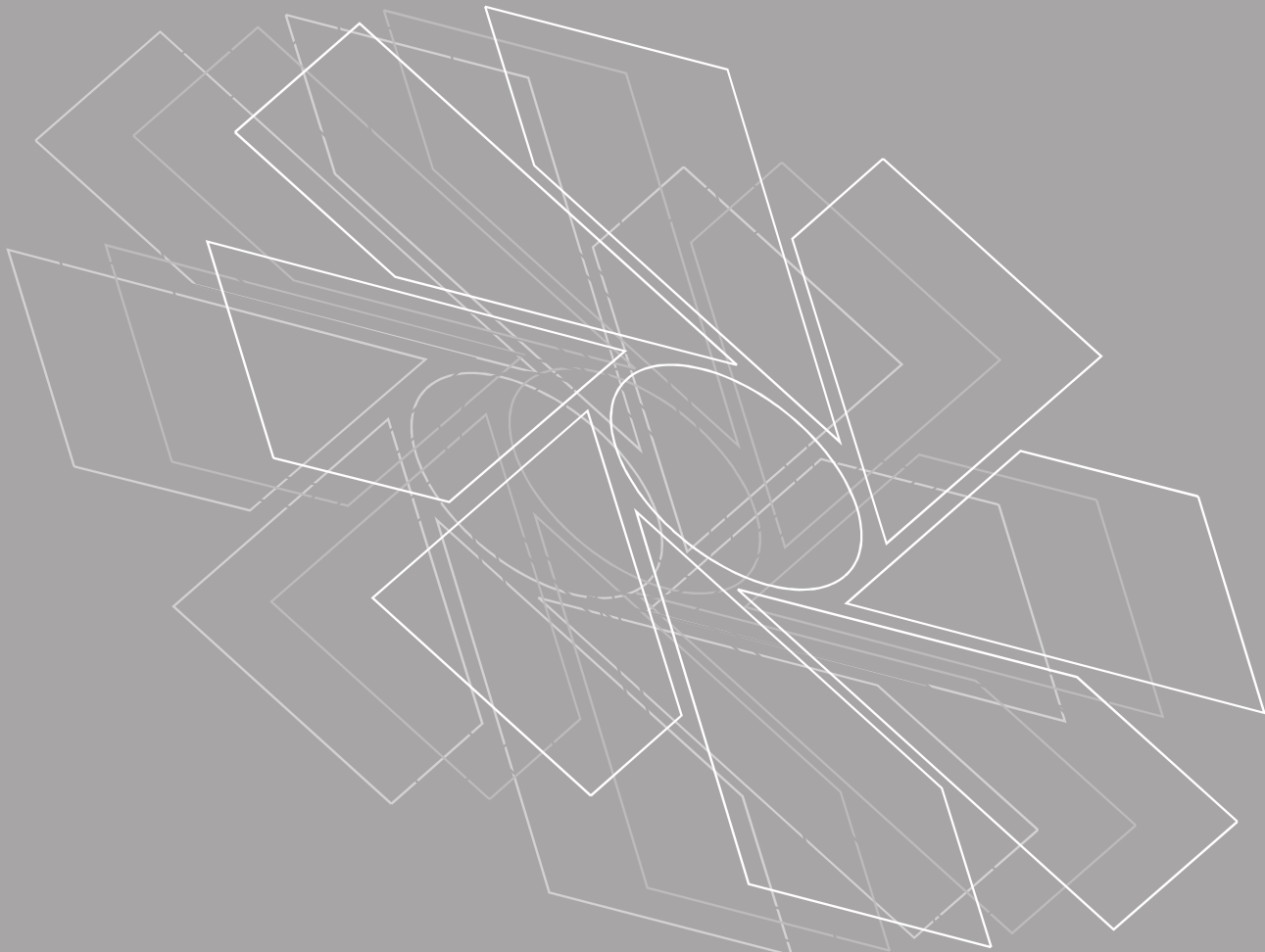


# BOX - D

## Inline Direct Driven Box Fan





# Introduction to BOX-D Inline Direct Driven Box Fan



DYNAIR® is the industrial division of Maico Italia S.p.A. and is a well known brand name at global level in the industrial ventilation and plant engineering sector. Technological expertise, high production capacities, strong research and investment policies together with a personalized back-up service focused on customer needs have, for over 30 years, been the qualities that distinguish our company: Italian excellence renowned throughout the world and an industrial concern fortified by belonging to Maico Holding GmbH, the German group that leads the way in the ventilation industry.

## Experience and high technology at your service

Living in a market in continuous evolution, DYNAIR® bases its force on a step by step project follow-up in close collaboration with the customer to create tailored and highly reliable solutions.

The latest addition to the ever evolving DYNAIR® range of products is the BOX-D range DIDW fan inside a cabinet.

DYNAIR's products follow stringent policy of research and development. With safety as a priority during production, all products use top quality components that meet the relevant standards.

## BOX-D - Inline Direct Driven Box Fan



Maico Gulf LLC certifies that the DYNAIR model "Box-D 3/4 and 3/8" shown herein are license to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.



Maico Gulf LLC certifies that the DYNAIR model "Box-D 7/7 to 12/12" shown herein are license to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



Our Total Quality policy is ensured by standard working procedures, with tests and inspections during all production phases.

DYNAIR is ISO 9001: 2000 certified.

With our production capability, wide range of finished products and components warehouse, we ensure quick delivery to all our customers. Our staff is trained and dedicated to provide before and after technical plus sales services.

## GENERAL DESCRIPTION

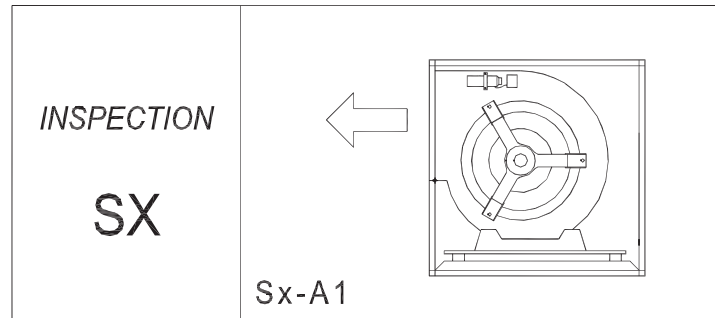
The fan of the Box-D Series are particularly designed for air extraction, supply or filtration. Their main characteristics is the low noise level which makes them ideal for urban environments (apartments, houses, bars, restaurants, gymnasiums, offices) and industrial sites where radiated noise is the problem. The low noise level is due to their plenum lined with acoustic material that allows a remarkable reduction of noise level, inevitably generated by the fan, the blower consist of double inlet forward curve centrifugal fan with build in motor.

## CONSTRUCTION

- Cabinet is manufacture in galvanized/Aluminium sheet, removable access panel on both sides to allow easy access to fan and motor.
- Acoustic lining in self-extinguishing techno polymer. (UL 94 HF1 polyurethane)
- Double inlet Blower, Forward curved, with direct drive built -in asynchronous Motor, single phase or three phases, particularly suitable for speed regulation (using the suitable speed regulator shown in the catalogue).
- The blower is fitted using suitable support feet and is completely isolated from casing by anti-vibration mounts and gaskets.
- Flanged inlet and outlet for easy duct work connection

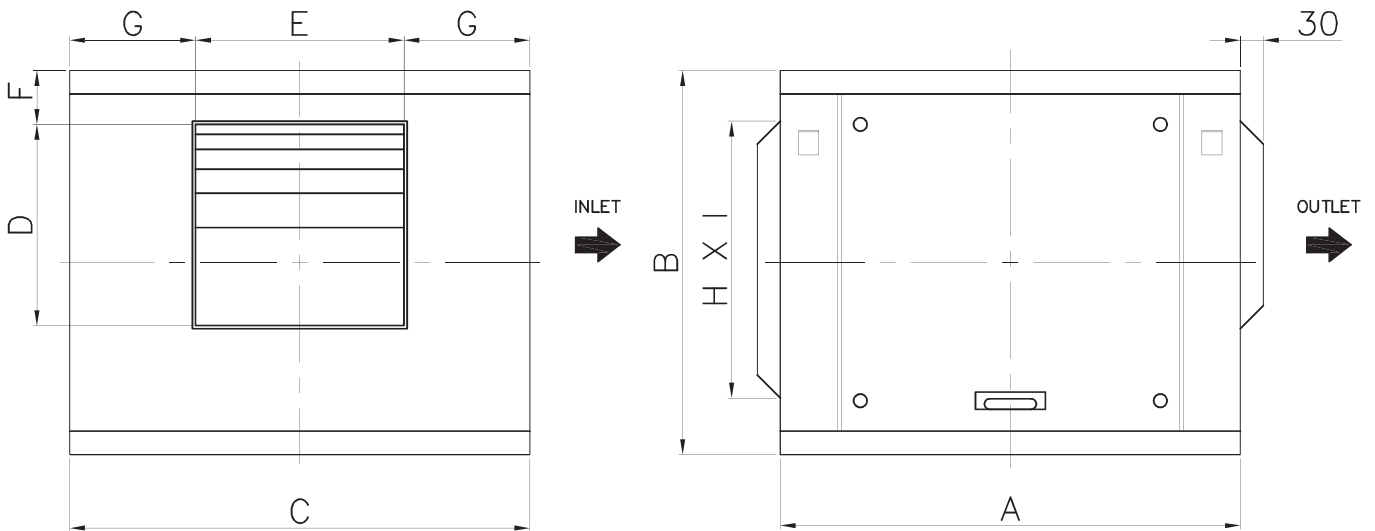
## OPTIONAL FEATURES

- Filter section (Standard version with filter in polyester with efficiency 90.1 % Class EU4)
- Version with double skin panels (20 mm thick)
- Different discharge orientation
- Customized Cabinet size,
- Electronic and self-transformer regulators.
- Construction with the Aluminium extruded profile.



NOTE: Standard discharge angles SX-A1

## DIMENSION DRAWING



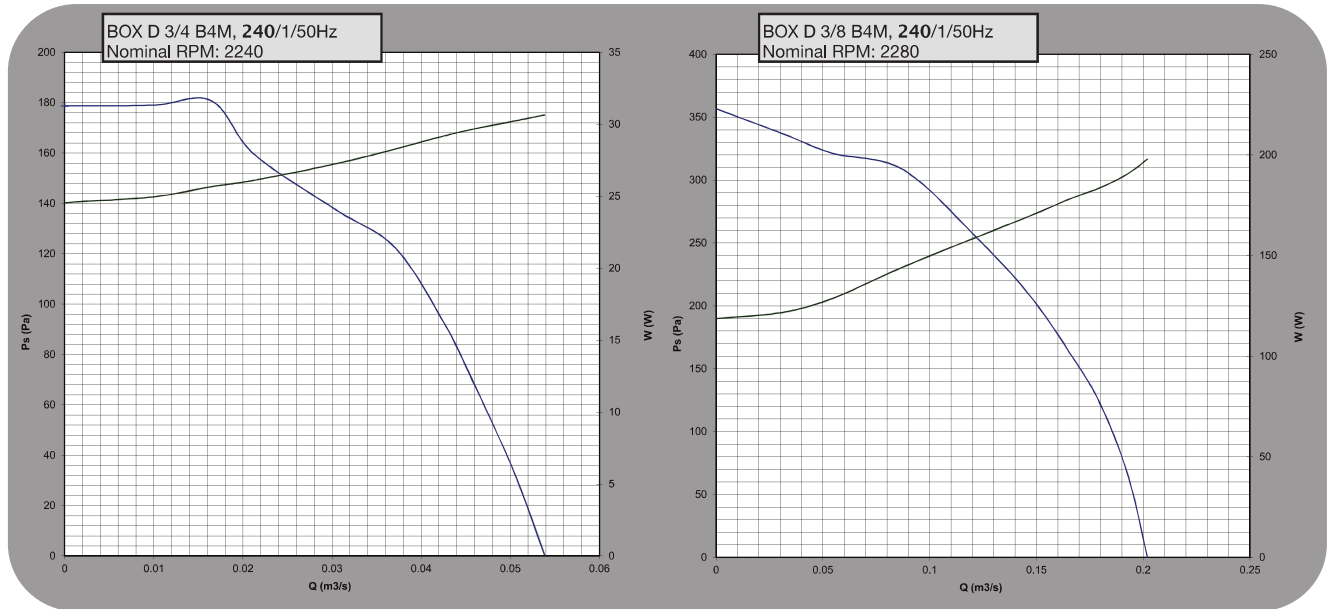
MODEL	A	B	C	D	E	F	G	H	I	Wt,Kg (with GI cabinet)	Wt,Kg (with AI cabinet)
BOX D 3/4	300	300	350	48	108	50	121	160	210	10	6
BOX D 3/8	300	300	500	71	214	50	143	133	333	12	7
BOX D 7/7	420	420	420	208	230	65	90	270	270	18	12
BOX D 9/7	500	500	500	262	232	70	130	300	300	28	19
BOX D 9/9	500	500	500	262	298	70	95	300	300	29	20
BOX D 10/8	600	550	600	289	265	75	160	350	400	36	26
BOX D 10/10	600	550	600	289	331	75	127.5	350	400	38	27
BOX D 12/9	640	640	750	341	309	80	215	440	550	51	37
BOX D 12/12	640	640	750	341	395	80	170	440	550	53	39

## Technical Data for BOX D 3/4 and 3/8, 50 Hz

Model	Max Q (Cmh)	Nominal Power (W)	Max Input Power (W)	P	IP/CL	In (A)	V/Ph/F	RPM	Reg	Lp dB(A) at 3m (Free Field)	Octave Band Frequency at max. airflow HZ (Lw, dB)							
											63	125	250	500	1K	2K	4K	8K
Box D 3/4 B4M	194	28	31	4	20/F	0.13	220-240/1/50	1628	RVN-RVS	30	60	56	52	48	41	38	36	33
Box D 3/8 B4M	727	190	198	4	44/F	0.84	220-240/1/50	1579	RVN-RVS	34	65	61	57	51	48	43	41	38

- Sound performance of Box D 3/4 and 3/8 are not licensed by AMCA International.

## Performance Data for BOX D 3/4 and 3/8, 50 Hz



- Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances (accessories).
- The AMCA Certified Ratings Seal applies to air performance ratings only
- Performance certified is for installation type D - Ducted inlet, ducted outlet.

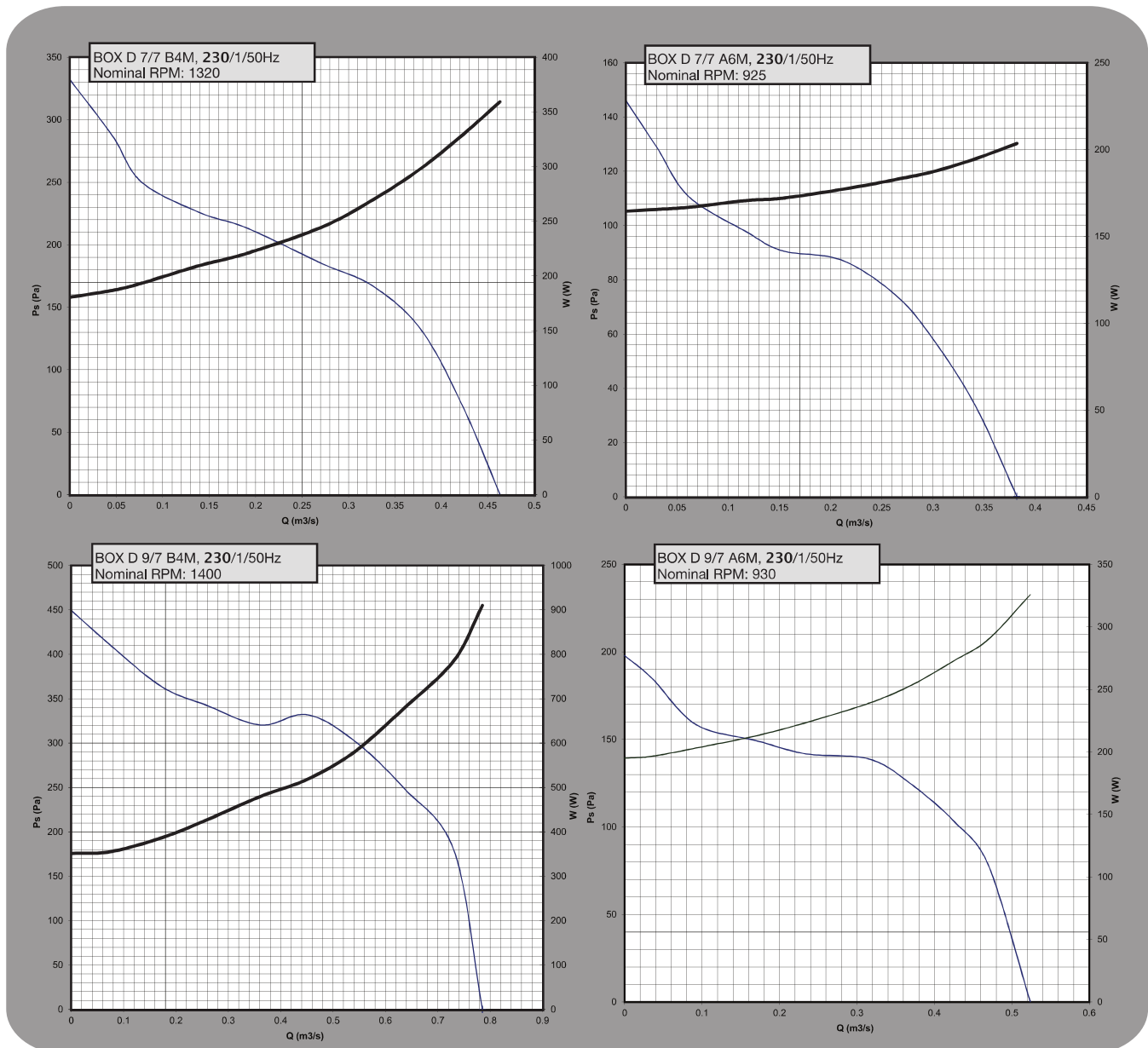
— Fan Performance Curve  
— Motor Input Watts (W)

## Technical Data for BOX D 7/7 and 9/7, 50 Hz

Model	Max Q (Cmh)	Nominal Power (W)	Max Input Power (W)	P	IP/CL	In (A)	V/Ph/F	RPM	Reg	Lp dB(A) at 3m (Free Field)	Octave Band Frequency at max. airflow HZ (Lw, dB)							
											63	125	250	500	1K	2K	4K	8K
Box D 7/7 B4M	1667	147	359	4	32/F	1.70	220-240/1/50	1061	RV/1-RVM/2	52	85	84	77	68	61	54	52	48
Box D 7/7 A6M	1375	62	204	6	32/F	1.00	220-240/1/50	850	RV/1-RVM	48	84	71	75	63	56	47	44	41
Box D 9/7 B4M	2826	370	910	4	20/F	5.00	220-240/1/50	1265	RV/2-RVM3	58	94	85	83	73	69	63	61	55
Box D 9/7 A6M	1886	147	326	6	20/F	1.90	220-240/1/50	849	RV/1-RVM2	50	86	82	73	65	59	54	50	41

- Values shown are for inlet Lwi sound power levels for Installation Type D: ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Sound power levels ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.
- Lp-dB(A) levels are not licensed by AMCA International.

## Performance Data for BOX D 7/7 and 9/7, 50 Hz



- Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances (accessories).
- Performance certified is for installation type D - Ducted inlet, ducted outlet.

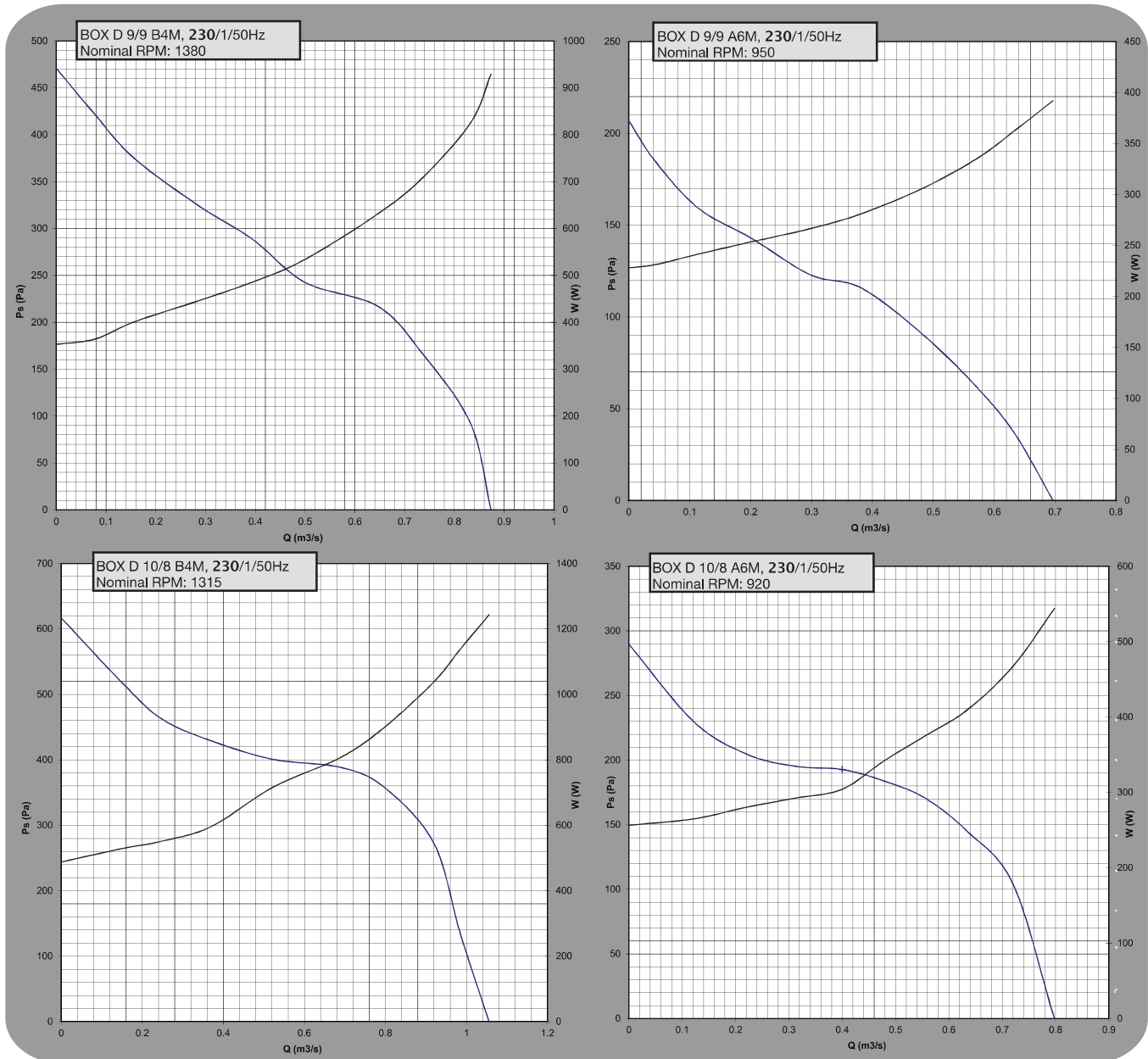
— Fan Performance Curve  
— Motor Input Watts (W)

## Technical Data for BOX D 9/9 and 10/8, 50 Hz

Model	Max Q (Cmh)	Nominal Power (W)	Max Input Power (W)	P	IP/CL	In (A)	V/Ph/F	RPM	Reg	Lp dB(A) at 3m (Free Field)	Octave Band Frequency at max. airflow HZ (Lw, dB)							
											63	125	250	500	1K	2K	4K	8K
Box D 9/9 B4M	3146	370	929	4	20/F	4.50	220-240/1/50	1195	RV/2-RVM3	58	93	89	83	72	68	61	59	53
Box D 9/9 A6M	2509	245	392	6	20/F	2.60	220-240/1/50	908	RV/1-RVM2	51	86	81	75	67	61	54	52	44
Box D 10/8 B4M	3801	550	1243	4	20/F	6.10	220-240/1/50	1093	RV/2-RVM3	58	93	87	83	71	67	65	62	57
Box D 10/8 A6M	2873	245	544	6	20/F	2.60	220-240/1/50	801	RV/1-RVM2	50	86	80	75	65	61	59	56	49

- Values shown are for inlet Lwi sound power levels for Installation Type D: ducted inlet, ducted outlet. Ratings include the effects of duct end correction.  
 - Sound power levels ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.  
 - Lp-dB(A) levels are not licensed by AMCA International.

## Performance Data for BOX D 9/9 and 10/8, 50 Hz



- Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances (accessories).  
 - Performance certified is for installation type D - Ducted inlet, ducted outlet.

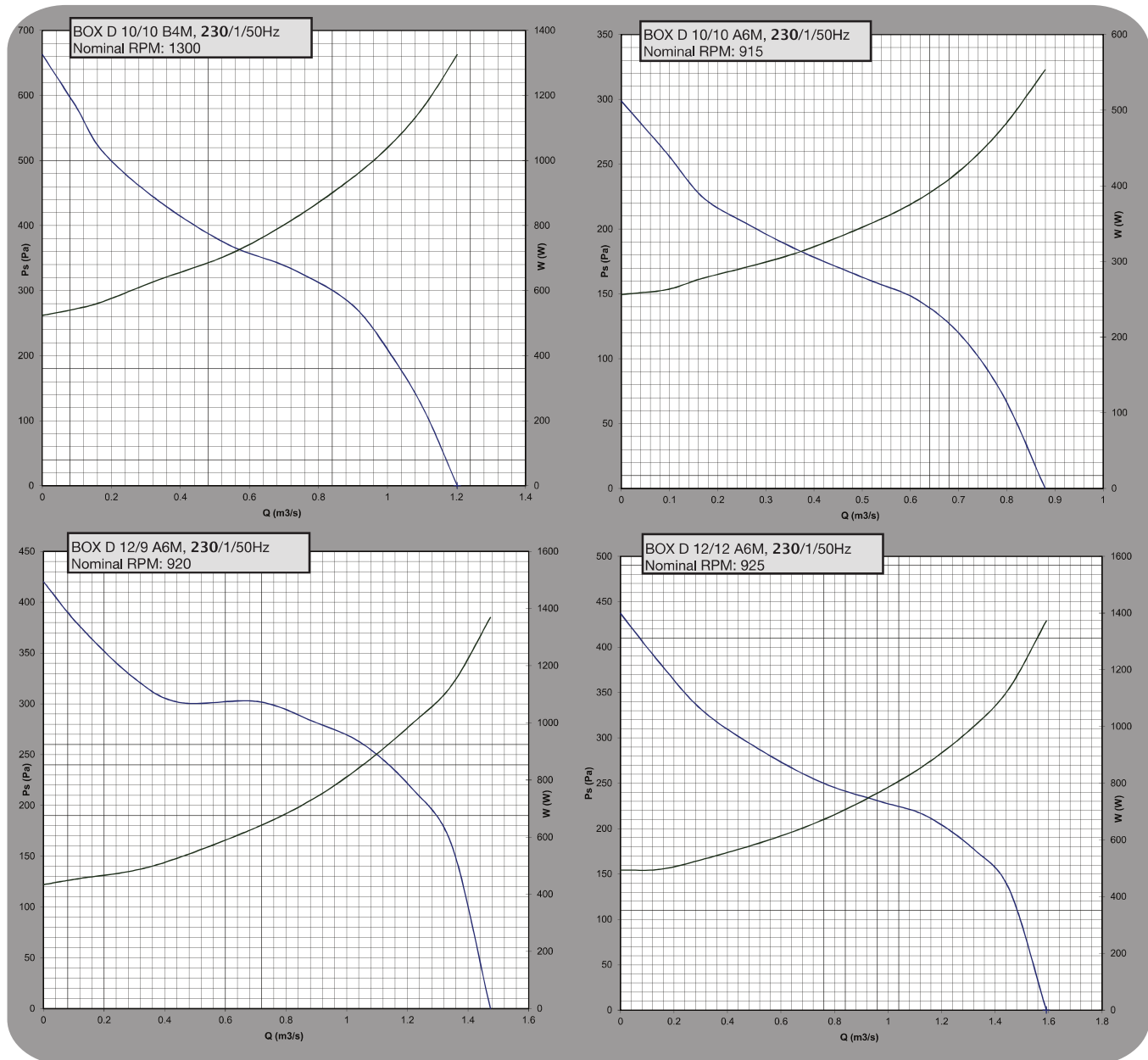
— Fan Performance Curve  
 — Motor Input Watts (W)

## Technical Data for BOX D 10/10, 12/9 and 12/12, 50 Hz

Model	Max Q (Cmh)	Nominal Power (W)	Max Input Power (W)	P	IP/CL	In (A)	V/Ph/F	RPM	Reg	Lp dB(A) at 3m (Free Field)	Octave Band Frequency at max. airflow HZ (Lw, dB)							
											63	125	250	500	1K	2K	4K	8K
Box D 10/10 B4M	4327	550	1325	4	20/F	6.10	220-240/1/50	1036	RV/2-RVM3	58	91	88	84	72	67	65	63	58
Box D 10/10 A6M	3168	245	553	6	20/F	2.65	220-240/1/50	766	RV/1-RVM2	51	86	81	76	65	60	59	58	49
Box D 12/9 A6M	5306	590	1369	6	20/F	6.80	220-240/1/50	771	RV/2-RVM3	58	89	89	81	71	69	68	64	57
Box D 12/12 A6M	5731	590	1372	6	20/F	6.90	220-240/1/50	815	RV/2-RVM3	58	90	90	82	71	67	67	62	54

- Values shown are for inlet Lwi sound power levels for Installation Type D: ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Sound power levels ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.
- Lp-dB(A) levels are not licensed by AMCA International.

## Performance Data for BOX D 10/10, 12/9 and 12/12, 50 Hz



- Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances (accessories).
- Performance certified is for installation type D - Ducted inlet, ducted outlet.

— Fan Performance Curve  
— Motor Input Watts (W)

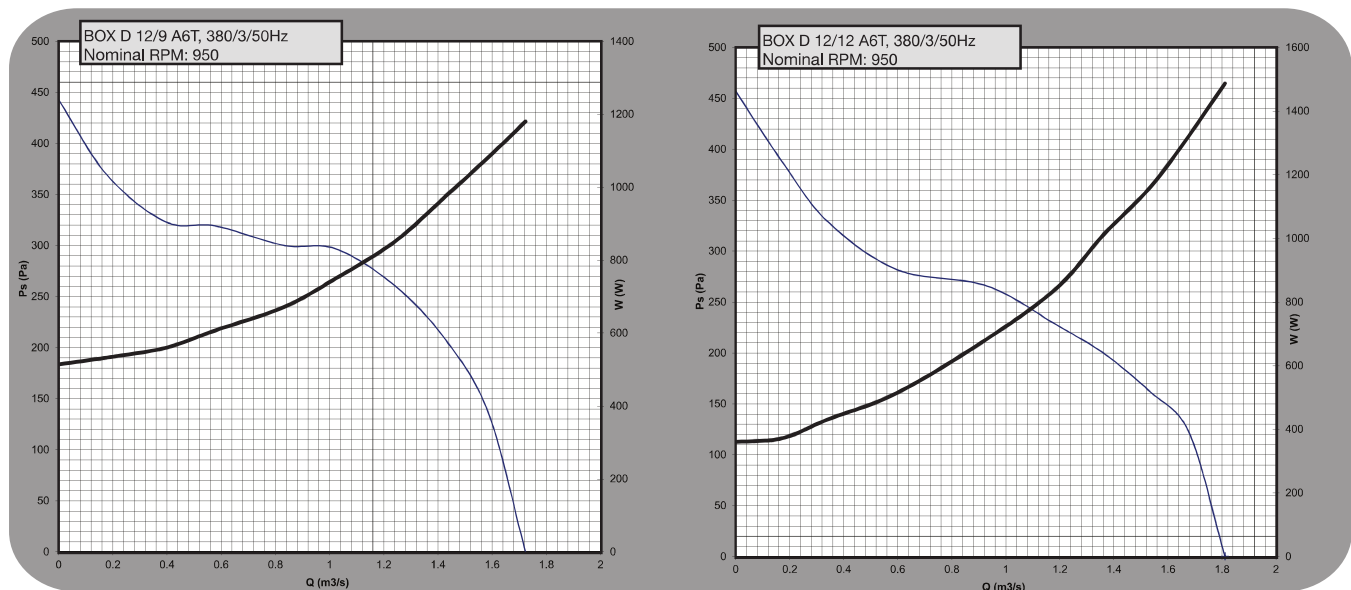


## Technical Data for BOX D 12/9 and 12/12, 50 Hz

Model	Max Q (Cmh)	Nominal Power (W)	Max Input Power (W)	P	IP/CL	In (A)	V/Ph/F	RPM	Reg	Lp dB(A) at 3m (Free Field)	Octave Band Frequency at max. airflow HZ (Lw, dB)							
											63	125	250	500	1K	2K	4K	8K
Box D 12/9 A6T	6203	1100	1180	6	20/F	4.30	380-420/3/50	881	RVT/2	60	93	91	84	73	71	71	67	62
Box D 12/12 A6T	6519	1100	1487	6	20/F	4.70	380-420/3/50	895	RVT/2	61	92	93	84	75	70	70	65	59

- Values shown are for inlet Lwi sound power levels for Installation Type D: ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Sound power levels ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.
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## Performance Data for BOX D 12/9 and 12/12, 50 Hz



— Fan Performance Curve  
— Motor Input Watts (W)

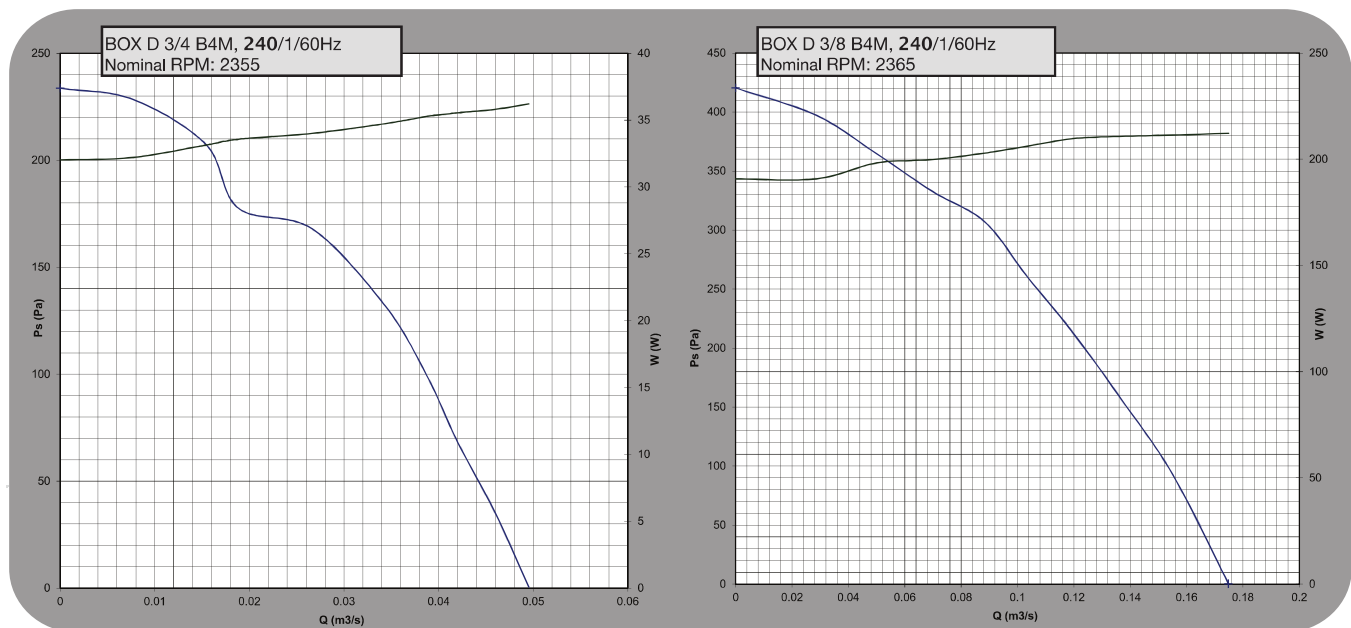
- Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances (accessories).
- Performance certified is for installation type D - Ducted inlet, ducted outlet.

## Technical Data for BOX D 3/4 and 3/8 60 Hz

Model	Max Q (Cmh)	Nominal Power (W)	Max Input Power (W)	P	IP/CL	In (A)	V/Ph/F	RPM	Reg	Lp dB(A) at 3 m (Free Field)	Octave Band Frequency at max. airflow HZ (Lw, dB)							
											63	125	250	500	1K	2K	4K	8K
Box D 3/4 B4M	180	28	36	4	20/F	0.15	230/1/60	1514	RVN-RVS	28	59	55	51	47	40	37	35	32
Box D 3/8 B4M	630	190	212	4	44/F	0.88	230/1/60	1359	RVN-RVS	34	65	61	57	53	46	43	41	38

- Sound performance of Box D 3/4 and 3/8 are not licensed by AMCA International.

## Performance Data for BOX D 3/4 and 3/8 60 Hz



— Fan Performance Curve  
 — Motor Input Watts (W)

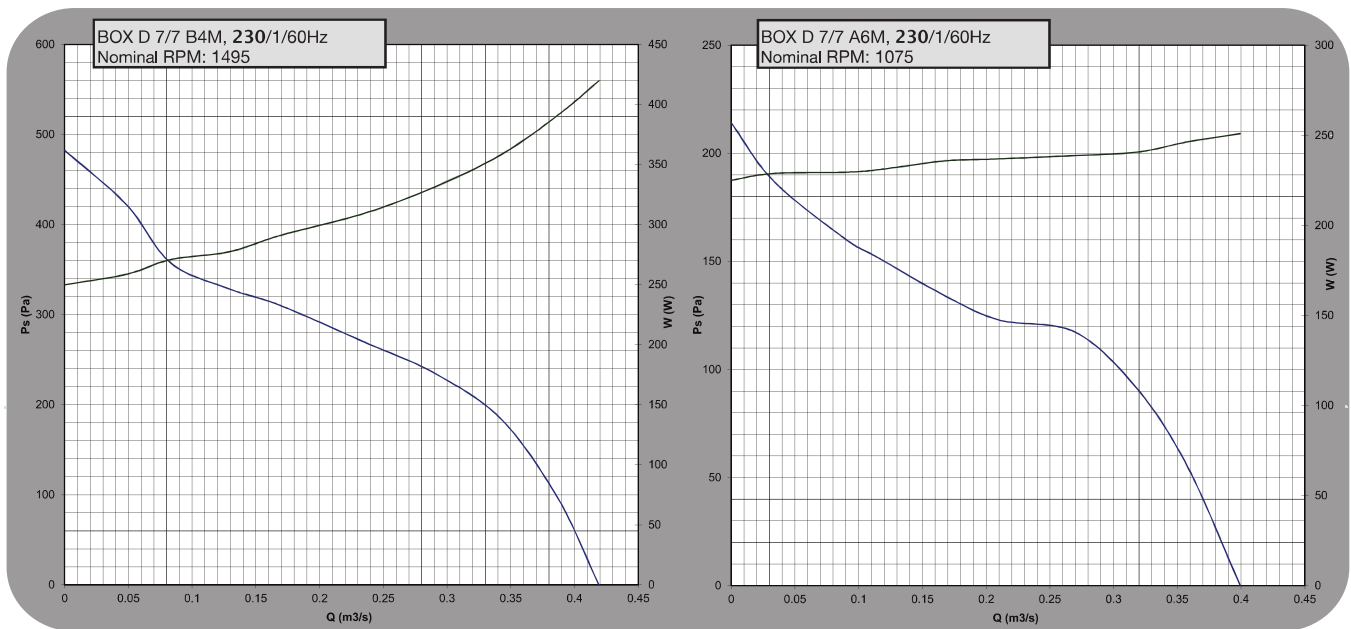
- Speed (RPM) shown is nominal.
- Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances (accessories).
- The AMCA Certified Ratings Seal applies to air performance ratings only
- Performance certified is for installation type D - Ducted inlet, ducted outlet

## Technical Data for BOX D 7/7 60 Hz

Model	Max Q (Cmh)	Nominal Power (W)	Max Input Power (W)	P	IP/CL	In (A)	V/Ph/F	RPM	Reg	Lp dB(A) at 3 m (Free Field)	Octave Band Frequency at max. airflow HZ (Lw, dB)							
											63	125	250	500	1K	2K	4K	8K
Box D 7/7 B4M	1508	147	420	4	32/F	1.70	230/1/60	967	RV/1-RVM/2	53	84	86	77	66	59	52	49	45
Box D 7/7 A6M	1436	62	251	6	32/F	1.10	230/1/60	892	RV/1-RVM	52	87	85	74	65	58	49	47	43

- Values shown are for inlet Lwi sound power levels for Installation Type D: ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Sound power levels ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.
- Lp-dB(A) levels are not licensed by AMCA International."

## Performance Data for BOX D 7/7 60 Hz



- Speed (RPM) shown is nominal.
- Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances (accessories).
- Performance certified is for installation type D - Ducted inlet, ducted outlet

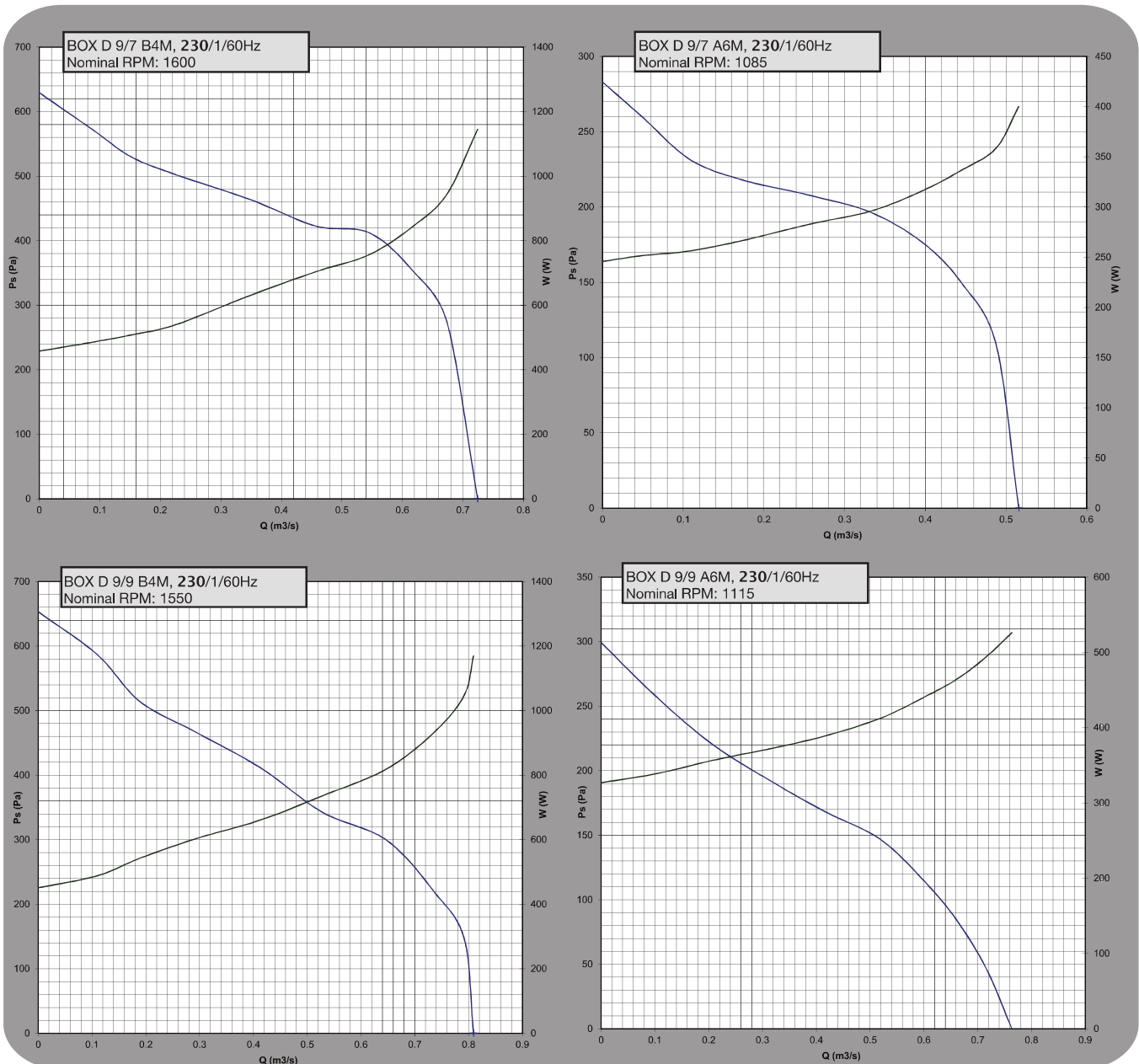
— Fan Performance Curve  
 — Motor Input Watts (W)

## Technical Data for BOX D 9/7 and 9/9, 60 Hz

Model	Max Q (Cmh)	Nominal Power (W)	Max Input Power (W)	P	IP/CL	In (A)	V/Ph/F	RPM	Reg	Lp dB(A) at 3 m (Free Field)	Octave Band Frequency at max. airflow HZ (Lw, dB)							
											63	125	250	500	1K	2K	4K	8K
Box D 9/7 B4M	2606	370	1145	4	20/F	5.00	230/1/60	1170	RV/2-RVM3	56	93	84	81	71	68	62	60	54
Box D 9/7 A6M	1857	147	400	6	20/F	2.00	230/1/60	849	RV/1-RVM2	48	85	74	74	63	57	52	47	39
Box D 9/9 B4M	2912	370	1170	4	20/F	4.60	230/1/60	1100	RV/2-RVM3	55	90	86	80	70	66	59	57	51
Box D 9/9 A6M	2746	245	526	6	20/F	2.60	230/1/60	991	RV/1-RVM2	51	87	81	75	67	62	55	53	45

- Values shown are for inlet Lwi sound power levels for Installation Type D: ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Sound power levels ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.
- Lp-dB(A) levels are not licensed by AMCA International.

## Performance Data for BOX D 9/7 and 9/9, 60 Hz



- Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances (accessories).
- Performance certified is for installation type D - Ducted inlet, ducted outlet.

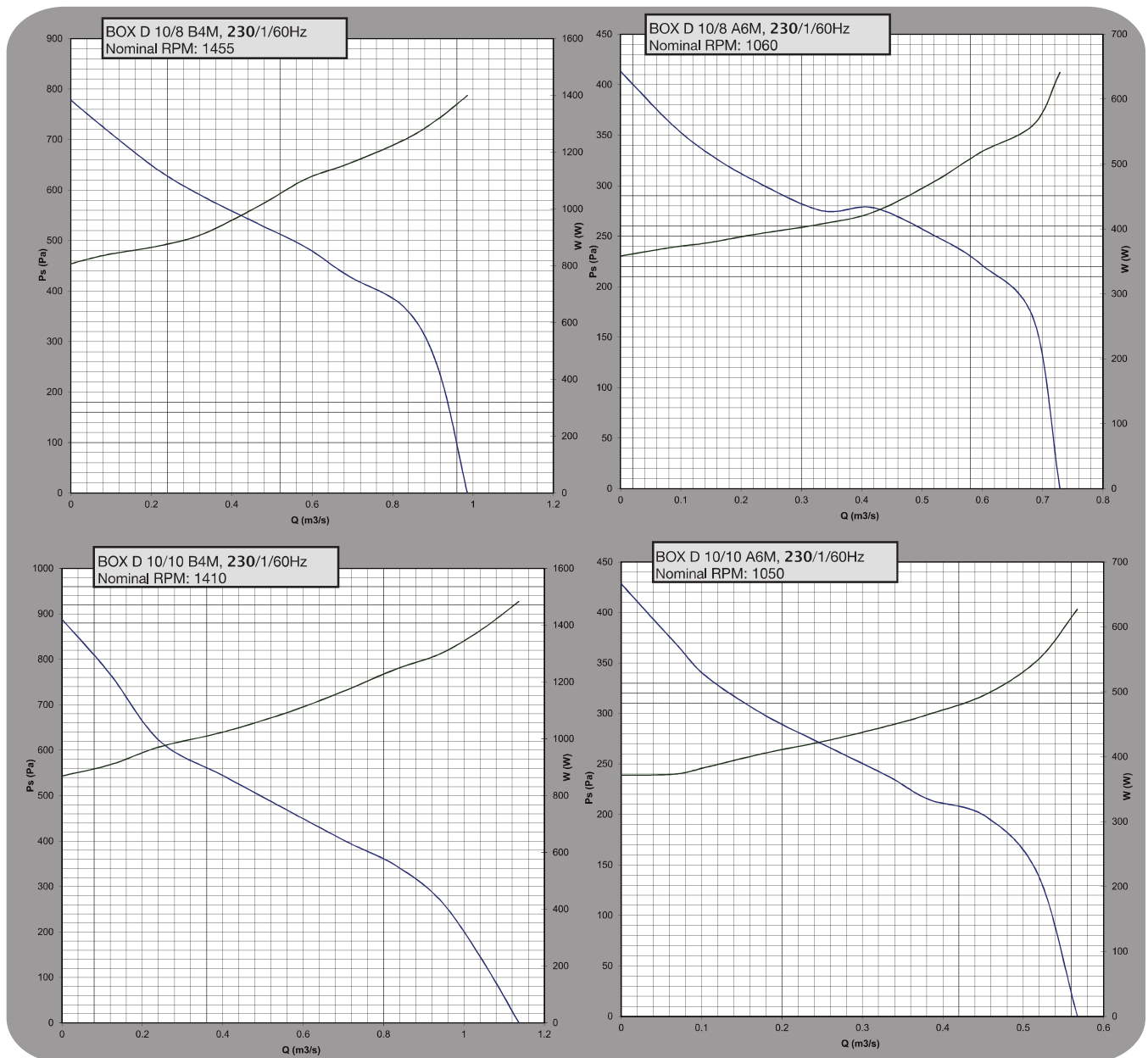
— Fan Performance Curve  
 — Motor Input Watts (W)

## Technical Data for BOX D 10/8 and 10/10, 60 Hz

Model	Max Q (Cmh)	Nominal Power (W)	Max Input Power (W)	P	IP/CL	In (A)	V/Ph/F	RPM	Reg	Lp dB(A) at 3 m (Free Field)	Octave Band Frequency at max. airflow HZ (Lw, dB)							
											63	125	250	500	1K	2K	4K	8K
Box D 10/8 B4M	3550	550	1400	4	20/F	6.00	230/1/60	1017	RV/2-RVM3	57	92	87	83	70	66	64	61	56
Box D 10/8 A6M	2624	245	641	6	20/F	2.60	230/1/60	724	RV/1-RVM2	46	82	76	71	61	56	54	50	43
Box D 10/10 B4M	4093	550	1484	4	20/F	6.00	230/1/60	975	RV/2-RVM3	56	89	86	82	70	65	63	62	56
Box D 10/10 A6M	2041	245	627	6	20/F	2.65	230/1/60	694	RV/1-RVM2	49	84	79	74	63	58	57	55	46

- Values shown are for inlet Lwi sound power levels for Installation Type D: ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Sound power levels ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.
- Lp-dB(A) levels are not licensed by AMCA International.

## Performance Data for BOX D 10/8 and 10/10, 60 Hz



- Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances (accessories).
- Performance certified is for installation type D - Ducted inlet, ducted outlet.

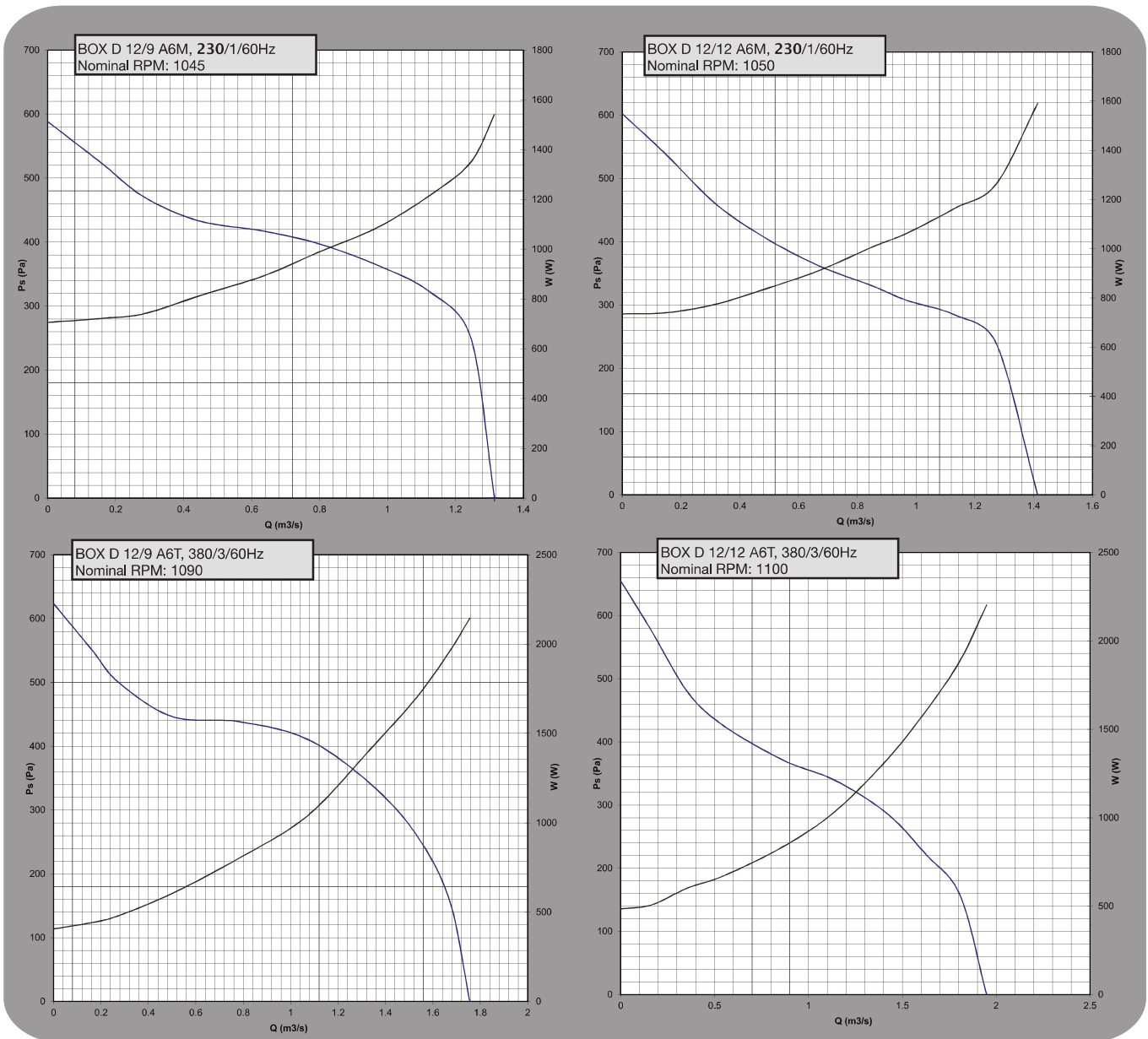
— Fan Performance Curve  
— Motor Input Watts (W)

## Technical Data for BOX D 12/9 and 12/12, 60 Hz

Model	Max Q (Cmh)	Nominal Power (W)	Max Input Power (W)	P	IP/CL	In (A)	V/Ph/F	RPM	Reg	Lp dB(A) at 3 m (Free Field)	Octave Band Frequency at max. airflow HZ (Lw, dB)							
											63	125	250	500	1K	2K	4K	8K
Box D 12/9 A6M	4734	590	1541	6	20/F	6.80	230/1/60	678	RV/2-RVM3	56	86	86	82	69	66	65	61	53
Box D 12/12 A6M	5090	590	1591	6	20/F	6.90	230/1/60	735	RV/2-RVM3	61	89	89	88	70	66	65	60	52
Box D 12/9 A6T	6321	1100	2146	6	20/F	4.30	380/3/60	940	RVT/2	61	95	91	85	77	72	72	68	63
Box D 12/12 A6T	7016	1100	2203	6	20/F	4.70	380/3/60	964	RVT/2	62	96	94	85	77	72	72	67	61

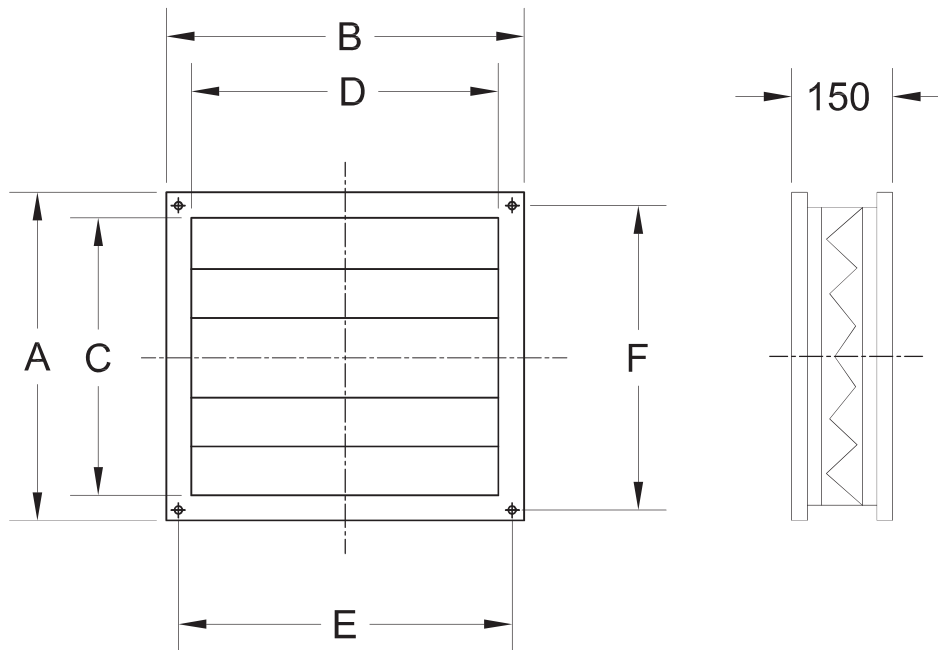
- Values shown are for inlet Lwi sound power levels for installation Type D: ducted inlet, ducted outlet. Ratings include the effects of duct end correction.
- Sound power levels ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301.
- Lp-dB(A) levels are not licensed by AMCA International.

## Performance Data for BOX D 12/9 and 12/12, 60 Hz



- Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances (accessories).
- Performance certified is for installation type D - Ducted inlet, ducted outlet.

— Fan Performance Curve  
— Motor Input Watts (W)



TYPE	A	B	C	D	E	F
BOX D 7/7	375	375	315	315	300	360
BOX D 9/7	458	458	398	398	380	442
BOX D 9/9	458	458	398	398	380	442
BOX D 10/8	505	555	445	495	415	490
BOX D 10/10	505	555	445	495	415	490
BOX D 12/9	595	705	535	645	565	580
BOX D 12/12	595	705	535	645	565	580



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