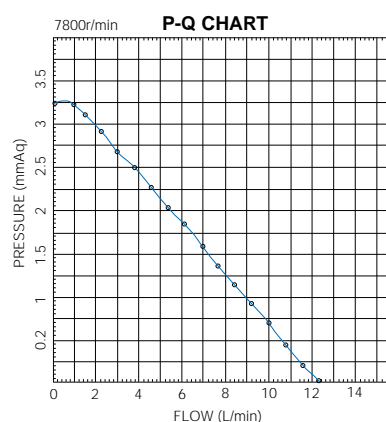
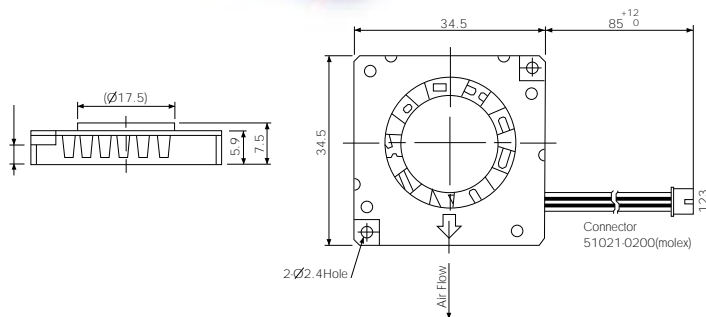


## FLAT UNIDIRECTIONAL / UDQFC3 SERIES

### FEATURES

Ideal for notebook PCs, desktop PCs, measuring instrumentation, and semiconductor equipment, UDQFC3 Series fans cool the targeted device and its enclosure simultaneously. Key features include:

- Exceptional cooling performance.
- Low vibration, through precise magnetic circuit and die design.
- Low noise, through highly efficient blade design.
- Remarkably low power consumption through radial-gap motor design.
- Extremely low profile— fan and heat sink in one 5.9mm unit!
- Thermal sensor or TAC output signal available.

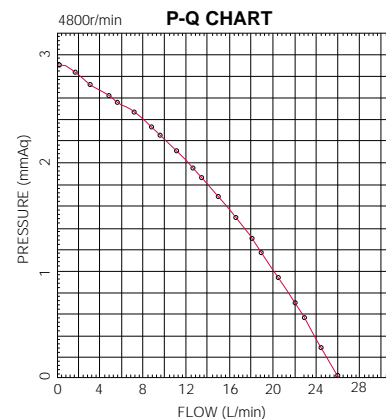
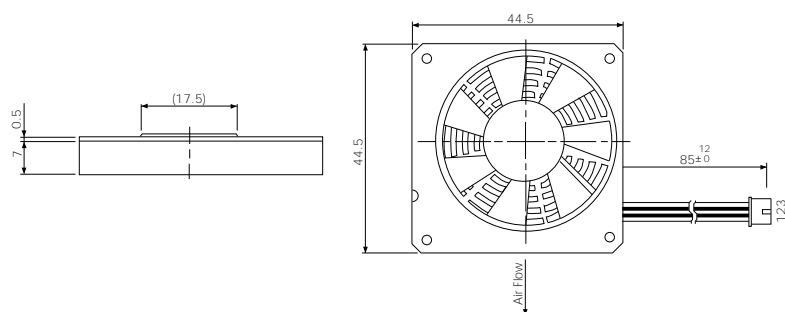


## FLAT UNIDIRECTIONAL / UDQFC4 SERIES

### FEATURES

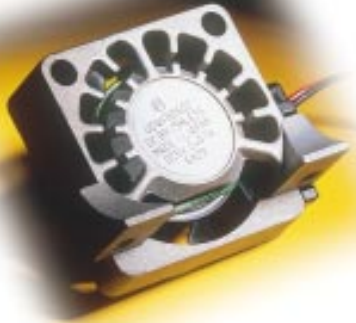
Ideal for notebook PCs, desktop PCs, measuring instrumentation, and semiconductor equipment, UDQFC4 Series fans are flat, chip-mounted components providing 0.92CFM (min.) in a compact 44.5 x 44.5 x 7.5mm aluminum housing. Key features include:

- Exceptional cooling performance.
- Low vibration, through precise magnetic circuit and die design.
- Low noise, through highly efficient blade design.
- Remarkably low power consumption through radial-gap motor design.
- Extremely low profile— fan and heat sink in one 5.9mm unit!
- Thermal sensor or TAC output signal available.



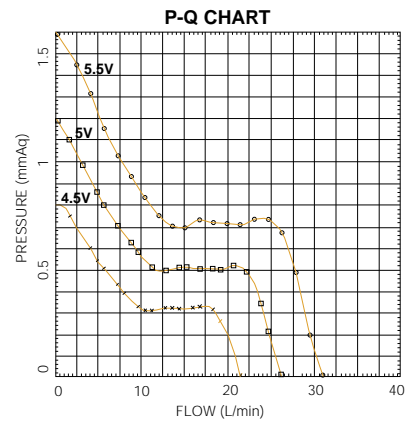
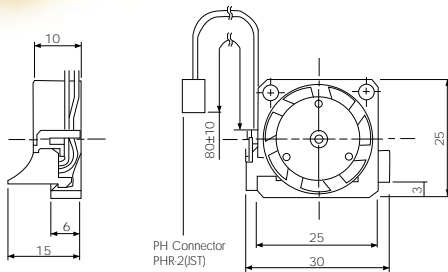
## VERTICAL /UDQFB2 SERIES

### FEATURES



A tiny 25 x 25 x 10mm miniature cooling fan, the UDQFB2 Series requires only 0.32W while providing 25L/min. air flow. It mounts at a 90° angle to the printed circuit board— making it perfect for “spot cooling” hot zones and problem thermal areas of boards. Key features include:

- Exceptional cooling performance via a heat-conductive Al die cast frame with radiating heat sink shape.
- Low vibration, as magnetic circuit design minimizes harmonic vibration.
- Low noise through highly efficient fan blade design.
- Low power consumption



## VERTICAL /UDQFB3 SERIES

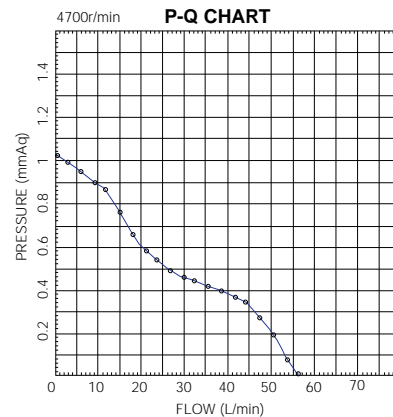
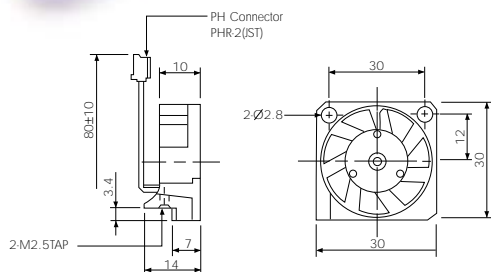
### FEATURES



Ideal for notebook PCs, desktop PCs, measuring instrumentation, and semiconductor equipment, UDQFB3 Series fans are 30 x 30 x 10mm and provide 57L/min. air flow at a rated current of 0.075A.

Key features include:

- Exceptional cooling performance.
- Low vibration, as magnetic circuit design minimizes harmonic vibration.
- Low power consumption via high-efficiency radial-gap motor design.
- Extremely low noise characteristics.



# TECHNICAL SPECIFICATIONS

## FLAT UNIDIRECTIONAL MODELS

TYPE	UDQFC3E04	UDQFC3E07	UDQF3E08	UDQFC4E07	UDQFC4E08	UDQFC4E09
RATED VOLTAGE (V)	5±10%	5±10%	5±10%	5±10%	5±10%	5±10%
RATED CURRENT (A)	0.15	0.15	0.15	0.15	0.15	0.15
NOISE AT 1M (DBA)	30	30	30	26	26	26
VIBRATION (M/S <sup>2</sup> )	3.0	3.0	3.0	1.7	1.7	1.7
AIR FLOW (L/MIN)	12	12	12	26 (0.92CFM)	26 (0.92CFM)	26 (0.92CFM)
AIR PRESSURE (MMAQ)	3.2	3.2	3.2	2.9	2.9	2.9
LIFE EXPECTANCY (HRS.)	30,000	30,000	30,000	30,000	30,000	30,000
OPERATING TEMPERATURE (°C)	0-70°C	0-70°C	0-70°C	0-70°C	0-70°C	0-70°C
STORAGE TEMPERATURE (°C)	-20-70°C	-20-70°C	-20-70°C	-20-70°C	-20-70°C	-20-70°C
TAC OUTPUT (2 PPR)	—	—	2	—	2	—
THERMAL SENSOR	—	10K (at 25°C)	—	10K (at 25C)	—	—

## VERTICAL MODELS

TYPE	UDQFB2E02	UDQFB3E5-1
RATED VOLTAGE (V)	5±10%	5±10%
RATED CURRENT (A)	0.065	0.075
NOISE AT 1M (DBA)	21	21
VIBRATION (M/S <sup>2</sup> )	2.8	2.0
AIR FLOW (L/MIN)	26 (0.92CFM)	57
AIR PRESSURE (MMAQ)	1.2	1.0
LIFE EXPECTANCY (HRS)	10,000	30,000
OPERATING TEMPERATURE (°C)	0-70°C	0-70°C
STORAGE TEMPERATURE (°C)	-20-70°C	-20-70°C

## WHY YOU SHOULD CHOOSE OUR MINIATURE COOLING FANS

Thermal stress can pose serious threats to the operating reliability of ICs, particularly as microprocessor speeds continue to accelerate. To minimize this threat— to keep densely packed boards and their components operating within rated temperature limits— Panasonic's low profile, miniature cooling fans are an ideal choice.

Featuring thin packages, quiet operation, and remarkably low power consumption (as low as 0.32W, through a unique radial-gap motor design), Panasonic miniature cooling fans are available from stock— or as custom designs based on specific OEM requirements. A range of multidirectional models and various other models are also available.

Call us today or visit our website for further information!

## Panasonic

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