

# Acme Engineering & Manufacturing Corporation

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# Windings Model DCA

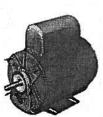
- e All aluminum construction.
- Six-bladed propeller utilizing a cambered-twist blade design with a unique dihedral tip for higher air flow capacities at less horsepower.
- Non-overloading design maintains horsepower within catalog range of static pressure, resulting in lower motor load and reduced operating costs.
- Streamlined orifice insures higher air flow capacity.
- Available mounted in either slant housing or slant housing & diffuser.

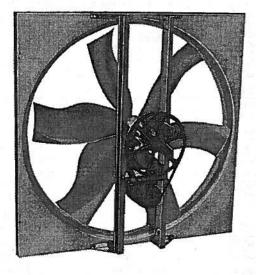
## **SEALED BEARINGS**

- Prelubricated oversize ball bearings are double sealed, require no service.
- Improved, more efficient drive assembly and super-duty neoprene belts provide longer service life.
- 5 year warranty on shaft and bearing assembly.

# ENERGY EFFICIENT ENCLOSED MOTORS

- Heavy duty totally enclosed motors with shielded ball bearings are designed for continuous work load.
- Available in two speed.
- Built-in thermal overload for low-line voltage protection on all single phase motors.







Acme Windmaster Fans are listed by Canadian Standards Association Testing Laboratory as approved.

## **MOTOR NOTES**

- All single speed single phase motors are dual voltage (115/230) except ¼ horsepower.
- All ¼ horsepower single phase motors are single voltage (115 or 230).
- Two speed motors are single voltage (115 or 230) and not available in 1 ½ horsepower.
- Maximum capacity of two speed ½ and ¾ horsepower models is approximately 10% less than shown on tables.
- Low speed capacity of two speed fans is approximately one half of maximum.
- Three phase motors are triple voltage (200-230/460).

### **MOTOR DATA**

HP =	Mfg	Mfg. Model	Volts	Hz	Mfg.	Mfg. Model	Volts	Hz	Mfg.	Mfg. Model	Voits	Hz
1/3	GE	5KHC37MN11GS	115/230	60	Marathon	WN48N17T2A	115/208/230	60	Magnetek	HF2J061N	115/230	60
1/3	Baldor	34K99W137	200/230/460	60								all last
1/2	A.O. Smith	95GC071A-1	115/230	60	Magnetek	18613700	115/208/230	60	GE	5KCR46PN006AS	115/208/230	60
1/2	Marathon	56T17T348	200/230/460	60	Magnetek	15819400	200/230/460	60	GE	5K42HGA181	200/230/460	60
3/4	Emerson	T63ZZBMR-1002	115/208/230	60	Marathon	2WH56B17T5518B	115/208/230	60	GE	5KCR46NN0137AS	115/208/230	60
3/4	GE	5K49MN4096	115/230/460	60					ul-		<del></del>	
1	A.O. Smith	K56A40B83	115/230	60	Magnetek	81782	115/208/230	60	Marathon	N56B17T5517	115/230	60
1	GE	5KCR49SN0020S	115/208/230	60	GE	5K49PN4094	200/230/460	60	Marathon	56T17T5529	208/230/460	60
1	Emerson	P63EBD3552	208/230/460	60								
1 1/2	GE	5KCR48WN0139S	115/208/230	60	Marathon	U56B17T5519B	115/208/230	60	Marathon	56T17T5530	200/230/460	60
1 1/2	Baldor	M3554	208/230/460	60	GE	5K49SN409J	200/230/460	60				

WARNING! DO NOT use in HAZARDOUS ENVIRONMENTS where fan's electrical system could provide ignition to combustible or flammable materials unless unit is specifically built for hazardous environments.

## DCA PERFORMANCE DATA

### Fan Mounted in WS Slant Wall Housing with Inlet Shutter, Guard and Outlet Guard CERTIFIED CFM VS. STATIC PRESSURE (INCHES WG) .058 100" 125 .150 FAN-MODEL TRPM C/W CFM BHP CFM BHP CIN CFM BHP C/W CFM BHP C/W CFM BHP C/W DCA24F-B 1/3 735 5266 .48 9.6 4966 9.0 4654 .48 8.4 4488 .48 8.1 4315 .49 DCA24G-B 1/2 820 5752 .64 9.0 5484 .64 8.5 5214 .65 8.1 5076 .65 7.8 4937 .65 7.6 DCA24H-B 3/4 949 7010 6793 1.04 1.03 6.9 6.7 6570 1.04 6.4 6455 1.05 6.3 6336 1.05 6.1 DCA30F-B 1/3 529 7104 .49 12.5 6662 .51 11.5 6142 .52 10.5 5789 .52 9.9 5254 .52 9.0 DCA30G-B 1/2 607 8654 .77 11.1 8304 .77 10.5 7932 .78 10.0 7726 .78 9.7 9.4 7499 .78 DCA30H-B 3/4 686 9482 .98 9.8 9092 .98 9.3 8686 8.9 8470 .99 8.7 8243 .99 8.4 DCA36F-B 1/3 431 9315 .39 19.1 8526 .40 17.1 7609 .41 15.0 6898 .42 13.5 5943 .42 11.6 DCA36G-B 1/2 495 10661 .61 17.5 9972 .62 16.0 9222 14.5 8791 .64 .65 13.6 8282 .65 12.7 3/4 DCA36H-B 575 12418 .94 13.3 11852 .95 12.5 11253 .97 11.7 10926 11.3 .98 10567 1.00 10.8 DCA36J-B 634 1 13344 1.15 12.2 12753 1.17 11.4 12168 1.20 10.7 11880 1.21 10.4 11593 1.22 10.0 DCA42G-B 385 13952 .64 22.0 12888 .69 1/2 18.7 11691 .72 16.2 10966 .73 15.1 10067 .73 13.9 DCA42H-B 3/4 15699 442 .97 16.3 14819 .99 15.1 13831 1.02 13.8 13257 1.03 12610 13.1 1.04 12.3 DCA42J-B 1 485 16926 1.21 14.8 16108 1.23 15260 13.8 1.25 12.8 14811 1.26 12.3 14332 1.27 11.9 DCA48G-B 1/2 308 16301 14828 .62 26.2 .64 12983 23.3 .66 19.6 11626 .68 17.2 9832 .67 14.8 DCA48H-B 3/4 354 18847 .97 19.7 17512 1.01 16176 17.6 1.03 15.9 15415 1.05 15.0 14365 1.06 13.8 DCA48J-B 384 19826 1.15 18.2 18777 1.18 1 16.8 17574 1.21 15.3 16815 1.23 14.4 15893 1.24 13.5 DCA54-4J-B 1 356 24862 1.16 22.5 23124 1.19 21267 20.4 1.22 18.3 20204 18925 1.24 17.2 1.26 15.8 DCA54-4K-B 405 27100 1.52 17.3 25629 23922 23019 1.54 16.1 1.57 14.8 1.59 14.2 21999 1.61 13.5

			WSC SI	ant Wal	l Housi	ng with		Mount r Cone		nutter,	Guard a	nd Out	et Guar	d		1	
									RESSURE	ar are the same of the							
FAN	не	*RPM	100	.000*			.050"		7 - 70	.100"	77		,125 <sup>4</sup>		7. "	.160"	
MODEL.		386-189	CEM	BHP	C/W	CFM	ВНР	GAN	CFM	BHP	C/W	GFM	BHP	C/W	CFM	BHP	C/W
DCA24F-D	1/3	735	5747	.47	10.6	5462	.47.	9.9	5147	.48	9.2	4963	.49	8.9	4758	.49	8.5
DCA24G-D	1/2	763	6345	.60	10.6	6052	.60	10.0	5755	.61	9.5	5603	.61	9.2	5449	.62	8.8
DCA24H-D	3/4	949	7640	1.01	7.6	7429	1.03	7.3	7214	1.04	7.0	7103	1.05	6.9	6990	1.05	6.7
DCA30F-D	1/3	529	8187	.45	15.3	7679	.47	14.0	7109	.49	12.6	6765	.49	11.9	6348	.50	11.1
DCA30G-D	1/2	607	9532	.74	12.8	9133	.75	12.0	8704	.76	11.2	8463	.77	10.8	8193	.77	10.4
DCA30H-D	3/4	686	10899	1.08	10.2	10498	1.10	9.7	10087	1.12	9.1	9873	1.13	8.9	9651	1.14	8.6
DCA36F-D	1/3	431	9738	.38	20.3	8978	.40	. 18.1	8042	.41	15.9	7330	.42	14.2	6460	.43	12.4
DCA36G-D	1/2	495	11019	.57	19.1	10396	.60	17.2	9645	.63	15.4	9154	.64	14.4	8606	.65	13.3
DCA36H-D	3/4	575	13364	.86	15.5	12725	.90	14.2	12077	.94	13.0	11745	.95	12.5	11400	.96	12.0
DCA36J-D	1	634	14354	1.06	14.2	13784	1.10	13.2	13199	1.13	12.2	12894	1.15	11.8	12577	1.16	11.4
DCA42G-D	1/2	385	15091	.68	22.4	13942	.71	19.8	12661	.73	17.4	11983	.73	16.2	11269	.74	15.1
DCA42H-D	3/4	442	17403	1.04	17.1	16423	1.07	15.6	15376	1.10	14.3	14801	1.11	13.5	14179	1.13	12.8
DCA42J-D	1	485	20916	1.17	18.8	19872	1.21	17.2	18779	1.25	15.8	18192	1.26	15.2	17564	1.27	14.5
DCA48G-D	1/3	308	17648	.58	30.2	16112	.62	26.0	14217	.65	21.9	12931	.66	19.7	10108	.67	15.1
DCA48H-D	3/4	354	20279	.93	,22.0	18964	.97	19.8	17547	1.01	. 17.7	16714	1.02	16.5	15588	1.04	15.3
DCA48J-D	1	382	21687	1.09	20.9	20343	1.15	18.7	18896	1.20	16.6	18096	1.22	15.7	17227	1.23	14.8
DCA54-4J-D	1	356	26900	1.14	23.6	25051	1.19	21.1	22745	1.23	18.6	21315	1.24	17.3	19750	1.25	15.9
DCA54-4K-D	11/2	405	29990	1.58	19.4	28329	1.63	17.8	26461	1.67	16.2	25390	1.69	15.4	24184	1.71	14.5
Performance in	ncludes t	he effects	s of slant	housing,	shutter,	guards ar	nd diffuse	r cone in	the airst	eam.							

Performance shown is for installation type A - Free inlet, Free outlet. Speed (RPM or RPS) shown in nominal. Performance based on actual speed of test. Refer to Motor Table (page 1) for motor nameplate information.

Performance includes the effects of slant housing, shutter and guards in the airstream.



Acme Engineering and Manufacturing Corporation certifies that the Windmaster DCA fan shown hereon is licensed 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.

## TWO-SPEED DCA PERFORMANCE DATA

### Fan Mounted in WS Slant Wall Housing with Inlet Shutter, Guard and Outlet Guard CFM VS. STATIC PRESSURE (INCHES WG) .000" CFM 8HP CFM BHP CW CFM BHP C/W CFM BHP CNI CFM BHP C/W DCA24G-2S-B 763 5352 .51 8.6 5064 .52 8.1 4773 .52 7.6 4623 7.3 .52 4468 .53 7.0 DCA24H-2S-B 3/4 875 6463 .81 7.0 6227 .81 6.7 5983 .82 6.4 5855 .82 6.2 5712 .83 6.0 DCA30G-2S-B 546 7784 .56 11.3 7393 .56 10.7 6961 .57 10.0 6706 .57 9.5 6404 .57 9.0 DCA30H-2S-B 3/4 647 8943 .83 8529 9.4 .83 9.0 8093 .83 8.5 7857 .83 8.2 7607 .84 7.9 DCA36G-2S-B .48 9972 16.6 9234 .51 15.0 8403 .53 13.3 7893 .53 12.3 7229 .54 11.2 DCA36H-2S-B 511 11036 .66 14.5 10396 .67 13.4 9690 .69 12.2 9278 .70 11.6 8794 .71 10.8 DCA36J-2S-B\* 634 13344 1.15 11.4 12753 1.17 10.6 12168 1.20 10.0 11880 1.21 9.7 11593 1.22 9.3 DCA42G-2S-B 1/2 356 12901 .50 21.3 11741 .55 17.6 10369 .57 15.0 9452 .57 13.6 8183 .57 12.0 DCA42H-2S-B 3/4 511 18150 1.50 10.5 17394 1.53 9.9 16590 1.55 9.3 16150 1.57 9.0 15674 1.58 8.6 DCA42J-2S-B\* 485 16926 1.21 13.8 16108 1.23 15260 12.9 1.25 12.0 14811 1.26 11.5 14332 1.27 11.1 1/2 DCA48G-2S-B 276 14607 .45 27.1 12929 .46 23.3 10446 .49 17.9 8433 .48 14.6 6098 .50 10.1 DCA48H-2S-B 3/4 314 16717 .68 21.4 15217 .71 18.7 13610 .73 16.2 12302 .74 14.4 10616 .74 12.4 DCA48J-2S-B\* 1 384 19826 1.15 17.0 18777 1.18 15.7 17574 1.21 14.3 16815 1.23 13.4 15893 1.24 12.6

19.0

21267

1.22

17.1

20204

1.24

16.1

18925

1.26

14.8

Performance includes the effects of slant housing, shutter and guards in the airstream.

1.16

21.0

23124

1.19

24862

356

	l.		V	VS Slan	t Wall l	lousing	Fan With Ir	Mounte	d in Itter, Gu	iard an	d Outle	t Guard			i juli		
	J., T.					CFM V	S. STATH	PRESSL	RE (INCH	ES WG)							
FAN MODEL	HP	RPM		,000°		Signal C	.050"			.100°			.125"			160"	
MODEL			GFM	ВНР	C/W	CFM	BHP	ĊM	CFM	BHP	C/W	CFM	BHP	CW	CFM	BHP	GW
DCA24G-2S-D	1/2	763	5904	.48	10.2	5589	.49	9.6	5268	.49	8.9	5103	.50	8.5	4934	.50	8.2
DCA24H-2S-D	3/4	875	7044	.79	7.7	6815	.81	7.3	6580	.82	7.0	6458	.83	6.8	6331	.83	6.6
DCA30G-2S-D	1/2	546	8574	.54	13.1	8182	.55	12.2	7625	.56	11.1	7323	.56	10.6	6974	.57	10.0
DCA30H-2S-D	3/4	647	10279	.91	9.9	9854	.93	9.3	9414	.95	8.7	9183	.96	8.4	8941	.97	8.1
DCA36G-2S-D	1/2	463	10307	.47	18.2	9635	.50	.16.1	8769	.52	14.1	8195	.53	13.0	7589	.54	11.8
DCA36H-2S-D	3/4	511	11877	.60	16.9	11157	.64	15.1	10420	.67	13.5	10025	.68	12.8	9566	.69	12.1
DCA36J-2S-D*	1	634	14354	1.06	13.3	13784	1.10	12.3	13199	1.13	11.4	12894	1.15	11.0	12577	1.16	10.6
DCA42G-2S-D	1/2	356	13954	.54	21.7	12704	.54	18.8	11282	.58	16.1	10527	.59	14.8	9471	.59	13,2
DCA42H-2S-D	3/4	511	20120	1.60	11.0	19276	1.64	10.3	18402	1.67	9.6	17942	1.69	9.3	17458	1.71	8.9
DCA42J-2S-D*	<u> </u>	485	20916	1.17	17.6	19872	1.21	16.1	18779	1.25	14.8	18192	1.26	14.2	17564	1.27	13.5
DCA48G-2S-D	1/2	276	15814	.42	31.2	14065	.45	25.8	11617	47	20.5	8683	.48	15.0	6728	.50	11.2
DCA48H-2S-D	3/4	314	15437	.72	18.6	14325	.75	16.7	13083	.78	14.7	12368	.79	13.7	. 11575	.80	12.6
DCA48J-2S-D*	1	382	21687	1.09	19.5	20343	1.15	17.5	18896	1.20	15.5	18096	1.22	14.7	17227	1,23	13.8
DCA54J-2S-D*	1	356	26900	1.14	22.0	25051	1.19	19.7	22745	1.23	17.4	21315	1.24	16.2	19750	1.25	14.8

Two speed models are not licensed to bear the AMCA seal.

\*Maximum capacity of the two speed 1 HP models is approximately 10% less than shown in the table.

Performance shown is for installation type A - Free inlet, Free outlet.

Speed (RPM or RPS) shown in nominal. Performance based on actual speed of test.

Refer to Motor Table (page 1) for motor nameplate information.

## MODEL WS SLANT WALL HOUSING

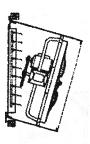
DCA54J-2S-B\*

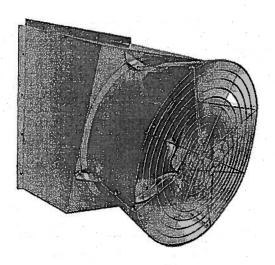
- Slant arrangement protects motor and drives from weather.
- Constructed of heavy gauge galvanized steel or aluminum.
- High air flow capacity shutter directs air to fan.
- Select fan at .05" sp. instead of .10".

_	FOR DCA MODEL FAN									
FAN SIZE	WALL HOUSI	NG	SHUTTER							
	MODEL	WT	MODEL	WT						
24"	WS24DC	35	WAA2727	14						
30"	WS30DC	42	WAA3333	20						
36*	WS36DC	46	WAA3939	27						
42"	WS42DC	53	WAA4545	30						
48"	WS48DC	78	WAA5454	44						
54*	WS54DC	106	WAA6060	54						

- Includes guard on outlet side.
- Shutter and inlet guard held in place by quick release clips.
- Wiring knockout allows wiring connections inside building.







## Discharge Air Diffuser Cone

Made of galvanized steel or aluminum, the cone increases air flow with the same HP and includes safety guards, brackets and hardware for easy mounting. Cone is designed for use with slant wall collar (not slant housing) and shipped knocked down.

## **Aluminum Shutters**

- All aluminum construction.
- Counter balanced blades.
- Nylon bearing.
- Stainless steel hinge pins.
- Low air resistance.
- Reduces sticking in dusty and moist conditions.

## Guards

 Galvanized heavy gauge welded wire in aluminum frames.

Fan Size	Guard Model for Siant Housing						
24"	GS24	5 lbs.					
30"	GS30	7 lbs.					
36"	GS36	10 lbs.					
42"	GS42	12 lbs.					
48"	GS48	15 lbs.					
54"	GS54	18 lbs.					

CAUTION! Guards are strongly recommended when the fan is installed within seven (7) feet of floor, working level or within reach of personnel. Guards complying with OSHA regulations are available as optional equipment. Review OSHA Codes and obtain a quotation.

WARNING Acme products are designed and manufactured to provide reliable performance but they are not guaranteed to be 100% free of defects. Even reliable products will experience occasional failures and this possibility should be recognized by the User. If these products are used in a life support ventilation system where failure could result in loss or injury, the User should provide adequate back-up ventilation, supplementary natural ventilation or failure alarm system, or acknowledge willingness to accept the risk of such loss or injury.

WARNING DO NOT use in HAZARDOUS ENVIRONMENTS where fan's electrical system could provide ignition to combustible or flammable materials unless unit is specifically built for hazardous environments.

CAUTION Guards must be instailed when fan is within reach of personnel or within seven (7) feet (2.134 m) of working level or when deemed advisable for safety.

DISCLAIMER The Company has made a diligent effort to Illustrate and describe the products in this literature accurately; however, such illustrations and descriptions are for the sole purpose of identification, and do not express or imply a warranty that the products are merchantable, or fit for a particular purpose, or that the products will necessarily conform to the illustrations or descriptions or dimension.

WARRANTY AND DISCLAIMER: Acme Engineering and Manufacturing Corporation extends this limited warranty to the original buyer and warrants that products manufactured by the Company shall be free from original defects in workmanship and materials for two years from date of shipment, provided same have been properly stored, installed, serviced, maintained and operated. This warranty shall not apply to products which have been altered or repaired without the Company's express authorization, or altered or repalred in any way so as, In the Company's judgment, to affect its performance or retilability, nor which have been improperly installed or subjected to misuse, negligence, or accident, or incorrectly used in combination with other substances. The Buyer assumes all risks and liability for results of use of the products. Warranties on purchased parts, such as but not limited to bearings, sheaves, belts, couplings, electric motors, pumps, controls and heaters are limited to the terms of warranty extended by our supplier.

Polyethylene tubing and cooling pads are warranted to be free of defects in material and workmanship for a period of 90 days from date of shipment and a like warranty applies to the cross fluted cellular type cooling cells for a period of two years from date of shipment provided same have been properly handled, stored, installed, serviced, maintained and operated. And further, not subjected to excessive heat, corrosive agents or chemicals, or mechanical abuse that may cause tearing, crushing or undue deterioration nor used on a system or in a manner other than that for which it was designed as explained in the product literature.



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LIMITATION OF REMEDY AND DAMAGES: All claims under this warranty must be made in writing and delivered to P. O. Box 978, Muskogee, Oklahoma, 74402, within 15 days after discovery of the defect and prior to the expiration of two years from the date of shipment by the Company of the product claimed defective, and Büyer shall be barred from any remedy if Buyer fails to make such claim within such period.

Within 30 days after receipt of a timely claim, the Company shall have the option either to inspect the product while in Buyer's possession or to request Buyer to return the product to the Company at Buyer's expense for inspection by the Company. The Company shall replace, or at its option repair, free of charge, any product it determines to be defective, and it shall ship the repaired or replacement product to Buyer F.O.B. point of shipment; provided, however, if circumstances are such as In the Company's judgment to prohibit repair or replacement to remedy the warranted defects, the Buyer's sole and exclusive remedy shall be a refund to the Buyer of any part of the Invoice price, paid to the Company, for the defective product or part.

The Company is not responsible for the cost of removal of the defective product or part, damages due to removal, or any expenses incurred in shipping the product or part to or from the Company's plant, or the installation of the repaired or replaced product or part.

Implied warranties, when applicable, shall commence upon the same date as the express warranty provided above, and shall, except for warranties of title, extend only for the duration of the express warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. The only remedy provided to you under an applicable implied warranty and the express warranty shall be the remedy provided under the express warranty, subject to the terms and conditions contained therein. The Company shall not be liable for incidental and consequential losses and damages under the express warranty, any applicable implied warranty, or claims for negligence, except to the

extent that this limitation is found to be unenforceable under applicable state law. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

No employee, agent, dealer, or other person is authorized to give any warranties on behalf of the Company or to assume for the Company any other liability in connection with any of its products except in writing and signed by an officer of the Company.

REPLACEMENT PARTS if replacement parts are ordered, buyer warrants that the original components in which these replacement parts will be placed are in satisfactory working condition, and when said replacement parts are installed, the resultant installation will operate in a safe manner, at speeds and temperatures for which the original equipment was purchased.

TECHNICAL ADVICE AND RECOMMENDATIONS, DISCLAIMER: Notwithstanding any past practice or dealings or any custom of the trade, sales shall not include the furnishing of technical advice or assistance or system design. Any such assistance shall be at the Company's sole option and may be subject to additional charge.

The Company assumes no obligation or liability on account of any recommendations, opinions or advice as to the choice, installation or use of products. Any such recommendations, opinions or advice are given and shall be accepted at your own risk and shall not constitute any warranty or guarantee of such products or their performance.

GENERAL in no event shall any claim for consequential damages be made by either party. The Company will comply with all applicable Federal, State, and local laws.

