

Quick Selection Procedure

- Step 1: Determine what is the design airflow (m3/s) or total cooling capacity (KW)
 Step 2: Use the table below to determine the unit size by picking the closest airflow or total cooling capacity.
 Step 3: The unit width and height are the same for all selections. Unit length in Table A is based on basic fan + coil + flat filter sections only. For other combinations. Use Table B : Standard Section Length to determine the overall unit length.
 Step 4: Determine the nominal units details (unit weight, coil water pressure drop, water flow rate and motor installed power) using Table A

Table A: Quick Select

Model Size	Coil Face Area m ²	Airflow At 2.5m/s Face Velocity m ³ /s	Total Cooling Capacity k w	External Static Pressure Pa	Unit Dimension (mm) (Fan + Coil + Pre & Bag + MB)			Unit Weight Kg	Water Pressure Drop kPa	Water Flow Rate L / s	Motor Installed Power k w
					Width	Height	Length				
003	0.23	0.6	8.64	500	780	900	2950	290	0.5	0.37	1.10
004	0.40	1.0	21.51	500	1090	900	2950	354	3.6	0.93	2.20
006	0.56	1.5	37.13	500	1400	900	2950	435	11.5	1.61	3.70
008	0.73	1.9	50.35	500	1710	900	2950	495	22.8	2.18	3.70
010	0.89	2.3	58.03	500	1400	1210	3105	553	10.6	2.51	5.50
012	1.15	3.0	80.40	500	1710	1210	3105	621	21.9	3.48	5.50
014	1.42	3.6	100.53	500	2020	1210	3105	704	36.9	4.36	7.50
016	1.58	4.1	110.44	500	1710	1520	3105	734	21.1	4.79	7.50
020	1.94	5.0	139.68	500	2020	1520	3260	891	36.4	6.05	11.0
025	2.41	6.2	173.71	500	2020	1830	3415	1045	42.8	7.53	11.0
030	2.88	7.4	206.18	500	2020	2140	3415	1204	40.4	8.94	15.0
035	3.42	8.7	248.79	500	2330	2140	3575	1465	62.9	10.78	15.0
040	3.95	10.1	291.13	500	2640	2140	3730	1771	80.5	12.62	18.5
045	4.48	11.5	312.01	500	2950	2140	3730	1924	25.1	13.52	22.0
050	5.01	12.9	356.42	500	3260	2140	3885	2102	34.2	15.45	22.0
060	5.92	15.2	421.31	500	3260	2450	4040	1079	36.9	18.26	30.0
065	6.55	16.8	472.83	500	3570	2450	4195	2670	48.2	20.49	30.0
070	7.18	18.4	524.44	500	3880	2450	4665	3055	61.4	22.73	30.0
080	7.81	20.0	576.11	500	4190	2450	4665	3417	76.6	24.97	37.0
085	8.44	21.6	586.93	500	4500	2450	4820	3575	83.0	25.43	37.0
090	9.07	23.2	679.63	500	4810	2450	4820	3838	113.5	29.45	45.0
095	9.70	24.9	733.61	500	5120	2450	4820	3991	136.1	31.79	45.0
*100	11.04	28.4	837.56	500	5120	2760	5285	4656	141.6	36.30	55.0
*110	11.64	30.2	889.04	500	5120	2915	5440	4991	151.0	38.53	55.0
*120	12.23	32.0	940.50	500	5120	3070	5231	5231	149.9	40.76	55.0

Note:

- Nominal cooling capacities are based on EDB 26.7 C / EWB 19.4C and EWT 6.7 C / LWT 12.2C
- Unit dimension and weight includes Backward curved fan section (arrangement 1 and 2). 6 row 144fpf coil (1/2 inch cu tube) section and pre & Bag and mixing section (with media)

Fan Section, L1 (arrangement 1 and 2, motor installed power as per Table A)

Model Size	Motor kW	L1	Model Size	Motor kW	L1	Model Size	Motor kW	L1	Model Size	Motor kW	L1
003	0.18 ~ 3	775	012 / 014	1.1 ~ 7.5	930	025 / 030	2.2 ~ 7.5	1085	050 / 060	5.5 ~ 22	1550
004	0.37 ~ 3	775		11 ~ 15	1085		11 ~ 15	1240		30 ~ 45	1705
006	0.55 ~ 7.5	775		016	1.5 ~ 7.5		930	18.5 ~ 30	1550	065 / 070	7.5 ~ 22
008	0.75 ~ 7.5	775	11 ~ 18.5		1395	035	4 ~ 22	1240	30 ~ 45		1860
010	1.1 ~ 7.5	930	020	2.2 ~ 7.5	930		30 ~ 45	1550	080 ~ 095	7.5 ~ 75	1860
	11	1085		11 ~ 18.5	1085	4 ~ 22	1395	100	15 ~ 75	2170	
						040 / 045	30 ~ 45	1550	110 / 120	15 ~ 75	2325

Mixing Section, L2

Model Size	L2
003 ~ 065	775mm
070 ~ 080	930mm
085 ~ 120	1085mm

Coil Section, L3

Model Size	Coil Row	L3
003 ~ 120	2, 4 and 6 row	620mm
003 ~ 120	8, 10 and 12 row	775mm

Note:

- Total unit length shall be calculated based on total sum of the individual section lengths added together.
- Add 160mm to overall unit length for end frame for all models.
- Fan Section lengths are indicative only as the length varies according to the fan arrangement and motor KW range
- Add another 155mm section for unit with fan and coil sections only.

QUANTUM XP Short Specification

Casing

- Casing shall be pentapost perimeter frame with a modular system based on standardised double wall panels.
- Casing strength shall be designed to meet EN 1886:2006, Casing Strength Class D1.
- Casing Air Leakage rate shall be designed to meet EN 1886:2006, Casing Air Leakage Class L1.
- Casing construction shall incorporate break features in the panel and frame, designed to meet EN1886:2006 Thermal Bridging factor TB1.
- Panel shall be attached to frame with external locking mechanism, wedge (stopper) and frame. With evenly exerting pressure onto panel and seal provided better air tight and low leak cabinet construction.
- Panel shall be easily removable for maintenance or service purpose without affecting the structural integrity of the unit.
- There shall be no exposed gaps between fixed panels and panles to the frame, to minimize potentiak air leaks.
- The external frame shall made of extruded Thermal break AL channels fitted together with non-metal corner piece.

Panel

- The panels shall benominal 50mm thickwith injected polyurethane foam insulation for a rigid non-vibration construction.
- The panel construction shall incorporate thermal break between inner and outer wall.
- The panel insulation shall not resistant. and shall not absorb moisture or promote fungus.
- The insulation material shall be have transfer 'K' value of 0.02Wm/K.
- The outer wall shall be painted galvanized sheet and inner wall shall be galvanized sheet.

Access and Inspection Door

- The door construction shall consist of a door panel that compresses with gasket onto rigid frame.
- Opening or closing of the door shall not affect the structural rigidity of the unit casing.

Base Rail

- The whole unit shll be mounted on a painted galvanized steel base rail for ease of shipping and handling
- The minimum height of the base shall be 120mm to ensure better air circulation
- The bare rail is to be used in liue of concrete plinths or other additional bases that are used and site.

Fan section

- Supply fan shall be certified as per AMCA 210 and AMCA 300 standard.
- All fans impeller are statically and dynamically balanced to ISO 1940.

- The entire fan/motor/drives assembly shall be mounted on a common framework and isolated from the unit by isolator spring
- The discharge shall be isolated from the casing with flexible duct.
- Fan shall be equipped with bearing with an L-50 life 200,000 hours.
- Forward curved fan shall be made of galvanized steel blades and Backward curved fan shall be made of cold rolled sheet blades with polyester powder costing finish.

Motor and Drives

- Motor shall be totally enclosed fan-cooled (TEFC) with IP55 protection with Class F insulation
- Drives shall be constant speed, fixed pitch sheaves and selected at 1.5 service factor.

Coil Section

- Coils performance/selection shall be rated in accordance with ARI Standard 410, and certified to EN 1886: 1998
- Cooling coils shall be cartridge type mounted on steel channel for easy removal when required.
- Coil casing shall be galvanized steel with drain holes in the bottom channels to ensure condensate drainage.
- Coil tubes shall be copper and mechanically expanded into aluminium plate fins. No soldering or tinning shall be used in the bonding process.
- The fins shall be sine-wave design with slits for better heat transfer efficiency and moisture carry-over limit performance.
- All coils are proof and leak tested at 375 psig.
- Dual pitched sloping drain pan shall be installed under the coil to ensure total removal of condensate.
- In case of stacked coils, an intermediate drain condensate to the main drain pan without flooding the lower coil and passing condensate through the air of the lower coil.

Filter

The filter section shall be fabricated by the air handling manufacturer with the same casing construction as the unit. Wide range of filters to meet air filtration requirement in various types of application

- a) Throwaway and washable type filter
- b) Bag and catridge type filter
- c) Final or HEPA filter
- d) Carbon and chemical filter
- e) Others

Mixing or Intake Section

- The mixing or intake section shall be fabricated by the air handling manufacturer with the same casing construction as the unit.
- Damper shall be provided to modulate the air volume
- Dampers shall be opposed blade type fitted into a casing of galvanized sheet steel.