MAC 10 Comparison Chart

STANDARD MAC 10		MAC 10 Original	MAC 10 IQ	MAC 10 LEAC2	MAC 10 LEAC	MAC 10 LEDC
Max CFM	(A)	660	660	800	900	950
	(B)	91.90+ FPM	91.90 FPM	111 FPM	125	132FPM
Start-up Amps FLA	120v	3	(5.0) *	1.8	2.26	2.75
	277v	1.2	(2.5*)	.80	1.17	1.35
Running Amps (High)	120v	2.63	2.08	1.6	1.6	2.08
	277v	1.14	0.9	.060	0.67	.09
Max. External Static Pressure @ 90 FPM		0.10″	0.40″	0.40″	0.60″	.065″
Maximum Watts		315	250	192	235	250
BTUs @ Max CFM (Heat Load)		1075	853	650	802	853
Watts @ 90 FPM		310	235	208	185	90
BTUs @ 90 FPM (Heat Load)		1058	802	710	631	307
Standard Top Mounted Control		3 speed switch	Auto Balancing	SSSC	3 speed switch	Digital
Additional Control Options		Yes	Yes	Yes (3a)	No	Yes
Building Management Interface (BMS)		Yes (2)	Yes	Yes (3a)	No	Yes
Optional Digital Control and Monitoring (3)		Yes	Yes	Yes (3a)	No	Yes
Motor / Feature		Standard AC Motor	Self Balancing DC (4)	Low Watt / High Airflow AC (4)	Low Watt / High Airflow	Low Watt / High Airflow DC (3a)
Blower		Forward Curve	Forward Curve	Backward Curve	Backward Curve	Backward Curve
Sound @ 90 FPM (dBA)		51	48	51	51	52

*SSSC= Solid State Speed Controller

RSR MAC 10		MAC 10 Original	MAC 10 IQ	MAC 10 LEAC2 RSRE	MAC 10 LEAC	MAC 10 LEDC RSRE
Maximum CFM @	(A)	610	610	750	850	850
0.0" Ext. Static Pressure	(C)	115 FPM	115 FPM	140 FPM	160 FPM	160 FPM
Start-up Amps FLA	120v	3	5	1.8	2.26	2.75
	277v	1.2	2.5	.80	1.17	1.35
Running Amps (High)	120v	2.5	1.88	1.80	1.95	2.08
	277v	1.08	0.81	0.8	0.84	0.80
Max. External Static Pressure @ 90 FPM		0.31	0.4	0.50	0.4	0.38″
Watts@ Max CFM		300	225	192	235	240
Watts @ 90 FPM		245	110	204	175	65
Heat gain: BTU @ Max CFM		1024	768	655	802	820
Heat gain: BTU @ 90 FPM		836	375	710	598	222
Standard Top Mounted Control		3 speed switch	Auto Balancing	SSSC	3 speed switch	Digital
Additional Control Options		Yes	Yes	Yes (3a)	No	Digital Universal Card (1)
Building Management Interface (BMS)		Yes (2)	Yes	Yes (3a)	No	Yes
Optional Digital Control and Monitoring (3)		Yes	Yes	Yes (3a)	No	Yes
Motor / Feature		Standard AC Motor	Self Balancing DC (4)	Low Watt / High Airflow DC	Low Watt / High Airflow AC	Low Watt / High Airflow DC
Blower		Forward Curve	Forward Curve	Backward Curve	Backward Curve	Backward Curve
Sound @ 90 FPM (dBA)		51	48	51	51	47

Figures in Bold show best performance in that specific category.

A. All figures are based on a 2x4 Filter
B. FPM is based on a Std. 2x4 Hepa Filter with 7.20 Sq. Ft. of useable filter area. (D)
C. FPM is based on a 2x4 RSR Hepa Filter with 5.30 Sq. Ft. of useable filter area. (D)
D. Useable Filter area (Sq. Ft.) is typical of all major brands
E. Price is based on comparing 1-2x4 MAC 10 Original vs 1-LEDC 4x4
1. Digital Card Allows for both Manual and Remote Control
2. Limit Control and Monitoring
3. Digital Control System Option, allows for Individual or Group Speed Control, Failure Alarm, Hi-Low Motor Control
4. DC units come with the Digital control cards pre-installed

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MAC 10 Original :

The MAC 10 was the first Fan Powered Hepa Filter (FFU) on the market and was originally designed by the US government and when it became available was taken into the commercial market in the early 80's. With the combination of its patented VE5 air baffle and the forward curved Blower wheel the MAC 10 is the quietest unit on the market today. It is available 2x4, 2x3 and 2x2 (2x3.5 also available, allowing for a 6" blank section for sprinkler heads when needed). The MAC 10 comes std. with a 3 speed motor (115, 220/240 and 277v) but is also with available with a long list of options.

MAC 10 IQ:

The MAC 10 IQ is known as the first Fan Powered Hepa Filter with a "Brain". When it was introduced in the early 90's it was the first FFU to be manufactured with a Low Watt D/C motor (115, 220/240 and 277v) with an internal Microprocessor. Set the IQ's air flow once with its top mounted control and the IQ will automatically adjust the fan speed to overcome any external static pressure. Just like the MAC 10 Original the MAC 10 IQ is also available 2x4, 2x3 and 2x2 (2x3.5 also available). The MAC 10 IQ now comes standard with Envirco's "Universal Control" allowing it to be easily set up with the optional Digital Control System and is available with the standard options. (D)

MAC 10 LEAC: (*)

The LEAC is one of two in the MAC 10's series. The MAC 10 LEAC gives you the "biggest bang for your dollar". With its low watt AC motor (40% less than the MAC 10 Original @ 90 FPM) it is able to produce up to 900 CFM on Hi-speed and 720+ CFM on low. A couple of benefits with the MAC 10 LEAC because the FFU produces 20% more air, you "may" be able to reduce the number of filters, limited to Class 100,000 (ISO 8) and Class 10,000 (ISO 7) rooms with ceiling 12' and higher. Additionally the increased Air flow means the HEPA filter can (last 4-5 times longer) than the either MAC 10 Original or MAC 10 IQ. The MAC 10 LEAC is able overcome 0.60" of external static pressure before it air flow drops below 90 FPM. Currently the MAC 10 LEAC is only available in a 2x4 with a 3 speed manual switch and is not available with the optional digital control system.

MAC 10 LEAC2: (*)

The MAC 10 LEAC2 is the 2nd generation of the MAC 10's series of Low Watt High Output Fan Powered Filters. Just like its counterpart the MAC 10 LEAC, with its low watt AC motor (32% less than the MAC 10 Original @ 90 FPM) is rated at 800 CFM on Hi-speed, but the LEAC2 goes one step further. Unlike the MAC 10 LEAC, the LEAC comes standard with a Solid State Speed Controller (SSSC) or an optional Digital Control Card that works with Envirco remote monitoring and control system making it available in all of the normal sizes 2x4, 2x3.5, 2x3 and 2x2. .
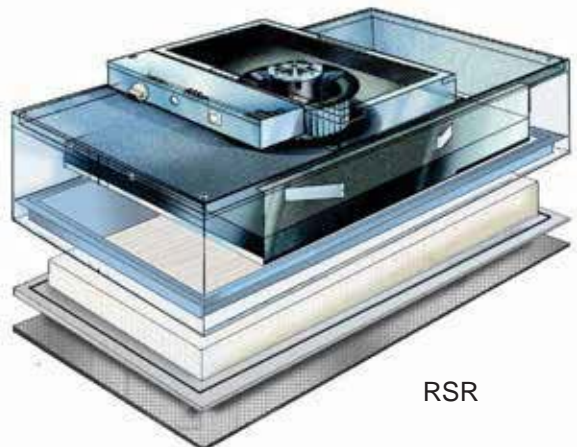
MAC 10 LEDC: (*)

The MAC 10 LEDC delivers up to 950 CFM and can maintain Velocities of 90 FPM with external static pressure of up to 0.65". The LEDC has one of the lowest watt motor (20% less on high and 70% less than the MAC 10 Original @ 90 FPM). Along with the lower watts and higher airflow the MAC 10 LEDC produces 28% more air and depending on the size, design and class of room they will be installed in you "may" be able to reduce the number of filters. Additionally the increased Air flow means the HEPA filter can (last 4-5 times longer) than the either MAC 10 Original or MAC 10 IQ. The MAC 10 LEDC is available 2x4, 2x3 and 2x2 (2x3.5 also available). The MAC 10 LEDC comes standard with Envirco's "Universal Control" allowing it to be easily set up with the optional Digital Control System and is available with most of the standard options. (D)

* The LE series are highly recommendable for the following;

A) Higher airflow and higher external static pressure can extend the life of you Hepa Filter 3-5 times. Depending on the environment the filters will operate in this could pay for itself in 2-3 years or sooner.

B) If you are looking at the RSR (Room Side Replaceable) model. RSR HEPA filter by design are 25% smaller than a standard HEPAs and will need to be replaced sooner.

C) Local Utility costs, the LEDC can pay for its self in 36 months depending on your Kwh cost.

D) With the Universal installed, all that would be needed for a basic digital control system is a control modual and a Cat 5 cable.
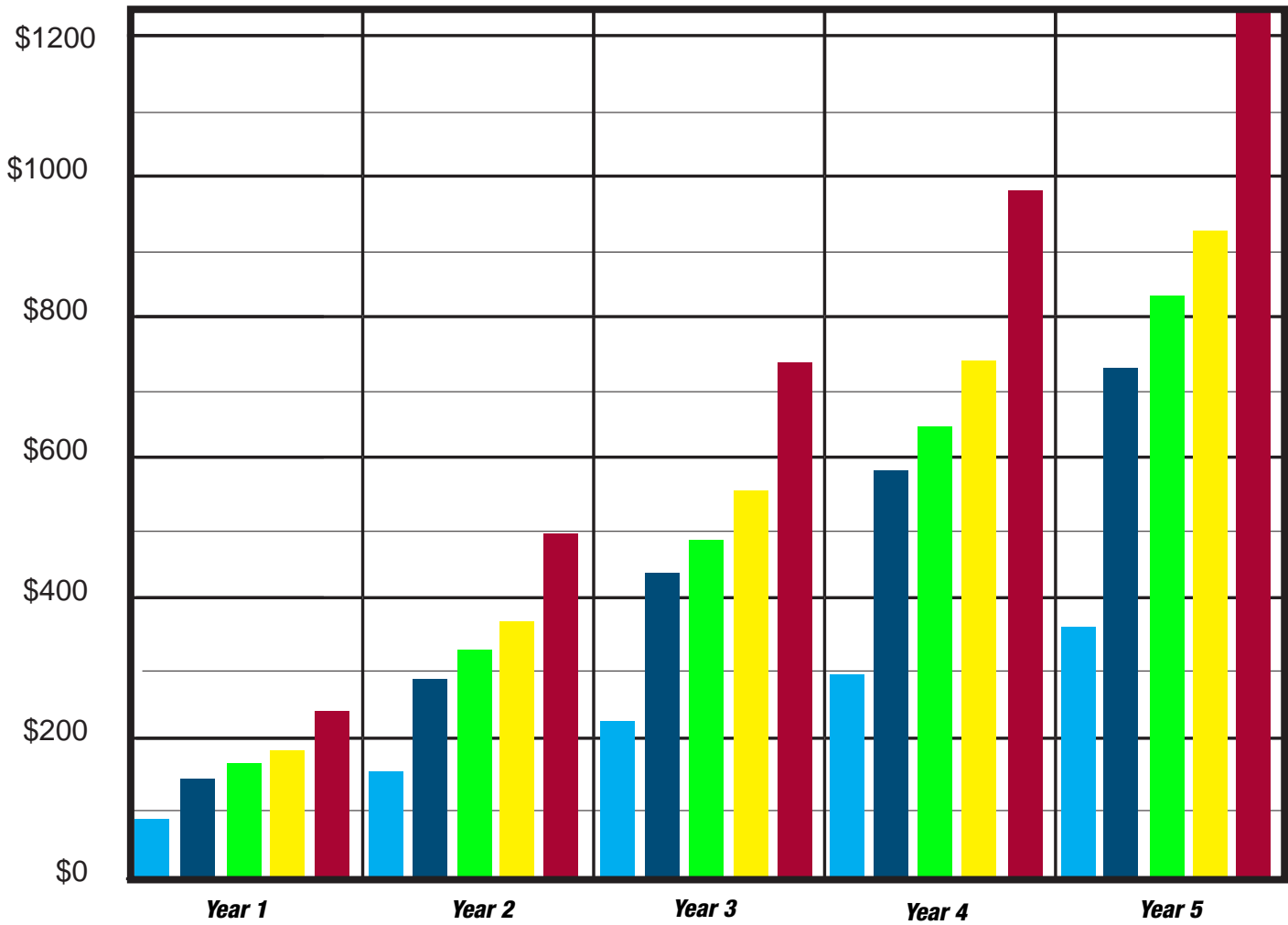

MAC10 Original

RSR

CUMULATIVE COST PER YEAR

	COST PER YEAR TO OPERATE	
■ (light blue)	MAC 10 LEDC	$73 / Year
■ (dark blue)	MAC 10 LEAC	$146 / Year
■ (green)	MAC 10 LEAC 2	$164 / Year
■ (yellow)	MAC 10 IQ	$185 / Year
■ (red)	MAC 10 Original	$248 / Year

Figures are Watts at 90 FPM x 8760 hr. (24 x 365) / 1,000 x $0.09 KWH

Ex. MAC 10 Original is rated at 315 Watts at 90 FPM

(315 x 8760 / 1,000 x $0.09 = $248.00)