

DIRECT-DRIVE LOW PRESSURE CENTRIFUGAL ACOUSTIC CABINET FANS

UPA Series

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DESCRIPTION

The UPA series of low pressure direct-drive acoustic centrifugal cabinet fans consists of 6 nominal model sizes. All models are suitable for direct in-line connection to industry standard diameter circular ducting. Depending upon the model, the range are available with 2 or 4 pole speed, single phase motors. All models include a remote mounted wiring terminal box to facilitate electrical connections. Airflow performance for the UPA series fans ranges from 200 up to 3,950 m³/hr.

APPLICATIONS

The UPA series of fans are suitable for many ducted noise sensitive ventilation applications, including the ventilation of:

- Offices. - Factory units. - Shops.
- Restaurants. - Cafes and bars.

CONSTRUCTION

Casing

All UPA fan casings are manufactured from

fabricated galvanised sheet steel and internally lined with a 50mm thick Melamine (M1 type) acoustic insulation material.

All models are supplied with circular ducting connection flanges mounted on both the inlet and discharge sides of the casing.

The UPA casing design includes a removable cover (quick release fixings without tools) which permits direct access to the fan motor and impeller for servicing and maintenance, without having to remove the casing from the ducting. All models are supplied with robust steel support feet enabling the fans to be mounted in any orientation to facilitate installation.

Fan

All UPA cabinet fans include, as standard, low pressure forward curved centrifugal fan impellers with a direct-drive single phase motor (IP44, enclosed type). All motors are suitable for speed control via voltage regulation.

ACOUSTIC CHARACTERISTICS

To obtain the corresponding Sound Power Level Spectrum, simply add the values detailed in the table below at the corresponding octave average frequencies, to that of the value of sound pressure level detailed in the Technical Characteristics Table.

| Model Type | | 63Hz | 125Hz | 250Hz | 500Hz | 1000Hz | 2000Hz | 4000Hz | 8000Hz |
|------------|----------|------|-------|-------|-------|--------|--------|--------|--------|
| UPA-125 | Outlet | 34,5 | 46,0 | 43,5 | 49,5 | 59,0 | 54,5 | 50,0 | 44,0 |
| | Inlet | 50,5 | 45,5 | 36,0 | 35,5 | 36,5 | 35,0 | 32,0 | 29,0 |
| | Radiated | 40,5 | 41,0 | 24,5 | 27,5 | 25,5 | 25,0 | 21,5 | 20,0 |
| UPA-160 | Outlet | 38,0 | 55,5 | 55,0 | 60,5 | 65,0 | 65,0 | 60,0 | 56,5 |
| | Inlet | 42,5 | 53,5 | 44,5 | 43,0 | 40,5 | 44,0 | 43,5 | 40,0 |
| | Radiated | 39,0 | 50,0 | 37,0 | 35,5 | 33,0 | 31,5 | 30,5 | 31,5 |
| UPA-200 | Outlet | 40,0 | 56,0 | 56,5 | 61,5 | 67,5 | 67,5 | 63,0 | 59,0 |
| | Inlet | 46,0 | 56,0 | 51,0 | 49,5 | 50,0 | 50,5 | 46,0 | 40,0 |
| | Radiated | 33,0 | 50,0 | 41,5 | 37,0 | 39,5 | 38,0 | 31,5 | 28,5 |
| UPA-250 | Outlet | 49,5 | 56,5 | 58,5 | 65,0 | 70,5 | 68,0 | 64,5 | 59,5 |
| | Inlet | 48,5 | 53,5 | 51,5 | 50,0 | 49,5 | 48,5 | 43,5 | 39,0 |
| | Radiated | 42,5 | 48,0 | 42,0 | 39,5 | 40,5 | 37,0 | 33,0 | 30,0 |
| UPA-250N | Outlet | 48,0 | 57,0 | 58,5 | 65,0 | 70,5 | 72,0 | 68,0 | 64,0 |
| | Inlet | 50,0 | 54,0 | 51,0 | 49,5 | 47,5 | 52,0 | 48,5 | 42,0 |
| | Radiated | 40,0 | 46,5 | 43,0 | 42,0 | 44,0 | 45,5 | 40,5 | 33,0 |
| UPA-315 | Outlet | 52,5 | 61,5 | 64,0 | 69,0 | 74,0 | 74,5 | 71,5 | 68,0 |
| | Inlet | 55,0 | 56,0 | 59,5 | 54,5 | 58,5 | 59,5 | 54,0 | 47,0 |
| | Radiated | 43,0 | 48,0 | 48,5 | 42,0 | 44,5 | 44,5 | 38,5 | 35,5 |
| UPA-355 | Outlet | 61,0 | 64,0 | 66,0 | 71,0 | 76,0 | 74,0 | 72,0 | 65,0 |
| | Inlet | 55,0 | 60,0 | 58,0 | 54,0 | 58,0 | 58,0 | 55,0 | 46,0 |
| | Radiated | 44,0 | 52,0 | 51,0 | 48,0 | 48,0 | 44,0 | 40,0 | 34,0 |
| UPA-400 | Outlet | 57,5 | 61,5 | 67,0 | 73,5 | 79,5 | 77,5 | 76,0 | 67,5 |
| | Inlet | 58,5 | 61,0 | 60,6 | 57,0 | 63,5 | 63,0 | 59,0 | 48,0 |
| | Radiated | 39,5 | 50,5 | 51,0 | 49,5 | 51,0 | 46,5 | 40,0 | 33,5 |

TECHNICAL CHARACTERISTICS

| Fan size | Speed | Motor Abs. Power | Motor Abs. Current | Max Airflow | Inlet | Outlet | Radiated* | Weight |
|------------|----------|------------------|--------------------|---------------------|-------|--------|-----------|--------|
| Model Type | (r.p.m.) | (W) | (A) | (m ³ /h) | | | | (kg) |
| UPA-125 | 140/059 | 1600 | 48 | 0,2 | 240 | 47 | 34 | 30 |
| UPA-160 | 140/059 | 2350 | 100 | 0,4 | 390 | 55 | 41 | 36 |
| UPA-200 | 133/126 | 2000 | 180 | 0,7 | 695 | 58 | 45 | 37 |
| UPA-250 | 180/184 | 1250 | 200 | 0,8 | 1250 | 60 | 44 | 38 |
| UPA-250N | 146/180 | 2200 | 350 | 1,5 | 1140 | 62 | 45 | 39 |
| UPA-315 | 180/240 | 1400 | 373 | 3,2 | 2100 | 65 | 52 | 40 |
| UPA-355 | 240/240 | 1400 | 550 | 6,5 | 3150 | 66 | 51 | 42 |
| UPA-400 | 240/240 | 1400 | 550 | 6,5 | 3500 | 69 | 55 | 43 |