 x 2	

# Sound Power Level (SWL)

RPB700	Radiated	78	76	72	71	73	68	58	78			
	In Duct	76	74	71	71	74	69	61	78			
-		125	250	500	1k	2k	4k	8k	dBA			
		OCTAVE BAND CENTRE FREQUENCY (Hz)										

#### **Fan Curves**



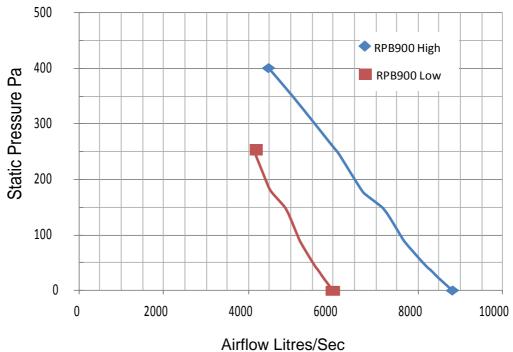


CAPACITY		<b>BLOWER WHEEL</b>		FILTER PADS		
Discharge Type:	D,S, T	Dia x Width mm	760 x 635	Size mm	595 x 580 (12	
High L/s	8810	Shaft mm	31.75	Area m2	4.14	
Low L/s	6000	Pulley mm	455 x 2A	Velocity m/s	2.13	
		Speed RPM	398 : 262	Material	Chilcel	
		Outlet mm	775 x 755			
SHIPPING						
Height mm	1630	PUMP		MOTOR		
Length mm	1560	Rating Watt	50	Type:	2 Speed 3 ph	
Width mm	1560	Pump Qty	1	Speed RPM	1450 : 955	
Volume m3	3.97			Rating kW	5.5:1.8	
Mass kg	331	RESERVIOR		Current AMP	11.2 : 6.05	
Net Unit kg	301	Capacity Litres	55	Supply	415V 50 Hz	
Operating kg	366	Drain Size : Thread	48 : 40	Pulley	125 x 38 x 2/	

# Sound Power Level (SWL)

RPB900	Radiated In Duct	82 83	79 80	77	78 79	80 81	76 77	66 71	84 85
	III Duct	125	<b>250</b>	500	1k	2k	4k	8k	dBA

#### **Fan Curves**



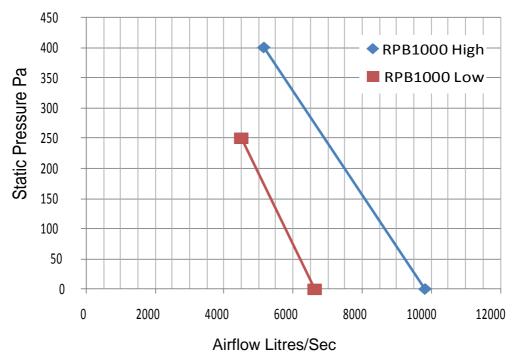


CAPACITY		<b>BLOWER WHEEL</b>		FILTER PADS		
Discharge Type:	D, T	Dia x Width mm	760 x 635	Size mm	595 x 580 (16	
High L/s	9890	Shaft mm	31.75	Area m2	5.52	
Low L/s	6625	Pulley mm	455 x 2A	Velocity m/s	1.79	
		Speed RPM	421 : 277	Material	Chilcel	
		Outlet mm	775 x 755			
SHIPPING						
Height mm	1630	PUMP		MOTOR		
Length mm	1560	Rating Watt	50	Type:	2 Speed 3 ph	
Width mm	1560	Pump Qty	1	Speed RPM	1450 : 955	
Volume m3	3.97			Rating kW	7.5 : 2.2	
Mass kg	376	RESERVIOR		Current AMP	14.6: 8.1	
Net Unit kg	346	Capacity Litres	55	Supply	415V 50 Hz	
Operating kg	411	Drain Size : Thread	48 : 40	Pulley	132 x 38 x 2/	

# Sound Power Level (SWL)

	OCTAVE BAND CENTRE FREQUENCY (Hz)										
-	125	250	500	1k	2k	4k	8k	dBA			
In Duct	87	86	85	85	84	79	71	89			
RPB1000 Radiate	e <b>d</b> 88	86	85	85	84	79	71	89			

#### **Fan Curves**



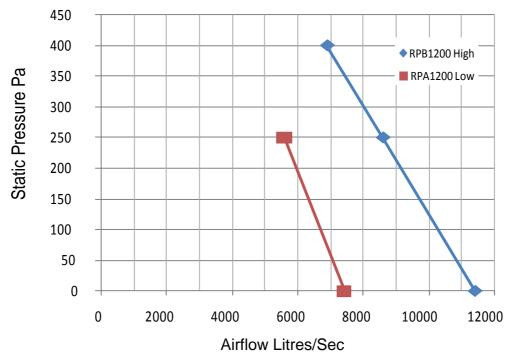


CAPACITY		BLOWER WHEEL		FILTER PADS	
Discharge Type:	D, S, T	Dia x Width mm	820 x 800	Size Top mm	795 x 580 (6)
High L/s	11470	Shaft mm	40.00	Size Bot mm	795 x 890 (6)
Low L/s	7700	Pulley mm	455 x 2A	Area m2	7.0
		Speed RPM	319 : 210	Velocity m/s	1.64
		Outlet mm	890 x 890	Material	Chilcel
SHIPPING					
Height mm	2050	PUMP		MOTOR	
Length mm	2100	Rating Watt	50	Type:	2 Speed 3 ph.
Width mm	2100	Pump Qty	2	Speed RPM	1450 : 955
Volume m3	9.04			Rating kW	5.5:1.8
Mass kg	415	RESERVIOR		Current AMP	11.2 : 6.05
Net Unit kg	375	Capacity Litres	100	Supply	415V 50 Hz
Operating kg	475	Drain Size : Thread	48:40	Pulloy	106 x 38 x 2A

# Sound Power Level (SWL)

	OCTAVE BAND CENTRE FREQUENCY (Hz)									
•	125	250	500	1k	2k	4k	8k	dBA		
In Duct	89	86	85	84	82	78	72	88		
RPB1200 Radiated	89	86	85	84	82	78	72	88		

#### **Fan Curves**



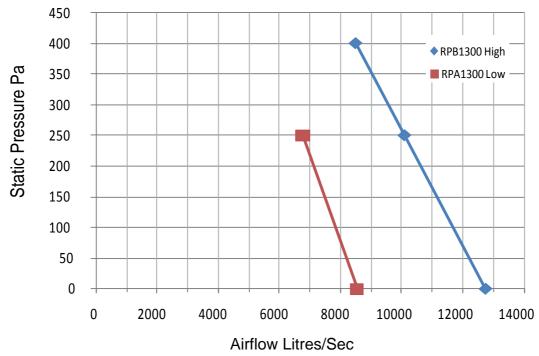


CAPACITY		BLOWER WHEEL		FILTER PADS		
Discharge Type:	D, S, T	Dia x Width mm	820 x 800	Size Top mm	795 x 580 (6)	
High L/s	12750	Shaft mm	40.00	Size Bot mm	795 x 890 (6)	
Low L/s	8545	Pulley mm	455 x 2B	Area m2	7.0	
		Speed RPM	336 : 228	Velocity m/s	1.82	
		Outlet mm	890 x 890	Material	Chilcel	
SHIPPING			-			
Height mm	2050	PUMP		MOTOR		
Length mm	2100	Rating Watt	50	Type:	2 Speed 3 ph.	
Width mm	2100	Pump Qty	2	Speed RPM	1450 : 955	
Volume m3	9.04			Rating kW	7.5 : 2.2	
Mass kg	447	RESERVIOR		Current AMP	14.6:8.1	
Net Unit kg	417	Capacity Litres	100	Supply	415V 50 Hz	
Operating kg	517	Drain Size : Thread	48:40	Pullev	106 x 38 x 2B	

# Sound Power Level (SWL)

	OCTAVE BAND CENTRE FREQUENCY (Hz)										
•	125	250	500	1k	2k	4k	8k	dBA			
In Duct	90	87	86	85	83	79	73	89			
RPB1300 Radiated	90	87	86	85	83	79	73	89			

#### **Fan Curves**



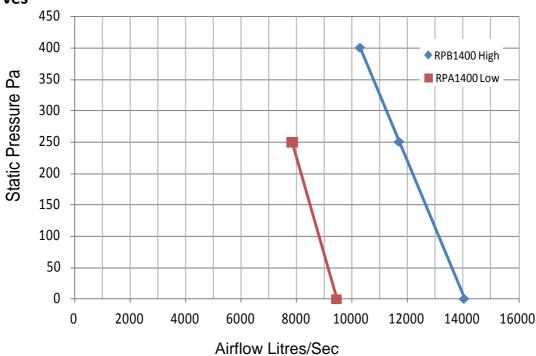


CAPACITY		BLOWER WHEEL		FILTER PADS		
Discharge Type:	D, S, T	Dia x Width mm	820 x 800	Size Top mm	795 x 580 (6)	
High L/s	14080	Shaft mm	40.00	Size Bot mm	795 x 895 (6)	
Low L/s	9435	Pulley mm	455x 2B	Area m2	7.0	
		Speed RPM	354 : 233	Velocity m/s	2.01	
		Outlet mm	890 x 890	Material	Chilcel	
SHIPPING						
Height mm	2050	PUMP		MOTOR		
Length mm	2100	Rating Watt	50	Type:	2 Speed 3 ph.	
Width mm	2100	Pump Qty	2	Speed RPM	1450 : 955	
Volume m3	9.04			Rating kW	7.5 : 2.2	
Mass kg	457	RESERVIOR		Current AMP	14.6:8.1	
Net Unit kg	427	Capacity Litres	100	Supply	415V 50 Hz	
Operating kg	527	Drain Size : Thread	48:40	Pullev	112 x 38 x 2B	

# Sound Power Level (SWL)

	OCTAVE BAND CENTRE FREQUENCY (Hz)							
	125	250	500	1k	2k	4k	8k	dBA
In Duct	93	90	89	88	86	82	76	93
RPB1400 Radiate	<b>d</b> 93	90	89	88	86	82	76	93

#### **Fan Curves**



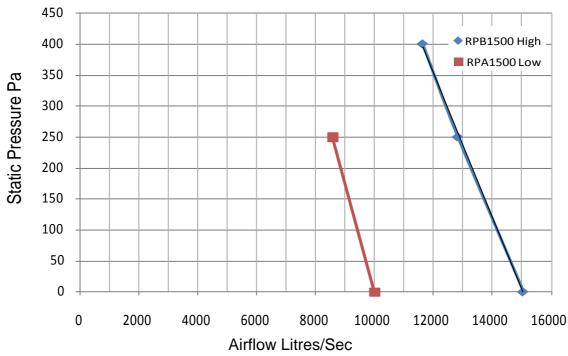


CAPACITY		BLOWER WHEEL		FILTER PADS		
Discharge Type:	D, S, T	Dia x Width mm	820 x 800	Size Top mm	795 x 580 (6)	
High L/s	15050	Shaft mm	40.00	Size Bot mm	795 x 890 (6)	
Low L/s	10005	Pulley mm	455 x 2B	Area m2	7.0	
		Speed RPM	377 : 248	Velocity m/s	2.15	
		Outlet mm	890 x 890	Material	Chilcel	
SHIPPING						
Height mm	2050	PUMP		MOTOR		
Length mm	2100	Rating Watt	50	Type:	2 Speed 3 ph.	
Width mm	2100	Pump Qty	2	Speed RPM	1465 : 980	
Volume m3	9.04			Rating kW	11.0:3.6	
Mass kg	468	RESERVIOR		Current AMP	21.6 : 10.5	
	438	Capacity Litres	100	Supply	415V 50 Hz	
Net Unit kg						

# **Sound Power Level (SWL)**

	OCTAVE BAND CENTRE FREQUENCY (Hz)							
•	125	250	500	1k	2k	4k	8k	dBA
In Duct	95	92	91	89	87	84	78	94
RPB1500 Radiated	95	92	91	89	87	84	78	94

#### **Fan Curves**



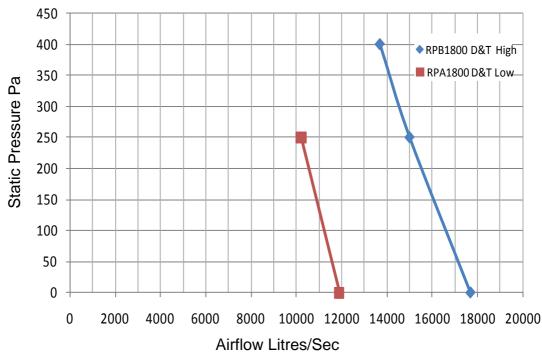


CAPACITY		BLOWER WHEEL		FILTER PADS		
Discharge Type:	D, T	Dia x Width mm	820 x 800	Size Top mm	795 x 580 (8)	
High L/s	17690	Shaft mm	40.00	Size Bot mm	795 x 890 (8)	
Low L/s	12052	Pulley mm	455 x 2B	Area m2	9.35	
		Speed RPM	453 : 304	Velocity m/s	1.89	
		Outlet mm	890 x 890	Material	Chilcel	
SHIPPING						
Height mm	2050	PUMP		MOTOR		
Length mm	2100	Rating Watt	50	Type:	2 Speed 3 ph.	
Width mm	2100	Pump Qty	3	Speed RPM	1465 : 985	
Volume m3	9.04			Rating kW	15.0:5.0	
Mass kg	513	RESERVIOR		Current AMP	27.4 : 12.2	
Net Unit kg	473	Capacity Litres	100	Supply	415V 50 Hz	
Operating kg	573	Drain Size : Thread	48 : 40	Pulley	140 x 42 x 2B	

# Sound Power Level (SWL)

RPB1800 Radiated	97	94	93	91	89	87	82	96
In Duct	97	94	93	91	89	87	82	96
•	125	250	500	1k	2k	4k	8k	dBA
	OCTAVE BAND CENTRE FREQUENCY (Hz)							

#### **Fan Curves**



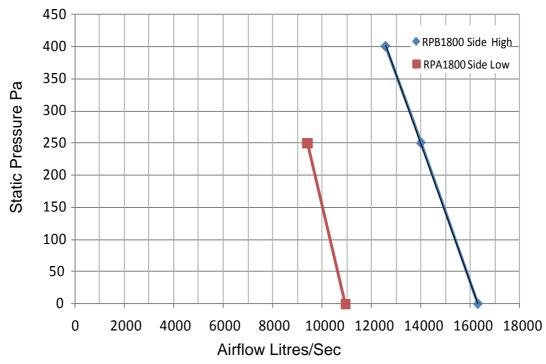


CAPACITY		<b>BLOWER WHEEL</b>		FILTER PADS		
Discharge Type:	Side	Dia x Width mm	820 x 800	Size Top mm	795 x 580 (6)	
High L/s	16300	Shaft mm	40.00	Size Bot mm	795 x 890 (6)	
Low L/s	11890	Pulley mm	615 x 2B	Area m2	7.0	
		Speed RPM	429 : 288	Velocity m/s	2.33	
		Outlet mm	890 x 890	Material	Chilcel	
SHIPPING						
Height mm	2050	PUMP		MOTOR		
Length mm	2100	Rating Watt	50	Type:	2 Speed 3 ph.	
Width mm	2100	Pump Qty	2	Speed RPM	1450 : 955	
Volume m3	9.04			Rating kW	15.0 : 5.0	
Mass kg	501	RESERVIOR		Current AMP	27.4:12.2	
Net Unit kg	461	Capacity Litres	100	Supply	415V 50 Hz	
Operating kg	561	Drain Size : Thread	48 : 40	Pulley	132 x 42 x 2B	

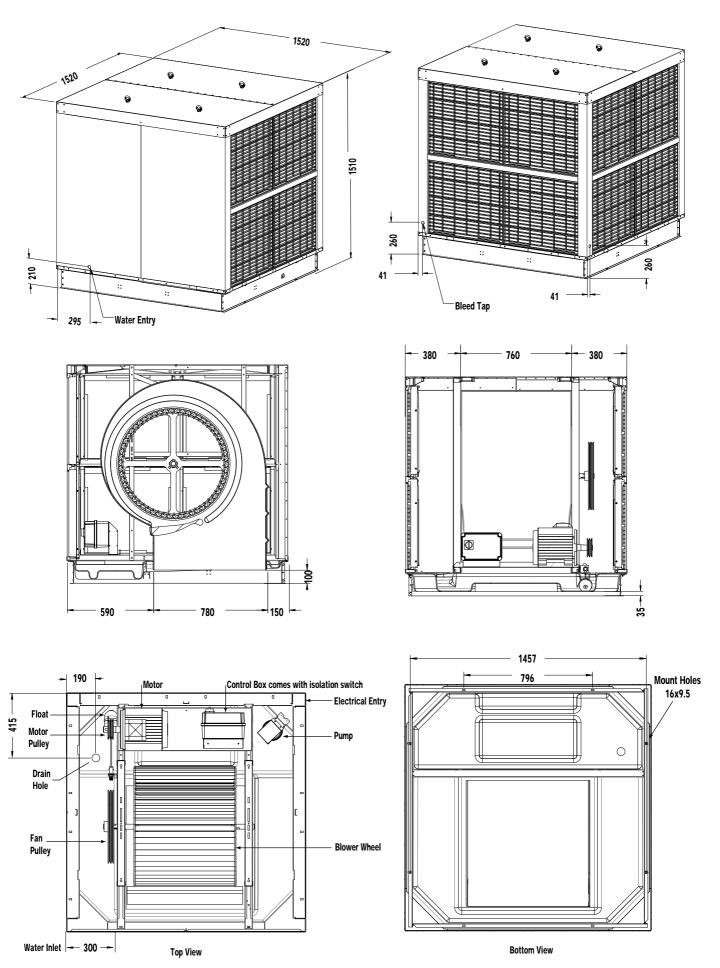
# Sound Power Level (SWL)

		OCTAVE BAND CENTRE FREQUENCY (Hz)							
-	125	250	500	1k	2k	4k	8k	dBA	
In Duct	97	94	93	91	89	87	82	96	
RPB1800 Radiate	e <b>d</b> 97	94	93	91	89	87	82	96	

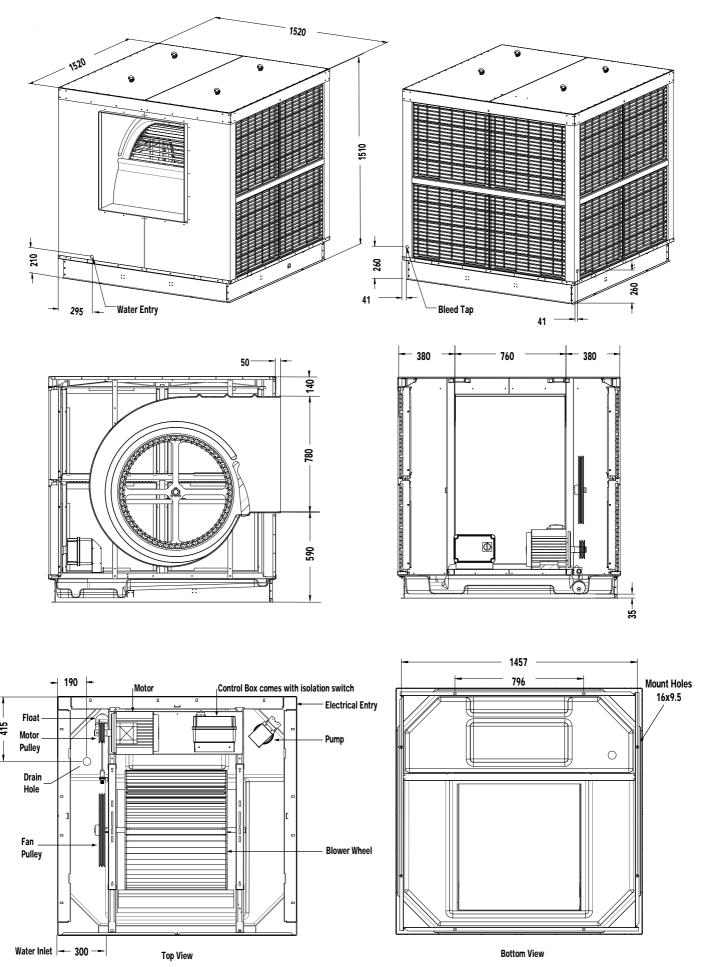
#### **Fan Curves**



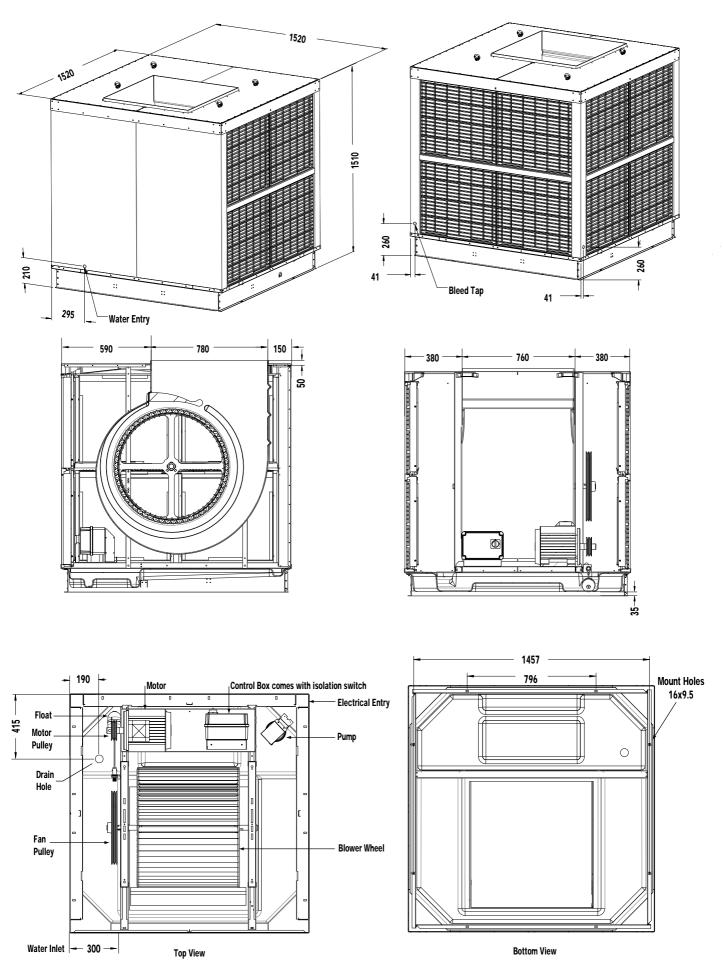




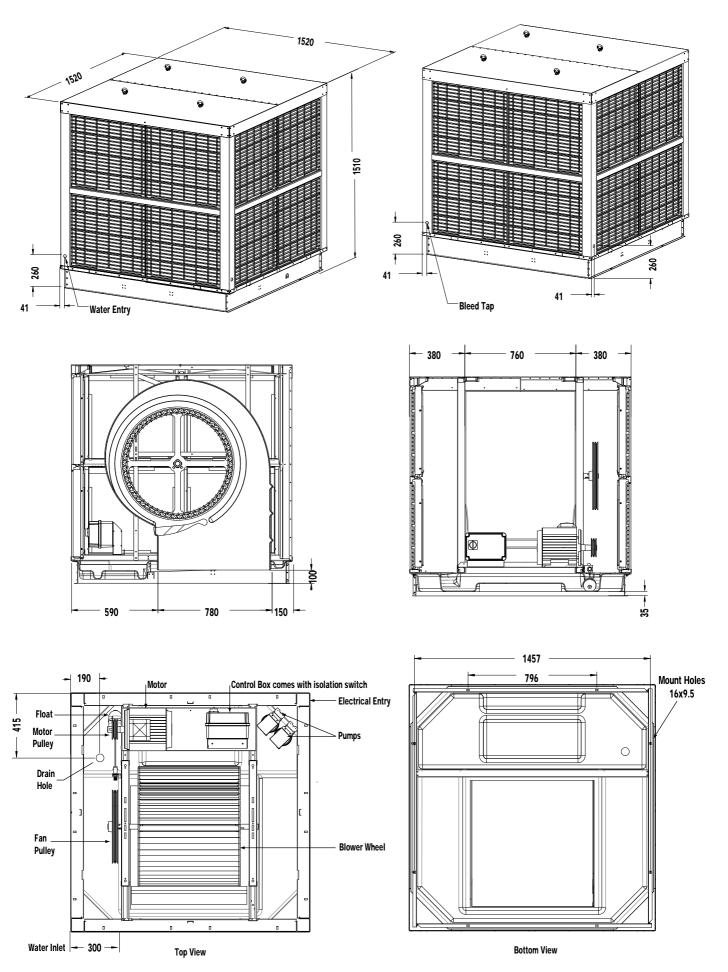




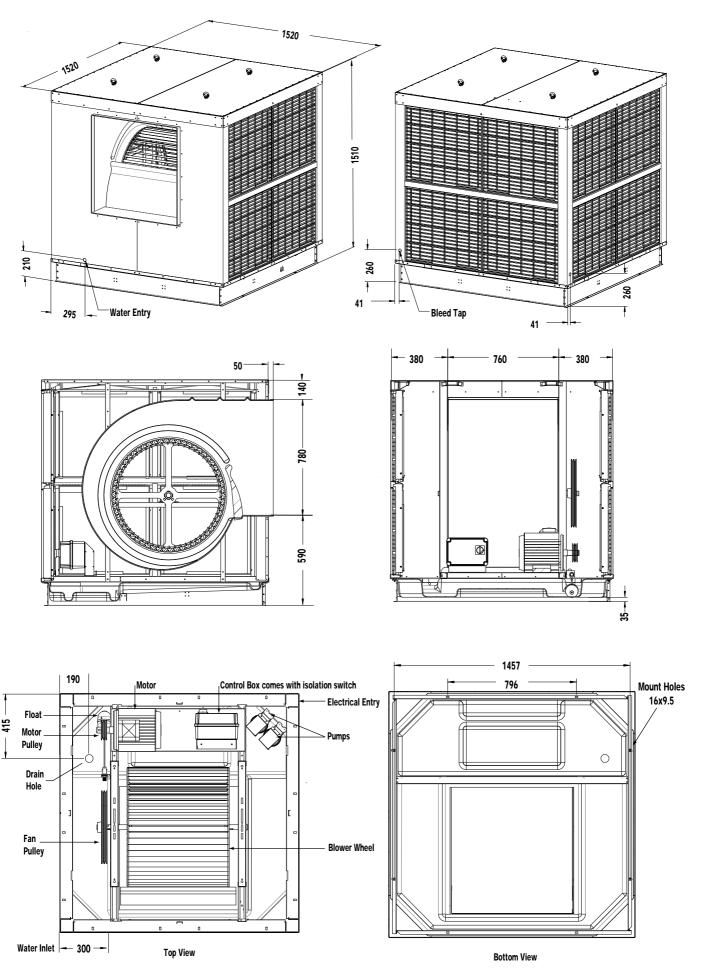




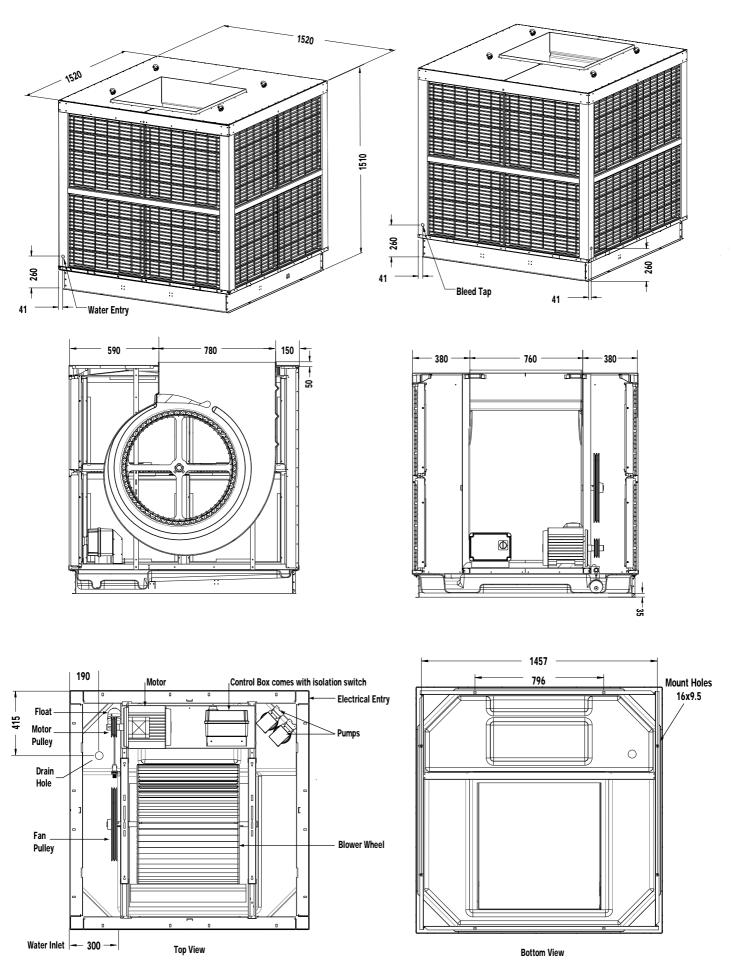






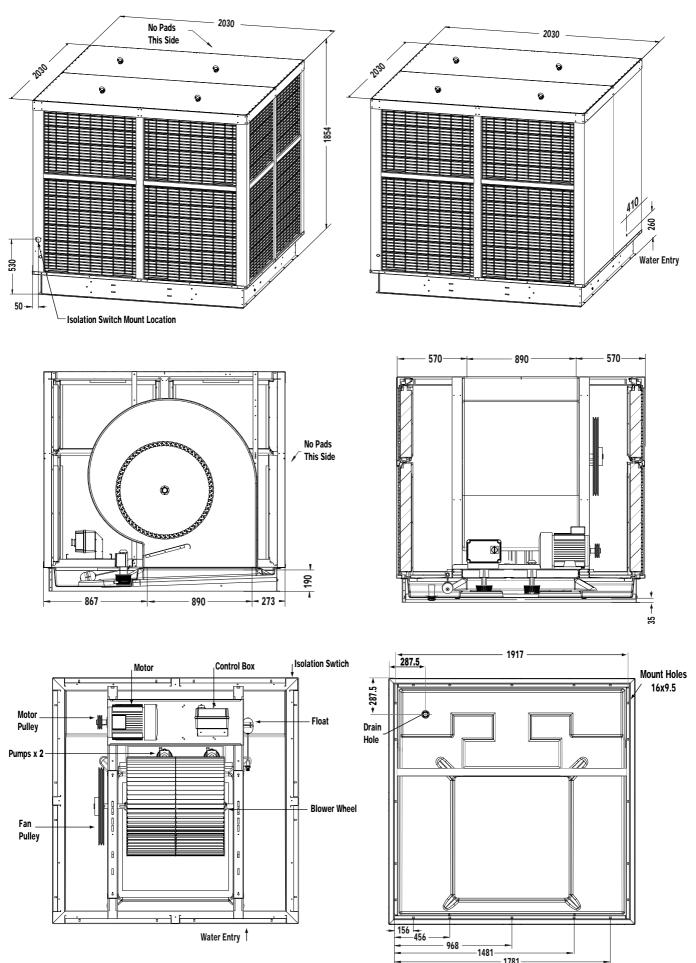






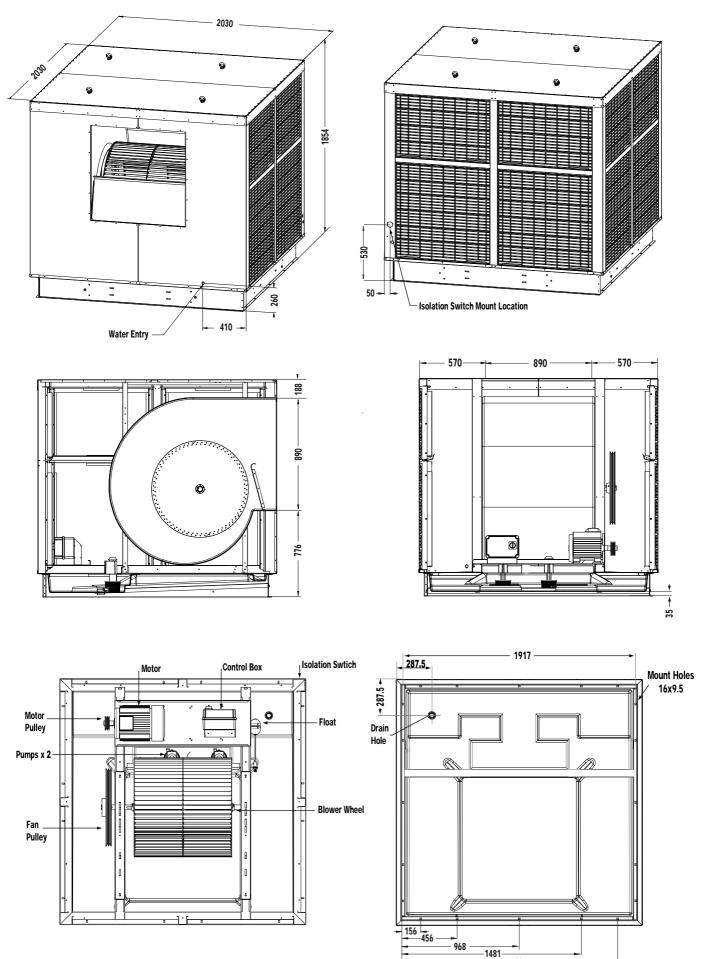
# CABINET DETAIL - RPB1200D, 1300D, 1400D, 1500D





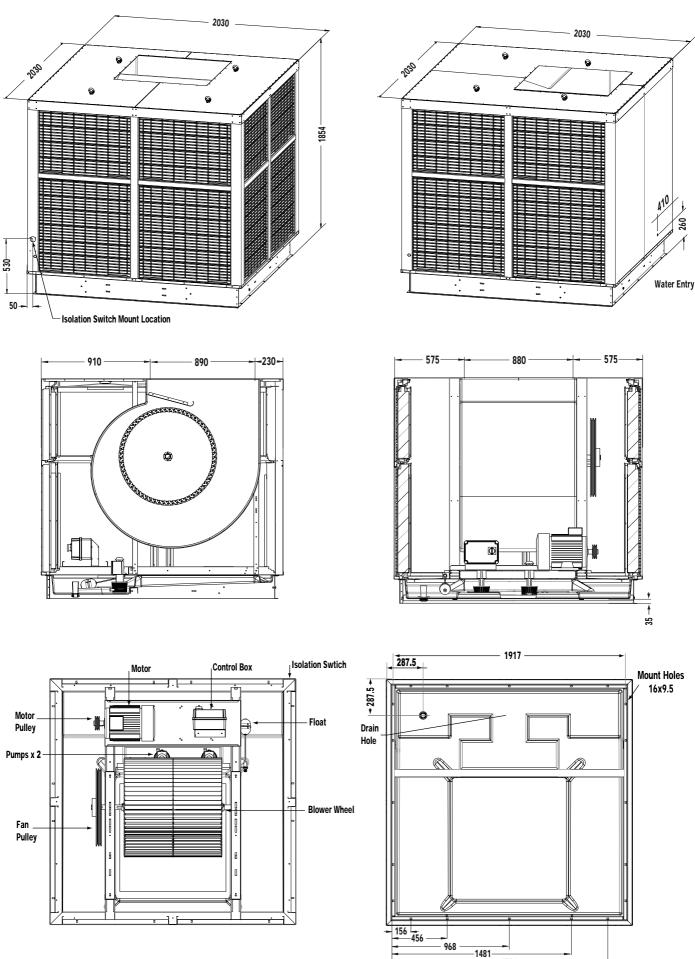
# **CABINET DETAIL - RPB1200S, 1300S, 1400S, 1500S**





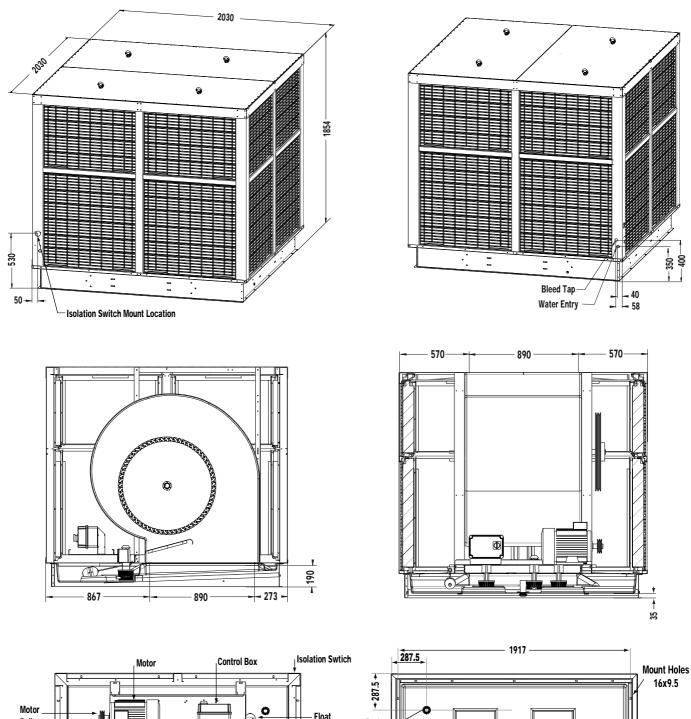
# CABINET DETAIL - RPB1200T, 1300T, 1400T, 1500T

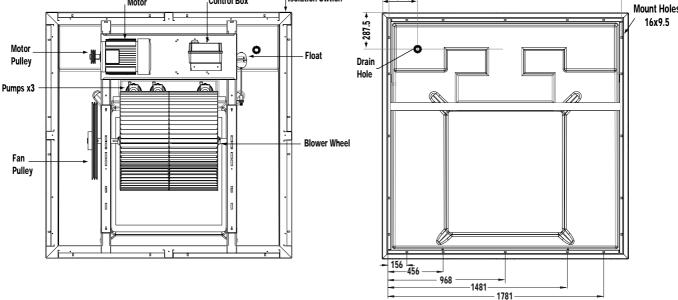




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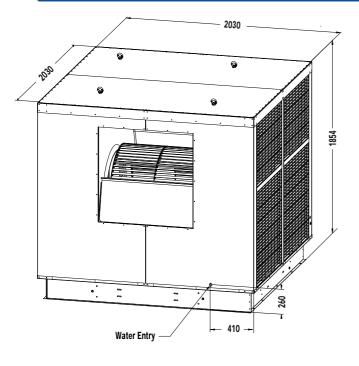


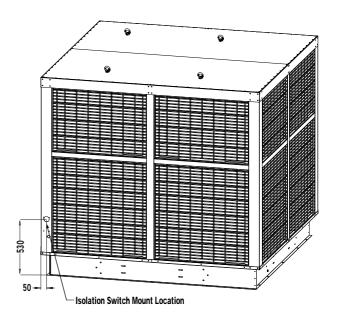


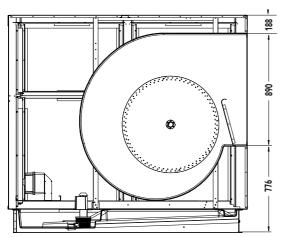


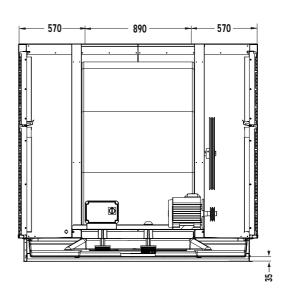
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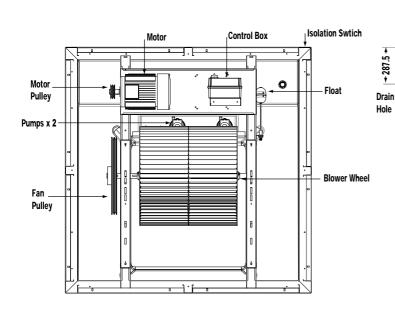


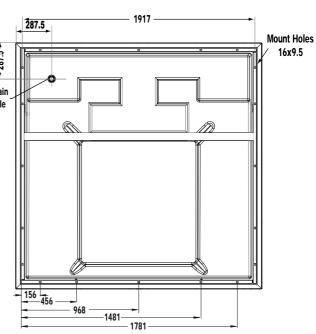












# **CABINET DETAIL - RPB1800T**



