

# FIXED FANS SERIES D350 to D800

SAFETY INSTRUCTIONS FOR USE AND MAINTENANCE



EDITION : EN REVISION : D DATE : 10-2021 Instructions for use

REF : 8695 8594

**Original instructions** 



Thank for the trust you have expressed by purchasing this equipment, which will give you full satisfaction if you follow its instructions for use and maintenance.

Its design, component specifications and workmanship comply with applicable European directives.

Please refer to the enclosed CE declaration to identify the directives applicable to it.

The manufacturer will not be held responsible where items not recommended by themselves are associated with this product.

For your safety, there follows a non-restrictive list of recommendations or requirements, many of which appear in the employment code.

Finally we would ask you kindly to inform your supplier of any error which you may find in this instruction manual.

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# REVISIONS

REVISION C	12/19	
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Complete update		
<b>REVISION D</b>	10/21	
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LINCOLN ELECTRIC FRANCE SAS Avenue Franklin Roosevelt 76120 – LE GRAND QUEVILLY

# FIXED FANS SERIES D350 to D800

#### **DECLARATION CE DE CONFORMITE**

# 1) CE/EU DECLARATION OF CONFORMITY

Dear customer,

**F** 

This CE/EU declaration of conformity certifies that the supplied equipment complies with applicable laws and regulations when used in accordance with the enclosed instructions. Any other assembly or modification would void our certification. That is why you are asked to call in the manufacturer for any modifications you wish to make. Failing that, the company responsible for the modification must repeat the certification process. In that case, we would not be liable for the new certificate in any way. Please hand this document over to your technical department or purchasing department for filing.

DESCRIPTION:	FIXED FANS, SERIES D350 to D800
TYPE:	EVXP
NUMBER:	See identification plate

2) This equipment complies with European Directives.

■ N° 2006/42/CE ■ N° 2011/65/UE ■ N° 2014/30/UE

- Based on the following harmonised standards: EN ISO 12100:2010 EN ISO 13850:2008 EN ISO 13857:2008 EN ISO 12499 EN 60204-1:2006 / AC:2010
- Air Treatment Products Manager, authorised to compile the technical manufacturing document.
  M. Patrick DEGROOTE LINCOLN ELECTRIC FRANCE SAS Avenue Franklin Roosevelt 76120 – LE GRAND QUEVILLY
- 5) Manufacturer. LINCOLN ELECTRIC FRANCE SAS Avenue Franklin Roosevelt 76120 – LE GRAND QUEVILLY









# A - INTRODUCTION

## **USING THE MANUAL**

Please read this manual before you start handling, installing or using the machine. Keep the manual safe in a place known to the user of the machine and maintenance personnel till the machine is finally destroyed.

This manual explains how to transport, install, use and maintain the filter. It cannot in any event replace the experience of the user for operations of varying difficulty.

Before the filter is used by a new user, make sure that they have read this manual and understood all the explanations provided.

For any further information, please feel free to contact the technical departments of LINCOLN ELECTRIC.

# **MACHINE GUARANTEE**

This machine is guaranteed for 12 months from the date of purchase.

During the first 12 months of use, defective parts shall be replaced free of charge providing the damage is not the result of improper use of the machine.

The machine guarantee shall cease automatically when the machine is no longer the property of the original buyer. The terms of validity of the guarantee shall be subject to verification and acceptance by our sales department. Any nonconforming use that could damage the machine shall not be covered by the guarantee.

For the guarantee to operate, the equipment must be inspected by our technical department.

## ASSISTANCE

**LINCOLN ELECTRIC** is at your disposal for any work on your equipment. Please contact the technical department for any requests.

### HOT LINE (+33) 825 132 132

# **DESCRIPTION OF PICTOGRAMS**

To make this document easier to understand, it contains pictograms with the meanings given below:

## **DESCRIPTION OF PICTOGRAMS**

To make this document easier to understand, it contains pictograms with the meanings given below:



DANGER: indication used when failure to follow the instructions could lead to a serious hazard for personnel.



WARNING: indication used when failure to follow the instructions could lead to damage to the machine, associated elements or the surroundings.



This symbol shows that the description is intended for specialised personnel.



# **B - GENERAL SAFETY INSTRUCTIONS**

### **ELECTRICAL SAFETY**

#### **Connection to the mains**

Before you connect your machine, please make sure that:

- The meter, the overintensity protection system and the electrical installation are compatible with its maximum power rating and its supply voltage.

- It can be connected, in a single-phase or three-phase with earth system, to a socket compatible with the plug on its power cord (mobile equipment).

- If the cable is connected to a fixed point, the earth connection if there is one, may never be cut off by the system offering protection from electric shocks.

- The switch, if there is one, is set to OFF.

#### **Operating position**

Arc welding and cutting requires strict compliance with safety requirements in respect of electrical currents (Order of 14.12.88).

#### <u>Servicing</u>

Before any internal checking or repairs, make sure that the machine has been disconnected from the electrical installation by locking it out:

- Accidental connection of the cable of a fixed installation has been made impossible

- Cutting off by means of a fixed connection device relates to all poles (phase and neutral. It must be in the OFF position, with no possibility of being put into service by mistake

Some machines have an HV.HF arc strike circuit (indicated by a plate). Never work inside such a box.

Any work on electrical installations must be carried out by persons qualified for that purpose (Decree 88-1056 of 14 November 1988, Section VI, Art 46).

#### <u>Maintenance</u>

From time to time, check that the machinery and its electrical accessories - connectors, flexible cables and extension cords - are correctly insulated and connected.

Work for maintaining and repairing insulating enclosures and ducts may not be carried out in a haphazard manner (Section VI, Art. 47 Decree 88-1056 of 14 November 1988).

- All repairs are to be carried out by specialists, or better yet, defective accessories should be replaced.

- Regularly check that the electrical connections are tight, with no heating.

Any fans placed in a circuit in which the air is laden with dust must be cleaned from time to time. That is because the turbine may be fouled and become unbalanced, leading to increased noise and premature wear and tear of bearings. Maintenance is required at least after every six months, depending on the type of dust treated.

La turbine est l'element essentiel de votre ensemble aspiration.

Un mauvais fonctionnement ou un mauvais entretien risque de remettre en cause la securite du poste de travail. on veillera donc a maintenir le ventilateur en parfait etat.

votre installation a ete choisie par rapport a une application specifique. la turbine est caracterisee par un point de fonctionnement debit d'aspiration (vitesse d'air dans les canalisations), pertes de charge.

conformement aux reglementations de la carsat et de l'inrs, un controle periodique de l'installation est necessaire afin de verifier que celle-ci reste conforme au dossier des valeurs de references.



## PERSONAL PROTECTION

#### Risks of external injury relating to welding operations

#### Whole body

- The operator must be clothed and protected to suit the requirements of the job.

- Make sure that no part of the bodies of operators and helpers can come in contact with metal pieces or parts that are live or are liable to become live accidentally.

- Do not wind electricity cables around the body.

- Keep safety guards and panels in place.

- The operator must always wear personal insulating protection (Order of 14 December 1988, Section III).

- The protection must be kept dry to prevent electric shocks if it is wet, or ignition in the presence of oil.

Personal protective equipment worn by operators and their helpers - gloves, aprons, safety shoes - offer the added benefit of protecting them from burns due to hot pieces, splattering and slag.

Make sure the PPE is in good condition and replace it before it ceases to offer protection.

#### Face and eyes

It is indispensable to protect the following:

- Eyes, from arc injury (dazzling due to visible light from the arc, and infrared and ultraviolet radiation).

- Hair, face and eyes from welding splatter and projection of slag during weld cooling

the welding mask, when used under or without a helmet, must always be equipped with a protective filter, the shade of which depends on the intensity of the welding arc current (Standards NF s77-104a 88-221 a88-222). the coloured filter may be protected from impacts and splatter by a transparent glass located on the front of the mask.

if the filter is replaced, use another one with the same part number (shade number).

persons in the vicinity of the operator, especially any helpers, must be protected by means of suitable screens, anti-UV goggles or, if needed, masks with suitable protective filters (EN 139).



Specific case of chlorine solvents in welding: (used for cleaning or degreasing).

— The fumes from these solvents can be changed into toxic gases when subjected to arc radiation, including from a distance.

- Such solvents may therefore not be used in locations where electric arcs occur, if the solvents are not in a sealed enclosure.

#### Work in confined spaces

Examples :

- Mine roads
- Piping and pipelines
- Ship docks, pits, manholes, cellars
- Tanks
- Ballast tanks
- Silos
- Reactors

Special precautions must be taken before undertaking welding operations in such enclosures, where suffocating and poisoning and fire and explosion risks are very great.

A work permit procedure setting out all the safety measures must systematically be set up.

Make sure that ventilation is appropriate, paying special attention to:

- under-oxygenation
- over-oxygenation
- excess fuel gas



# FILTRATION OF FUMES AND DUST

#### **Important**

Mechanical or electrostatic filtration systems are effective for the filtration of solid but not gaseous particles (exterior discharge).

If recycling is effective (<u>not recommended</u>), make sure the workplace where the machine or machines are placed is properly ventilated, so as to not reach the OELV (occupational exposure limit values) of gaseous pollutants relating to the specific pollution generated by the method (welding, cutting).

#### Field of use

#### Filtration of solid particles and dry dust, non-flammable gas, with no risk of explosion.

— Zinc, paper, flour, plant leaves, graphite, alumina and other such dust is to be excluded, because electrostatic discharge or welding splatter would present a risk for those using the filter.

- The air flow through the filter medium must not be at a temperature above 80 °C.
- This machine is not designed for extracting chemicals.

— The choice of machine is made to suit the pollutants to treat. Extraction at source of the pollutant is only effective if the machine is operating at its nominal power (air flow at the nozzle).

#### Take particular care to :

- Not obstruct the air outlet of the machine.
- Not introduce external elements into the filter (paper, cloths, cigarette butts etc.)

- Replace the filter medium with new original **LINCOLN ELECTRIC** medium, which alone can guarantee the filtration characteristics.

- Replace the hoses if they are pierced.

- Regularly clean the metal pre-filter on those machines that have one.



For your safety and optimum performance, please read this manual carefully before using the filter.

#### <u>Overview</u>

These high-efficiency centrifugal fans are designed to extract clean or very dusty air in civilian or industrial air conditioning systems.

### MOTOR TECHNICAL DATA SHEET

#### **Features**

**GRILLE**: extraction and discharge (ATEX)

**MOTOR**: Class F, IP55, 50Hz, 230/400V three-phase -B3 or 400/690V three-phase for motor above 5.5kW CE II2 G T\* (IIB) or CE II2 G T\* (IIC), Zone 1 and 2 (ATEX)CE II2 D T\* Zone 21 or CE II3 D T\* Zone 22 (ATEX) \*as indicated on motor plate

**IMPELLER**: backward curved type, in painted steel

SCROLL: Painted or galvanised steel

#### Ambient temperature

Temperature between -20°C and +40°C (unless otherwise instructed in the motor identification plate)

#### Temperature of transported fluid

Temperature between -20°C and +80°C max. depending on surface pressure and temperature (see marking)



# **D** - TECHNICAL DESCRIPTION

# **OVERALL DIMENSIONS OF FANS, SERIES D350/D800**



PRS71	А	в	С	D	D1	D2	Е	EI	E2	в	<b>E</b> 4	E5	E6	F	G	н	I	J	а	a1	a2	b	b1	b2	NB1	d1	NB2	d2	d3	е
350	820	668	631	350	395	425	192	250	320	286	286	316	345	265	173	410	459	14,5	355	390	425	275	310	345	12	12	8	M8	10	125
400	940	763	711	405	440	475	220	280	350	326	326	356	385	295	193	460	519	14,5	400	435	470	315	350	385	14	12	8	M8	10	125
450	1020	835	866	455	495	530	241	320	390	456	456	381	410	322	205	510	661	14,5	450	485	520	340	375	410	14	12	8	M8	10	125
500	1140	935	937	505	545	580	273	350	430	482	482	426	455	361	228	570	710	14,5	500	535	570	385	420	455	14	12	16	M8	10	125
560	1260	1038	857	565	610	650	304	400	470	357	357	471	500	407	250	630	607	14,5	560	595	630	430	465	500	14	12	16	M8	10	160
630	1420	1167	982	635	690	730	341	440	530	427	427	526	555	456	278	710	704	14,5	630	665	700	485	520	555	14	14	16	M10	12	160
710	1600	1321	1092	715	770	824	393	500	590	482	482	581	610	520	305	800	787	14,5	710	745	780	540	575	610	16	14	16	M10	12	160
800	1760	1456	1177	805	860	928	430	560	650	507	507	641	670	577	335	880	842	14,5	800	835	870	600	635	670	16	14	16	M10	14	200
900	1940	1607	1339	905	960	1044	472	620	720	589	589	721	750	637	375	970	963	14,5	900	935	970	680	715	750	18	14	16	M10	14	200
1000	2200	1826	1557	1005	1100	1180	545	700	800	707	707	821	850	726	425	1100	1132	14,5	1000	1035	1070	780	815	850	18	14	24	M12	14	200



# NOISE AND EFFICIENCY OF FANS, SERIES D350/D800

#### MODELES

				POID	S(kg	)		
F	PRS Type D	tr/m in	LpA (dBA)	standard	HT	ATEX	plots	
222	220-2-0,18	3000	62	20	23	30		
252	250-2-0,37	3000	65	24	27	38	60	
282	280-2-0,55	3000	68	37	40	51		
302A	300-2-0,75	3000	71	55	58	70	80	
302B	300-2-1,1	3000	72	55	58	70	00	
352A	350-2-1,5	3000	72	72	75	83	80	
352B	350-2-2,2	3000	73	74	77	85	00	
402A	400-2-3	3000	76	94	97	106	80	
402B	400-2-4	3000	77	102	105	121	00	
452A	450-2-5,5	3000	81	137	140	153	80	
452B	450-2-7,5	3000	82	137	140	153	00	
502A	500-2-9	3000	83	185	188	204	100	
502B	500-2-11	3000	84	216	219	258	100	
562A	560-2-15	3000	86	233	236	275	100	
562B	560-2-18,5	3000	87	251	254	293	100	
634	630-4-5,5	1500	73	220	223	236	100	
714	710-4-7,5	1500	74	335	338	354	100	
804A	800-4-11	1500	78	440	443	482	150	
804B	800-4-15	1500	79	460	463	502	150	
904A	900-4-22	1500	82	610	613	654	150	
904B	900-4-30	1500	82	640	643	713	150	
1004A	1000-4-37	1500	86	820	823	894	150	
1004B	1000-4-45	1500	87	845	848	919	150	

	N=61 (cat B)	Point de ren	dement e	nergétique	e optimal
PRS	R cible	Rendement	N (tr/mn)	Q (m3/h)	PT (Pa)
222	42,7	55	2950	730	625
252	46	55	2950	1075	810
282	47,8	55	2950	1510	1015
302A	49,2	58	2950	1680	1085
302B	50,9	58	2950	2155	1285
352A	52,3	60	2950	2710	1495
352B	54,1	60	2950	3215	1675
402A	55,5	61	2950	4090	1970
402B	56,8	61	2950	4925	2230
452A	58,3	62	2950	5875	2505
452B	59,7	62	2950	6710	2740
502A	60,5	63	2950	8110	3275
502B	61	63	2950	9145	3545
562A	61,4	64	2950	10860	3975
562B	61,6	64	2950	12110	4275
634	58,3	64	1425	10020	1425
714	59,7	64	1425	12435	1650
804A	61	65	1425	16425	1985
804B	61,4	65	1425	18365	2140
904A	61,8	65	1425	23485	2520
904B	62,1	65	1425	25940	2690
1004A	62,4	65	1425	32325	3120
1004B	62,6	65	1425	35355	3310
Applica	tion directive 2	009/125/CE se	lon règleme	nt n°327/20	11



# **OPERATING CURVES OF FANS, SERIES D350/D800**

# Série D350 à D800

Série D	Poles	Kw	LpA (dBA)	Poids
A 350	2	2,2	72	77
B 350	2	3	74	87
C 400	2	4	76	110
D 400	2	5,5	78	133
E 450	2	7,5	79	150
F 450	2	11	81	197
G 500	2	15	83	228
H 500	2	18,5	84	248

Série D	Poles	Kw	LpA (dBA)	Poids
1 560	4	3	72	180
J 560	4	4	73	190
K 630	4	5,5	75	244
L 630	4	7,5	76	257
M 710	4	11	79	345
N 710	4	15	80	366
0 800	4	18,5	72	470
P 800	4	22	83	471

#### Courbe des ventilateurs





# **E - STARTING UP**

### **GENERAL**

Upon receipt, make sure that the packaging is not damaged, that the fan has not suffered any impact that would lead to malfunctioning and that the rotor turns freely with no friction.

The fan must match the required specifications.

The specifications indicated on the motor identification plate must match those of the electrical system (voltage, frequency etc.) All fans are inspected and tested at the end of manufacturing.

### INSTALLATION

#### Caution! The rotating parts of fans (rotor, shaft, pulleys) are very hazardous.

The fan must be fixed rigidly with the help of bolts and washers, using all the holes provided. The fan fastening mount must keep the motor shaft perfectly horizontal or vertical, depending on the type of device. Large fans must be mounted on elastic blocks. Incorrect fastening of the fastening screws can lead to noise and harmful vibrations.

The fan location must not block the external ventilation of the motor. Allow a gap of at least 50 mm between the rear of the electric motor and the walls of the room.

The fan support must be adapted for its weight.

Appropriate tools must be used to allow proper fan assembly.

In order to address the main safety requirements, assembly must be carried out by qualified personnel (electro-mechanical technician).

Once mechanical assembly is complete, make sure that the rotor can turn freely.

The fan inlet and outlet grilles are fitted in the factory to ensure CE conformity of the fan.

The inlet grille also protects the impeller from accidentally taking in cloth, paper or other material that could upset the balance of the rotor.

If the fan performance drops over time, make sure that the grille is not holding back material blocking off the fan inlet.



# **CONNECTION TO THE MAINS**

Check that the electrical specifications of the motor match those of the power system (voltage, frequency)

The maximum voltage variation is + or - 10% The cable section must be adapted to the power and consumption of the motor (allow 4 to 5 A/mm<sup>2</sup>).

For CE electrical conformity of the fan, the power cabinet containing the padlockable disconnector must be installed less than one metre away from the fan in a free field.

If that is impossible (fan in enclosure, fan placed outside the building and box inside, fan mounted on the roof or a wall bracket), it will be necessary to place, less than a metre (1 m) away, a padlockable disconnecting switch with the appropriate rating, three-phase for direct starting or with a variable frequency drive, six-phase for star delta starting.

The fan motor must be protected by a thermal magnetic circuit breaker rated for the nominal intensity indicated on the identification plate of the motor.

Above motor power ratings of 5.5kW, you should use start delta starting for the fan. 230V three-phase system: motor with 230/400V voltages 400V three-phase system: motor with 400/690V voltages

If the motor uses star delta starting, care must be taken to not start it more than 7 times an hour. Otherwise, the contacts of the motor relays may be destroyed prematurely.

If the fan installation requires a higher starting frequency, a gradual starter or a variable frequency drive should be preferred, to control the gradual rise in motor intensity and speed.

#### During the following operations, the electric power supply to the engine must be shut off.

Connect the motor to the electrical system in accordance with the diagram located in the terminal box.

Check the connection of the motor to the ground and the fastening of the lugs.

Make sure that the power cable cannot interfere with or rub against the rotating parts of the fan.

Once all the checks are complete, power and start up the fan.

Check the fan rotation direction and the intensity used by the motor, using a current clamp.

If the intensity measured is greater than that on the motor plate:

The load loss is too weak, the flow too high, normal case of a centrifugal fan (do not make the fan operate when not connected to its extraction system or filtration unit).

NB:

It is important to make sure that the motor rotation direction is as indicated on the arrow glued to the rear casing of the motor. Even when it rotates in the opposite direction, a centrifugal fan takes in air, but its motor intensity is greater than it should be, its air flow performance is not normal and it is far noisier than normal



# THREE-PHASE MOTOR WIRING DIAGRAM

Connexions en étoile et en triangle pour les moteurs à une vitesse :



#### For single-phase motors and motors with special connections, follow the diagrams supplied with the motor

Check the connection of the motor to the ground and the fastening of the lugs.

I Make sure that the power cable cannot interfere with or rub against the rotating parts of the fan. Shut the motor terminal box. Check the fastening of the stuffing boxes.

Once all the checks are complete, power and start up the fan.

Check the fan rotation direction and the intensity used by the motor, using a current clamp. The measured intensity must be below or equal to the intensity on the motor plate. If the measured intensity is greater than the plate intensity, the load loss is too low in the case of a centrifugal fan or too high in the case of an axial flow fan.

Check fan vibrations upon starting up. They must comply with ISO 14694 (see starting values in table 2). If they are not correct, please contact the manufacturer.



# **F - MAINTENANCE**

# VERIFICATION

All maintenance operations must be carried out with the power to the system switched off. The fitter or user may not modify the construction of the fan in any way. If necessary, contact the manufacturer and send back the equipment.

Check that large quantities of dust are not deposited on the motor ventilation blades and that the air inlet openings are not blocked, as that could lead to motor overheating. Clean if necessary.

The fan rotor must be clean and regularly cleaned in order to avoid a drop in efficiency or wheel unbalance, which would damage the motor bearings.-

Check the fastening of the bolts that hold the motor on its seat, the screws that fasten the impeller on the motor shaft (shaft end), and the nuts or screws holding the scroll on the seat

Inspect the motor connections and the tightening of lugs (with the power off).

Check the fastening of the stuffing boxes.

I Check the motor condition according to the instructions of the motor manufacturer.

I For transmission fans, follow the bearing lubrication frequencies, check the alignment of bearings and belt tension. Bearings have an average life of 20 000 h.

- Regularly check the vibrations from the fan and motor. If they are not normal, please contact the manufacturer. See table 2 to identify the vibration limits (alarm and stopping values).

This regular inspection is required for the integrity of the fan.

Tableau 1 – catégorie d'application du ventilateur								
Limites de puissances	Catégorie d'application							
kW	de ventilateur							
≤ 0.15	BV-1							
> 0.15	BV-2							
≤ 3.7	BV-2							
> 3.7	BV-3							
≤ 300	BV-3							
> 300	Voir ISO 10816-3							
	Limites de puissances <u>kW</u> ≤ 0.15 > 0.15 ≤ 3.7 > 3.7 ≤ 300							

#### Tableau 2 - limites de vibrations

	Tapleau Z - IIIIII	tes de vibrations	
ETAT	Catégoria d'application	Montage rigide	Montage flexible
ETAT	Catégorie d'application	mm/s (r.m.s.)	mm/s (r.m.s.)
	BV-1	10	11.2
	BV-2	5.6	9
DEMARRAGE	BV-3	4.5	6.3
	BV-4	2.8	4.5
	BV-5	1.8	2.8
	BV-1	10.6	14
	BV-2	9	14
ALARME	BV-3	7.1	11.8
	BV-4	4.5	7.1
	BV-5	4	5.6
	BV-1	Suivant historique	Suivant historique
	BV-2	Suivant historique	Suivant historique
ARRET	BV-3	9	12.5
	BV-4	7.1	11.2
	BV-5	5.6	7.1



# SPARE PARTS



DESCRIPTIONS	REFERENCES
1) MOTOR	PLEASE ENQUIRE
2) FAN SUPPORT SEAT	PLEASE ENQUIRE
3) FAN IMPELLER	PLEASE ENQUIRE
4) FAN SCROLL	PLEASE ENQUIRE
5) FAN OUTLET GRILLE	PLEASE ENQUIRE
6) FAN INLET MOUTH	PLEASE ENQUIRE
7) AIR INLET GRILLE	PLEASE ENQUIRE
8) ANTI-VIBRATION MOUNT	PLEASE ENQUIRE



# PART NUMBERS

Désignation	Référence
Ventilateur D350 - Entrée Ø 350 mm - 3 Ph - 50 Hz	
D350 A - 2,2 kW - 2 800 tr/mn - 230 / 400 V	W000342610
D350 B - 3 kW - 2 800 tr/mn - 230 / 400 V	W000342611
Compléments selon montage	
Adaptation sortie ventilateur Ø 315 mm	W000342714
Adaptation sortie ventilateur Ø 355 mm	W000342715
Chaise pour fixation murale D350	W000342716
Ventilateur D400 - Entrée Ø 400 mm - 3 Ph - 50 Hz	
D400 A - 4 kW - 2 800 tr/mn - 230 / 400 V	W000342614
D400 B - 5,5 kW - 2 800 tr/mn - 230 / 400 V	W000342615
Compléments selon montage	
Adaptation sortie ventilateur Ø 355 mm	W000342718
Adaptation sortie ventilateur Ø 400 mm	W000342719
Adaptation sortie ventilateur Ø 450 mm	W000342720
Chaise pour fixation murale D400	W000342721
Ventilateur D450 - Entrée Ø 450 mm - 3 Ph - 50 Hz	
D450 A - 7,5 kW - 2 800 tr/mn - 230 / 400 V	W000342617
D450 B - 11 kW - 2 800 tr/mn - 230 / 400 V	W000342618
D450 A - 7,5 kW - 2 800 tr/mn - 400 / 690 V	W000342803
D450 B - 11 kW - 2 800 tr/mn - 400 / 690 V	W000342804
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Compléments selon montage	
Adaptation sortie ventilateur Ø 400 mm	W000342722
Adaptation sortie ventilateur Ø 450 mm	EM61000303
Adaptation sortie ventilateur Ø 500 mm	W000342724
Chaise pour fixation murale D450	W000342725

Ventilateur D500 - Entrée Ø 500 mm - 3 Ph - 50 Hz	
D500 A - 15 kW - 2 800 tr/mn - 230 / 400 V	W000342621
D500 B - 18,5 kW - 2 800 tr/mn - 230 / 400 V	W000342622
D500 A - 15 kW - 2 800 tr/mn - 400 / 690 V	W000342805
D500 B - 18,5 kW - 2 800 tr/mn - 400 / 690 V	W000342806
Compléments selon montage	-31
Adaptation sortie ventilateur Ø 450 mm	W000342726
Adaptation sortie ventilateur Ø 500 mm	W000342727
Chaise pour fixation murale D500	W000342728

Désignation	Référence
Ventilateur D560 - Entrée Ø 560 mm - 3 Ph - 50 Hz	
D560 A - 3 kW - 1400 tr/mn - 230 / 400 V	W000342627
D560 B - 4 kW - 1 400 tr/mn - 230 / 400 V	W000342628
Compléments selon montage	
Adaptation sortie ventilateur Ø 500 mm	W000342729
Adaptation sortie ventilateur Ø 560 mm	W000342730
Chaise pour fixation murale D560	W000342731
D630 A - 5,5 kW - 1 400 tr/mn - 230 / 400 V	W000342631
Ventilateur D630 - Entrée Ø 630 mm - 3 Ph - 50 Hz	
D630 B - 7,5 kW - 1 400 tr/mn - 230 / 400 V	W000342632
D630 A - 7,5 kW - 1400 tr/mn - 400 / 690 V	W000342808
Compléments selon montage	
Adaptation sortie ventilateur Ø 450 mm	EM61000251
Adaptation sortie ventilateur Ø 500 mm	EM61000252
Adaptation sortie ventilateur Ø 560 mm	W000342732
Adaptation sortie ventilateur Ø 630 mm	W000342733

Ventilateur D710 - Entrée Ø 710 mm - 3 Ph - 50 Hz	
D710 A - 11 kW - 1 400 tr/mn - 400 / 690 V	EM61000277
D710 B - 15 kW - 1 400 tr/mn - 400 / 690 V	W000342809
Compléments selon montage	
Adaptation sortie ventilateur Ø 630 mm	W000381408
Adaptation sortie ventilateur Ø 710 mm	W000381409
Ventilateur D800 - Entrée Ø 800 mm - 3 Ph - 50 Hz	
D800 A - 18,5 kW - 1 400 tr/mn - 400 / 690 V	EM61000278
D800 A - 22 kW - 1 400 tr/mn - 400 / 690 V	EM61000279
Compléments selon montage	
Adaptation sortie ventilateur Ø 710 mm	Sur demande
Adaptation sortie ventilateur Ø 800 mm	Sur demande



# PROCEDURE FOR REPLACING THE MOTOR

#### This maintenance operation must be carried out with the power to the system switched off, by qualified personnel only.

#### Overall remarks on fans:

The fan is connected to the collector system at the air inlet and outlet by flexible sleeves. The impeller is keyed to the motor shaft and blocked by a screw at the end of the shaft. The fan is mounted on four anti-vibration mounts on its support.

- a) Separate the flexible sleeves at the fan inlet and outlet
- b) Undo the wiring of the motor electrical power supply after first unlocking its main power
- c) Place the fan on the floor (unscrew the anti-vibration mounts)
- d) Unscrew the scroll from the fan support seat, with the nuts placed on the motor side
- e) Clear away the fan scroll
- f) With a hub puller, pull the impeller off the motor shaft carefully, without knocking it
- g) Remove the motor after identifying the location of the motor tabs on the support seat
- h) Put in the new motor, aligning it on the marks of the tabs of the support seat, tighten it slightly
- i) Replace the impeller
- j) Put the fan scroll back on the support seat
- k) Before locking the motor finally in place, first rotate the impeller to check that it does not rub against the entry mouth
- I) If there is any mechanical friction, move the motor back from the seat till the noise disappears entirely and lock it finally in place
- m) Put back the fan on its support and lock the anti-vibration mounts

Wire the motor and put back the flexible air inlet and outlet sleeves







# **PERSONAL NOTES**

Lincoln Electric France S.A.S.	
Avenue Franklin Roosevelt 76120 Le Grand Quevilly	
76121 Le Grand Quevilly cedex	
www.lincolnelectriceurope.com	

