



Submittal #233413-1.0 - Exhaust Fans 233413 - Fans and Vents

Revision	0	Submittal Manager	Michael Huntsman (Suffolk Construction Company, Inc.)
Status	Open	Date Created	Aug 30, 2024
		Spec Section	233413 - Fans and Vents
Responsible Contractor	Gutridge - Mechanical		
		Submit By	
Final Due Date	Sep 13, 2024	Lead Time	
		Type	Product Data
Approvers	Delaine Novak (Swanson Rink), Keeley Randell (Swanson Rink)		
Ball in Court	Delaine Novak (Swanson Rink), Keeley Randell (Swanson Rink)		
Distribution	Brandon Jones (Suffolk Construction Company, Inc.), Delaine Novak (Swanson Rink), James Leadingham (AWS Infrastructure), Kevin Bourgo (Suffolk Construction Company, Inc.), Leon Roberts (Suffolk Construction Company, Inc.), Lisa Kore (Swanson Rink), Michael Huntsman (Suffolk Construction Company, Inc.), Michael James (Suffolk Construction Company, Inc.), Michael Steinemann (DLB Associates), Rodney Brockelman (Swanson Rink), Thana Taliep (Gensler)		
Description			
Variation from Drawings/Specifications		Procurement Owner	GC
Responsible Discipline(s)	Mechanical	FBN Build ID(s)	LCK062SHLP01.001
Design Type		PAC FBN	SUMMARY PAGE 6 EF-1 PAGE 7 EF-2 PAGE 10 EF-3 PAGE 15 EF-4 PAGE 20
PAC Region(s)		Comments for Reviewers	
PAC Category(s)		PAC Submittals Only - Previous Status	
Additional Reporting Requirements for Embodied Carbon	<ul style="list-style-type: none"> • AMER - For concrete, steel, deck, joists, rebar, roofing, drywall, refer to the Carbon Quantity & EPD Reporting (AMER) SOP • EMEA/APJC - For concrete, refer to the Carbon Quantity & EPD Reporting (EMEA & APAC) SOP 		

Submittal Workflow

Name	Sent Date	Due Date	Returned Date	Response	Attachments
General Information					SHLP01-233413-01.0 Exhaust Fans.pdf
Attachments					
Delaine Novak	Aug 30, 2024	Sep 13, 2024		Pending	
Keeley Randell	Aug 30, 2024	Sep 13, 2024		Pending	

SWANSON RINK
SUBMITTAL/SHOP DRAWING REVIEW

NO EXCEPTIONS TAKEN ADDRESS COMMENTS NOTED
 REJECTED REVISE AND RESUBMIT
 NOT REVIEWED SEE SEPARATE DISCIPLINE REVIEW MATRIX

Corrections or comments made on the shop drawings during this review do not relieve the contractor from compliance with requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all quantities and dimension; selecting fabrication processes and techniques of construction; coordinating their work with that of all other trades; and performing their work in a safe and satisfactory manner. This submittal/shop drawing is in electronic format. As such, Swanson Rink is not liable for alterations to the content of this electronic document after it has been forwarded to other parties

Reviewed By: P Collings Date: 09-05-2024
Thomas A. O'Rourke Date: 09/03/2024

SWANSON RINK SUBMITTAL/SHOP DRAWING DISCIPLINE REVIEW MATRIX					
	NXT	MCN	R&R	REJ	NR
MECHANICAL	X				
PLUMBING/FIRE PROT.					X
ELECTRICAL		X			
LIGHTING					X
FIRE ALARM					X
TELECOM					X
SECURITY					X
AUDIO/VIDEO					X
AVIATION					X
CONTROLS					X

NXT = NO EXCEPTIONS TAKEN
 MCN = MAKE CORRECTIONS NOTED
 R&R = REVISE AND RESUBMIT
 REJ = REJECTED
 NR = NOT REVIEWED

09/03/2024
 ADDRESS ELECTRICAL COMMENTS ON SHEET 6 OF THIS DOCUMENT.
 THANK YOU.
 THOMAS A. O'ROURKE, EIT
 SWANSON RINK

Suffolk
65 Allerton St.
Boston, MA 02119
617-445-3500



THE REVIEW OF THIS SUBMITTAL BY SUFFOLK DOES NOT RELIEVE THE SUBCONTRACTOR OR SUPPLIER OF HIS RESPONSIBILITY FOR THE QUANTITY, OR ACCURACY OF THIS WORK HEREIN REPRESENTED, OR ANY DEVIATION FROM THE PLANS, SPECIFICATIONS, AND CONTRACT.

Proj #



REVIEWED



**REVIEWED AS
NOTED**



**REVISE &
RESUBMIT**



REJECTED

BY

DATE

SUBM #

COMMENTS



Submittal Transmittal

88 S. Second Street
Newark, OH 43055
Phone: (740) 349-9411
Fax: (740) 345-6020

PROJECT NAME: Suffolk - LCK062
PROJECT ADDRESS: 2890 Beech Rd NW
New Albany, OH 43031

DATE: 8/30/2024

CONTRACT ID: 24087

MECHANICAL CONTRACTOR:

KE Gutridge
88 South 2ND Street
Newark, Ohio 43055

ENGINEER:

Swanson Rink, Inc.
1120 Lincoln Street #1200
Denver, CO 80203

GENERAL CONTRACTOR:

Suffolk Construction Company
65 Allerton Street
Boston, MA 02119

SPECIFICATION NAME & NUMBER:

233413-1

PRODUCT DESCRIPTION:

Exhaust Fans: Product Data

PRODUCT MANUFACTURER:

Loren Cook

PRODUCT SUPPLIER:

Mussun Sales
1715 Westbelt Drive
Columbus, OH 43228

RETURN BY: 9/6/2024

I CERTIFY THAT GUTRIDGE HAS CHECKED THIS SUBMITTAL FOR CONFORMANCE WITH PLANS AND SPECIFICATIONS.

SIGNED: _____

***** PLEASE DO NOT MARK ABOVE THIS AREA. SPACE BELOW PROVIDED FOR NOTES AND STAMPS *****

LOREN COOK

SUBMITTAL & RELEASE

Cover Sheet

PROJECT: Amazon LCK062

CONTRACTOR: Guttridge Mechanical

PRODUCT: Loren Cook (Office – Exhaust Fans)

SUBMITTED BY: Greg Scott
Mussun Sales, Incorporated
1715 Westbelt Dr
Columbus, Ohio 43228
Phone: 614-294-4822
Fax: 614-298-7089

DATE: August 22, 2024

S&R COVER NO: SRC0822-24LC

Contractor Release & Acceptance

The contractor has reviewed the approval submittals for qty, size, performance and features as supplied by Mussun Sales, Inc. The under signed has also reviewed the drawings and on site conditions and is giving Mussun Sales, Inc. permission to release this order for production and shipment as submitted.

It is the contractors' responsibility to confirm qty, size, performance and features at time of release. Any additions or changes after release may cause additional charges.

Signed _____ Date _____



Job: AMAZON LCK062
8/22/2024

MARK	QTY	MODEL	VOL (CFM)	SP (inwc)	PWR (HP)	MHP	RPM	SONES	DRIVE	TSPD (fpm)	OVEL (fpm)	SE	WEIGHT (lbs)	MOTOR ENCL	MOTOR RPM	ELECTRICAL
EF-1	1	150TMX	1800	.84	.43	.5✓	1177	9.5	BELT	4622	737	63%	203	TEFC -SE	1725/0000	208/3/60 ✓
		ARRANGEMENT 09,DISCHG=HC ,MOUNT=HC , SHAFT GROUNDING RING DISCONNECT NEMA 1 PW LORENIZED FAN FINISH MOTOR COVER SPARE BELT SET SC-70 SET(4) - ISOLATORS Drive Loss(Medium) = 14%														
		NEMA 3R														
EF-2	1	101C17D OR70 (VF)	200	.5	.11	.25✓	1516	9.1	DIRECT	3968	305	14%	66	OPEN -EC	1725/0000	115/1/60 ✓
		OPEN -1/4HP - 115V/1 PH/ 60 1725/0000 -EC ORIFICE PLATE 70 DISCONNECT NEMA 1 PW BD-12 DAMPER RCG 16 18H CURB -C+T+N ALUMINUM BIRDSCREEN														
		NEMA 3R														
EF-3	1	101C17D OR60 (VF)	100	.5	.08	.25✓	1433	7.4	DIRECT	3751	152	9%	63	OPEN -EC	1725/0000	115/1/60 ✓
		OPEN -1/4HP - 115V/1 PH/ 60 1725/0000 -EC ORIFICE PLATE 60 DISCONNECT NEMA 1 PW BD-12 DAMPER RCG 16 18H CURB -C+T+N ALUMINUM BIRDSCREEN														
		NEMA 3R														
EF-4	1	120C17D (VF)	880	.5	.12	.25✓	1187	7.2	DIRECT	3729	927	60%	71	OPEN -EC	1725/0000	115/1/60 ✓
		OPEN -1/4HP - 115V/1 PH/ 60 1725/0000 -EC DISCONNECT NEMA 1 PW BD-14 DAMPER RCG 18 18H CURB -C+T+N ALUMINUM BIRDSCREEN														
		NEMA 3R														
EF-5	1	120C17D OR91 (VF)	750	.5	.18	.25✓	1375	11.1	DIRECT	4319	790	32%	72	OPEN -EC	1725/0000	115/1/60 ✓
		OPEN -1/4HP - 115V/1 PH/ 60 1725/0000 -EC ORIFICE PLATE 91 DISCONNECT NEMA 1 PW BD-14 DAMPER RCG 18 18H CURB -C+T+N ALUMINUM BIRDSCREEN														
		NEMA 3R														



COOK



MARK: EF-1

PROJECT: AMAZON LCK062

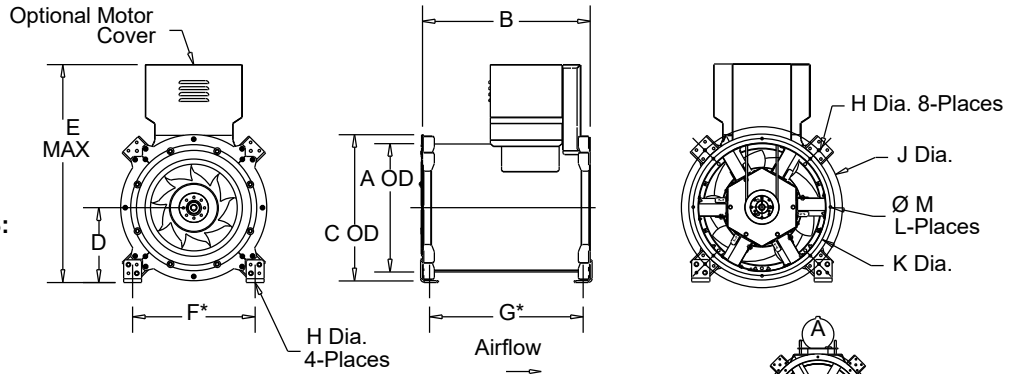
DATE: 8/22/2024



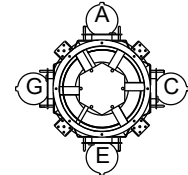
TMX

**Mixed Flow Inline
Horizontal/Vertical
Belt Drive
Arrangement 9**

STANDARD CONSTRUCTION FEATURES:
 High efficiency mixed flow wheel -
 Bolted galvanized steel housing and
 straightening vanes - Adjustable
 motor plate utilizing threaded studs
 for positive belt tensioning -
 Integrated lifting lugs - Ball bearings
 with extended lubrication lines - Belt
 guard - Bolted access door



*Mounting feet are not included on vertical units



MOTOR POSITION CHART
 (View Facing Outlet)
 Mounting positions are
 field adjustable

Performance (*Bhp includes 14% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG
1	150TMX	1800	.840	1177	.434	n/a(<1HP)

Altitude (ft): 833 Temperature (F): 70

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Position	Mounted	VFD Rated
1/2	1725	208/3/60	TEFC -SE	2.4	E	Yes	Yes

FLA based on NEC (2017) Table 430.250

Fan Information

Fan Mount
Horz. Ceiling

Dimensions (inches)

A	21-5/16	L	8
B	28	M	7/16
C	24-3/8	Shaft Diam.	1
D	12-7/16		
E	37-5/16		
F*	20-7/16		
G*	25-5/8		
H	1/2		
J	26-7/8		
K	22-7/8		

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	323	Unit	203
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***Includes fan, motor & accessories.

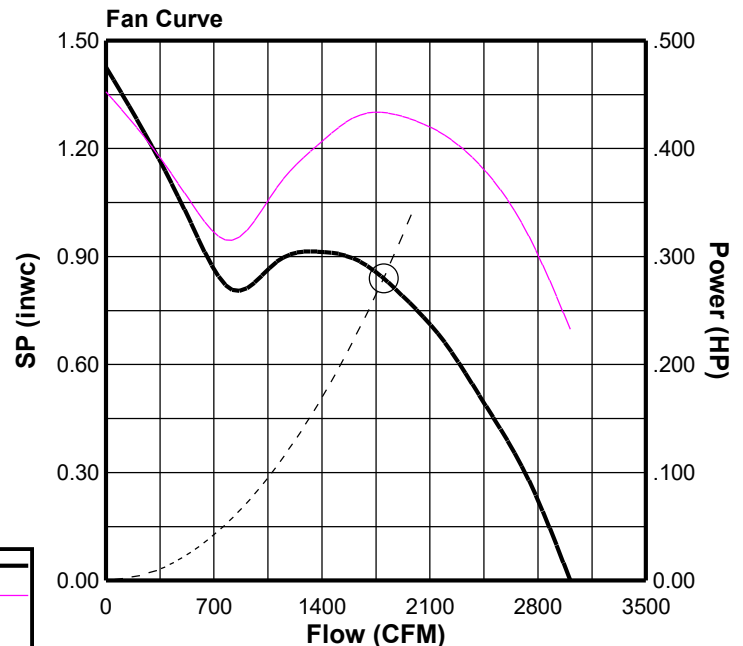
Sound Data Sound Power by Octave Band

	1	2	3	4	5	6	7	8	LwA	dBA	Sones
Inlet	69	69	66	63	63	62	59	54	69	57	7.0
Outlet	79	76	71	68	68	66	61	56	73	61	9.5

- Distance from Sound source 5 ft

Accessories:

- SHAFT GROUNDING RING
- DRIVES (1.5 SF) @ 1177 RPM
- DISCONNECT NEMA 1 PRE-WIRED
- LORENIZED FAN FINISH
- MOTOR COVER
- SPARE BELT SET
- SC-70 SET(4) - ISOLATORS



Fan Curve Legend

CFM vs SP	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -



COOK



MARK: EF-1
PROJECT: AMAZON LCK062
DATE: 8/22/2024

TMX

Performance (*Bhp includes 14% drive loss)

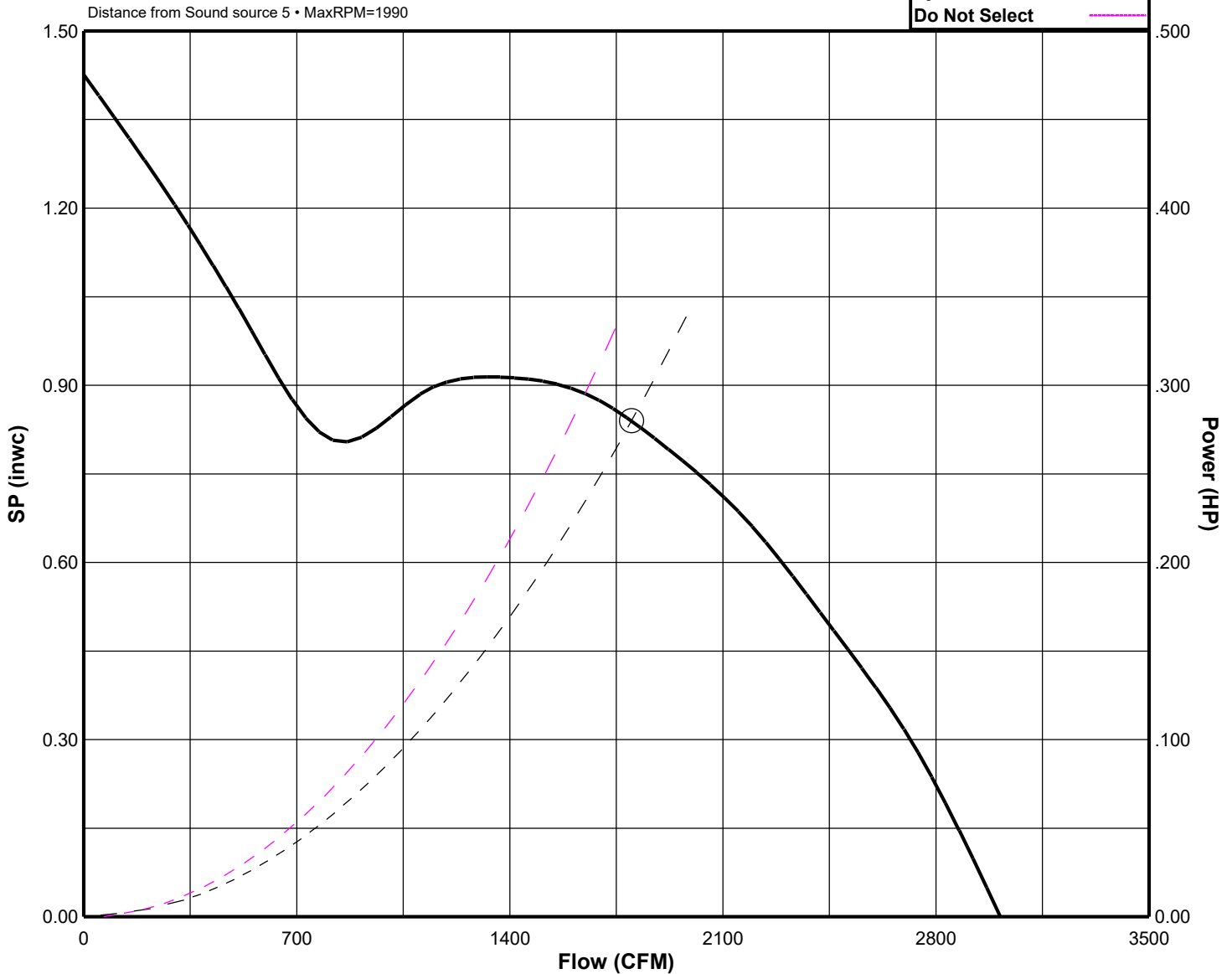
Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
150TMX	1800	.840	1177	.434	n/a(<1HP)	737	4622	63%	70	833

Sound Data Sound Power by Octave Band

	1	2	3	4	5	6	7	8	LwA	dBA	Sones
Inlet	69	69	66	63	63	62	59	54	69	57	7.0
Outlet	79	76	71	68	68	66	61	56	73	61	9.5

Fan Curve Legend

CFM vs SP	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -
Do Not Select	—



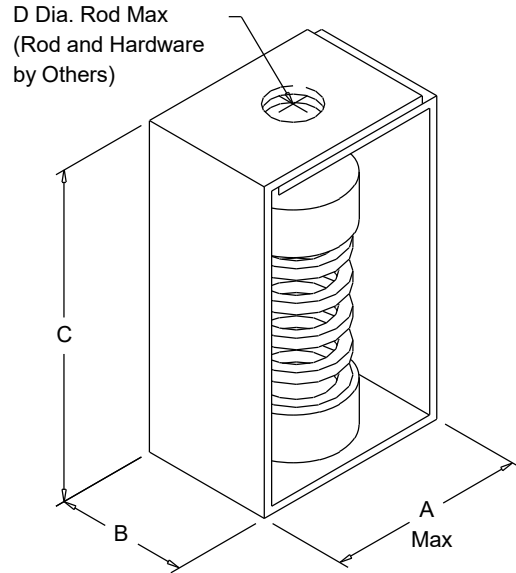


COOK

PROJECT: AMAZON LCK062
DATE: 8/22/2024

SPRING CEILING

Housing Spring
Spring Isolator
Ceiling Mounted



Dimensions (inches)

Mark	Qty	Description	A	B	C	D Dia.	Rated Deflection
EF-1	1	SC-70 SET(4)	2-5/32	1-1/2	3-15/32	1/2	1.03



COOK



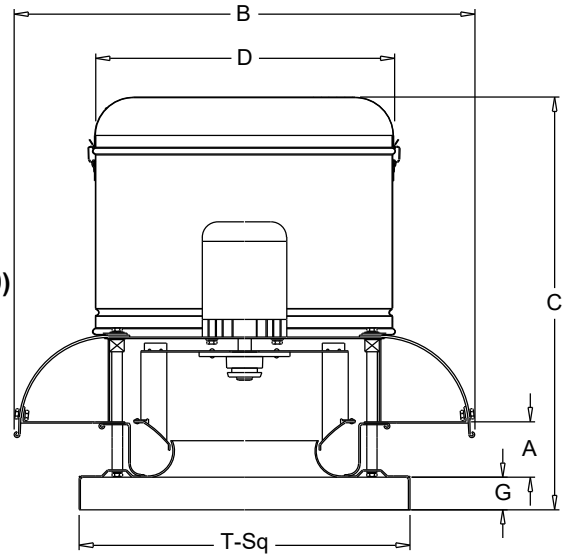
MARK: EF-2
PROJECT: AMAZON LCK062
DATE: 8/22/2024



ACE-D VF

Downblast Centrifugal Exhaust Ventilator
Roof Mounted/Direct Drive
Electronically Commutated Vari-Flow® Motor

STANDARD CONSTRUCTION FEATURES:
 All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches (sizes 120 - 300)
 - Welded curb cap corners - Birdscreen - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	Speed Control
1	101C17DOR70VF	200	.500	1516	.109	n/a(<1HP)	EC

Altitude (ft): 833 Temperature (F): 70

Motor Information

HP	RPM*	Volts/Ph/Hz	Enclosure	RLA
1/4	1725	115/1/60	OPEN -EC	3.2



*Motor programmed to max speed of 1725 RPM.
 RLA based on motor manufacturer's data at programmed HP and max RPM.
 Motor is electronically/thermally protected.

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
78	73	76	62	58	52	49	46	69	58	9.1

- Distance from Sound source 5 ft

Accessories:

- FAN MOUNTED SPEED CONTROL
- ORIFICE PLATE 70
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16 18H -C+T+N
- ALUMINUM BIRDSCREEN

Dimensions (inches)

A	2-3/8
B O.D.	23-9/16
C	21-1/8
D O.D.	16-3/4
G	2
T Sq.	18
Roof Open. Sq.*	13-1/2

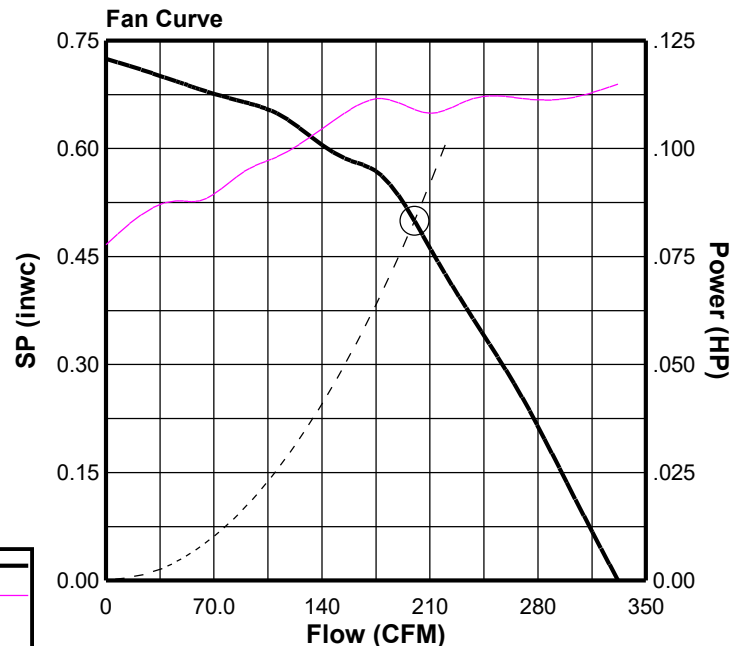
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping 74	Unit 66
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* Roof opening size for curbs supplied by Cook only.
 ***Includes fan, motor & accessories.

Fan Curve Legend

CFM vs SP	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -





COOK



MARK: EF-2
PROJECT: AMAZON LCK062
DATE: 8/22/2024

ACE-D VF

Performance

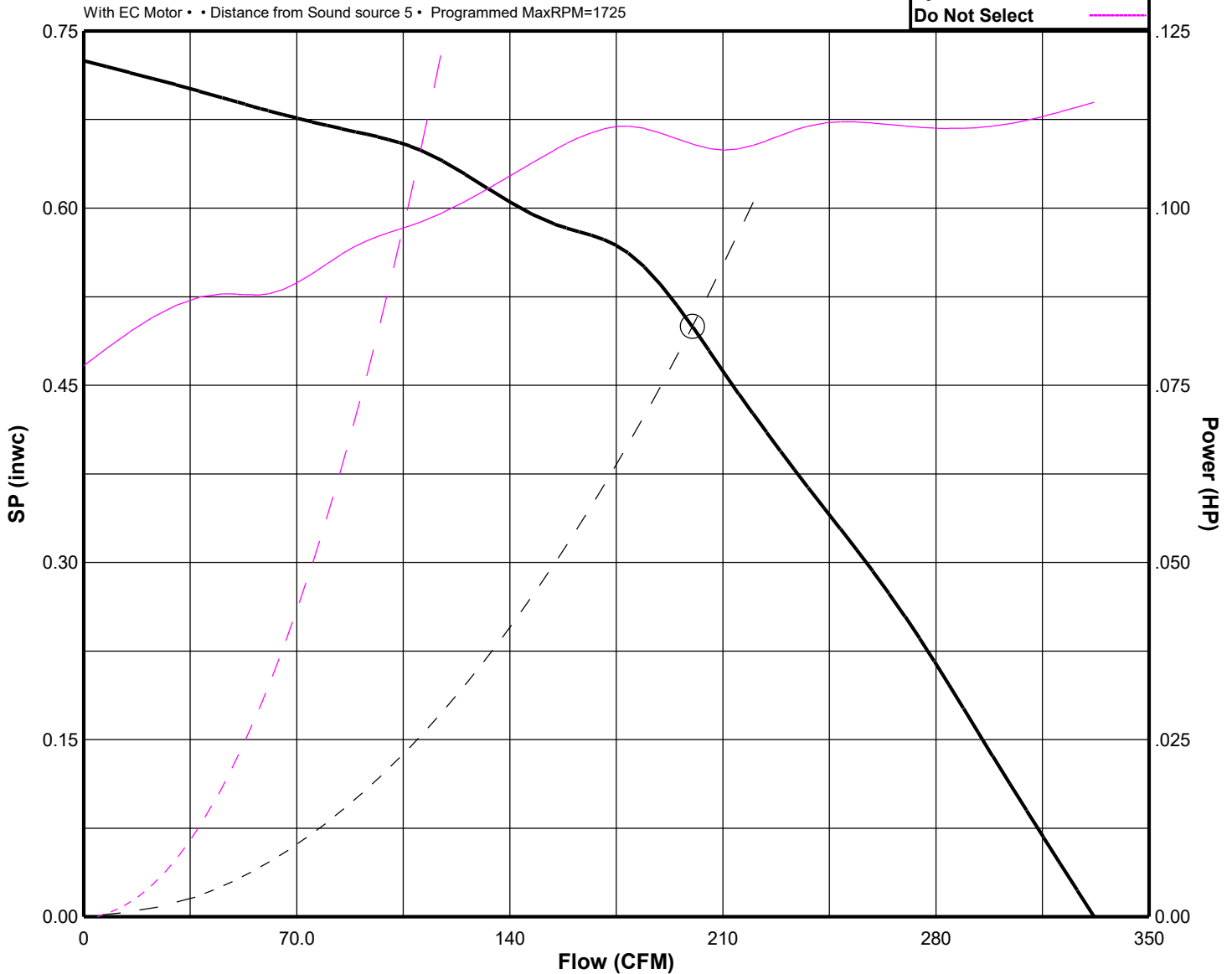
Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
101C17DOR70VF	200	.500	1516	.109	n/a(<1HP)	305	3968	14%	70	833

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
78	73	76	62	58	52	49	46	69	58	9.1

Fan Curve Legend

CFM vs SP	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -
Do Not Select	---





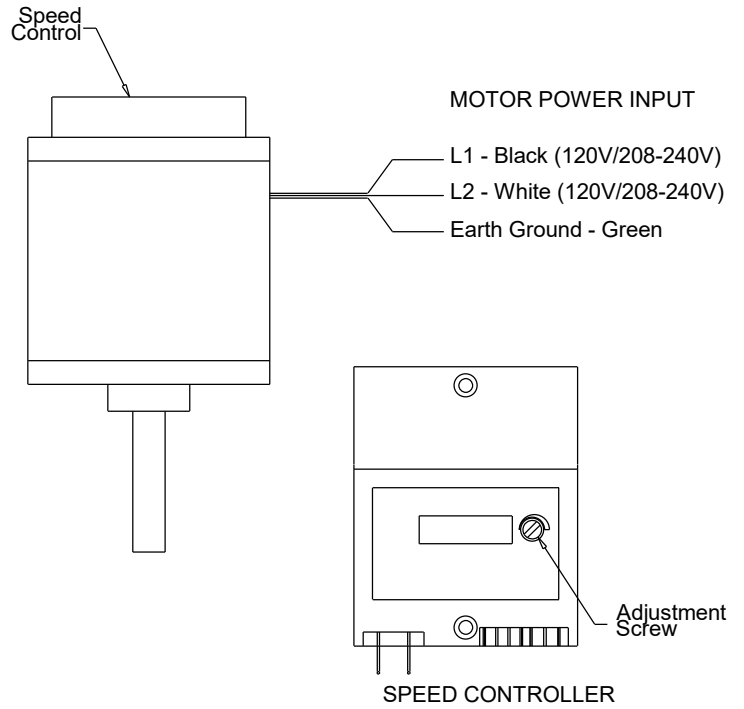
COOK

PROJECT: AMAZON LCK062
DATE: 8/22/2024

Speed Control

**Internal Speed Control
Electronically Commutated (EC) Motor
Type N**

STANDARD CONSTRUCTION FEATURES:
Some motors come with a factory programmed maximum RPM for specific applicaitons - Integral potentiometer with slotted screw for speed adjustment.



Dimensions (inches)

Mark	Qty	Description
EF-2	1	OPEN -1/4HP - 115V/1 PH/ 60 1725/0000 -EC



BD

Gravity Backdraft Damper

STANDARD CONSTRUCTION FEATURES:

.020 Aluminum blades - .060 aluminum frame -
Aluminum hinge pins - Nylon bushings.

Notes:

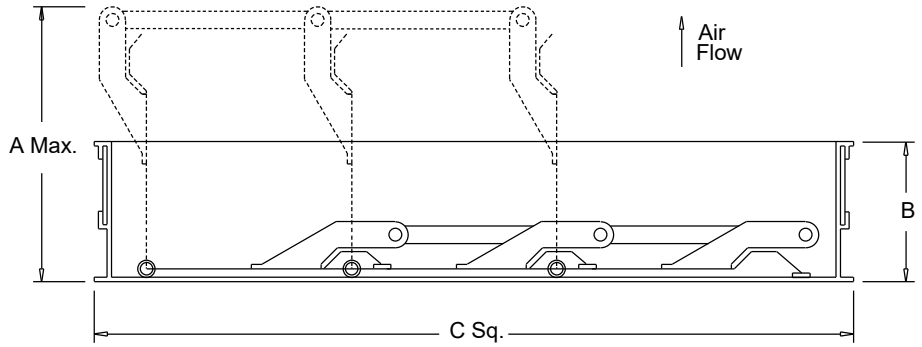
Max. operating temperature 200 Deg F (95 Deg C).

Max. discharge velocity 2000 fpm.

Sizes 36 thru 60 are shipped as 2 panels.

Sizes 66 and 78 are shipped as 6 panels.

These may require assembly.



Dimensions (inches)

Mark	Qty	Description	A Max.	B	C Sq.	# Panels
EF-2	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1



RCG

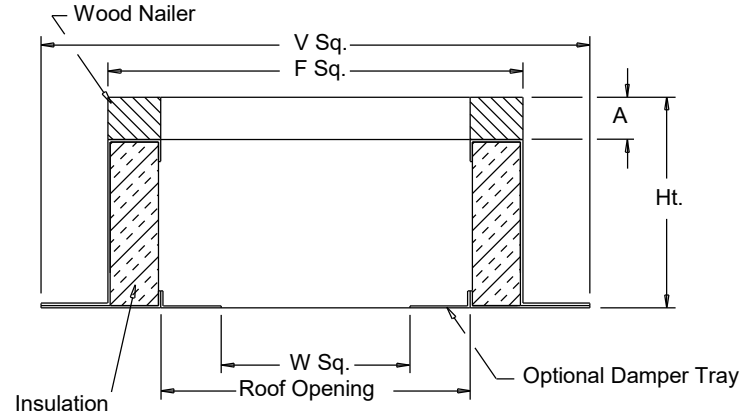
Galvanized Steel Roof Curb

STANDARD CONSTRUCTION FEATURES:

18 gauge galvanized steel - 1-1/2",
 3 lbs. density thermal and acoustical insulation - Continuously welded corners - Wood nailer.

Options:(As noted below*)

- 1) No wood nailer (deduct 1-1/2" for actual height).
- 2) Damper tray.
- 3) Liner.
- 4) Gasket on wood nailer.
- 5) Lorenized coating.
- 6) Enamel coating.
- 7) Burglar bars.



Dimensions (inches)

Mark	Qty	Description	Ht	Options*	A	F Sq.	V Sq.	W Sq.	Roof Opening
EF-2	1	RCG 16	18	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2



COOK

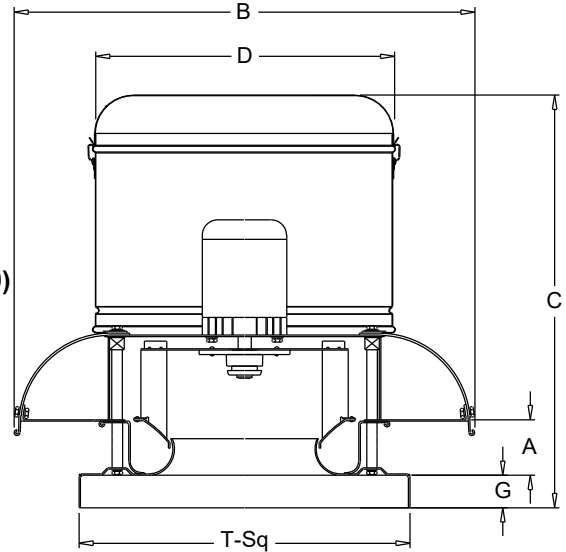


MARK: EF-3
PROJECT: AMAZON LCK062
DATE: 8/22/2024

ACE-D VF

Downblast Centrifugal Exhaust Ventilator
Roof Mounted/Direct Drive
Electronically Commutated Vari-Flow® Motor

STANDARD CONSTRUCTION FEATURES:
 All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches (sizes 120 - 300)
 - Welded curb cap corners - Birdscreen - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	Speed Control
1	101C17DOR60VF	100	.500	1433	.084	n/a(<1HP)	EC

Altitude (ft): 833 Temperature (F): 70

Motor Information

HP	RPM*	Volts/Ph/Hz	Enclosure	RLA
1/4	1725	115/1/60	OPEN -EC	3.2



*Motor programmed to max speed of 1725 RPM.
 RLA based on motor manufacturer's data at programmed HP and max RPM.
 Motor is electronically/thermally protected.

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
70	70	74	59	53	48	46	43	66	55	7.4

- Distance from Sound source 5 ft

Accessories:

- FAN MOUNTED SPEED CONTROL
- ORIFICE PLATE 60
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16 18H -C+T+N
- ALUMINUM BIRDSCREEN

Dimensions (inches)

A	2-3/8
B O.D.	23-9/16
C	21-1/8
D O.D.	16-3/4
G	2
T Sq.	18
Roof Open. Sq.*	13-1/2

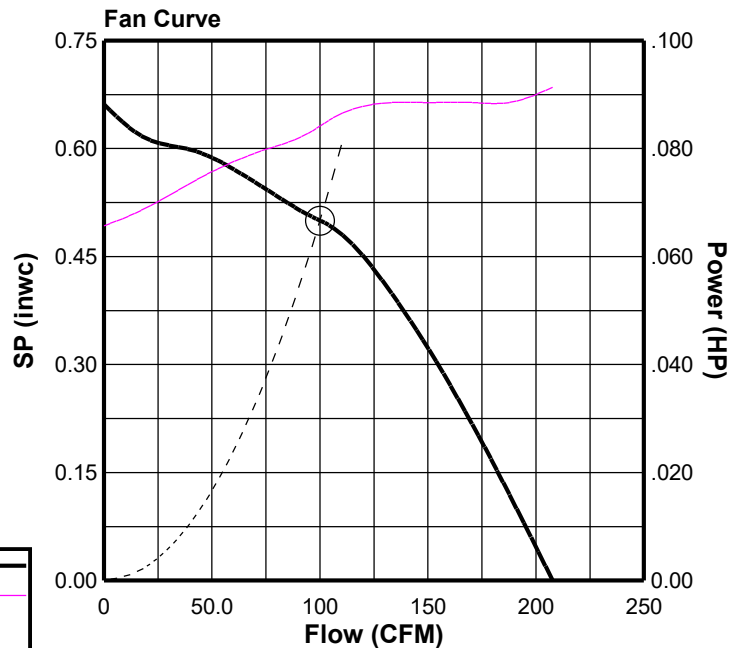
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping 71	Unit 63
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* Roof opening size for curbs supplied by Cook only.
 ***Includes fan, motor & accessories.

Fan Curve Legend

CFM vs SP	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -





COOK



MARK: EF-3
PROJECT: AMAZON LCK062
DATE: 8/22/2024

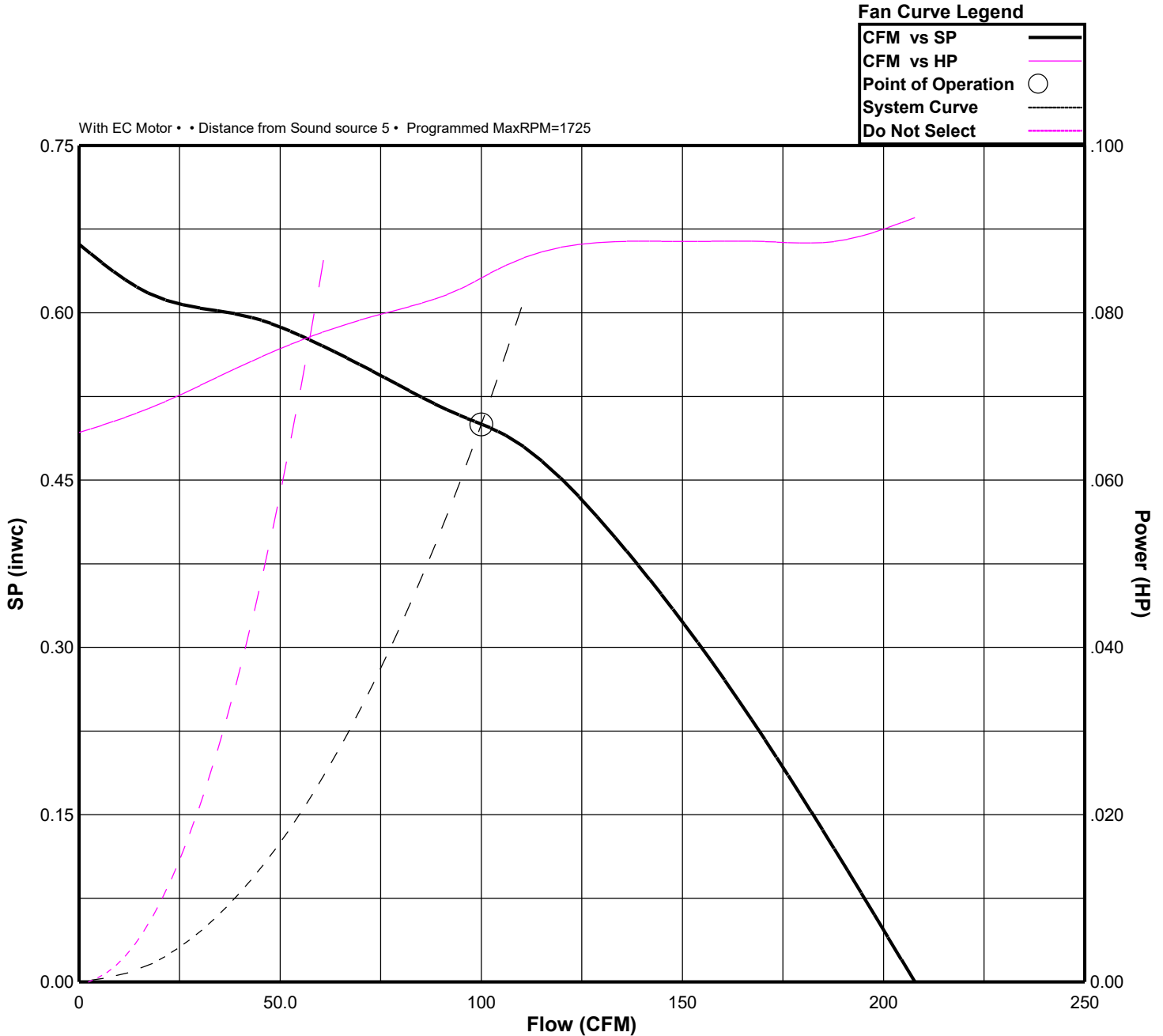
ACE-D VF

Performance

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
101C17DOR60VF	100	.500	1433	.084	n/a(<1HP)	152	3751	9%	70	833

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
70	70	74	59	53	48	46	43	66	55	7.4





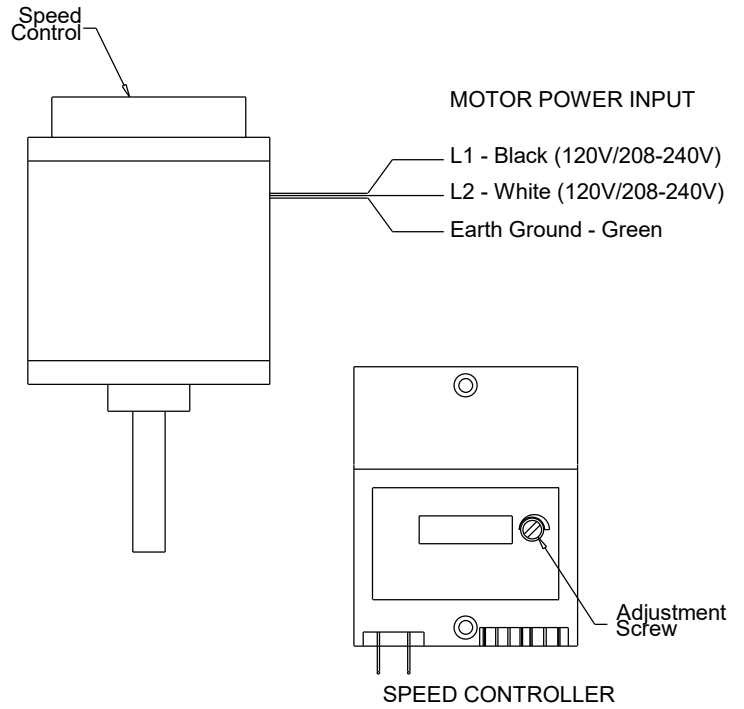
COOK

PROJECT: AMAZON LCK062
DATE: 8/22/2024

Speed Control

**Internal Speed Control
Electronically Commutated (EC) Motor
Type N**

STANDARD CONSTRUCTION FEATURES:
Some motors come with a factory programmed maximum RPM for specific applicaitons - Integral potentiometer with slotted screw for speed adjustment.



Dimensions (inches)

Mark	Qty	Description
EF-3	1	OPEN -1/4HP - 115V/1 PH/ 60 1725/0000 -EC



BD

Gravity Backdraft Damper

STANDARD CONSTRUCTION FEATURES:

.020 Aluminum blades - .060 aluminum frame -
Aluminum hinge pins - Nylon bushings.

Notes:

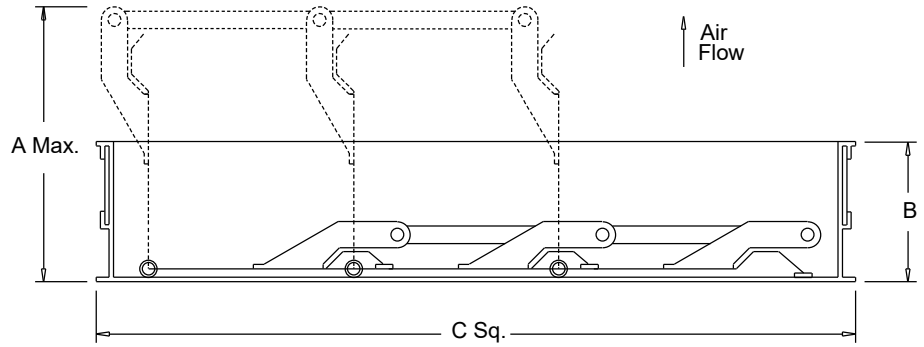
Max. operating temperature 200 Deg F (95 Deg C).

Max. discharge velocity 2000 fpm.

Sizes 36 thru 60 are shipped as 2 panels.

Sizes 66 and 78 are shipped as 6 panels.

These may require assembly.



Dimensions (inches)

Mark	Qty	Description	A Max.	B	C Sq.	# Panels
EF-3	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1



RCG

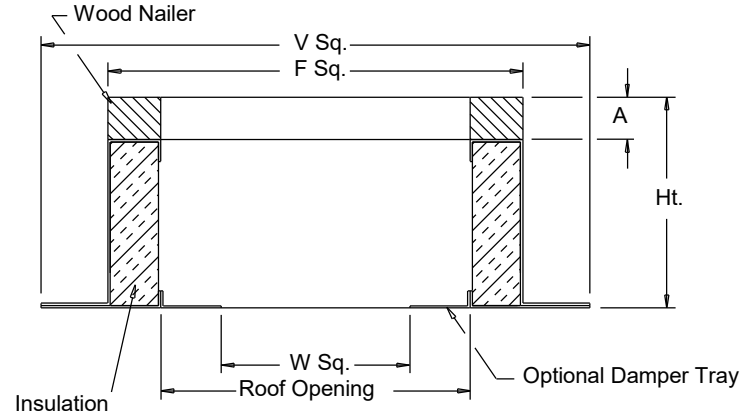
Galvanized Steel Roof Curb

STANDARD CONSTRUCTION FEATURES:

18 gauge galvanized steel - 1-1/2",
 3 lbs. density thermal and acoustical insulation - Continuously welded corners - Wood nailer.

Options:(As noted below*)

- 1) No wood nailer (deduct 1-1/2" for actual height).
- 2) Damper tray.
- 3) Liner.
- 4) Gasket on wood nailer.
- 5) Lorenized coating.
- 6) Enamel coating.
- 7) Burglar bars.



Dimensions (inches)

Mark	Qty	Description	Ht	Options*	A	F Sq.	V Sq.	W Sq.	Roof Opening
EF-3	1	RCG 16	18	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2



COOK



MARK: EF-4
PROJECT: AMAZON LCK062
DATE: 8/22/2024

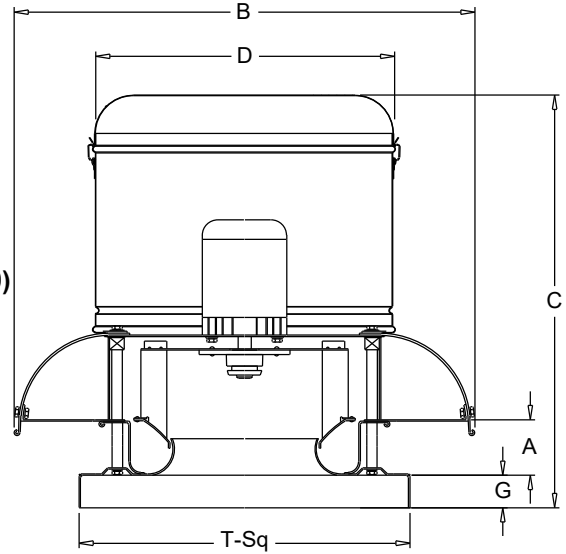


ACE-D VF

**Downblast Centrifugal Exhaust Ventilator
Roof Mounted/Direct Drive
Electronically Commutated Vari-Flow® Motor**

STANDARD CONSTRUCTION FEATURES:

All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches (sizes 120 - 300)
- Welded curb cap corners - Birdscreen - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	Speed Control
1	120C17D (VF)	880	.500	1187	.116	n/a(<1HP)	EC

Altitude (ft): 833 Temperature (F): 70

Motor Information

HP	RPM*	Volts/Ph/Hz	Enclosure	RLA
1/4	1725	115/1/60	OPEN -EC	3.2



*Motor programmed to max speed of 1509 RPM.
RLA based on motor manufacturer's data at programmed HP and max RPM.
Motor is electronically/thermally protected.

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
65	68	71	61	59	56	50	46	66	54	7.2

- Distance from Sound source 5 ft

Accessories:

- FAN MOUNTED SPEED CONTROL
- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 18H -C+T+N
- ALUMINUM BIRDSCREEN

Dimensions (inches)

A	1-7/16
B O.D.	28-7/16
C	27-1/16
D O.D.	20-3/8
G	2
T Sq.	20
Roof Open. Sq.*	15-1/2

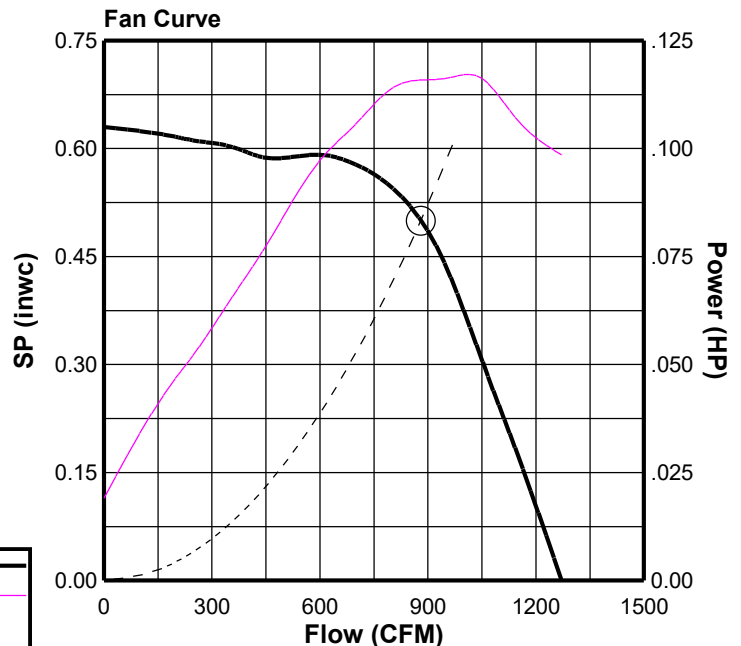
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	87	Unit	71
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.

Fan Curve Legend

CFM vs SP	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -





COOK



MARK: EF-4

PROJECT: AMAZON LCK062

DATE: 8/22/2024

ACE-D VF

Performance

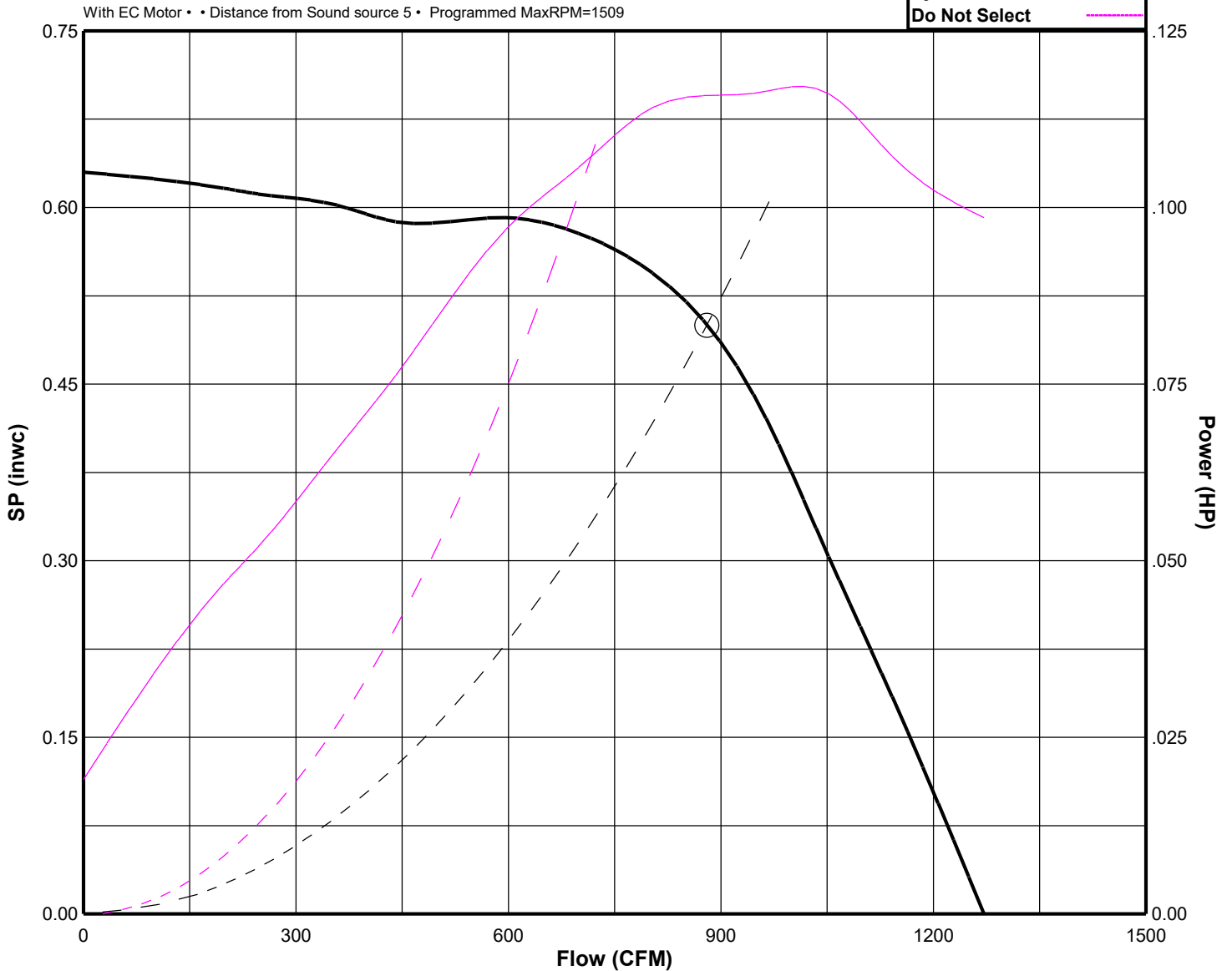
Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
120C17D (VF)	880	.500	1187	.116	n/a(<1HP)	927	3729	60%	70	833

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
65	68	71	61	59	56	50	46	66	54	7.2

Fan Curve Legend

CFM vs SP	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -
Do Not Select	—





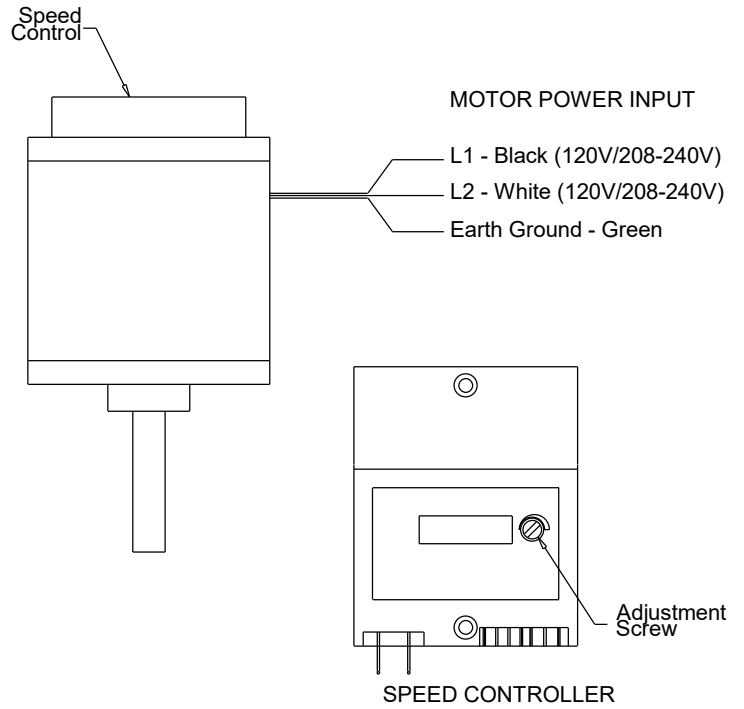
COOK

PROJECT: AMAZON LCK062
DATE: 8/22/2024

Speed Control

**Internal Speed Control
Electronically Commutated (EC) Motor
Type N**

STANDARD CONSTRUCTION FEATURES:
Some motors come with a factory programmed maximum RPM for specific applicaitons - Integral potentiometer with slotted screw for speed adjustment.



Dimensions (inches)

Mark	Qty	Description
EF-4	1	OPEN -1/4HP - 115V/1 PH/ 60 1725/0000 -EC



BD

Gravity Backdraft Damper

STANDARD CONSTRUCTION FEATURES:

.020 Aluminum blades - .060 aluminum frame -
Aluminum hinge pins - Nylon bushings.

Notes:

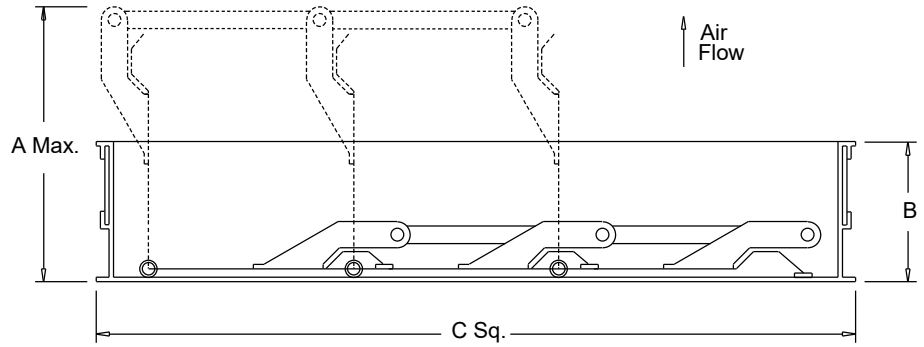
Max. operating temperature 200 Deg F (95 Deg C).

Max. discharge velocity 2000 fpm.

Sizes 36 thru 60 are shipped as 2 panels.

Sizes 66 and 78 are shipped as 6 panels.

These may require assembly.



Dimensions (inches)

Mark	Qty	Description	A Max.	B	C Sq.	# Panels
EF-4	1	BD-14 DAMPER	5-3/16	1-7/8	13-3/4	1



RCG

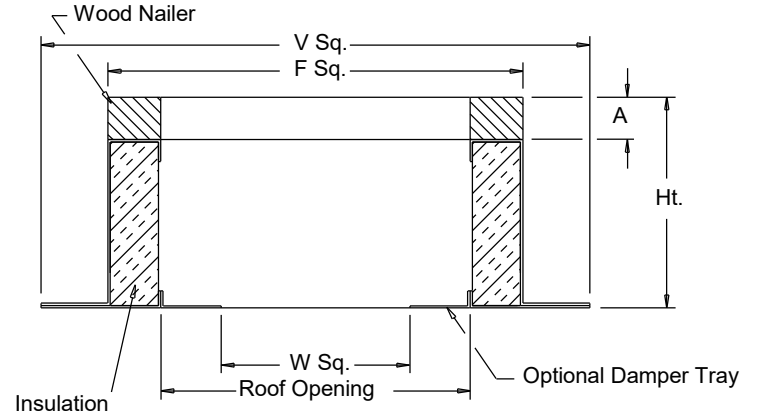
Galvanized Steel Roof Curb

STANDARD CONSTRUCTION FEATURES:

18 gauge galvanized steel - 1-1/2",
3 lbs. density thermal and acoustical
insulation - Continuously welded corners -
Wood nailer.

Options:(As noted below*)

- 1) No wood nailer (deduct 1-1/2" for actual height).
- 2) Damper tray.
- 3) Liner.
- 4) Gasket on wood nailer.
- 5) Lorenized coating.
- 6) Enamel coating.
- 7) Burglar bars.



Dimensions (inches)

Mark	Qty	Description	Ht	Options*	A	F Sq.	V Sq.	W Sq.	Roof Opening
EF-4	1	RCG 18	18	2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2



COOK



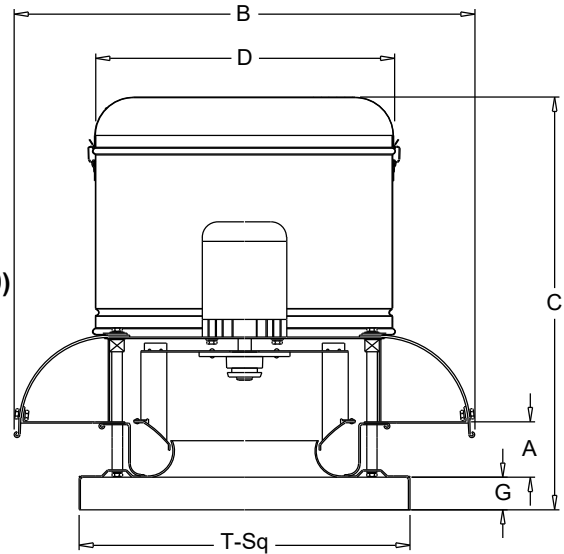
MARK: EF-5
PROJECT: AMAZON LCK062
DATE: 8/22/2024



ACE-D VF

Downblast Centrifugal Exhaust Ventilator
Roof Mounted/Direct Drive
Electronically Commutated Vari-Flow® Motor

STANDARD CONSTRUCTION FEATURES:
 All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches (sizes 120 - 300)
 - Welded curb cap corners - Birdscreen - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	Speed Control
1	120C17DOR91VF	750	.500	1375	.182	n/a(<1HP)	EC

Altitude (ft): 833 Temperature (F): 70

Motor Information

HP	RPM*	Volts/Ph/Hz	Enclosure	RLA
1/4	1725	115/1/60	OPEN -EC	3.2



*Motor programmed to max speed of 1504 RPM.
 RLA based on motor manufacturer's data at programmed HP and max RPM.
 Motor is electronically/thermally protected.

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
76	80	78	68	61	58	54	49	72	61	11.1

- Distance from Sound source 5 ft

Accessories:

- FAN MOUNTED SPEED CONTROL
- ORIFICE PLATE 91
- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 18H -C+T+N
- ALUMINUM BIRDSCREEN

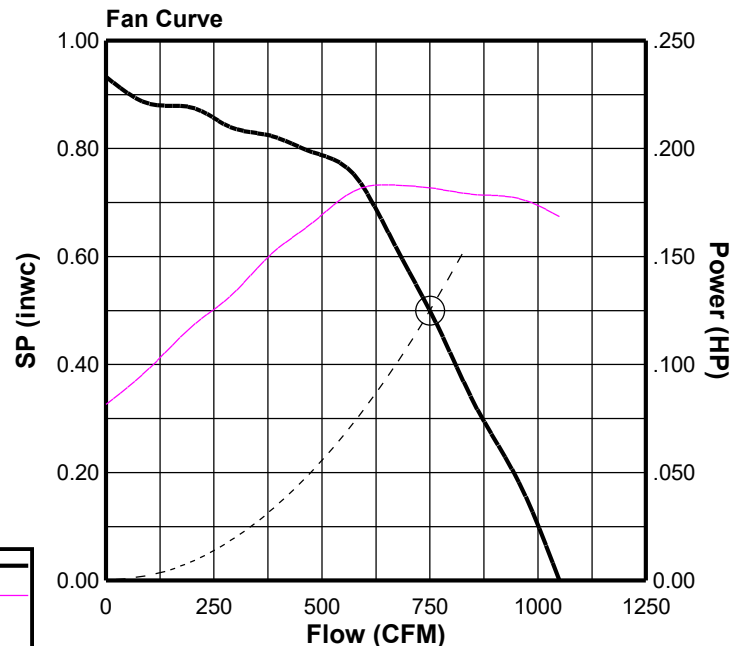
Dimensions (inches)

A	1-7/16
B O.D.	28-7/16
C	27-1/16
D O.D.	20-3/8
G	2
T Sq.	20
Roof Open. Sq.*	15-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping 88	Unit 72
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* Roof opening size for curbs supplied by Cook only.
 ***Includes fan, motor & accessories.





COOK



MARK: EF-5
PROJECT: AMAZON LCK062
DATE: 8/22/2024

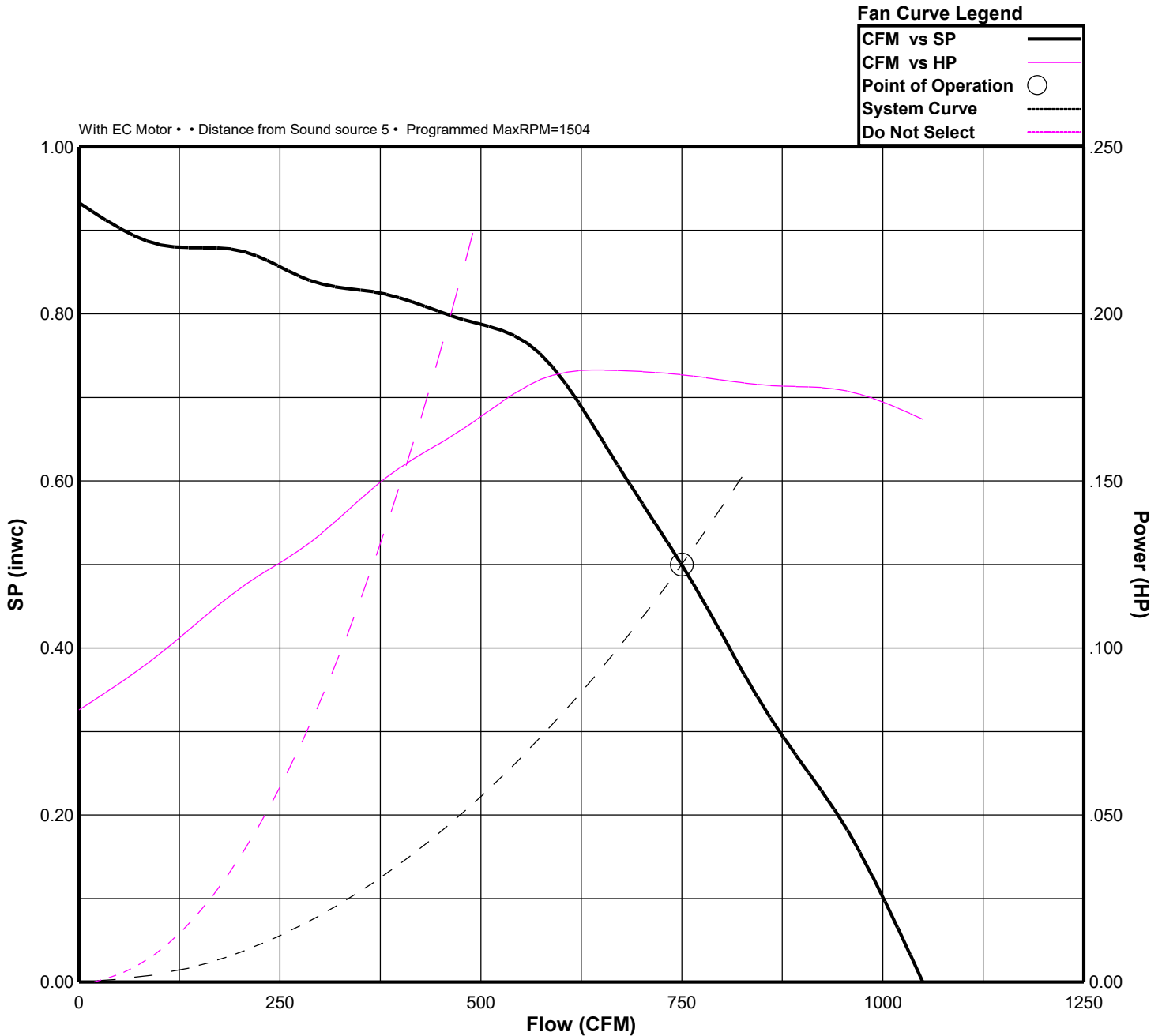
ACE-D VF

Performance

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
120C17DOR91VF	750	.500	1375	.182	n/a(<1HP)	790	4319	32%	70	833

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
76	80	78	68	61	58	54	49	72	61	11.1





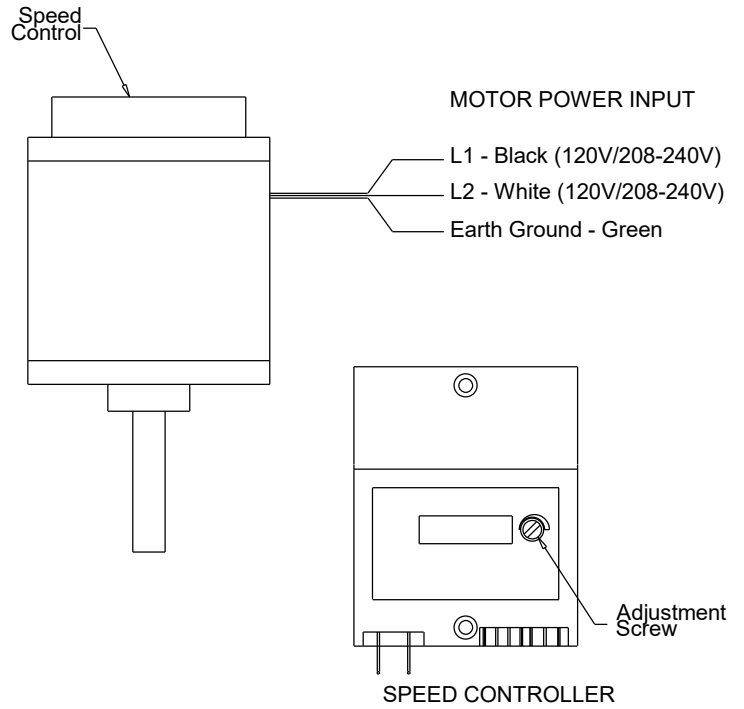
COOK

PROJECT: AMAZON LCK062
DATE: 8/22/2024

Speed Control

**Internal Speed Control
Electronically Commutated (EC) Motor
Type N**

STANDARD CONSTRUCTION FEATURES:
Some motors come with a factory programmed maximum RPM for specific applicaitons - Integral potentiometer with slotted screw for speed adjustment.



Dimensions (inches)

Mark	Qty	Description
EF-5	1	OPEN -1/4HP - 115V/1 PH/ 60 1725/0000 -EC



BD

Gravity Backdraft Damper

STANDARD CONSTRUCTION FEATURES:

.020 Aluminum blades - .060 aluminum frame -
Aluminum hinge pins - Nylon bushings.

Notes:

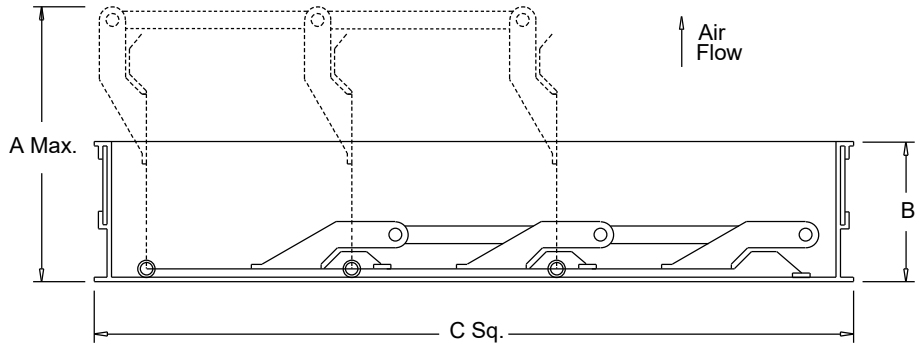
Max. operating temperature 200 Deg F (95 Deg C).

Max. discharge velocity 2000 fpm.

Sizes 36 thru 60 are shipped as 2 panels.

Sizes 66 and 78 are shipped as 6 panels.

These may require assembly.



Dimensions (inches)

Mark	Qty	Description	A Max.	B	C Sq.	# Panels
EF-5	1	BD-14 DAMPER	5-3/16	1-7/8	13-3/4	1



RCG

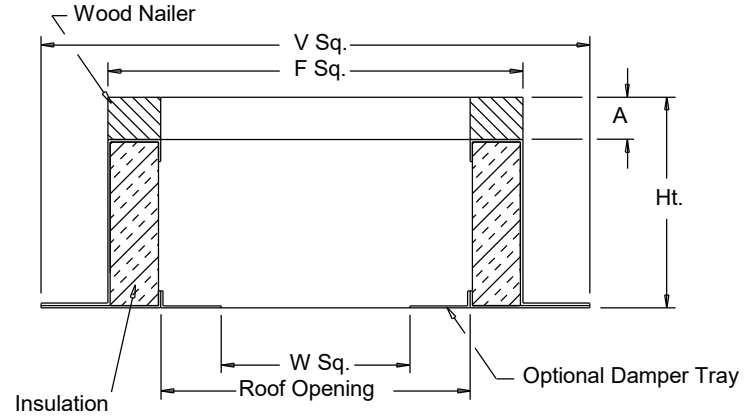
Galvanized Steel Roof Curb

STANDARD CONSTRUCTION FEATURES:

18 gauge galvanized steel - 1-1/2",
 3 lbs. density thermal and acoustical insulation - Continuously welded corners -
 Wood nailer.

Options:(As noted below*)

- 1) No wood nailer (deduct 1-1/2" for actual height).
- 2) Damper tray.
- 3) Liner.
- 4) Gasket on wood nailer.
- 5) Lorenized coating.
- 6) Enamel coating.
- 7) Burglar bars.



Dimensions (inches)

Mark	Qty	Description	Ht	Options*	A	F Sq.	V Sq.	W Sq.	Roof Opening
EF-5	1	RCG 18	18	2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2