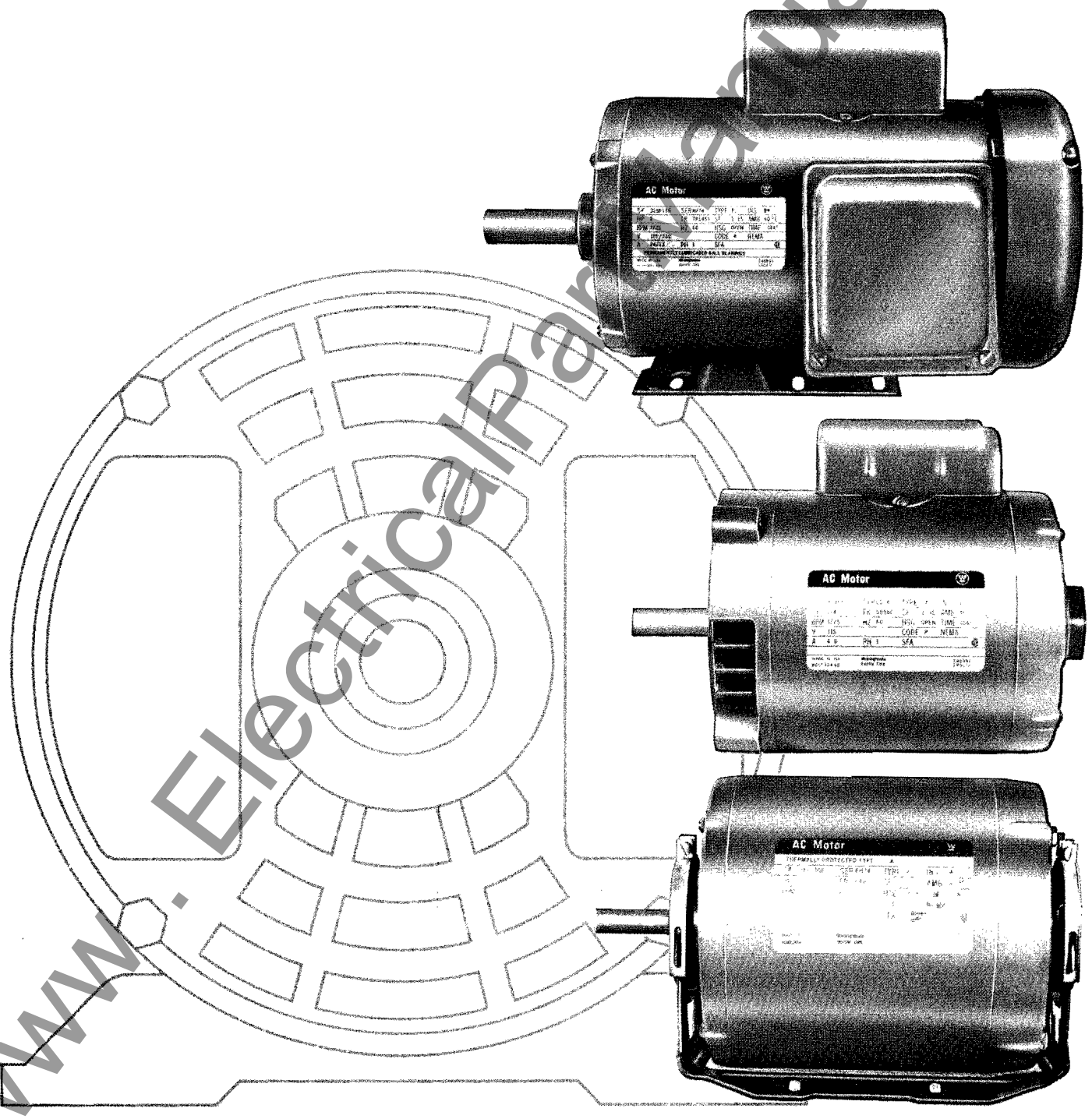
Westinghouse Electric Corporation
Small Motor Division
Lima, Ohio, U.S.A. 45802

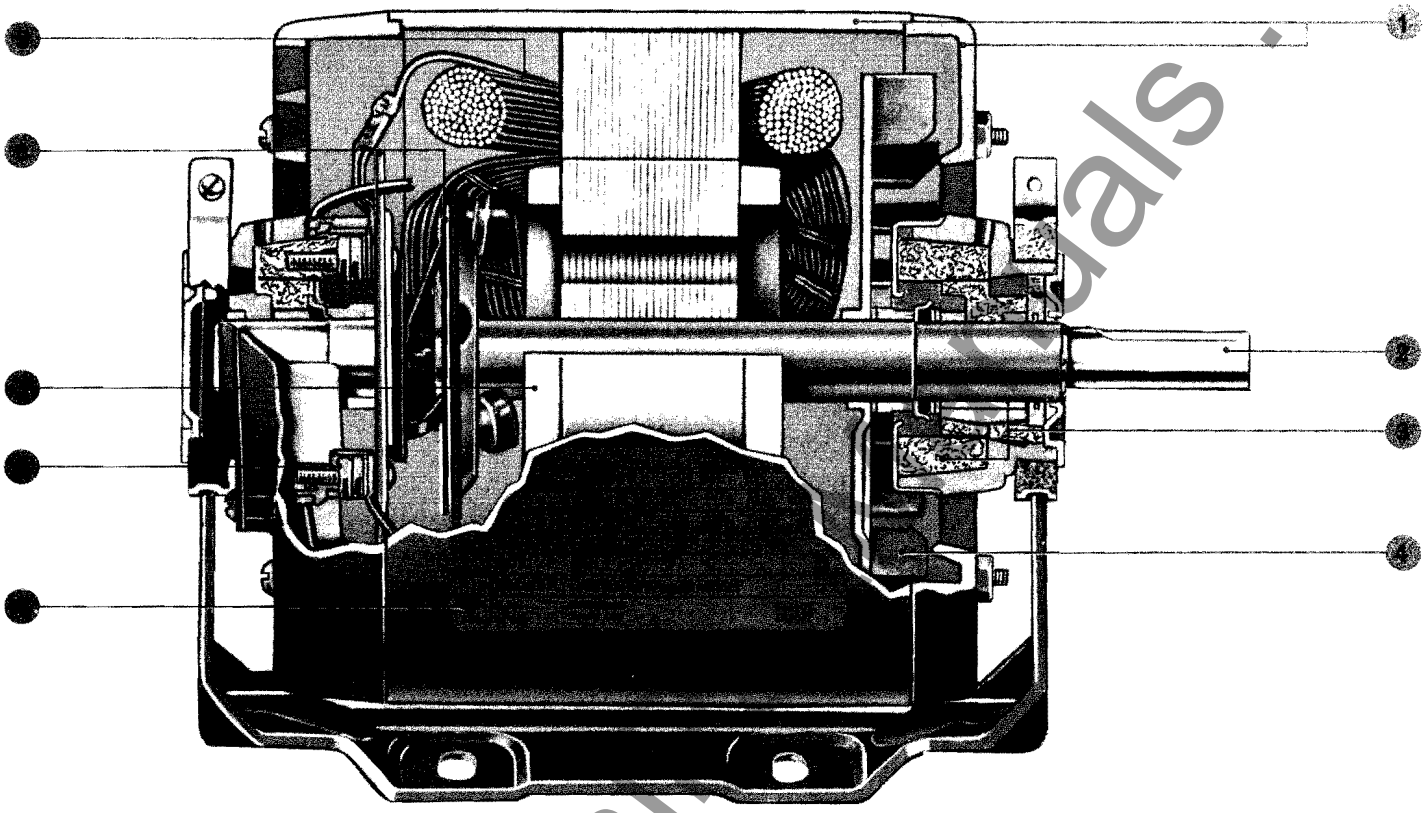
January, 1975
Supersedes 2820
Price List
pages 1-24 dated November 30, 1972
Mailed to: E, D, C/1703/PL; E, D/2430/PL

Small Motors:
NEMA 48 and 56 Frame, ⅛ to 5 Hp
Integral Motors:
NEMA 143T and 145T Frame, 1-3 Hp

General Purpose Standard and Stock Motors



Design and Construction Benefits



(1) Frame and End Brackets
Frames on Westinghouse fractional horsepower motors are of rolled steel construction with both ends precision machined to assure accurate end bracket fits. Both end brackets are made of sturdy reinforced diecast aluminum. All motors conform to NEMA drip-proof standards when mounted horizontally.

(2) Corrosion Resistant Shaft
To combat the harmful effects of excessive moisture present on many applications, standard 48 and 56 frame motor shafts are treated to resist corrosion. This treatment reduces the possibility of couplings, pulleys and direct-mounted pump impellers rusting to the shaft.

(3) Lubrication and Bearings
The Westinghouse sleeve bearing design features the most advanced system available. Special wicking materials assure the bearing surfaces are constantly supplied with clean oil. Even distribution of the lubricant is provided by grooves in the bearing surface. Oil slingers at each end of the bearing return the oil to the reservoir. This Westinghouse system means less lubrication maintenance during the life of the motor.

The sleeve bearing lubrication system is designed to operate on light duty applications for years without re-lubrication as long as the belt pull is not against the bearing window.

Standard and general purpose ball bearing motors are factory lubricated, and under normal operating conditions, will require no additional lubrication for ten years. Some special purpose ball bearing motors, such as jet pump motors, have permanently lubricated bearings. Motors equipped with the latter type bearing have "Permanently Lubricated Ball Bearings" on the nameplate.

(4) Ventilation
A high volume, low pressure, straight through ventilation system maintains a flow of air all the way through the motor. The air enters the motor through the vent holes around the rear bearing hub, is evenly dispersed throughout the motor by an efficient fan and exhausts out the vent holes in the front bracket. This air flow eliminates "hot spots" in the windings and the resulting reduction in motor life.

(5) Nameplate
Mylar nameplate includes all motor specifications as well as lubrication and connection information.

(6) Terminal Board and Conduit Box
The polyester terminal board is easily accessible through the large conduit box in the front end bell. Polyester is moisture and warp resistant, so, the correct spacing between the rotating and stationary portion of the starting switch is maintained.

Combination ¼" spade and stud terminals are utilized for line connections on all standard and general purpose motors. To change voltage or rotation on all standard and general purpose motors (except the rotation on dual voltage 48 frame ratings) merely switch the proper plug-in connectors by following the instructions supplied with the motor.

For adaptability on applications using a cord for connection to the power supply, a strain relief is built into the conduit box on all 48 and 56 frame motors. In addition, a drilled and tapped hole for ½" pipe is provided, should this type of connection be desired.

Westinghouse Electric Corporation
Small Motor Division
Lima, Ohio, U.S.A. 45802

2820 P WE A
Price List

Page 1

January 16, 1975
New Information
Prices effective January 16, 1975
subject to change without notice.
(Refer to Selling Policy 2700 S WE A)
Mailed to: E, D, C/1703/PL; E, D/2430/PL

Small Motors:
NEMA 48 and 56 Frame, 1/8 to 5 Hp
Integral Motors:
NEMA 143T and 145T Frame, 1-3 Hp

General Purpose Standard and Stock Motors

This price list is for use with Descriptive Bulletin 2820 D WE A. It covers all style numbered motors listed in the Bulletin along with their respective list prices.

Style numbers are listed numerically and show the page in the Bulletin on which they appear.

Style Number	Page	List Price
308P614	5	$ 71.50
308P615	7	82.50
308P616	5	79.00
308P617	7	95.00
308P618	7	104.00
308P619	7	117.50
308P620	7	125.00
308P640	5	74.00
308P641	7	85.00
308P642	5	81.50
308P643	7	97.50
308P644	7	106.50
308P645	7	120.00
308P646	7	127.50
309P266	4	38.00
309P312	6	40.50
309P324	5	32.00
309P333	5	36.50
309P335	7	43.50
309P337	4	37.00
309P367	7	45.50
309P381	6	41.50
309P383	11	47.00
309P391©	5	48.50
309P408©	4	44.50
309P420	8	38.00
309P421	8	42.00
309P436	4	42.00
309P439	6	43.00
309P494	5	33.50
309P514	4	28.50
309P533	6	41.00
309P545	6	45.00
309P568©	4	47.00
309P608©	4	46.50
309P743	5	39.00
311P024	6	71.00
311P026	6	58.50
311P028	6	50.50
311P037	8	51.50
311P038	8	55.50
311P039	8	74.00
311P040	8	50.00
311P041	8	58.00
311P042	8	62.00
311P043	8	$ 57.00
311P047	6	94.00
311P063	8	45.00
311P064	8	49.00
311P067	6	63.00
311P069	12	64.50
311P079	4	50.00
311P084	5	56.50
311P088	9	50.50
311P089	6	78.00
311P104	8	56.50
311P105	8	63.00
311P129	9	48.00
311P130	9	49.00
311P133	9	61.50
311P135	9	61.50
311P143	8	49.00
311P150©	7	58.50
311P158©	7	69.00
311P166	6	72.00
311P167	8	51.00
311P168	8	53.50
311P169	8	63.50
311P182©	12	85.50
311P186	9	69.00
311P187	9	55.00
311P206	6	95.00
311P209	8	52.50
311P211	8	59.00
311P218	8	62.00
311P230	6	79.50
311P240	8	63.50
311P241	8	66.00
311P242	6	76.50
311P246	8	70.00
311P250	6	94.50
311P252	8	82.50
311P299	8	77.50
311P316©	4	71.50
311P317©	4	92.00
311P327	9	61.50
311P328	9	68.00
311P329	9	69.50
311P337	6	103.00
311P339	8	78.50
311P340	9	$ 55.00
311P355	8	64.50
311P356	6	57.50
311P370	9	76.50
311P371©	7	61.00
311P378	9	64.00
311P380	9	69.50
311P382	9	72.00
311P383	7	108.50
311P384	9	79.00
311P385	8	80.00
311P393	8	81.00
311P397©	12	103.00
311P402	7	108.00
311P413	8	70.50
311P414	8	81.50
311P415	8	88.50
311P441©	7	60.50
311P460©	4	58.00
311P461©	5	73.50
311P466	9	82.50
311P472	5	36.50
311P473©	12	87.50
311P482	4	55.00
311P717	8	69.00
311P719	8	102.00
311P720	8	94.00
311P743	8	77.50
311P756©	4	57.50
311P771	9	68.00
311P776	8	74.50
311P837	6	96.50
311P905	5	53.50
311P968©	5	59.40
312P039	8	102.00
312P050	9	66.65
312P052	9	61.50
312P054	9	74.20
312P056	9	68.00
312P105	8	55.50
312P106	8	62.00
312P107	8	63.50
312P108	8	70.50
312P109	8	77.50
312P111©	9	57.50
312P117	5	$ 44.00
312P121	8	53.50
312P122	8	63.50
312P123	8	66.00
312P148	8	73.00
312P184	8	87.50
312P185	6	122.50
312P198	7	109.50
312P225	8	81.00
312P237	8	56.00
312P238	8	62.50
312P239	8	93.50
312P290	9	69.50
312P291	9	75.85
312P293	9	83.55
312P295	9	76.50
312P298	9	86.85
312P300	9	94.55
312P400	6	51.50
312P401	6	53.50
312P414	6	55.00
312P415	6	56.00
312P416	6	54.00
312P417	6	57.00
312P418	6	61.00
312P419	6	58.00
312P420	6	60.50
312P421	6	59.00
312P422	6	62.50
312P436	6	70.50
312P437	6	67.50
312P438	6	69.50
312P439	6	71.50
312P440	6	68.50
312P441	6	72.50
312P442	6	74.00
312P443	6	76.00
312P455	6	79.00
312P456	6	81.50
312P457	6	81.00
312P458	6	80.00
312P459	6	78.00
312P460	6	82.00
312P463	6	100.00
312P464	6	102.50
312P472	6	$121.00
312P480	12	51.75
312P483	12	54.00
312P484	12	55.00
312P485	12	56.00
312P488	12	57.00
312P491	4	48.00
312P498	12	73.50
312P499	12	72.50
312P500©	12	76.00
312P502	12	75.50
312P505	4	48.00
312P506	5	49.50
312P510	4	50.00
312P584	7	106.00
312P615	4	59.00
312P629	4	61.50
312P648©	4	71.00
312P658	7	52.00
312P659	7	61.00
312P660	7	74.50
312P662©	6	104.50
312P664	8	55.50
312P681	5	58.50
312P689©	4	59.00
312P690©	5	61.50
312P691©	4	73.00
312P788	7	79.50
312P789	7	77.50
312P791	7	87.00
312P792	7	85.00
312P793	7	87.50
312P795	7	66.00
312P796	7	64.00
312P797	7	66.50
312P798	7	57.00
312P799	7	55.00
312P802	7	57.50
312P804	7	58.50
312P812	8	70.50
312P813	8	73.00
312P814	8	71.50
312P815	7	67.50
312P819	7	80.00
312P820	7	81.00

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Style Number	Page	List Price
312P830	7	$ 53.00
312P831	7	54.00
312P833	7	62.00
312P834	7	63.00
312P835	7	76.50
312P838	7	75.50
312P843	7	88.50
312P848	6	97.00
312P849	11	54.00
312P850	11	55.50
312P892	6	102.00
312P929	12	61.50
313P150	10	81.00
313P151	10	83.00
313P152©	10	91.00
313P153	10	102.00
313P155©	10	112.00
313P156	10	123.00
313P157	10	78.50
313P158©	10	88.50
313P159	10	65.50
313P161	10	65.50
313P162©	10	75.50
313P165	10	84.50
313P166©	10	94.50
313P169	10	72.00
313P170©	10	82.50
313P171	10	72.50
313P174©	10	82.50
313P177	10	84.50
313P178©	10	94.50
313P179	10	79.50
313P181	10	79.50
313P182©	10	89.50
313P185	10	95.00
313P192	10	83.00
313P193	10	83.00
313P199©	10	104.50
313P246	10	72.50
313P254	10	104.00
314P065	8	42.00
314P163	4	44.00
314P205	4	38.50
314P209	4	42.00
314P351	6	49.50
314P517	4	$ 39.50
314P523	5	41.00
314P533	5	38.50
316P029	4	24.40
316P045	11	24.40
316P174	11	28.50
316P245	11	29.40
316P246	11	32.00
316P258	4	26.00
316P261	4	28.00
316P267	6	36.00
316P271	6	35.50
316P293	11	30.00
316P294	4	34.50
316P295	12	32.50
316P296	12	33.50
316P297	12	34.50
316P299	4	32.00
316P302	4	45.50
316P308	4	32.50
316P309	4	32.50
316P341	4	30.50
316P342	4	35.00
316P344	4	28.50
316P345	4	29.50
316P346	4	23.50
316P347	4	24.50
316P348	4	25.50
316P349	4	26.50
316P350	4	31.00
316P558	11	24.40
316P559	11	25.40
316P561	11	26.90
316P566	11	27.00
316P567	11	28.00
316P571	11	29.50
316P715	6	39.50
316P729	4	30.00
316P730	4	34.50
316P731	4	47.50
316P767	6	36.50
316P768	5	36.00
316P769	5	40.50
316P790	11	33.40
316P791	11	36.00
317P002	4	$ 28.00
317P003	4	32.50
317P004	4	45.50
317P012	6	34.50
317P013	6	35.50
317P014	6	46.00
317P015	6	48.00
317P016	6	50.00
317P017	6	45.00
317P018	6	49.00
317P019	6	47.00
317P020	11	24.40
317P021	11	25.40
317P022	11	26.90
317P023	11	26.90
317P024	11	27.00
317P025	11	30.25
317P026	11	28.00
317P027	11	29.50
317P028	11	29.50
317P030	11	29.50
317P031	11	32.00
317P032	11	30.00
317P033	11	34.30
317P034	11	35.30
317P036	11	36.80
317P037	11	39.30
317P053	12	34.50
317P054	12	35.50
317P055	12	36.50
317P056	12	37.50
317P057	12	43.00
317P058	12	44.50
317P059	12	44.00
317P060	12	45.00
317P061	12	48.00
317P062©	12	52.50
317P063	12	50.00

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(7) Dynamically Balanced Rotor
The rotor assembly consists of a rotating governor, a die cast aluminum rotor core and a fan, all accurately positioned on a centerless ground shaft. The entire assembly is then dynamically balanced. This operation reduces vibration and excessive bearing wear due to rotor unbalance, and the motor runs longer, quieter.

(8) Rotating Governors and Stationary Switches
Two types of reliable, positive-action rotating governors are utilized in Westinghouse Single Phase Motors. One type governor operates with a modified Belleville coned disc spring, while the second governor utilizes a basic pivoted-weight design. With each governor, a properly matched terminal board mounted stationary switch is used to obtain the correct switching function required for each particular motor design. The combination of governor and stationary switch assures the starting winding is positively switched out at the proper motor rpm.

All single phase ratings ¾ hp and larger have two stationary switches connected in series for greater reliability.

(9) Moisture Resistant Insulation
Mylar® slot insulation. more moisture resistant and with higher dielectric and physical strength than conventional paper insulation, is inserted in all stator slots. After the windings are positioned in the slots, all electrical connections are welded or mechanically spliced, and then insulated for electrical and mechanical strength. The stator windings are tested for early detection of any "shorts" or "grounds", impregnated with thermosetting varnish and baked for high bonding strength and additional resistance to the harmful effects of moisture.

These materials and methods combine in the complete stator assembly the qualities of high moisture resistance, increased physical strength and uniform heat dissipation, all of which directly add to the life expectancy of the motor.

Voltage
All dual voltage, single phase ratings, ½ hp and below are connected for lower voltage. Larger ratings are connected for higher voltage, unless otherwise indicated. All three phase ratings are connected for lower voltage. Breakdown and locked rotor torques are reduced approximately 19% when 208-230 volt motors are operated on 208 volts.

Rotation
Standard rotation, unless otherwise noted, is counterclockwise facing the lead or conduit box end. All motors can be reconnected externally for opposite rotation, unless otherwise indicated.

Renewal Parts
Westinghouse renewal parts are available from Authorized Renewal Parts Distributors listed on page 5 of Selling Policy 2700. Contact your distributor or your local Westinghouse sales office for the Renewal Parts Distributor nearest you.

Non-Standard Design
Motor designs not listed in this publication will be manufactured on special order. Contact your distributor or your local Westinghouse sales office.

Safety Features

Vent Holes
The ventilating openings are located and sized so that foreign matter is restricted from entering the motor.

Grounding
All motors are provided with a green grounding screw located in the conduit box.

Warning Labels
Warning labels are affixed to the motor frame to identify safety operational features.

Motor Burn-Out Protection
A thermally protected motor has a device connected in series with the line which operates to break the line current when over heating occurs in the motor. This overheating could result from rotor jamming, continuous or frequent overloads or obstruction of the ventilation openings. To meet various application requirements, either manual or automatic reset is available.

Westinghouse motor and thermal protector combinations have been tested and recognized under the Component Recognition Program of Underwriters' Laboratories, File E-3021, Guide XEWR2, assuring effective reduction of possible motor burnouts.

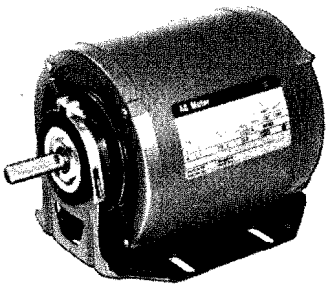
UL Component Recognition For Motors
All motors listed in this bulletin have Underwriters' Laboratories component motor recognition under File E-46993, Guide PRGY2.

Further Information
For pricing information, refer to Price List 2820 P WE A which covers all style numbered motors listed in this bulletin along with their respective list prices.

For any other information not contained in this bulletin, refer to Price Lists 2821 P WE A and 2822 P WE A, Selector Guide B350 WE A J 73, your distributor or to your local Westinghouse Sales office.

Index

Section A
Split Phase, Type FH
40°C Ambient, Continuous Duty NEMA Service Factors



These standard split phase motors have moderate starting torque with low starting current, and are therefore ideal for a wide variety of applications where the starting load is moderate and where there is frequent starting with relatively long operating periods. The NEMA service factors shown in the table below for open motors enables them to carry small overloads continuously. Enclosed motors have a service factor of 1.0.

Rigid and resilient mountings are available for most standard applications and NEMA C flange motors are available for close coupled centrifugal pumps and other applications requiring open end-mounted ball bearing motors.

Typical Applications
Direct driven fans and blowers
Belt driven fans and blowers
Centrifugal pumps
Business machines

NEMA Service Factors
Open Motors Only

Hp	Service Factor	Hp	Service Factor
1/12	1.40	1/3	1.35
1/8	1.40	1/2	1.25
1/6	1.35	3/4	1.25
1/4	1.35		

Note: Enclosed motors have 1.0 service factor.

List Prices: Refer to Price List 2820 P WE A.

Hp	Rpm	Volts	Frame	Mtg. ⑰	Dimen. Diag.	Thermal Prot.	Amps ①	Style Number	Notes
Open, Sleeve Bearing, Base Mounted, 60 Hertz, CCW Rotation – Reversible									
1/6	1725	115	48	RS	2	..	2.4	316P029	⑧
1/6	1725	115	48	RG	1	..	4.0	316P346	⑧
	1725	115	48	RS	2	..	4.0	316P347	⑧
	1725	115	48	RS	2	Ⓐ	4.0	316P258	⑧
	1140	115	D48	RG	1	..	4.2	309P337	.....
	1140	115	D48	RS	2	..	4.2	309P266	.....
	1140	115	D48	RS	2	Ⓐ	4.2	314P517	.....
1/4	1725	115	A48	RG	1	..	5.1	316P348	⑧
	1725	115	A48	RS	2	..	5.1	316P349	⑧
	1725	115	A48	RS	2	Ⓐ	5.1	316P261	⑧
	1725	115	SC56	RS	4	Ⓐ	5.1	317P002	⑧
	1725	208-230	B48	RS	2	Ⓐ	2.2	316P729	⑧●⑱
	1140	115	B56	RG	3	..	5.3	311P079	⑤
	1725/1140	115	F48	RS	2	Ⓐ	4.6	309P408	④
	1725/1140	230	F48	RS	2	Ⓐ	2.3	309P608	④
1/3	3450	115	B48	RG	1	Ⓐ	4.8	309P514	⑧
	1725	115	B48	RS	2	..	5.9	316P350	⑧
	1725	115	B48	RS	2	Ⓐ	5.9	316P308	⑧●
	1725	115	B48	RS	2	Ⓐ	5.9	316P309	⑧
	1725	115	SB56	RS	4	Ⓐ	5.9	317P003	⑧
	1725	208-230	D48	RS	2	Ⓐ	2.7	316P294	⑧⑱
	1725	208-230	B48	RS	2	Ⓐ	3.4	316P730	⑧●⑱
	1725/1140	230	D56	RS	4	Ⓐ	2.7	311P756	⑧④
1/2	3450	208-230	F48	RS	2	Ⓐ	3.5	314P205	⑧●⑱
	1725	115	D48	RS	2	Ⓐ	7.2	316P302	⑧
	1725	115	56	RS	4	Ⓐ	7.2	317P004	⑤
	1725	208-230	D48	RS	2	Ⓐ	3.9	316P731	⑧●⑱
	1725	115/208-230	56	RS	4	Ⓐ	9.0	312P491	⑧⑱
	1725/1140	230	D56	RS	4	Ⓐ	3.9	311P316	⑤④
3/4	3450	115	F48	RS	2	Ⓐ	9.3	314P209	⑧●
	3450	208-230	F48	RS	2	Ⓐ	4.8	314P163	⑧●⑱
	1725	115	B56	RS	4	Ⓐ	11.0	312P615	⑧
	1725	115/230	B56	RS	4	Ⓐ	11.0	312P629	⑧②
	1725/1140	230	K56	RS	4	Ⓐ	5.1	311P317	⑧④
Open, Ball Bearing, Base Mounted, 60 Hertz, CCW Rotation – Reversible									
1/6	1725	115	48	RS	2	..	4.0	316P344	⑧⑤
	1140	115	D48	RS	2	..	4.2	309P436	●
1/4	1725	115	A48	RS	2	..	5.1	316P341	⑧●
	1725	115	B48	RS	2	Ⓐ	4.2	316P299	⑧
	1725/1140	115	F48	RS	2	..	4.6	309P568	●④
	1140	115	B56	RS	4	..	5.3	311P482	⑤
	1725	115	A48	RG	1	..	5.1	316P345	⑧●
1/3	1725	115	B48	RS	2	..	5.9	316P342	⑧●⑤
	1725/1140	115	D56	RS	4	..	5.3	311P460	⑧④
	1725/1140	230	D56	RG	3	..	2.7	312P689	④
1/2	1725	115	56	RS	4	..	8.8	312P505	⑧●
	1725	115/230	56	RS	4	..	8.8	312P510	⑧●②
	1725/1140	115	D56	RG	3	..	7.7	312P648	⑧④
	1725/1140	230	D56	RG	3	..	3.9	312P691	④

① Approximate full load amperes – current values listed for dual voltage motors apply to low voltage, divide by two for the high voltage amperes.

② Dual voltage motors – connected for higher voltage; may be reconnected for lower voltage.

④ These 2-speed motors are variable torque, 2 winding designs for fan application. The following HP ratings are indicated on the nameplate:

1725 Rpm	1140 Rpm
1/6	1/20
1/4	1/12
1/3	1/10

1725 Rpm	1140 Rpm
1/2	1/6
3/4	1/4
1	1/3

⑤ Extended through bolts for attaching fan guard.

⑰ NF = NEMA 56C Flange, Round Frame
RG = Rigid Base
RS = Resilient Base

⑱ Breakdown and locked rotor torques are reduced approximately 19% when motors connected for 230 volts are operated on 208 volts.

Ⓐ Type A automatic reset thermal protection, locked and running – recognized by UL, File E-3021.

⑧ Stock motor.

● Clockwise rotation when facing end opposite shaft extension.

Hp	Rpm	Volts	Frame	Mtg. ⑰	Dimen. Diag.	Thermal Prot.	Amps ①	Style Number	Notes
Totally Enclosed Non-Ventilated, Ball Bearing, Base Mounted, 60 Hertz, CCW – Reversible									
1/6	1725	115	D48	RG	1	..	2.9	309P494	.....
1/4	1725	115	B56	RS	4	..	3.8	311P472	.....
1/3	1725	115	F56	RG	3	..	4.6	312P117	.....
Explosion Proof, Totally Enclosed Fan Cooled, Ball Bearing, Base Mounted, 60 Hertz, CCW – Reversible For Class I, Group D; Class II, Groups E, F and G Hazardous Locations									
1/4	1725	115	ZF56	RG	12	Ⓐ	3.5	308P614	⑯
1/3	1725	115	ZA56	RG	14	Ⓐ	6.6	308P616	.....
Explosion Proof, Totally Enclosed Fan Cooled, NEMA 56C Flange, Ball Bearing, 60 Hertz, CCW – Reversible For Class I, Group D; Class II, Groups E, F and G Hazardous Locations									
1/4	1725	115	ZF56C	NF	13	Ⓐ	3.5	308P640	⑯
1/3	1725	115	ZA56C	NF	15	Ⓐ	6.6	308P642	.....
NEMA 56C Flange Mounting, Open, Ball Bearing, 60 Hertz, CCW – Reversible									
1/6	1140	115	SB56C	NF	5	..	3.6	309P743	⑭
	1140	230	SB56C	NF	5	..	1.8	314P523	⑭
1/4	1725	115	SB56C	NF	5	..	4.2	309P324	⑭
	1725/1140	115	B56C	NF	5	..	4.6	309P391	④⑭
	1140	115	B56C	NF	6	..	5.3	311P084	⑧
	1140	230	B56C	NF	6	..	2.7	312P681	.....
1/3	1725	115	56C	NF	5	..	5.4	309P333	⑭
	1725	230	56C	NF	5	..	2.7	314P533	⑭
	1725/1140	115	D56C	NF	6	..	5.5	311P968	⑤④
	1725/1140	230	D56C	NF	6	..	2.7	312P690	④
1/2	1725	115	56C	NF	6	..	8.8	312P506	⑤
	1725/1140	115	D56C	NF	6	..	7.7	311P461	⑧④
50 Hertz, Open, Sleeve Bearing, Base Mounted, CCW – Reversible									
1/4	1425	220	D48	RS	2	Ⓐ	2.3	316P768	⑧
1/3	1425	220	F48	RS	2	Ⓐ	2.6	316P769	⑧
1/2	1425	220	D56	RS	4	Ⓣ	4.1	311P905	⑧

① Approximate full load amperes – current values listed for dual voltage motors apply to low voltage, divide by two for the high voltage amperes.

④ These 2-speed motors are variable torque, 2 winding designs for fan application. The following HP ratings are indicated on the nameplate:

1725 Rpm	1140 Rpm	1725 Rpm	1140 Rpm
1/6	1/20	1/2	1/6
1/4	1/12	3/4	1/4
1/3	1/10	1	1/3

⑭ This motor has NEMA 56C flange with 48 frame motor diameter.

⑯ These ratings are totally enclosed non-ventilated.

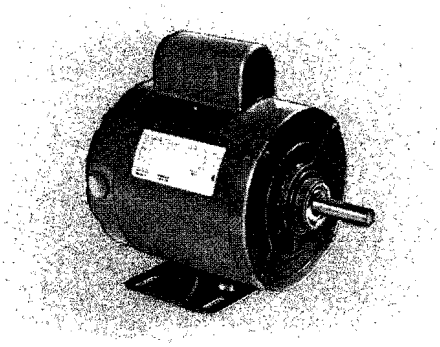
⑰ NF = NEMA 56C Flange, Round Frame
RG = Rigid Base
RS = Resilient Base

Ⓐ Type A automatic reset thermal protection, locked and running – recognized by UL, File E-3021.

Ⓣ Type T automatic reset thermal protection, locked and running – not recognized.

⑧ Stock motor.

Section B
Capacitor Start, Type FJ
40°C Ambient, Continuous Duty NEMA Service Factors



These motors have high starting torque, low starting current, high efficiency, and a high power factor. They operate quietly and the NEMA service factors, shown in the table below, for open motors enables them to carry small overloads continuously. Enclosed motors have a service factor of 1.0.

Rigid and resilient mountings are available for most standard applications; and NEMA C flange motors are available for close coupled centrifugal pumps and other applications requiring open, end mounted ball bearing motors.

The totally enclosed, fan cooled motors listed are designed for relatively hard to start applications that operate in atmospheres of extreme dust, dirt, or airborne abrasives. The totally enclosed construction prevents the entry of any foreign particles and the shroud covered outboard fan blows a stream of air over the outer surfaces of the motor to provide effective cooling.

Typical Applications
Compressors, Pumps, Central Air conditioning equipment, Farm equipment, Business Machines, High pressure sprayer, Gear reducers.

NEMA Service Factors
Open Motors Only

Hp	Service Factor	Hp	Service Factor
1/6	1.35	3/4	1.25
1/4	1.35	1	1.15*
1/3	1.35	1 1/2	1.15
1/2	1.25	2	1.15

* 1 hp, open motor at 3450 rpm has 1.25 service factor.

Note: Enclosed motors have 1.0 service factors.

List Prices: Refer to Price List 2820 P WE A.

See page 7 for footnotes.

Hp	Rpm	Volts	Frame	Mtg. ⑰	Dimen. Diag.	Thermal Prot.	Amps ①	Style Number	Notes
Open, Sleeve Bearing, Base Mounted, 60 Hertz, CCW Rotation – Reversible									
1/4	1725	115	SB56	RG	3	..	5.1	317P012	⑧
	1725	115/230	B48	RG	1	..	5.1	316P767	⑧②
	1725	115	B48	RS	2	..	5.1	316P271	⑧
	1725	115	SB56	RS	3	..	5.1	317P013	⑧
	1725	115	B48	RG	1	Ⓐ	5.1	316P267	⑧
	1725	115/230	B48	RS	2	Ⓐ	5.0	316P715	⑧③
	1140	115/230	B56	RS	3	..	6.3	311P067	⑧③
1/2	1725	115/230	SB56	RG	3	..	5.8	317P017	⑧③
	1725	115/230	SB56	RS	4	..	5.8	317P014	⑧③
	1725	115/230	SB56	RG	3	Ⓐ	5.8	317P019	⑧③
	1725	115/230	SB56	RS	4	Ⓐ	5.8	317P015	⑧③
	1140	115/230	D56	RG	3	..	7.8	311P024	③
	1140	115/230	D56	RS	4	..	7.8	311P166	⑧③
1/3	1725	115/230	B56	RG	3	..	8.8	312P416	⑧②
	1725	115/230	B56	RS	4	..	8.8	312P414	⑧②
	1725	115/230	B56	RG	3	Ⓐ	8.8	312P415	⑧②
	1725	115/230	B56	RS	4	Ⓐ	8.8	312P417	⑧②
3/4	3450	115/230-208	F48	RS	2	Ⓐ	10.2	314P351	⑧②⑭
	1725	115/230	D56	RG	3	..	13.0	312P437	⑧②
	1725	115/230	D56	RS	4	..	13.0	312P440	⑧②
	1725	115/230	D56	RG	3	Ⓐ	13.0	312P438	⑧②
	1725	115/230	D56	RS	4	Ⓐ	13.0	312P436	⑧②
1	3450	115/230	F56	RS	4	Ⓐ	11.8	311P356	●②
	1725	115/230	F56	RS	4	Ⓐ	15.4	312P459	③
	1725	115/230-208	H56	RS	4	Ⓐ	14.0	311P089	⑧②
Open, Ball Bearing, Base Mounted, 60 Hertz, CCW Rotation – Reversible									
1/4	1725	115/230	B48	RG	1	..	4.9	309P312	.....
	1725	115/230	B48	RS	2	..	4.9	309P381	●
1/2	1725	115/230	SB56	RG	3	..	5.8	317P018	⑧③
	1725	115/230	SB56	RS	4	..	5.8	317P016	⑧●
1/3	1725	115/230	B56	RG	1	..	8.8	312P419	⑧
	1725	115/230	B56	RS	2	..	8.8	312P421	⑧●③
	1725	115/230	B56	RS	2	Ⓐ	8.8	312P418	.....
	1140	115/230	H56H	RG	11	..	9.4	311P047	.....
	1140	115/230	H56	RS	4	..	9.4	311P206	⑧
3/4	3450	115/230	D56	RG	3	..	10.0	311P028	.....
	1725	115/230	D56	RG	3	..	13.0	312P439	⑧
	1725	115/230	D56	RS	4	..	13.0	312P441	⑧●
	1725/1140	115	H56	RG	3	..	10.7	312P662	④
1	3450	115/230	F56	RG	3	..	11.8	311P026	⑧
	1725	115/230	F56	RG	3	..	15.4	312P455	⑧
	1725	115/230	F56	RS	4	..	15.4	312P458	⑧
	1725	115/230	F56	RG	3	Ⓐ	15.4	312P457	⑤
	1725	115/230	F56	RS	4	Ⓐ	15.4	312P460	⑤
1 1/2	3450	115/230	H56H	RG	11	..	16.4	311P242	.....
	3450	115/230	H56	RS	4	Ⓐ	16.4	311P230	⑤●
	1725	115/230	K56H	RG	11	..	20.0	312P463	.....
	1725	115/230	M56H	RG	11	Ⓐ	20.0	312P892	.....
	1725	115/230	K56	RS	4	Ⓐ	16.4	311P337	⑤⑭
2	3450	115/230	K56H	RG	11	..	19.8	311P250	⑧⑭
	3450	208-230	K56	RS	4	Ⓐ	10.9	312P848	⑭
	1725	115/230	TM56H	RG	9	..	26.0	312P472	⑧⑪
	1725	230	TM56H	RG	9	Ⓐ	12.3	312P185	⑧⑭⑪
NEMA 56C Flange Mounting, Open, Ball Bearing, 60 Hertz, CCW – Reversible									
1/4	1725	115	SB56C	NF	5	..	4.9	309P533	⑭
	1725	115/230	SB56C	NF	5	..	4.9	309P439	⑭
	1725	115/230	SB56C	NF	5	Ⓐ	4.9	309P545	⑭
1/2	1725	115/230	56C	NF	6	..	7.2	312P400	⑧③
	1725	115/230	56C	NF	6	Ⓐ	7.2	312P401	⑧③
1/3	1725	115/230	B56C	NF	6	..	8.8	312P420	⑧③
	1725	115/230	B56C	NF	6	Ⓐ	8.8	312P422	⑧③
	1140	115/230	H56C	NF	6	..	9.4	311P837	③
3/4	1725	115/230	D56C	NF	6	..	13.0	312P442	⑧
	1725	115/230	D56C	NF	6	Ⓐ	13.0	312P443	⑧
1	1725	115/230	F56C	NF	6	..	15.4	312P456	⑧
1 1/2	1725	115/230	K56C	NF	6	..	20.0	312P464	⑧

Hp	Rpm	Volts	Frame	Mtg. ⑰	Dimen. Diag.	Thermal Prot.	Amps ①	Style Number	Notes
NEMA 56C Flange Mounting, Totally Enclosed Fan Cooled, Ball Bearing, 60 Hertz, CCW – Reversible									
¼	1725	115	B56C	NF	6	..	3.6	311P371	⑧⑯
½	1725	115/230	T56C	NF	10	..	6.6	312P802	⑧③
½	1725	115/230	TB56C	NF	10	..	8.7	312P797	⑧
¾	1725	115/230	TD56C	NF	10	..	11.2	312P819	⑧
1	1725	115/230	TF56C	NF	10	..	14.0	312P793	⑧
1½	1725	115/230	TK56C	NF	10	..	16.4	311P383	⑧⑯
Totally Enclosed Fan Cooled, Ball Bearing, Base Mounted, 60 Hertz, CCW – Reversible									
¼	1725	115	B56	RG	3	..	3.6	311P150	⑧⑯
	1725	115/230	B56	RG	3	..	3.6	311P441	⑧③⑯
⅓	1725	115/230	F56	RG	3	..	4.6	311P158	⑧③⑯
	1725	115/230	T56	RG	9	..	6.6	312P799	⑧③
	1725	115/230	T56	RG	9	Ⓐ	6.6	312P798	⑧③
	1725	115/230	TD56	RG	9	Ⓜ	6.6	312P804	③
½	1725	115/230	TB56	RG	9	..	8.7	312P796	.....
	1725	115/230	TB56	RG	9	Ⓐ	8.7	312P795	⑧
	1725	115/230	TF56	RG	9	Ⓜ	8.7	312P815	⑧
¾	1725	115/230	TD56	RG	9	..	11.2	312P789	⑧
	1725	115/230	TD56	RG	9	Ⓐ	11.2	312P788	⑧
	1725	115/230	TH56	RG	9	Ⓜ	11.2	312P820	⑧
1	1725	115/230	TH56H	RG	9	..	14.0	312P792	⑧
	1725	115/230	TH56H	RG	9	Ⓐ	14.0	312P791	⑧
	1725	115/230	TK56H	RG	9	Ⓜ	14.0	312P843	⑧
1½	1725	115/230	TK56H	RG	9	..	16.4	312P584	⑧⑯
	1725	115/230	TK56H	RG	9	Ⓣ	16.4	311P402	⑧⑯
	1725	115/230	TK56HY	RG	9	ⓂⓉ	16.4	312P198	⑧⑥⑯
50 Hertz, Open, Sleeve Bearing, Base Mounted, CCW – Reversible									
¼	1425	110/220	D48	RS	2	..	4.6	309P335	③
	1425	110/220	D48	RS	2	Ⓐ	4.6	309P367	③
⅓	1425	110/220	B56	RG	3	Ⓐ	7.2	312P830	③
	1425	110/220	B56	RS	4	..	7.2	312P658	③
	1425	110/220	B56	RS	4	Ⓐ	7.2	312P831	③
½	1425	110/220	D56	RG	3	Ⓐ	8.6	312P833	③
	1425	110/220	F56	RS	4	..	8.6	312P659	.....
	1425	110/220	D56	RS	4	Ⓐ	8.6	312P834	⑧
¾	1425	110/220	F56H	RG	11	Ⓐ	11.4	312P838	.....
	1425	110/220	F56	RS	4	..	11.4	312P660	.....
	1425	110/220	F56	RS	4	Ⓐ	11.4	312P835	⑧
Explosion Proof, Totally Enclosed Fan Cooled, Ball Bearing, Base Mounted, 60 Hertz, CCW – Reversible For Class I, Group D; Class II, Groups E, F and G Hazardous Locations									
¼	1725	115/230	ZF56	RG	12	Ⓐ	3.6	308P615	③⑯
⅓	1725	115/230	ZA56	RG	14	Ⓐ	6.6	308P617	③
½	1725	115/230	ZD56	RG	14	Ⓐ	8.4	308P618	.....
¾	1725	115/230	ZJ56	RG	14	Ⓐ	11.0	308P619	.....
1	1725	115/230	ZJ56	RG	14	Ⓐ	14.0	308P620	.....
Explosion Proof, Totally Enclosed Fan Cooled, NEMA 56C Flange, Ball Bearing, 60 Hertz, CCW – Reversible For Class I, Group D; Class II, Groups E, F and G Hazardous Locations									
¼	1725	115/230	ZF56C	NF	13	Ⓐ	3.6	308P641	③⑯
⅓	1725	115/230	ZA56C	NF	15	Ⓐ	6.6	308P643	③
½	1725	115/230	ZD56C	NF	15	Ⓐ	8.4	308P644	.....
¾	1725	115/230	ZJ56C	NF	15	Ⓐ	11.0	308P645	.....
1	1725	115/230	ZJ56C	NF	15	Ⓐ	14.0	308P646	.....

① Approximate full load amperes – current values listed for dual voltage motors apply to low voltage, divide by two for the high voltage amperes.

② Dual voltage motors – connected for higher voltage; may be reconnected for lower voltage.

③ Dual voltage motors – connected for lower voltage; may be reconnected for higher voltage.

④ These 2-speed motors are variable torque, 2 winding designs for fan application. The following HP ratings are indicated on the nameplate:

1725 Rpm	1140 Rpm
⅙	1/20
¼	1/12
⅓	1/10

1725 Rpm	1140 Rpm
½	⅙
¾	¼
1	⅓

⑥ Shaft out fan end. Centerline of foot mounting hole nearest to limit line for mounting pulley, coupling, etc., is 3.0 inch.

Ⓜ Type FT two capacitor motors.

⑰ Open with shrouded external fan.

⑯ This motor has NEMA 56C flange with 48 frame motor diameter.

⑯ These ratings are totally enclosed non-ventilated.

⑰ NF = NEMA 56C Flange, Round Frame
RG = Rigid Base
RS = Resilient Base

⑯ Breakdown and locked rotor torques are reduced approximately 19% when motors connected for 230 volts are operated on 208 volts.

Ⓜ Type J manual reset thermal protection, locked and running – not recognized.

Ⓐ Type A automatic reset thermal protection, locked and running – recognized by UL, File E-3021.

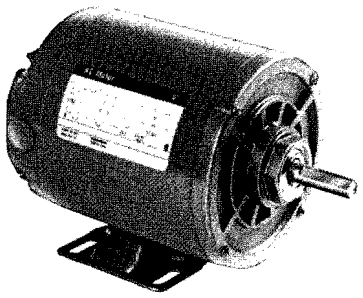
Ⓜ Type M manual reset thermal protection, locked and running – recognized by UL, File E-3021.

Ⓣ Type T automatic reset thermal protection, locked and running – not recognized.

⑧ Stock motor.

● Clockwise rotation when facing end opposite shaft extension.

Section C
Polyphase, Type FS
40°C Ambient, Continuous Duty NEMA Service Factors



For all continuous duty applications where polyphase circuits are available. These are squirrel cage induction motors with high starting torque and extra high breakdown torque. They are suitable for across-the-line starting and can be reversed while in motion with the proper external control. The NEMA service factors, shown in the table below, for open motors enables them to carry small overloads continuously. Enclosed motors have a service factor of 1.0.

Standard rigid and resilient mountings are available, and so are NEMA C flange mountings for close coupled centrifugal pumps and other applications requiring open, end mounted ball bearing motors. The totally enclosed, fan cooled motors listed are designed for applications that operate in atmospheres of extreme dust, dirt, or airborne abrasives. The totally enclosed construction prevents the entry of any foreign particles and the shroud covered, outboard fan blows a stream of air over the outer surfaces of the motor to provide effective cooling.

Typical Applications
Pumps, Compressors, Machine tools, Industrial fans and blowers, Gear reducers

NEMA Service Factors
Open Motors Only

Hp	Service Factor	Hp	Service Factor
⅛	1.35	1	1.15 *
¼	1.35	1½	1.15
⅓	1.35	2	1.15
½	1.25	3	1.15
¾	1.25	5	1.15

* 1 hp. open motor at 3450 rpm has 1.25 service factor.

Note: Enclosed motors have 1.0 service factor.

List Prices: Refer to Price List 2820 P WE A

See page 9 for footnotes.

Hp	Rpm	Volts ③	Frame	Mtg. ⑰	Dimen. Diag.	Thermal Prot.	Amps ①	Style Number	Notes
Open, Sleeve Bearing, Base Mounted, 60 Hertz									
¼	1725	230/460	D48	RG	1	..	1.2	309P420	.....
⅓	1725	230/460	B56	RG	3	..	1.9	311P063	⑧
	1725	230/460	B56	RS	4	Ⓐ	1.9	312P237	⑧⑫
½	1725	230/460	B56	RG	3	..	2.8	311P037	⑧
	1725	230/460	B56	RS	4	..	2.8	311P209	⑧
	1725	230/460	B56	RS	4	Ⓐ	2.8	312P238	⑧⑫
¾	1725	230/460	D56	RG	3	..	3.6	311P041	⑧
	1725	230/460	D56	RS	4	..	3.6	311P211	⑧
	1725	230/460	D56	RS	4	Ⓐ	3.6	311P717	⑧⑫
1	1725	230/460	F56	RS	4	Ⓐ	3.2	311P413	⑧⑫
Open, Ball Bearing, Base Mounted, 60 Hertz									
¼	1725	200	D48	RG	1	..	1.2	314P065	.....
	1725	230/460	D48	RG	1	..	1.2	309P421	⑧
⅓	1725	200	B56	RG	3	..	1.8	311P143	⑧
	1725	230/460	B56	RG	3	..	1.9	311P064	⑧
½	1725	200	B56	RG	3	..	3.0	312P105	⑧
	1725	230/460	B56	RG	3	..	2.8	311P038	⑧
	1725	575	B56	RG	3	..	.9	312P664	.....
	1725	230/460	B56	RS	4	..	2.8	311P104	⑧
	1140	230/460	H56H	RG	11	..	2.3	311P039	⑧
¾	3450	230/460	B56	RG	3	..	2.6	311P040	⑧
	1725	200	D56	RG	3	..	3.6	312P106	⑧
	1725	230/460	D56	RG	3	..	3.6	311P042	⑧
	1725	575	D56	RG	3	..	1.4	311P218	⑧
	1725	230/460	D56	RS	4	..	3.6	311P105	⑧
1	3450	230/460	D56	RG	3	..	3.0	311P043	.....
	1725	200	F56	RG	3	..	4.1	312P107	⑧
	1725	230/460	F56	RG	3	..	3.6	311P240	⑧
	1725	230/460	F56	RS	4	..	3.6	311P355	.....
	1725	230/460	F56	RS	4	Ⓐ	3.2	311P776	⑧⑫
1½	3450	230/460	H56H	RG	11	..	4.8	311P246	.....
	3450	230/460	H56	RS	4	Ⓐ	4.8	312P225	.....
	1725	200	K56H	RG	11	..	6.0	312P108	⑧
	1725	230/460	F56H	RG	11	..	6.0	312P812	⑧
	1725	230/460	F56	RS	4	..	6.0	312P814	⑧
	1725	230/460	K56	RS	4	Ⓐ	4.3	311P414	⑧⑫
2	3450	230/460	K56H	RG	11	..	5.7	311P252	.....
	3450	230/460	K56	RS	4	Ⓐ	5.7	312P239	⑧⑫
	1725	200	K56H	RG	11	..	6.8	312P109	⑧
	1725	230/460	K56H	RG	11	..	6.8	311P299	⑧
	1725	575	K56H	RG	11	..	2.5	311P743	⑧⑫
	1725	230/460	K56	RS	4	..	6.8	311P339	⑧
	1725	230/460	K56H	RG	11	Ⓐ	5.8	312P184	.....
	1725	230/460	K56	RS	4	Ⓐ	5.8	311P415	⑧⑫
3	3450	230/460	K56	RS	4	..	8.2	311P720	⑧⑫
	1725	230/460	TK56HZ	RG	9	..	9.5	311P393	⑧⑦⑯⑫
5	3450	200	TM56HZ	RG	9	⑮	15.5	3 2P039	⑧⑦⑫⑫
	3450	230/460	TM56HZ	RG	9	⑮	13.8	311P719	⑧⑦⑯⑫
NEMA 56C Flange Mounting, Open, Ball Bearing, 60 Hertz									
⅓	1725	230/460	B56C	NF	6	..	1.9	311P167	.....
½	1725	200	B56C	NF	6	..	3.0	312P121	.....
	1725	230/460	B56C	NF	6	..	2.8	311P168	⑧
¾	1725	200	D56C	NF	6	..	3.6	312P122	⑧
	1725	230/460	D56C	NF	6	..	3.6	311P169	⑧
1	1725	200	F56C	NF	6	..	4.1	312P123	⑧
	1725	230/460	F56C	NF	6	..	3.6	311P241	⑧
1½	172	200	K56C	NF	6	..	6.0	312P148	⑧
	1725	230/460	F56C	NF	6	..	6.0	312P813	⑧
2	1725	230/460	K56C	NF	6	..	6.8	311P385	⑧⑫

Hp	Rpm	Volts ③	Frame	Mtg. ⑰	Dimen. Diag.	Thermal Prot.	Amps ①	Style Number	Notes
NEMA 56C Flange Mounting, Totally Enclosed Fan Cooled, Ball Bearing, 60 Hertz									
¼	1725	230/460	56C	NF	6	..	1.1	311P088	⑤⑯
½	1725	230/460	B56C	NF	6	..	1.4	312P111	⑤⑯
½	1725	230/460	T56C	NF	10	..	2.8	311P378	⑤⑫
	1140	230/460	TF56C	NF	10	..	2.3	311P466	⑤⑫
¾	1725	230/460	TB56C	NF	10	..	3.6	311P380	⑤⑫
1	1725	230/460	TD56C	NF	10	..	3.6	311P382	⑤⑫
1½	1725	230/460	TH56C	NF	10	..	4.3	311P384	⑤⑫
Totally Enclosed Fan Cooled, Ball Bearing, Base Mounted, 60 Hertz									
¼	1725	230/460	56	RG	3	..	1.1	311P129	⑤⑯
	1725	230/460	56	RS	4	..	1.1	311P130	⑯
	1140	230/460	D56	RG	3	..	1.3	311P186	⑤⑯
½	1725	230/460	B56	RG	3	..	1.4	311P187	⑤⑯
	1725	575	B56	RG	3	..	.6	311P340	⑤⑯
½	1725	230/460	F56	RG	3	..	1.9	311P133	⑧⑯
	1725	575	F56	RG	3	..	.8	311P135	⑤⑯
	1725	230/460	T56	RG	9	..	2.8	311P327	⑤⑫
¾	1725	230/460	K56H	RG	11	..	2.4	311P771	⑤⑯
	1725	230/460	TB56	RG	9	..	3.6	311P328	⑤⑫
1	1725	230/460	TD56	RG	9	..	3.6	311P329	⑧⑫
1½	1725	230/460	TH56H	RG	9	..	4.3	311P370	⑧⑫
50/60 Hertz, Open, Ball Bearing, Base Mounted									
½	1425/1725	208-220/440	B56	RG	3	..	3.2/2.26	312P050	.....
¾	1425/1725	208-220/440	D56	RG	3	..	3.2/2.92	312P054	.....
1	1425/1725	208-220/440	F56	RG	3	..	3.8/3.6	312P291	.....
	1425/1725	208-220/440	F56	RS	4	..	3.8/3.6	312P298	.....
1½	1425/1725	208-220/440	K56H	RG	11	..	4.8/4.7	312P293	.....
	1425/1725	208-220/440	K56	RS	4	..	4.8/4.7	312P300	.....
50 Hertz, Open, Ball Bearing, Base Mounted									
½	1425	220/380	B56	RG	4	..	3.15	312P052	.....
¾	1425	220/380	D56	RG	3	..	3.0	312P056	.....
1	1425	220/380	F56	RG	3	..	3.7	312P290	.....
1½	1425	220/380	K56H	RG	11	..	4.8	312P295	.....

① Approximate full load amperes – current values listed for dual voltage motors apply to low voltage, divide by two for the high voltage amperes.

③ Dual voltage motors – connected for lower voltage; may be reconnected for higher voltage.

⑦ ¾" diameter shaft with keyway.

⑰ Open with shrouded external fan.

⑫ Conduit box on frame.

⑯ Type S thermal protection, running protection only – not recognized. Two leads brought out from thermal sensing device for connection to external control.

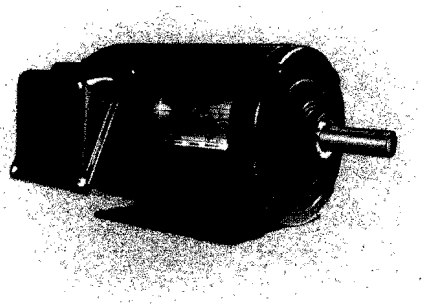
⑯ These ratings are totally enclosed non-ventilated.

⑰ NF = NEMA 56C Flange, Round Frame
RG = Rigid Base
RS = Resilient Base

Ⓐ Type A automatic reset thermal protection, locked and running – recognized by UL, File E-3021.

⑧ Stock motor.

Section D
Integral Horsepower Ac Motors
Accommodate 56Z, 56HZ, 143T and 145T Frame Mounting
Class B Insulation, 40°C Ambient



The Westinghouse 56/140 frame single and three phase integral horsepower general purpose motors are designed to serve a broad spectrum of markets. These motors have such outstanding features as a heavy rolled steel frame, large ⅞" diameter shaft extension, Class B insulation for long life, and permanently lubricated double-shielded ball bearings. The single phase ratings have a synchro-snap centrifugal switch and two stationary switches connected in series for greater reliability. In addition, the fan cooled single phase and all three phase ratings have frame mounted conduit boxes for easy accessibility in making connections.

Typical Applications
Pumps, Compressor, Fans, Blowers, Farm Machinery

Note: Frame sizes shown are as marked on motor nameplate. However, all motors have special heavy duty rigid base which accommodates 56Z, 56HZ, 143T and 145T frame mounting dimensions.

List Prices: Refer to Price List 2820 P WE A.

Hp	Rpm	Volts ②	Frame	Mtg. ⑰	Dimen. Diag.	Thermal Prot.	Amps ①	Style Number	Notes
Single Phase, Type FJ, Capacitor Start, Open Drip-proof, Ball Bearing 60 Hertz, 1.15 Service Factor, CCW Rotation – Reversible									
1	1800	115/230	H143T	RG	7	..	15.4	313P150	⑧
	1800	115/230	H143T	RG	7	Ⓐ	15.4	313P151	⑧
1½	1800	115/230	K145T	RG	7	..	20.0	313P153	⑧
	1800	115/230	M145T	RG	7	Ⓐ	20.0	313P254	⑧
2	1800	115/230	TP145T	RG	8	..	26.0	313P156	⑧⑪
Single Phase, Type FJ, Capacitor Start, Totally Enclosed Fan Cooled, Ball Bearing 60 Hertz, 1.00 Service Factor, CCW Rotation – Reversible									
1	1800	115/230	TK143T	RG	8	..	13.5	313P152	⑧
1½	1800	115/230	TM145T	RG	8	..	16.4	313P155	⑧⑯
2	1800	115/230	TK145T	RG	8	..	19.8	313P199	⑧⑯

Hp	Rpm	Volts ③	Frame	Mtg. ⑰	Dimen. Diag.	Thermal Prot.	Amps ①	Style Number	Notes
Three Phase, Type FS, Open Drip-proof, Ball Bearing 60 Hertz, 1.15 Service Factor									
¾	1200	230/460	K143T	RG	7	..	3.2	313P157	⑧
1	1800	230/460	F143T	RG	7	..	3.6	313P161	⑧
	1800	200	F143T	RG	7	..	4.1	313P159	⑧
	1200	230/460	K145T	RG	7	..	3.7	313P165	.....
1½	3600	230/460	F143T	RG	7	..	3.8	313P169	.....
	1800	230/460	F145T	RG	7	..	6.0	313P246	⑧
	1800	200	K145T	RG	7	..	6.0	313P171	⑧
2	3600	230/460	K145T	RG	7	..	5.5	313P177	.....
	1800	230/460	K145T	RG	7	..	6.8	313P181	⑧
	1800	200	K145T	RG	7	..	6.8	313P179	⑧
3	3600	230/460	K145T	RG	7	..	8.2	313P185	.....
	1800	230/460	TK145T	RG	8	..	9.5	313P193	⑧⑫
	1800	200	TK145T	RG	8	..	9.8	313P192	⑫
Three Phase, Type FS, Totally Enclosed Fan Cooled, Ball Bearing 60 Hertz, 1.00 Service Factor									
¾	1200	230/460	TK143T	RG	8	..	3.2	313P158	.....
1	1800	230/460	TH143T	RG	8	..	3.6	313P162	⑧
	1200	230/460	TK145T	RG	8	..	3.7	313P166	.....
1½	3600	230/460	TH143T	RG	8	..	3.8	313P170	.....
	1800	230/460	TK145T	RG	8	..	4.3	313P174	⑧
2	3600	230/460	TK145T	RG	8	..	5.5	313P178	.....
	1800	230/460	TM145T	RG	8	..	5.8	313P182	⑧

① Approximate full load amperes – current values listed for dual voltage motors apply to low voltage, divide by two for the high voltage amperes.

② Dual voltage motors – connected for higher voltage; may be reconnected for lower voltage.

③ Dual voltage motors – connected for lower voltage; may be reconnected for higher voltage.

⑯ Type FT two capacitor motors.

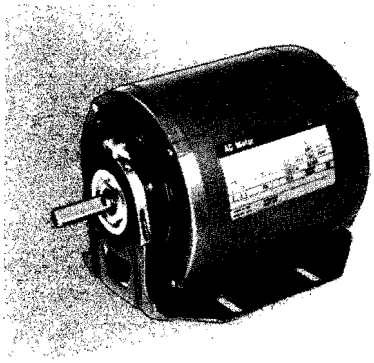
⑫ Open with shrouded external fan.

⑰ NF = NEMA 56C Flange, Round Frame
RG = Rigid Base
RS = Resilient Base

Ⓐ Type A automatic reset thermal protection, locked and running – recognized by UL, File E-3021.

⑧ Stock motor.

Section E
Split Phase, Type FHT
40°C Ambient, Continuous Duty Service Factor 1.0



These motors are generally used on applications requiring a motor with higher starting torque than the general purpose split phase motors listed in Section A. They are typically used on applications requiring continuous or intermittent duty where operation is infrequent. Starting currents of type FHT motors are in accordance with NEMA standards for Design "O" motors. The high starting current may cause complaints of excessive light flicker. Type FHT motors have a Service Factor of 1.0 and are not suitable for applications where the load will continuously exceed the nameplate rating. Rigid or resilient mounting available.

Typical Applications
Evaporative coolers,
Air circulating fans, Attic fans,
Farm and home workshop tools

List Prices: Refer to Price List 2820 P WE A.

Hp	Rpm	Volts	Frame	Mtg. ⑰	Dimen. Diag.	Thermal Prot.	Amps ①	Style Number	Notes
Open, Sleeve Bearing, Base Mounted, 60 Hertz, CCW Rotation – Reversible									
1/6	1725	115	48	RS	2	..	4.3	316P045	⑧
1/4	1725	115	48	RG	1	..	5.8	316P558	⑧
	1725	115	48	RS	2	..	5.8	316P559	⑧
	1725	115	48	RS	2	Ⓐ	5.8	316P561	⑧
	1725	115	SB56Z	RG	3	..	5.8	317P020	⑧⑥
	1725	115	SD56Z	RS	4	..	5.8	317P021	⑧⑥
	1725	115	SD56Z	RS	4	Ⓐ	5.8	317P022	⑥
	1725	115	SD56Z	RS	4	Ⓐ	6.0	317P023	⑧⑥⑰
1/3	1725	115	B48	RG	1	..	6.2	316P566	⑧
	1725	115	B48	RG	1	Ⓐ	6.2	316P174	⑧●
	1725	115	B48	RS	2	..	6.2	316P567	⑧
	1725	115	B48	RS	2	Ⓐ	6.2	316P571	⑧
	1725	230	B48	RS	2	..	3.4	316P293	.....
	1725	115	SB56Z	RG	3	..	6.2	317P024	⑧⑥
	1725	115	SB56Z	RG	3	Ⓜ	6.2	317P025	⑥
	1725	115	SB56Z	RS	4	..	6.2	317P026	⑧⑥
	1725	115	SB56Z	RS	4	Ⓐ	6.2	317P027	⑧⑥
	1725	115	SB56Z	RS	4	Ⓐ	6.2	317P028	⑧⑥⑰
	1725	115	SB56Z	RS	4	..	6.2	317P030	◉⑥
	1725	230	SB56Z	RS	4	..	3.3	317P032	⑥
1/2	1725	115	56	RG	3	..	9.0	317P033	⑧
	1725	115	56	RS	4	..	7.6	317P034	⑧
	1725	115	56	RS	4	Ⓐ	7.6	317P036	⑧⑰
	1725/1140	115	56	RS	4	..	9.8	312P849	⑧④
	1725/1140	115	56	RS	4	Ⓐ	9.8	312P850	⑧④
Open, Ball Bearing, Base Mounted, 60 Hertz, CCW Rotation – Reversible									
1/4	1725	115	48	RS	2	..	5.8	316P245	⑧
1/3	1725	115	B48	RS	2	..	6.2	316P246	⑧
	1725	115	SB56Z	RS	4	..	6.2	317P031	⑧⑥
	1725/1140	115	F48	RS	2	..	6.5	309P383	●④⑤
1/2	1725	115	56	RS	4	..	7.6	317P037	⑧
50 Hertz, Open, Sleeve Bearing, Base Mounted, CCW Rotation – Reversible									
1/4	1425	220	B48	RS	2	..	2.5	316P790	⑧
1/3	1425	220	F48	RS	2	..	3.0	316P791	⑧

① Approximate full load amperes.

④ These 2-speed motors are variable torque, 2 winding designs for fan application. The following HP ratings are indicated on the nameplate:

1725 Rpm	1140 Rpm
1/6	1/20
1/4	1/12
1/3	1/10

1725 Rpm	1140 Rpm
1/2	1/6
3/4	1/4
1	1/3

⑤ Extended through bolts for attaching fan guard.

⑥ ½" diameter shaft with flat.

⑰ Reduced starting torque for fan and blower applications.

⑰ NF = NEMA 56C Flange, Round Frame
RG = Rigid Base
RS = Resilient Base

Ⓐ Type A automatic reset thermal protection, locked and running – recognized by UL, File E-3021.

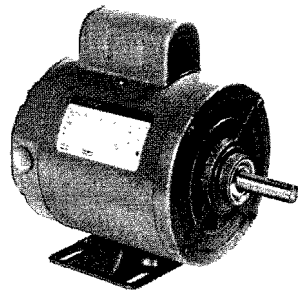
Ⓜ Type M manual reset thermal protection, locked and running – recognized by UL, File E-3021.

⑧ Stock motor.

● Clockwise rotation when facing end opposite shaft extension.

◉ Double shaft extension – same diameter.

Section F
Capacitor Start, Type FZ
40°C Ambient, Continuous Duty Service Factor 1.0



For use on applications where only a moderately high starting torque is required. The fundamental design of the Type FZ capacitor-start motor is essentially the same as the Type FJ – the difference being in their electrical performance. Type FZ motors have a Service Factor of 1.0 and are not suitable for applications where the load will continuously exceed the nameplate rating. Rigid and resilient mounting available.

Typical Applications
Attic fans
Evaporative coolers
Farm and home workshop tools

List Prices: Refer to Price List 2820 P WE A.

Hp	Rpm	Volts	Frame	Mtg. ⓡ	Dimen. Diag.	Thermal Prot.	Amps ①	Style Number	Notes
Open, Sleeve Bearing, Base Mounted, 60 Hertz, CCW Rotation – Reversible									
¼	1725	115	A48	RG	1	..	6.1	316P295	.....
	1725	115	A48	RS	2	..	6.1	316P296	.....
⅓	1725	115	B48	RG	1	..	7.0	316P297	.....
	1725	115	SB56	RG	1	..	7.0	317P053	.....
	1725	115/230	SB56	RG	1	..	7.0	317P055	③
	1725	115	SB56	RS	2	..	7.0	317P054	.....
	1725	115/230	SB56	RS	2	..	7.0	317P056	③
½	1725	115	56	RG	1	..	9.0	317P057	⑧
	1725	115/230	56	RG	1	..	9.0	317P060	⑧②
	1725	115	56	RS	2	..	9.0	317P059	.....
	1725	115/230	56	RS	2	..	9.0	317P061	⑧②
	1725	115	56	RG	1	Ⓐ	9.0	317P058	⑧
¾	1725	115/230	B56	RG	4	..	13.0	312P483	⑧②
	1725	115/230	B56	RS	4	..	13.0	312P484	⑧②
	1725	115/230	B56	RG	3	Ⓐ	13.0	312P485	②
	1725	115/230	B56	RS	4	Ⓐ	13.0	312P488	⑧③
	1725/1140	115	H56	RS	4	..	10.7	311P182	⑧④
	1725/1140	115	H56	RS	4	Ⓐ	10.7	311P473	⑧④
1	1725	115/230	D56	RG	3	..	15.8	312P499	⑧②
	1725	115/230	D56	RS	4	..	15.8	312P498	⑧②
	1725	115/230	D56	RS	4	Ⓐ	15.8	312P502	⑧②
	1725	115/230	D56	RS	4	Ⓜ	15.8	312P500	②
	1725/1140	230	K56	RS	4	..	6.7	311P397	④
Open, Ball Bearing, Base Mounted, 60 Hertz, CCW Rotation – Reversible									
½	1725	115	56Z	RG	3	Ⓜ	9.8	312P480	◉⑨
	1725	115/230	56	RG	1	Ⓜ	9.0	317P062	⑧③
	1725	115/230	56	RS	2	..	9.0	317P063	⑧②
¾	1725	115/230	B56	RG	3	Ⓜ	13.0	312P929	②
1	3450	115/230	D56Z	RG	3	Ⓜ	12.5	311P069	◉③⑨

① Approximate full load amperes – current values listed for dual voltage motors apply to low voltage, divide by two for the high voltage amperes.

② Dual voltage motors – connected for higher voltage; may be reconnected for lower voltage.

③ Dual voltage motors – connected for lower voltage; may be reconnected for higher voltage.

④ These 2-speed motors are variable torque, 2 winding designs for fan application. The following HP ratings are indicated on the nameplate:

1725 Rpm	1140 Rpm
⅛	1/20
¼	1/12
⅓	1/10

1725 Rpm	1140 Rpm
½	⅛
¾	¼
1	⅓

⑨ ⅝" diameter shaft with keyway.

ⓡ NF = NEMA 56C Flange, Round Frame
RG = Rigid Base
RS = Resilient Base

Ⓐ Type A automatic reset thermal protection, locked and running – recognized by UL, File E-3021.

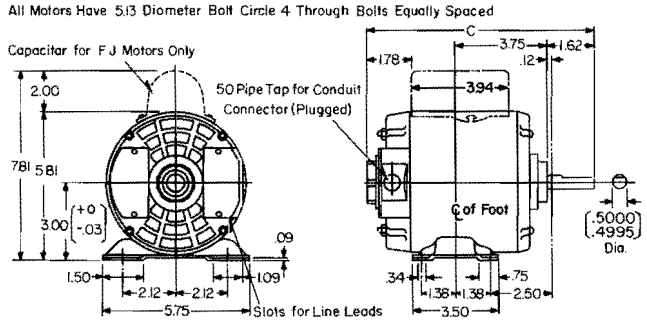
Ⓜ Type M manual reset thermal protection, locked and running – recognized by UL, File E-3021.

Ⓢ Stock motor.

◉ Double shaft extension – same diameter.

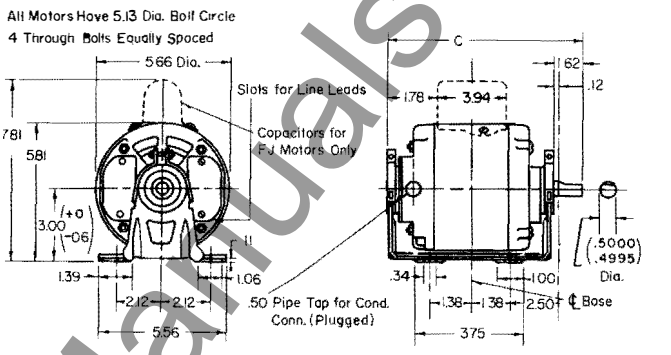
Dimensions

Diagram 1: Rigid Mounted 48 Frame



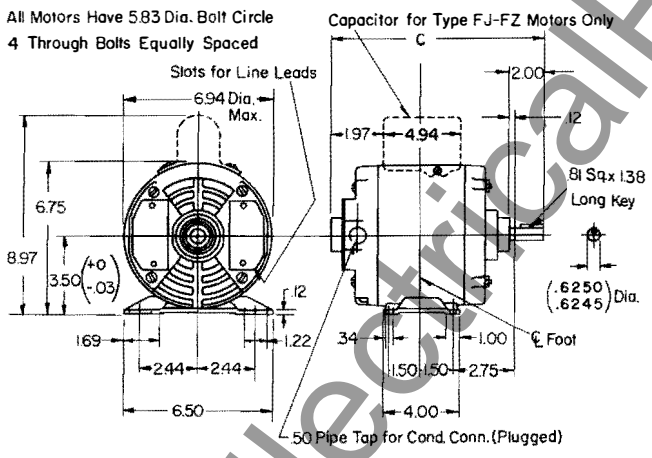
Frame	48	A48	B48	D48	F48
C Dimension	8.91	9.16	9.41	9.91	10.41
Approximate Wt. Lbs.	12	14	16	18	21

Diagram 2: Resilient Mounted 48 Frame



Frame	48	A48	B48	D48	F48
C Dimension	8.91	9.16	9.41	9.91	10.41
Approximate Wt. Lbs.	12	14	16	18	21

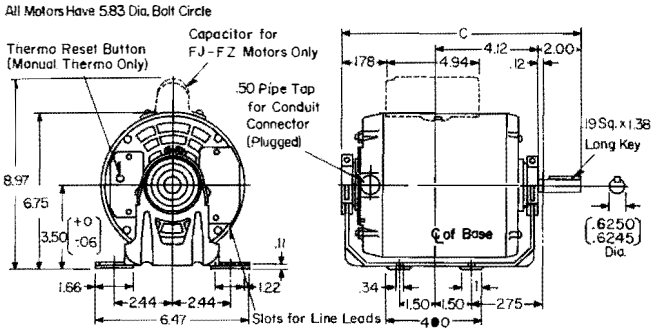
Diagram 3: Rigid Mounted 56 Frame



Frame	SD56	SC56	SB56	56	B56	D56	F56	H56
C Dimension	9.34	9.59	9.84	10.34	10.84	11.34	11.84	12.34
Approximate Wt. Lbs.	13	14	16	21	25	28	31	37

Note: All 317P . . . styles have a frame heighth dimension of 6.31" rather than the 6.75" as shown, and a bolt circle diameter or 5.14" rather than 5.83" as shown.

Diagram 4: Resilient Mounted 56 Frame

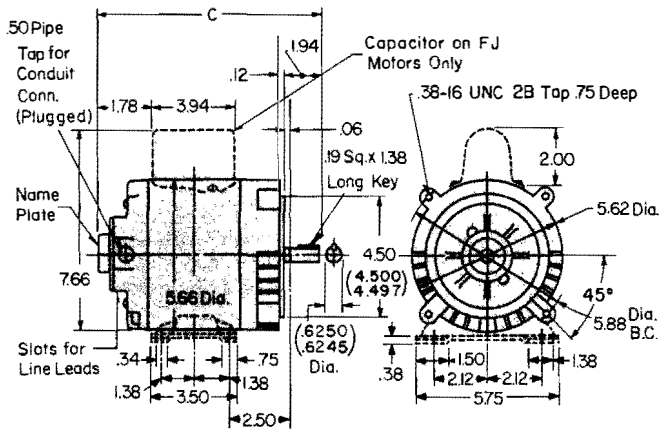


Frame	SD56	SC56	SB56	56	B56	D56	F56	H56	K56
C Dimension	9.34	9.59	9.84	10.34	10.84	11.34	11.84	12.34	12.84
Approximate Wt. Lbs.	13	14	16	21	25	28	31	37	41

Note: All 317P . . . styles have a frame heighth dimension of 6.31" rather than the 6.75" as shown, and a bolt circle diameter of 5.14" rather than 5.83" as shown.

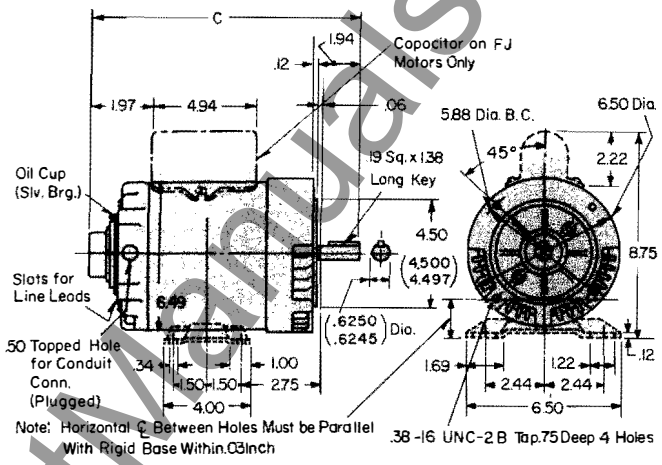
Dimensions, Continued

Diagram 5: 48 Frame with NEMA "C" 56 Flange



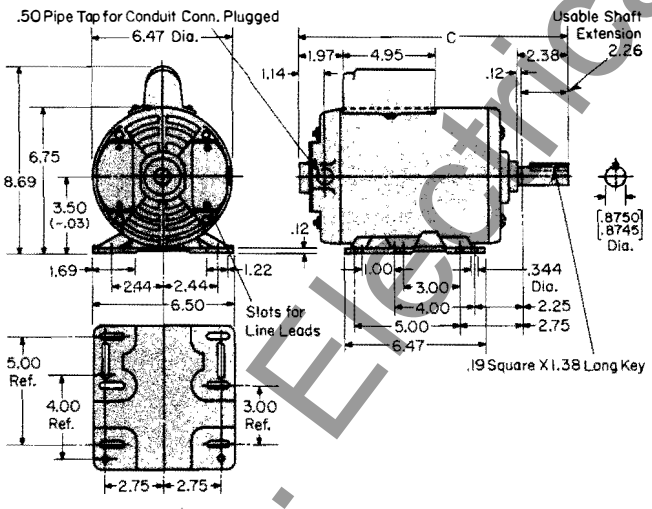
Frame (NEMA C Flange)	SD56C	SC56C	SB56C	56C	B56C
C Dimension	9.31	9.56	9.81	10.31	10.81
Approximate Wt. Lbs.	13	15	16	18	21

Diagram 6: NEMA "C" Flange 56 Frame



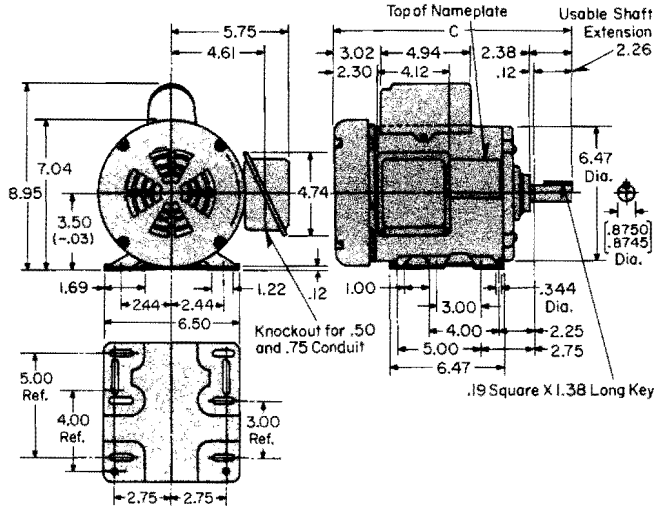
Frame (NEMA C Flange)	56C	B56C	D56C	F56C	H56C	K56C	K56HC
C Dimension	10.31	10.81	11.31	11.81	12.31	12.81	12.81
Approximate Wt. Lbs.	20	23	26	29	35	38	40

Diagram 7: Open 56/140 Frame with Rigid Foot



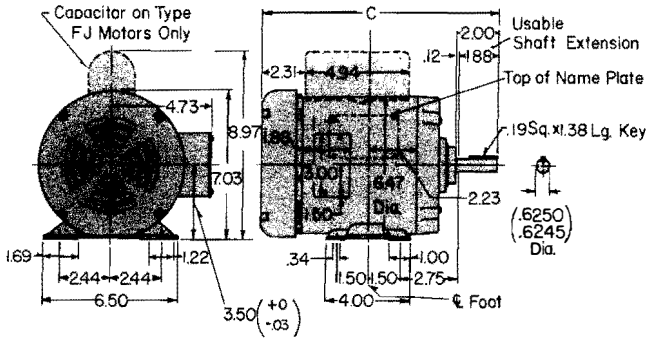
Frame	F143T F145T	H143T H145T	K143T K145T	M143T M145T
C Dimension	12.22	12.72	13.22	13.72
Approximate Wt. Lbs.	33	37	41	45

Diagram 8: Fan Cooled 56/140 Frame with Rigid Foot



Frame	TH143T TH145T	TK143T TK145T	TM143T TM145T	TP143T TP145T
C Dimension	13.04	13.54	14.04	14.54
Approximate Wt. Lbs.	39	43	46	48

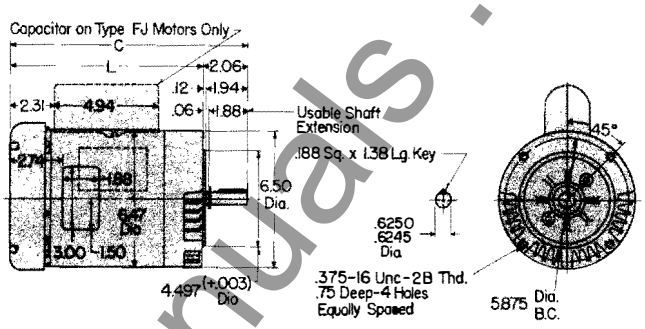
Diagram 9: Totally Enclosed Fan Cooled with Rigid Foot



Frame	T56	TB56	TD56	TF56	TH56 TH56H①	TK56H①	TM56H①
C Dimension	10.66	11.16	11.66	12.16	12.97	13.55	14.05
Approximate Wt. Lbs.	23	26	28	32	35	43	44

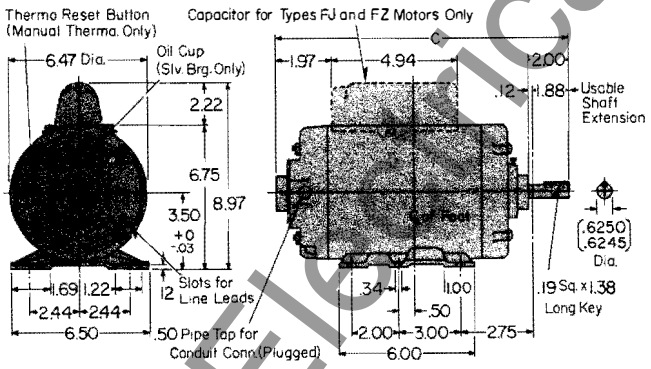
① For foot dimensions, refer to 56H frame rigid mounting.

Diagram 10: Totally Enclosed Fan Cooled with NEMA "C" Flange



Frame	T56C	TB56C	TD56C	TF56C	TH56C	TK56C
C Dimension	10.66	11.16	11.66	12.16	12.66	13.16
L Dimension	8.60	9.10	9.60	10.10	10.60	11.10
Approximate Wt. Lbs.	23	26	31	34	38	43

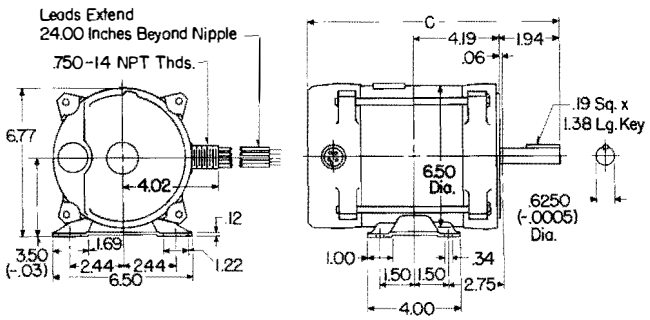
Diagram 11: 56H Frame Rigid Mounting



Frame	F56H	H56H	K56H	M56H
C Dimension	11.84	12.34	12.84	13.34
Approximate Wt. Lbs.	31	35	39	45

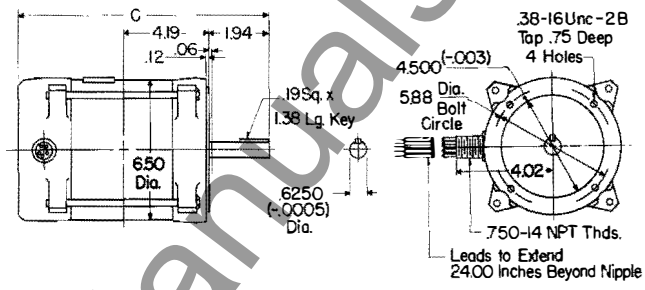
Dimensions, Continued

Diagram 12: Explosion Proof, Totally Enclosed Non-Ventilated with Rigid Foot



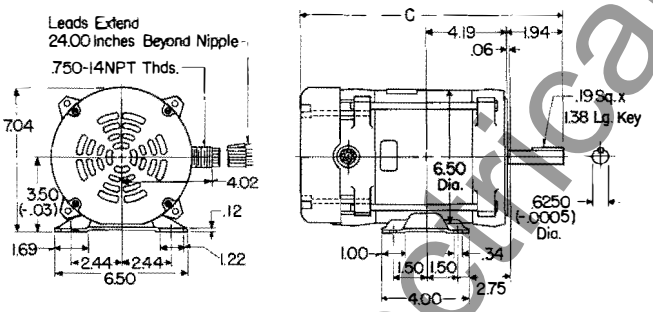
Frame	ZF56
C Dimension	11.11
Approximate Wt. Lbs	35

Diagram 13: Explosion Proof, Totally Enclosed Non-Ventilated with NEMA "C" Flange



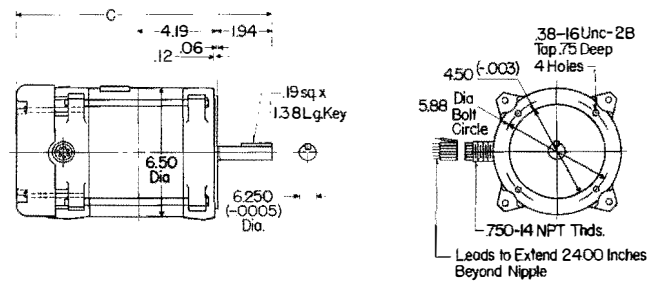
Frame	ZF56C
C Dimension	11.11
Approximate Wt. Lbs.	35

Diagram 14: Explosion Proof, Totally Enclosed Fan Cooled with Rigid Foot



Frame	ZA56	ZD56	ZJ56
C Dimension	11.15	11.90	13.15
Approximate Wt. Lbs.	35	41	46

Diagram 15: Explosion Proof, Totally Enclosed Fan Cooled with NEMA "C" Flange



Frame	ZA56C	ZD56C	ZJ56C
C Dimension	11.15	11.90	13.15
Approx. Wt. Lbs.	35	41	46

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