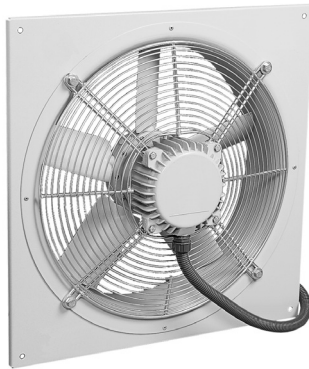


# COMPACT 2000 SERIES



## Description

The Compact 2000 Series of square plate axial fans is a high quality, robust product with 10 sizes ranging from 250 to 800mm diameter. They are suitable for a wide range of commercial and industrial applications and can be speed controlled to better manage energy consumption.

### Typical Applications

Capable of exhausting or supplying air in environments containing both clean ambient air and toxic noxious gases. See Additional Information below.

### Features

- Robust high quality construction.
- Inlet guard is incorporated as standard for models 025 to 063 and is an optional extra for models 071 and 080.
- The 040 to 063 size range in 3 phase are fitted with 2-speed star/delta motors as standard.
- Capable of operating across a wide temperature range; -20°C to 70°C.
- A flying lead with junction box and 20mm dia flexible conduit is fitted as standard to models 025 to 063.
- Can be mounted in any position.
- An extensive range of matched Ancillary Equipment is available.

### Construction

The square plate is manufactured from galvanised steel with an additional high quality polyester epoxy finish as standard. Impellers have GRP blades as standard; aluminium and nylon blades are an optional extra. Non-sparking blades can be fitted to models 071 and 080.

### Motor

Type - squirrel cage induction motor.  
 Electricity supply - 230V single or 415V three-phase, 50Hz.  
 Bearings - sealed for life, ball.  
 Operating temperature range; -20°C to 70°C.  
 Maximum ambient temperature when being speed controlled is 40°C.  
 IP55 rating.  
 All three phase models in the 040 to 063 range are fitted with 2-speed star/delta motors as standard.  
 Models to 063 can be speed controlled using electronic or auto-transformer controllers.  
 See pages O-3/4 for details of these motors.

### Internal Thermal Protection

Manual-reset thermal protection is supplied as standard up to model 063 and as an optional extra on models 071 and 080.

### Testing

Airflow tests to AS ISO5801:1997  
 Noise tests to BS848:Part 2, 1985

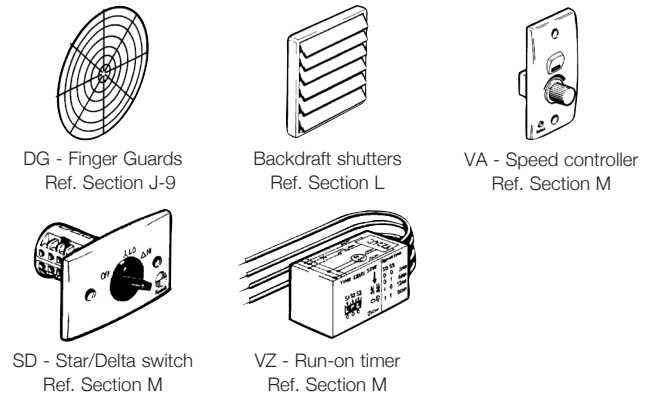
### Wiring Diagram

See page N-6/7, diagrams DD1, 4, 5, 6, 7

### Additional Information

Derate the airflow by at least 25% if the airflow direction is reversed from standard. Add the suffix "R" to fan code.

## Ancillary Equipment



## Suggested Specification

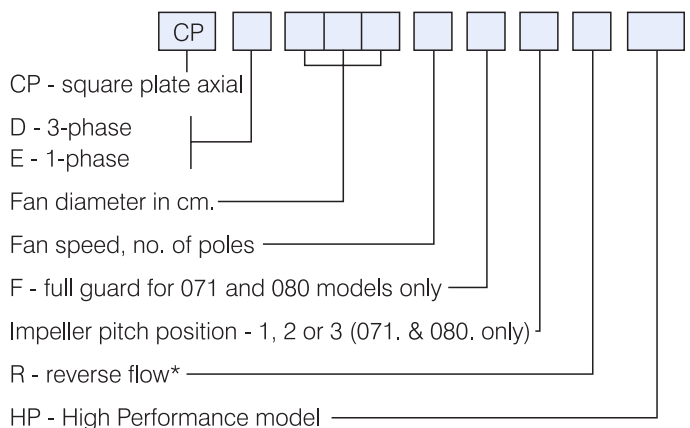
The Compact 2000 Series of square plate mounted axial fans shall be as supplied by Elta Fans.

The axial impellers shall have GRP blades

Square plates shall be made from galvanised steel with a polyester epoxy finish.

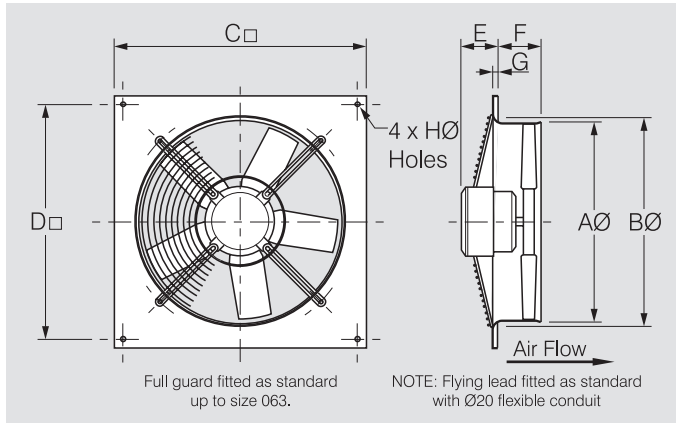
All models shall be fully tested to AS ISO5801:1997 for airflow and to BS848:Part 2, 1985 for noise

## How To Order



# COMPACT 2000 SERIES

## Dimensions

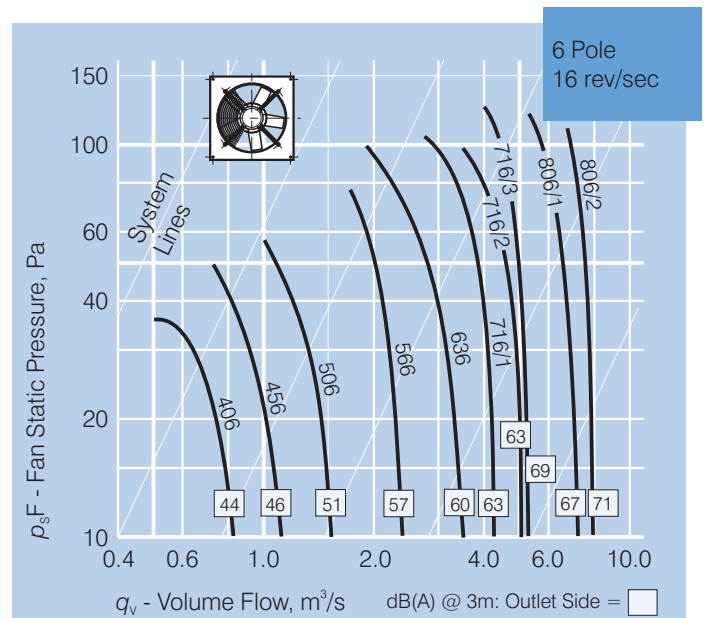
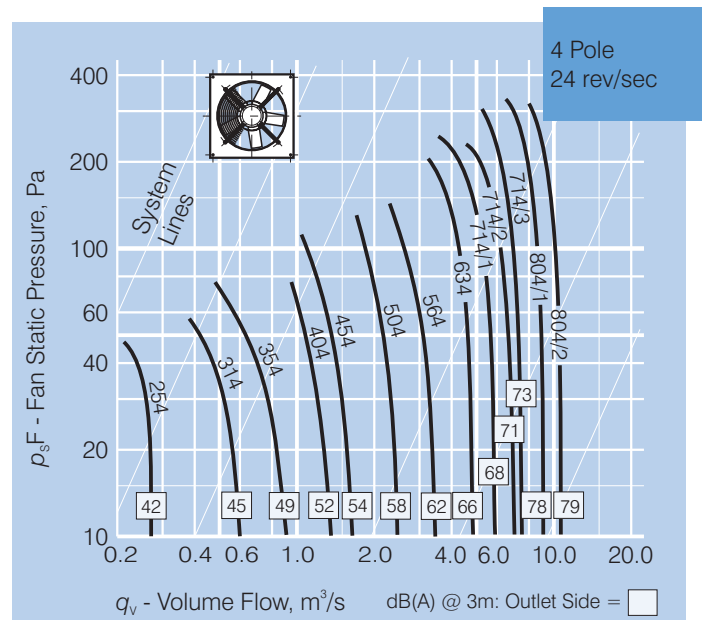
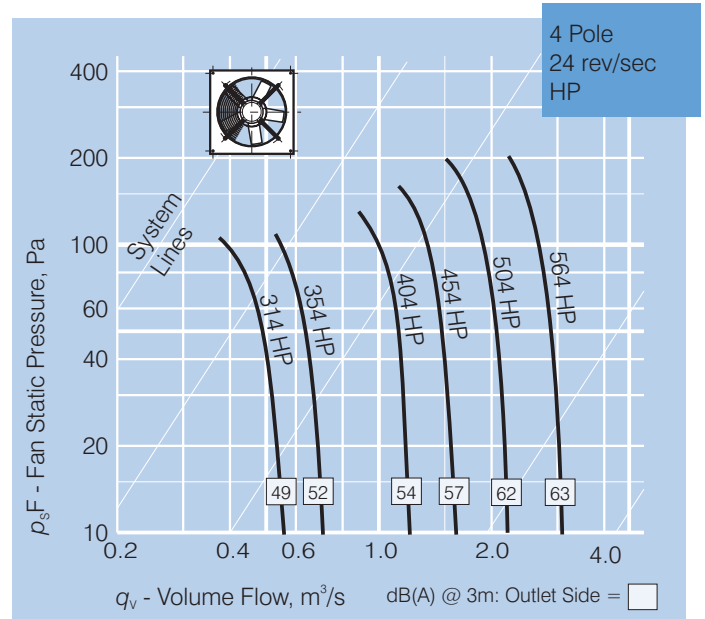


Model	Dimensions, mm								App. wt. kg	App. vol. m <sup>3</sup>	
	CP..	AØ	BØ	C	D	E	F	G			HØ
025.		263	285	370	320	98	74	15	6	5.5	0.03
031.		325	330	430	380	95	85	10	9	10	0.04
035.		360	370	485	435	95	85	10	9	10	0.05
040.		410	420	540	490	95	95	12	9	15	0.07
045.		460	470	575	535	95	95	12	11	17	0.08
050.		510	535	655	615	145	100	15	11	24	0.13
056.		575	600	725	670	145	100	15	11	27	0.16
063.		645	670	805	750	140	105	20	11	34	0.22
071.		716	760	850	810	*	98	22	14.5	37/61	0.40
080.		809	860	970	910	*	133	22	14.5	50/99	0.63

Motor	
Frame Size	* E
D90S	222
D90L	238
D100L	304
D112M	346
D132S	367
D132M	405

Note:

The selections shown here are based on fixed pitch impellers. If units with different performances than those shown here are required, refer to the SQ Series on pages A-23/25.



# COMPACT 2000 SERIES

## Technical Data & Noise Levels

Model CP..	Nom. Speed rev/ sec	Avg. dB(A) @ 3m	CPE.. 1 ph.		CPD.. 3 ph.		Max. amb °C	In-duct Sound Power Levels L <sub>w</sub> dB re 1pW								
			kW	Amps*	Frame**	kW		Amps*	63	125	250	500	1k	2k	4k	8k
<b>0254</b>	23	42	0.09	0.90	-	0.12	0.50	70 <sup>A</sup>	66	64	61	60	56	55	51	45
<b>0314</b>	23	45	0.09	0.90	-	0.12	0.50	70 <sup>A</sup>	69	67	63	63	60	57	53	49
<b>0314HP</b>	23	49	0.09	0.90	-	0.12	0.50	70 <sup>A</sup>	65	69	69	62	65	64	57	44
<b>0354</b>	23	49	0.09	0.90	-	0.12	0.50	70 <sup>A</sup>	71	70	65	67	66	59	55	54
<b>0354HP</b>	23	52	0.09	0.90	-	0.12	0.50	70 <sup>A</sup>	68	72	72	65	68	67	60	47
<b>0404</b>	23	52	0.25	1.80	-	<b>0.37</b>	<b>1.40</b>	70 <sup>A</sup>	71	72	68	70	69	64	61	56
<b>0404HP</b>	23	54	0.25	1.80	-	<b>0.37</b>	<b>1.40</b>	70 <sup>A</sup>	68	70	70	69	71	69	61	52
<b>0406</b>	15	44	0.12	1.05	-	<b>0.18</b>	<b>0.68</b>	70 <sup>A</sup>	67	63	66	63	61	53	48	43
<b>0454</b>	23	54	0.25	1.80	-	<b>0.37</b>	<b>1.40</b>	70 <sup>A</sup>	74	75	72	71	70	67	64	56
<b>0454HP</b>	23	57	0.25	1.80	-	<b>0.37</b>	<b>1.40</b>	70 <sup>A</sup>	71	73	73	72	74	72	64	55
<b>0456</b>	14	46	0.12	1.05	-	<b>0.18</b>	<b>0.68</b>	70 <sup>A</sup>	66	64	66	64	61	58	54	45
<b>0504</b>	23	58	0.55	3.60	-	<b>0.55</b>	<b>1.75</b>	70 <sup>A</sup>	77	81	78	73	72	72	69	62
<b>0504HP</b>	23	62	0.55	3.60	-	<b>0.55</b>	<b>1.75</b>	70 <sup>A</sup>	73	74	74	76	79	76	74	62
<b>0506</b>	14	51	0.18	1.55	-	<b>0.25</b>	<b>0.94</b>	70 <sup>A</sup>	72	67	69	68	69	63	57	51
<b>0564</b>	23	62	0.75	4.90	-	<b>0.75</b>	<b>2.00</b>	70 <sup>A</sup>	81	83	80	79	78	75	73	67
<b>0564HP</b>	23	63	0.75	4.90	-	<b>0.75</b>	<b>2.00</b>	70 <sup>A</sup>	76	74	77	78	80	77	75	66
<b>0566</b>	14	57	0.25	2.20	-	<b>0.25</b>	<b>0.94</b>	70 <sup>A</sup>	76	73	76	76	73	71	60	56
<b>0634</b>	23	66	-	-	-	<b>1.50</b>	<b>4.30</b>	70 <sup>A</sup>	81	82	86	84	80	78	77	72
<b>0636</b>	14	60	0.55	6.00	-	<b>0.55</b>	<b>2.00</b>	70 <sup>A</sup>	83	80	78	77	76	73	68	59
<b>0714/1</b>	23	68	-	-	D100La	2.20	4.60	40	90	80	84	83	83	82	81	76
<b>0714/2</b>	23	71	-	-	D100Lb	3.00	6.20	40	87	84	87	87	86	84	84	75
<b>0714/3</b>	23	73	-	-	D112M	4.00	8.00	40	91	90	93	91	87	86	83	77
<b>0716/1</b>	16	63	-	-	D90S	0.75	2.20	40	85	79	77	83	78	73	71	63
<b>0716/2</b>	16	63	-	-	D90L	1.10	3.00	40	84	81	82	83	78	73	72	61
<b>0716/3</b>	16	69	-	-	D100L	1.50	3.30	40	90	84	85	89	86	79	72	68
<b>0804/1</b>	23	78	-	-	D132S	5.50	10.50	40	90	83	89	92	95	93	88	81
<b>0804/2</b>	23	79	-	-	D132M	7.50	15.80	40	96	93	94	95	94	93	89	82
<b>0806/1</b>	16	67	-	-	D100L	1.50	3.30	40	90	86	85	87	82	77	73	65
<b>0806/2</b>	16	71	-	-	D132S	3.00	6.30	40	92	84	88	89	87	84	78	69

\* Amperages shown are a guide only, refer to our Sales Department for accurate figures at time of order.

\*\* Use inverter controllers for variable speed.

Electrical data in **bold** type refers to fans that are fitted with 2-speed star/delta motors as standard. High speed data shown.

Δ Maximum ambient is 40°C when being speed controlled.

The In-duct Sound Power Levels are for the Outlet Side of the fan; Inlet Side values are generally 1-2 dB lower. The levels are based on the fans operating at approximately 50% of peak pressure.

# COMPACT 2000 EC SERIES



## Description

The Compact 2000 EC Series of square plate axial fans incorporates the latest state of the art EC motor technology. They feature integrated infinitely variable speed control and eliminate the need for external VSDs, current overloads and motor phase protection. They are an energy saving solution and are most efficient when airflow requirements vary during the course of the day.

Optional matching sensors monitor the conditions and provide real time feedback to the fan's on-board electronics.

This processes the data and in turn adjusts the motor speed. This modulates the ventilation rate to match the specific requirements of the area.

The Compact 2000 EC fans are a simple "plug and play" system which means installers do not need to have specialised control programming knowledge. The series is available in 4 sizes ranging from 250 to 630mm diameter.

### Typical Applications

Suitable for general ventilation applications in commercial and light industrial environment such as switch rooms, data centres, food storage, substations and cleanroom applications.

### Features

- EC motor features reverse polarity protection, locked rotor protection and soft start.
- No additional protection such as current overloads are required.
- All models supplied standard with 0-10V control input. Diameter sizes 500mm and above can be pre-programmed to suit specific sensors and specific applications.
- A full range of sensors are available including differential pressure, humidity, temperature, air velocity and pollutant.
- Can be run as an independent ventilation source or integrated into most building management systems.
- Robust galvanised steel construction with polyester epoxy finish.
- Low noise, high performance impellers with enhanced aerodynamic design.
- Guard is incorporated as standard.
- Units are light weight and can be mounted at any angle.
- Capable of operating at temperatures up to 70°C.

### Construction

The square plate is manufactured from galvanised steel with a high quality polyester epoxy finish as standard.

Impellers are of high performance composite material.

### Motor

Type - electronic commutated (EC) motor.

Electricity supply - 200-277V single phase, 50/60Hz or 380-480V three-phase, 50/60Hz

Ball Bearing - sealed for life.

See page O-7 for details on motors.

Integrated EC-Controller providing infinite speed control.  
IP44 rating.

### Internal Thermal Protection

Integral thermal overload protection is supplied as standard.

### Testing

Airflow tests to ISO5801:2007

Noise tests to BS848:Part 2, 1985

### Wiring Diagram

See section N.

### Additional Information

Diameter sizes from 500mm and above can be pre-programmed to suit specific sensors and specific applications. Please advise Elta Fans of these parameters at the time of order.

EC motors should be directly connected to their appropriate AC supply. EC motors should not be regularly power cycled.

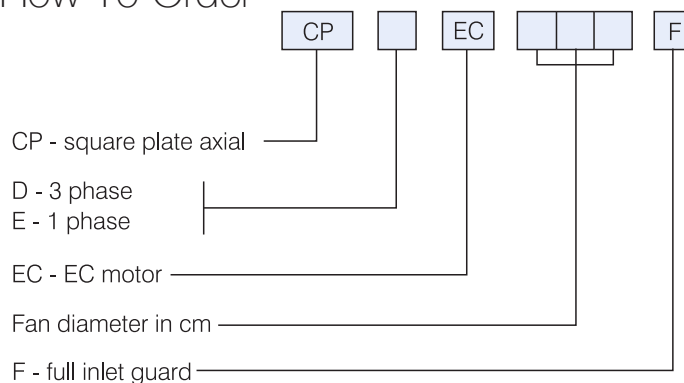
## Suggested Specification

The square plate wall mounted axial fans shall be of the Compact 2000 EC Series as designed and manufactured by Elta Fans and be of the model numbers shown on the schedule/drawings.

The axial impellers shall be made from high performance composite material. They shall be driven by an EC-DC external rotor motor with integrated EC-Controller and integral thermal protection. Diameter sizes from 500mm and above shall be pre-programmed to suit the selected sensors and the required applications. Square plates shall be galvanised steel with a polyester epoxy finish.

All models shall be fully tested to ISO5801:2007 for airflow and to BS848:Part 2, 1985 for noise.

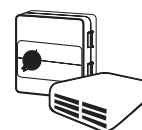
## How To Order



## Ancillary Equipment



DCV-CU - Premium Module  
on-board control pack  
Ref. Section M



Controllers & Sensors  
Ref. Section M

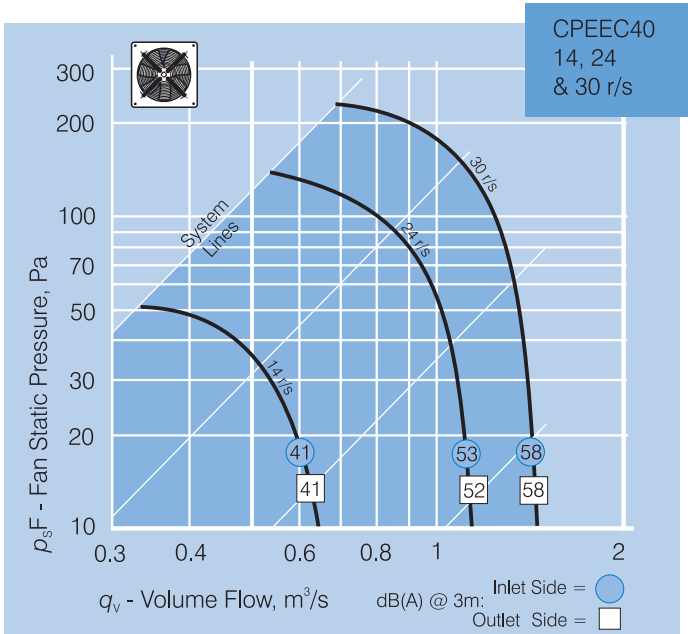
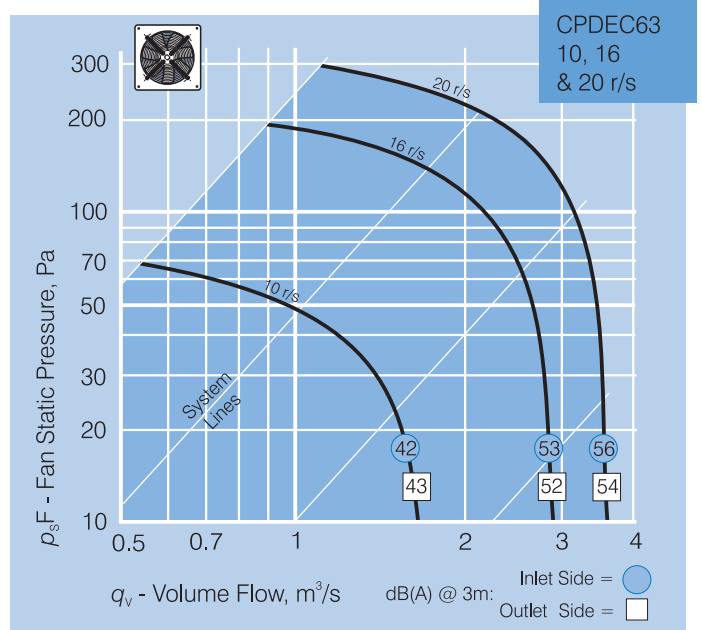
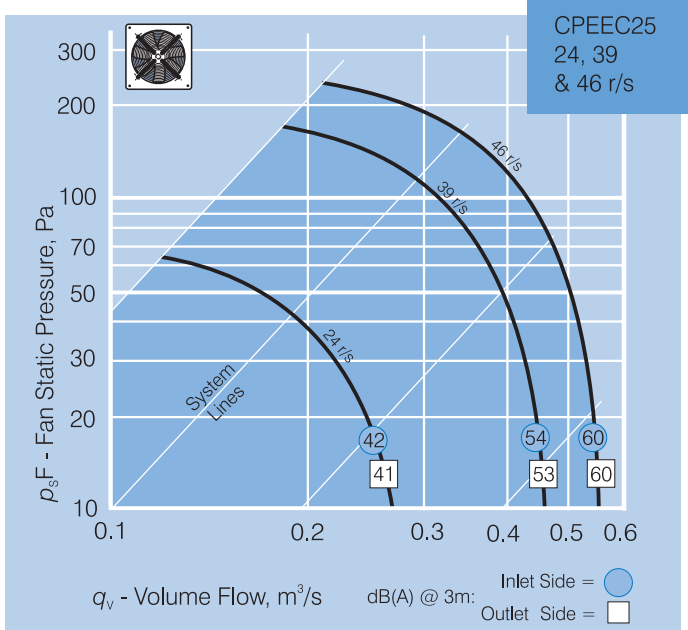


Backdraft shutters  
Ref. Section L

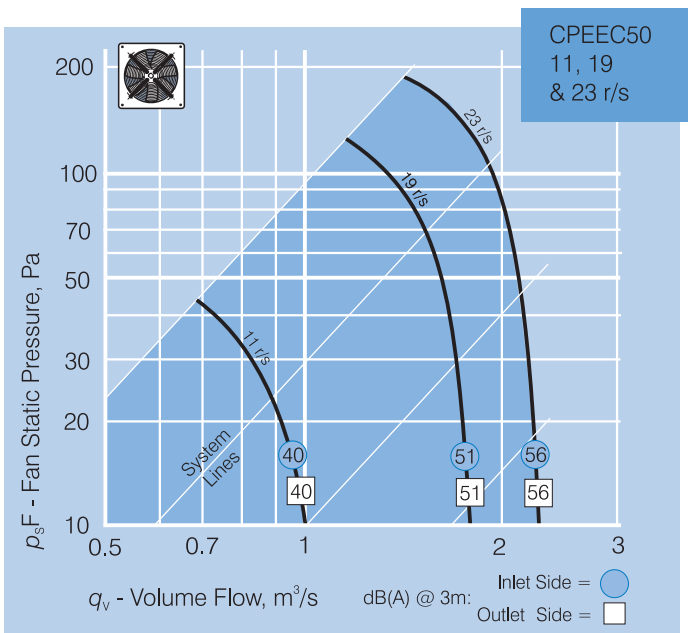
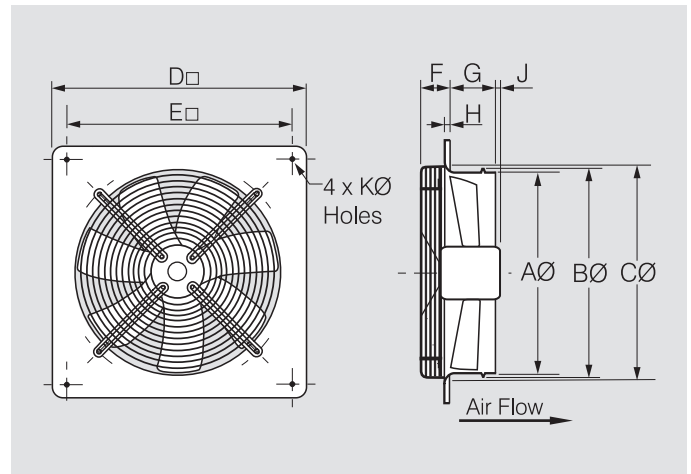


DG - Finger Guards  
Ref. Section J-9

# COMPACT 2000 EC SERIES



## Dimensions



Model	Dimensions, mm										App. wt.	App. vol.
CPDEC..	AØ	BØ	CØ	D□	E□	F	G	H	J	KØ	kg	m <sup>3</sup>
<b>25.</b>	254	257	276	370	320	43	48	6	24	7	4.5	0.03
<b>40.</b>	400	412	450	540	490	56	95	15	-	10	9.5	0.07
<b>50.</b>	540	517	584	655	615	63	104	16	37	11	21.0	0.13
<b>63.</b>	635	648	728	805	750	80	130	20	53	11	38.5	0.22

# COMPACT 2000 EC SERIES

Model CPDEC.. CPEEC..	Percentage of full speed (%)	Max. Fan Speed rev/sec*	Airflow @ 0Pa m <sup>3</sup> /s	Avg. dB(A) @ 3m		CPEEC.. 1ph. kW	CPEEC.. 1ph. Amps	CPDEC.. 3ph. kW	CPDEC.. 3ph. Amps
				Inlet	Outlet				
<b>25</b>	100	46	0.56	60	60	0.24	1.88	-	-
	80	39	0.47	54	53	0.14	1.13	-	-
	50	24	0.29	42	41	0.04	0.33	-	-
	20	8	0.18	20	20	0.01	0.08	-	-
<b>40</b>	100	30	1.47	58	58	0.56	2.50	-	-
	80	24	1.16	53	52	0.27	1.29	-	-
	50	14	0.70	41	41	0.07	0.38	-	-
	20	5	0.21	20	20	0.01	0.11	-	-
<b>50</b>	100	23	2.32	56	56	0.77	3.46	-	-
	80	19	1.85	51	51	0.41	1.90	-	-
	50	11	1.07	40	40	0.10	0.49	-	-
	20	4	0.32	20	20	0.03	0.23	-	-
<b>63</b>	100	20	3.65	56	54	-	-	1.30	2.03
	80	16	2.94	53	52	-	-	0.69	1.18
	50	10	1.75	42	43	-	-	0.16	0.43
	20	3	0.66	20	20	-	-	0.02	0.17

\* The fan will maintain the set speed whether run on 50 or 60Hz supply.



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