



WASHGUARD MOTORS AVAILABLE IN FIVE STYLES



**PREMIUM WASHGUARD
ALL-STAINLESS**



Maximum service in critically clean or corrosive environments

- All exterior components of stainless steel
 - Endshields o-ring sealed to frame
 - IEEE 841 severe-duty features standard
 - Meets demanding pharmaceutical requirements, also excellent for chemical-processing applications
 - Meets IP56 enclosure protection
 - Incorporates all WASHGUARD mechanical and electrical features, plus IRIS™ insulation system
 - IRIS™ insulation system
 - BISSC certified for baking industry
- AC motor catalogue listings on page 45
 DC motor catalogue listings on page 102
IEC Motors now available



**WASHGUARD SST
ALL-STAINLESS**



Stainless Steel Tough for demanding washdown applications

- All exterior components of 300 series stainless steel, including motor frame, endshield and conduit box castings
 - Moisture resistant sealant between frame and endbells
 - Full-fact nameplate is laser-etched on the motor frame
 - Built to withstand the demanding washdown environments found in the food processing, chemical processing and beverage industries
 - No paint or coatings of any type are used on the exterior of the motor
 - Four locations for T-drains provided on each endshield
 - IRIS™ insulation system
 - Meets IP55 enclosure protection
 - Three phase motors are suitable for use on VFDs
 - 10:1 ratio for constant or variable torque at 1.0 SF
- Catalogue listings on pages 41-43



**WASHGUARD
WHITE EPOXY**



Enhanced performance in wet, humid areas

- Our original moisture-shedding "duck" motor
 - USDA-approved white epoxy finish
 - Stainless steel shaft, conduit box cover, nameplate, fan guard
 - Special gaskets, slingers and seals
 - Four endshield drains
 - Moisture-resistant interior components
 - IRIS™ insulation system
 - Single-phase, three-phase and DC SCR models
 - Meets IP55 enclosure protection
 - Three phase motors are suitable for use on VFDs
 - 10:1 ratio for constant or variable torque at 1.0 SF
- Catalogue listings on pages 39-40



**EXTREME
DUCK**



Revolutionary Designed Stainless Steel Motors are built to be the last Stainless Steel Washdown motors you will ever need!

- Meet EPACT for non-exempt when tested without shaft seals
 - Total winding encapsulation using an Epoxy Resin
 - LEESON's exclusive IRIS™ Inverter-Rated Insulation System
 - Motors are UL component recognized
 - CSA Energy Efficiency Verification
 - Construction is CSA Certified for safety
 - All exterior components are 300-Series stainless steel
 - Protech Bearing isolator used for the output shaft seal
 - Double Lip Viton shaft seal used on non-drive output shaft on TEFC motors
 - Minimal exterior fasteners, no through-bolt design and screw on conduit box covers
 - Pre-lubricated double-sealed bearings
 - Rotor/Cartridge, "Q-CAR," for quick access to bearings
 - Rigid Cast Base for rugged applications
 - Full fact nameplate is laser etched
 - BISSC certified for baking industry
- Catalogue listings on page 46

WASHGUARD™ MOTORS ARE BUILT TO HANDLE HIGH-PRESSURE WASHDOWNS!*

Stainless-steel fan guard (48-145T frames) or heavy-duty epoxy-coated fan guard (182T-215T frames).

Composite fan is chemically-inert and static-free. Fan is positively positioned on shaft. On TEFC designs only.

USDA-approved, white epoxy finish for superior protection and resistance to caustic cleaning solutions.

Encapsulated starting switch (single-phase WASHGUARD™ motors) uses a patented, field-proven design that is immune to moisture, shock and vibration. No moving parts or exposed contacts to become corroded or inoperable.

Stainless-steel, "full-fact" nameplate includes information on motor efficiency and connections. Readable even after repeated washdowns.

Moisture-resistant shaft system includes 303 stainless-steel shaft and lubricated, spring-loaded contact seals in each endshield. Patented V-ring Forsheda seal on shaft end to deflect water (see inset). Double-sealed, oversized bearings lubricated with Exxon POLYREX® EM high temperature, moisture-resistant lubricant. Bearing cavities packed to further retard entrance of moisture.



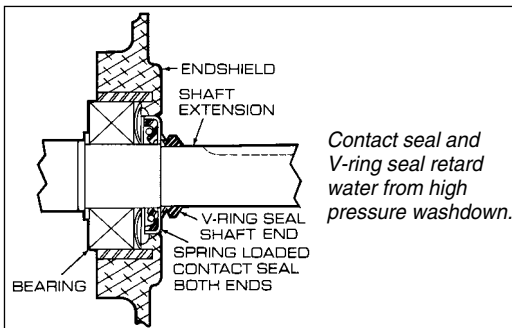
WASHGUARD™ White Epoxy Model Shown

Cast, oversized conduit box with tough, high-temperature nitrile gaskets and stainless-steel cover and hardware. Oversized design with threaded entrance. All machined fits are sealed and nylon gaskets are used under bolt heads.

Interior coatings protect against moisture and corrosion. Frame, base, endshields, rotor, and interior components are protected by enamel and polyester compounds of outstanding adhesion and resistance to moisture, acids, alkalis, and oils. Efficiencies meet EPACT mandates for covered motors when tested without shaft seals. High temperature, moisture resistant IRIS insulation system assures long life on inverter service. Windings are immersed and cured in polyester insulating compound.



Four condensate drains in each endshield (at three, six, nine, and twelve o'clock) purge condensate and water which may enter the motor.



*** ALSO EXCELLENT FOR APPLICATIONS REQUIRING A MOTOR THAT IS "TROPICALIZED!"**

WASHGUARD™ WASHDOWN MOTORS ❖

LEESON WASHGUARD™ motors are designed for enhanced performance in applications requiring regular washdown as in food processing and for application in wet, high humidity environments.



WASHGUARD™ motors retard the entrance of water during cleaning operations and release any water that does enter the motor. Extra protection for the motor's interior reduces rust and corrosion build-up. Drains release trapped moisture.

Mechanical Protection Features: Corrosion resistant 303 stainless steel shaft with seals and "V" ring seal deflect water, protect bearings and the motor's interior. Double sealed, bearings with high temperature, moisture resistant lubricant are used.

Cast conduit box with threaded entrance, drain holes and tough, high temperature nitrile gaskets. Conduit box cover is stainless steel.

Four drains in each endshield purge water regardless of the motor's mounting. Machined fits are sealed, and nylon gaskets are used to seal bolt heads. Stainless steel data plate.

Fan cooled designs utilize a chemically inert static free fan. Heavy gauge type 304 stainless steel fan cover in frames 56 through 145T. Fan cover is epoxy coated for frames 182T and larger.

Electrical Features: High efficiency copper windings. Service Factors are 1.15 or greater, with Class F insulation system. High torques exceed NEMA performance standards.

Single phase motors use a field proven electronic solid state encapsulated starting switch.

For further information on LEESON WASHGUARD™ motors, request Bulletin 1500.



PROTECTED WITH RUST-OLEUM® COATINGS

All three phase motors, 1HP and above, are inverter rated.

SINGLE PHASE • TEFC • RIGID BASE
Featuring Electronic Solid State Encapsulated Switch

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	"C" Dim. (in.)
1/2	1800	56	112431	24	115/208-230	None	4.4	10.81
3/4	1800	56	112432	31	115/208-230	None	5.4	11.31
1	1800	56	112626	33	115/208-230	None	6.4	11.81
	1800	143T	120589	34	115/208-230	None	6.4	12.25
1½	1800	145T	120590	47	115/208-230	None	9.5	13.75
2	1800	182T	131571	60	115/208-230	None	12.6	13.47

SINGLE PHASE • TEFC • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	"C" Dim. (in.)
1/4	1800	56C	112525	27	115/208-230	None	2.4	10.69
1/3	3600	56C	113580	27	115/208-230	None	2.6	10.69
	1800	56C	112526	28	115/208-230	None	3.2	10.69
1/2	3600	56C	113581	25	115/208-230	None	3.6	10.69
	1800	56C	112527	27	115/208-230	None	4.4	11.19
3/4	3600	56C	113582	31	115/208-230	None	5.0	11.69
	1800	56C	112528	30	115/208-230	None	5.4	11.69
1	3600	56C	113583	31	115/208-230	None	6.0	12.19
	1800	56C	112529	33	115/208-230	None	6.4	12.19
1½	3600	56C	113584	36	115/208-230	None	8.5	12.69
	1800	56HC	113300	45	115/208-230	None	9.5	13.69
2	3600	56HC	114637	45	115/208-230	None	10.0	13.69

DC • SCR RATED 90 & 180 VOLTS
TENV • C FACE WITH REMOVABLE BASE

HP	Full Load RPM	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Arm. Volts DC	Control Volts AC	F.L. Amps DC	"C" Dim. (in.)
1/4	1800	S56C	108423	23	90	115	2.7	10.69
	1800	S56C	098375	21	180	230	1.4	10.22
1/3	1800	S56C	108424	26	90	115	3.5	11.69
	1800	S56C	098376	22	180	230	1.7	10.22
1/2	1800	S56C	108226	38	90	115	4.9	13.69
	1800	S56C	108227	43	180	230	2.4	13.69
3/4	1800	S56C	108228	53	90	115	7.0	15.69
	1800	S56C	108229	50	180	230	3.5	15.69
1	1800	S56C	108230**	45	90	115	10.0	15.81
	1800	S56C	108231**	42	180	230	5.0	14.81
1½	1800	S56C	108232**	50	180	230	7.6	16.81

** These motors are totally enclosed fan cooled.

Δ If base is removed, do not reinstall bolts without using washers to compensate for the thickness of base.

LEESON WASHGUARD™ MOTORS

WHITE EPOXY • THREE PHASE



NEMA Premium



THREE PHASE • TENV and TEFC C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (in.)
1/4	1800	56C	112523	21	208-230/460	1.1	67.0	10.69
1/3	1800	56C	112547	22	208-230/460	1.7	68.0	10.69
1/2	3600	56C	113588●	26	208-230/460	1.5	82.5	10.58
	1800	56C	113586●	27	208-230/460	1.8	78.5	10.06
	1800	56C	112429†	29	208-230/460	2.0	74.0	11.19
3/4	3600	56C	113589●	24	208-230/460	2.4	82.5	11.08
	1800	56C	113587●	30	208-230/460	2.5	80.0	10.56
	1800	56C	112430	28	208-230/460	2.8	77.0	11.19
1	3600	56C	113590●	34	208-230/460	2.6	85.5	11.58
	1800	56C	112524	27	208-230/460	3.8	77.0	11.69
	1800	143TC	G120587	32	208-230/460	3.1	82.5	13.25
	1800	143TC	121867[W]	37	208-230/460	3.2	85.5	13.25
1 1/2	3600	56C	113591●	44	208-230/460	3.8	84.0	12.56
	1800	56C	112643	32	208-230/460	5.0	78.5	12.19
	1800	145TC	G121540	32	208-230/460	4.4	84.0	13.25
	1800	145TC	121871[W]	53	208-230/460	4.8	86.5	13.25
2	3600	56HC	113592● +	48	208-230/460	5.0	84.0	13.06
	1800	56C	112644	36	208-230/460	6.2	81.5	12.69
	1800	145TC	G120588	39	208-230/460	6.0	84.0	14.25
	1800	145TC	121868[W]	49	208-230/460	5.8	86.5	13.75
3	3600	145TC	121870[W]	46	208-230/460	7.6	89.5	13.75
	1800	182TC	G130664	66	208-230/460	8.2	87.5	13.96
	1800	182TC	132198[W]	80	208-230/460	7.8	89.5	14.47
5	1800	184TC	G131171	76	208-230/460	13.0	87.5	14.96
	1800	182TC	132201[W]	84	208-230/460	12.8	89.5	14.97

● These motors are totally enclosed, non ventilated—Others are fan cooled.

[W] Premium efficiency WATTSAVER® Motors.

+ 1.00 Service Factor.

† Class F insulated.

THREE PHASE • 575 VOLTS • TEFC C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 575V	% F.L. Eff.	"C" Dim. (in.)
1/4	1800	56C	112520	23	575	0.44	68.0	10.69
1/3	1800	56C	112521	22	575	0.68	68.0	10.69
1/2	1800	56C	112483	28	575	0.8	75.0	11.19
3/4	1800	56C	112484	24	575	1.12	77.0	11.19
1	1800	56C	112522	30	575	1.5	77.0	11.69



WATSAVER® • WASHGUARD™ • 575 VOLTS • THREE PHASE • TEFC • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 575V	% F.L. Eff.	"C" Dim. (in.)
1	1800	143TC	121073	30	575	1.3	84.0	12.25
	1800	143TC	121950[W]	37	575	1.3	85.5	13.25
1 1/2	1800	143TC	121074	32	575	1.7	84.0	12.25
	1800	143TC	121951[W]	48	575	1.9	86.5	13.25
2	1800	145TC	121075	42	575	2.4	84.0	13.75
	1800	145TC	121952[W]	49	575	2.3	86.5	13.75
3	1800	184TC	131260	65	575	3.3	87.6	14.38
	1800	182TC	132264[W]	80	575	3.1	89.5	14.47
5	1800	184TC	G131261	84	575	5.4	88.0	16.38
	1800	182TC	132265[W]	84	575	5.1	89.5	14.97



PROTECTED
WITH
RUST-OLEUM®
COATINGS

All three phase motors, 1HP and above, are inverter rated.

SEE PAGE 38 FOR DESIGN FEATURES.
ADDITIONAL WASHDOWN MOTORS ON NEXT PAGE.

LEESON's FHP WASHGUARD™ SST™ Stainless Steel motors are designed for long life in severe duty or washdown applications. Washguard™ SST™ motors are **Stainless Steel Tough** to withstand the demanding environments found in the food processing, chemical processing and beverage industries.

- 1/3 thru 3 HP
- 1750 & 3450 RPM ratings available in TEFC and TENV enclosures
- 56C, 143TC & 145TC frame sizes available
- Rigid/C-Face and C-Face less base mountings available
- LEESON's IRIS (Inverter Rated Insulation System) included on all ratings
- Fully-gasketed conduit box and rubber-covered oil seals to exclude water
- All-stainless steel construction prevents corrosion in harsh washdown environments
- No paint or coatings of any type are used on the exterior of the motor
- Nameplate is laser-etched into the motor frame to eliminate nameplate rivet holes and bearing locking screws located inside the motor to reduce entry points for water
- Rugged industrial-duty construction
- See Chemical Resistance Rating Chart on page 30

WASHGUARD™ SST™

300-Series stainless steel exterior components – frame, base, endshields, shaft extension, fan guard, hardware, conduit box and cover – for maximum corrosion resistance.

Laser-etched full-face nameplate on motor frame.

Anti-corrosion coating applied to rotor and heavy polyester varnish on stator and to prevent corrosion.

Double-sealed bearings with moisture-resistant high-temperature grease.

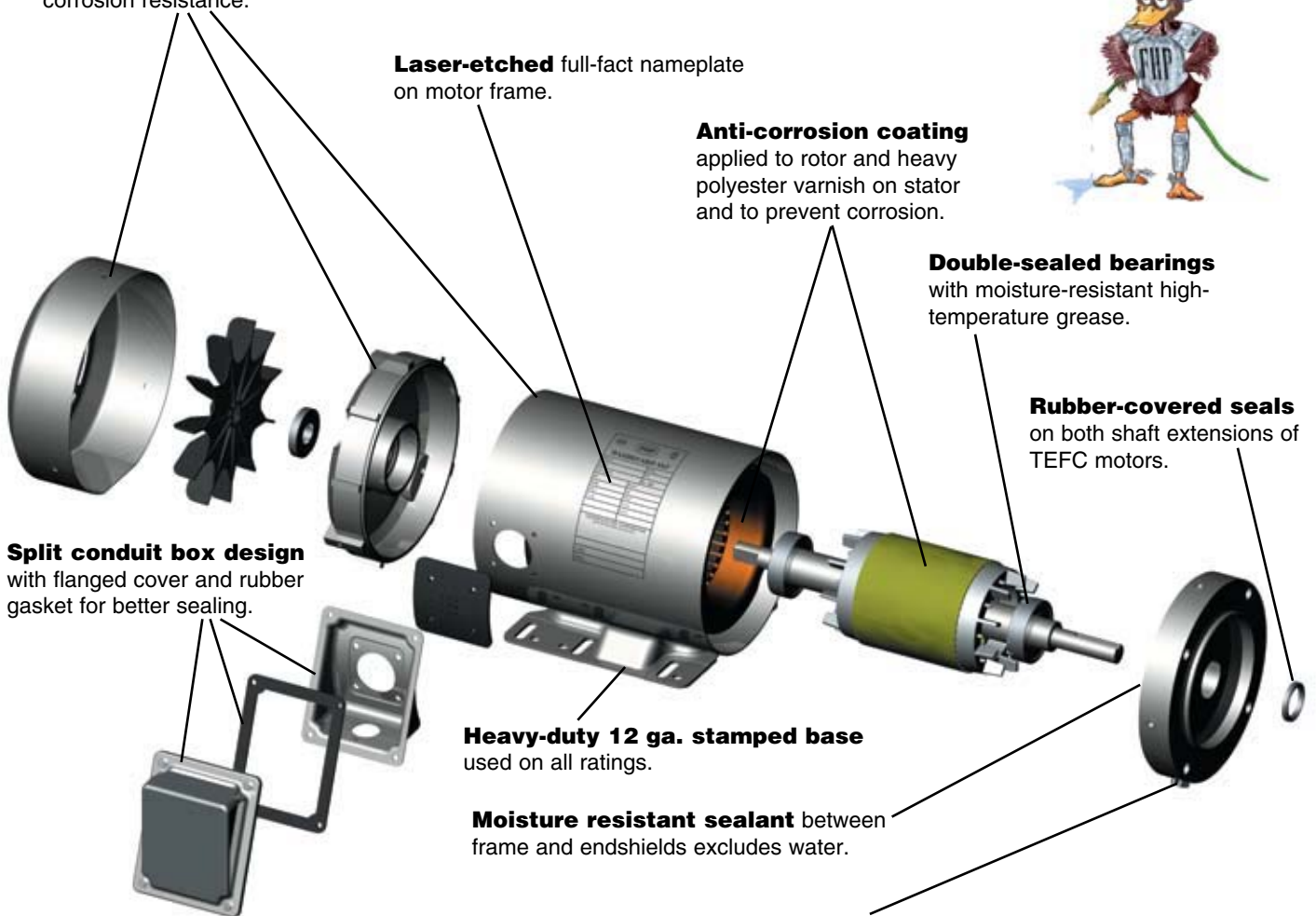
Rubber-covered seals on both shaft extensions of TEFC motors.

Split conduit box design with flanged cover and rubber gasket for better sealing.

Heavy-duty 12 ga. stamped base used on all ratings.

Moisture resistant sealant between frame and endshields excludes water.

Four condensate drains in each endshield (at three, six, nine and twelve o'clock) provide locations to purge condensate and water, which may enter the motor. **T-drains provided for effective drainage** without allowing water to splash inside the motor. T-drain for opposite shaft end is installed at six o'clock position (and can be relocated easily). T-drain for shaft end is shipped loose for customer installation at low point of motor.





WASHGUARD™ SST™ ALL STAINLESS

THREE PHASE • 208-230/460 & 575 VOLTS



208-230/460V • TENV/TEFC • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	3600	56C	191200●	29	208-230/460	1.0	74.0	9.78
	3600	56C	191535	34	208-230/460	0.49	72.0	10.70
	1800	56C	191201●	30	208-230/460	1.3	78.5	9.78
	1800	56C	191529	35	208-230/460	0.53	75.0	11.20
1/2	3600	56C	191203●	32	208-230/460	1.5	77.0	9.78
	3600	56C	191501	37	208-230/460	0.68	76.0	10.70
	1800	56C	191204●	33	208-230/460	1.6	81.5	9.78
	1800	56C	191530	38	208-230/460	0.81	78.0	11.20
3/4	3600	56C	191206●	33	208-230/460	2.0	78.5	9.78
	3600	56C	191502	40	208-230/460	0.96	79.0	10.70
	1800	56C	191207●	38	208-230/460	2.3	82.5	9.78
	1800	56C	191531	43	208-230/460	1.1	80.0	11.20
1	3600	56C	191209	41	208-230/460	2.6	80.0	13.77
	3600	143TC	G191210	42	208-230/460	2.6	80.0	13.62
	3600	143TC	191486 [W]	42	208-230/460	2.6	80.0	13.62
	1800	56C	191291●	49	208-230/460	3.0	81.0	11.00
	1800	56C	191211	47	208-230/460	3.0	82.5	13.77
	1800	143TC	G191212	48	208-230/460	3.0	82.5	13.62
	1800	143TC	191487 [W]	48	208-230/460	3.0	85.5	13.62
	1800	143TC	191215	48	208-230/460	3.8	82.5	13.77
1 1/2	3600	56C	191215	48	208-230/460	3.8	82.5	13.77
	3600	143TC	G191216	49	208-230/460	3.8	82.5	13.62
	3600	143TC	191488 [W]	49	208-230/460	3.8	84.0	13.62
	1800	56C	191217	48	208-230/460	4.8	84.0	13.77
2	3600	56C	191221	49	208-230/460	5.0	84.0	13.77
	3600	145TC	G191222	50	208-230/460	5.0	84.0	13.62
	3600	145TC	191490 [W]	50	208-230/460	5.0	85.5	13.62
	1800	56C	191223	52	208-230/460	5.8	84.0	13.77
3	3600	145TC	G191224	53	208-230/460	5.8	84.0	13.62
	3600	145TC	191491 [W]	53	208-230/460	5.8	86.5	13.62
	1800	56C	191223	52	208-230/460	5.8	84.0	13.77
	1800	145TC	G191224	53	208-230/460	5.8	84.0	13.62
3	3600	145TC	G191293	62	208-230/460	7.4	85.5	14.12
	3600	145TC	191492 [W]	62	208-230/460	7.4	86.5	14.12
	1800	56C	191223	52	208-230/460	5.8	84.0	13.77
	1800	145TC	G191224	53	208-230/460	5.8	84.0	13.62

575V • TENV/TEFC • C FACE WITH BASE

NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 575V	% F.L. Eff.	"C" Dim. (Inches)
56C	191227●	29	575	0.45	74.0	9.78
56C	191503	34	575	0.42	72.0	10.70
56C	191228●	30	575	0.52	78.5	9.78
56C	191532	35	575	0.51	75.0	11.20
56C	191230●	32	575	0.65	77.0	9.78
56C	191504	37	575	0.81	76.0	10.70
56C	191231●	33	575	0.65	81.5	9.78
56C	191533	38	575	0.79	78.0	11.20
56C	191233●	33	575	0.80	78.5	9.78
56C	191505	40	575	1.1	79.0	10.70
56C	191234●	38	575	0.95	82.5	9.78
56C	191534	43	575	1.1	80.0	11.20
56C	191236	41	575	1.2	80.0	13.77
143TC	191237	42	575	1.2	80.0	13.62
143TC	191518 [W]	42	575	1.0	80.0	13.62
56C	191295●	47	575	1.2	82.5	11.00
56C	191238	47	575	1.2	82.5	13.77
143TC	191239	48	575	1.2	82.5	13.62
143TC	191519 [W]	48	575	1.2	85.5	13.62
56C	191242	48	575	1.7	82.5	13.77
143TC	191243	49	575	1.7	82.5	13.62
143TC	191520 [W]	49	575	1.5	84.0	13.62
56C	191244	48	575	1.9	84.0	13.77
145TC	191245	49	575	1.9	84.0	13.62
143TC	191521 [W]	49	575	1.9	86.5	13.62
56C	191248	49	575	2.2	84.0	13.77
143TC	191249	50	575	2.2	84.0	13.62
145TC	191522 [W]	50	575	2.0	85.5	13.62
56C	191250	52	575	2.3	84.0	13.77
145TC	191251	53	575	2.3	84.0	13.62
145TC	191523 [W]	53	575	2.3	86.5	13.62
145TC	191297	62	575	3.0	85.0	14.12
145TC	191524 [W]	62	575	3.0	86.5	14.12

● These motors are totally enclosed, non-ventilated—Others are fan cooled.

[W] Premium efficiency WATTSAVERe® Motors.



Standards and Approvals

UL component recognized, file number E57948, guide number PRGY2. Energy efficiency ratings are verified by an independent testing laboratory. CSA Energy Efficiency Verification Program, report number EEV 78720-1. Construction is CSA Certified for safety report number LR33543.

All three phase motors, 1HP and above, are inverter rated.

Specifications are subject to change without notice

WASHGUARD™ SST™ ALL STAINLESS

THREE PHASE • 208-230/460 & 575 VOLTS



208-230/460V • TENV/TEFC • C FACE LESS BASE

575V • TENV/TEFC • C FACE LESS BASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 575V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1800	56C	191202 ●	29	208-230/460	1.3	78.5	9.78	56C	191229 ●	29	575	0.52	78.5	9.78
	1800	56C	191506	29	208-230/460	.53	75.0	11.2	56C	191509	29	575	.51	75.0	11.2
1/2	1800	56C	191205 ●	32	208-230/460	1.6	81.5	9.78	56C	191232 ●	32	575	0.65	81.5	9.78
	1800	56C	191507	32	208-230/460	.81	78.0	11.2	56C	191510	32	575	.79	78.0	11.2
3/4	1800	56C	191208 ●	38	208-230/460	2.3	82.5	9.78	56C	191235 ●	38	575	0.95	82.5	9.78
	1800	56C	191508	38	208-230/460	1.1	80.0	11.2	56C	191511	38	575	1.1	80.0	11.2
1	1800	56C	191290 ●	48	208-230/460	3.0	81.0	11.00
	1800	56C	191213	46	208-230/460	3.0	82.5	13.77	56C	191240	46	575	1.2	82.5	13.77
	1800	143TC	191214	47	208-230/460	3.0	82.5	13.62	145TC	191241	47	575	1.2	82.5	13.62
	1800	143TC	G191214	47	208-230/460	3.0	82.5	13.62	145TC	191525	47	575	1.2	82.5	13.62
1½	1800	56C	191219	47	208-230/460	4.8	84.0	13.77	56C	191246	47	575	1.9	84.0	13.77
	1800	145TC	191220	48	208-230/460	4.8	84.0	13.62	145TC	191247	48	575	1.9	84.0	13.62
	1800	143TC	G191220	48	208-230/460	4.8	84.0	13.77	145TC	191526	48	575	1.9	84.0	13.77
2	1800	56C	191225	51	208-230/460	5.8	84.0	13.77	56C	191252	51	575	2.3	84.0	13.77
	1800	145TC	191226	52	208-230/460	5.8	84.0	13.62	145TC	191253	52	575	2.3	84.0	13.62
	1800	145TC	G191226	52	208-230/460	5.8	84.0	13.62	145TC	191527	52	575	2.3	84.0	13.62

● These motors are totally enclosed, non-ventilated—Others are fan cooled.

W Premium efficiency WATTSaver® Motors.



SINGLE-PHASE • TENV/TEFC • C FACE W/BASE

HP	SYN RPM	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3600	56C	191474	29.5	115/208-230	3.1	11.1
	1800	56C	191475	31.5	115/208-230	4.1	11.1
3/4	3600	56C	191476	31.5	115/208-230	4.5	11.8
	1800	56C	191477	39.0	115/208-230	4.9	11.8
1	3600	56C	191478	39.0	115/208-230	6.2	12.3
	1800	56C	191479	42.5	115/208-230	6.8	12.3
1½	3600	56C	191480	42.5	115/208-230	8.8	13.2
	1800	56C	191481	52.5	115/208-230	9.5	13.2
2	3600	145TC	191482	64.5	115/208-230	10.8	14.2
	1800	145TC	191483	64.5	115/208-230	9.0	14.2

Standards and Approvals

UL component recognized, file number E57948, guide number PRGY2. Energy efficiency ratings are verified by an independent testing laboratory. CSA Energy Efficiency Verification Program, report number EEV 78720-1. Construction is CSA Certified for safety report number LR33543.



All three phase motors, 1HP and above, are inverter rated.



WASHGUARD™ ALL-STAINLESS MOTORS

ALL-STAINLESS • SINGLE PHASE • THREE PHASE

PREMIUM STAINLESS STEEL DUCK



General Specifications:

Motors have been tested to and passed the IEC IP-56 test requirements. Designed specifically to meet the demanding sanitation requirements of the pharmaceutical, food processing and beverage industries. These motors are also ideal in clean room and severe chemical-processing applications involving frequent washdown with nitric acid and caustic lye. In fact, WASHGUARD™ All-Stainless Motors include IEEE 841 severe-duty features right out of the box!

Mechanical Protection Features:

- All exterior components are 300-series stainless steel.
- Nothing on the motor's exterior is painted or coated in any way.
- All sealing components are Viton® for superior chemical resistance.
- Full fact nameplate is laser etched on the motor frame – no separately attached nameplate to trap dirt or contaminants.
- Endshields are O-ring sealed to the frame.
- Double lip shaft seals on both ends of TEFC motors (shaft end only on TENV motors).
- Removable hydrophobic breathers in opposite shaft endbell and conduit box equalize pressure without allowing moisture to enter.
- Exterior fastener use minimized reducing the number of entry points for moisture. There are no holes in the frame for attaching a nameplate. Bearing lock screws are located inside the motor and the conduit box mounted screws have been eliminated.
- Double-sealed bearings are pre-lubricated with moisture-resistant high-temperature grease for long life.
- Interior coatings applied to rotor and stator protect against corrosion.
- New conduit box mounting system provides optimum sealing.
- Ease to clean construction is BISSC Certified for bakery applications..

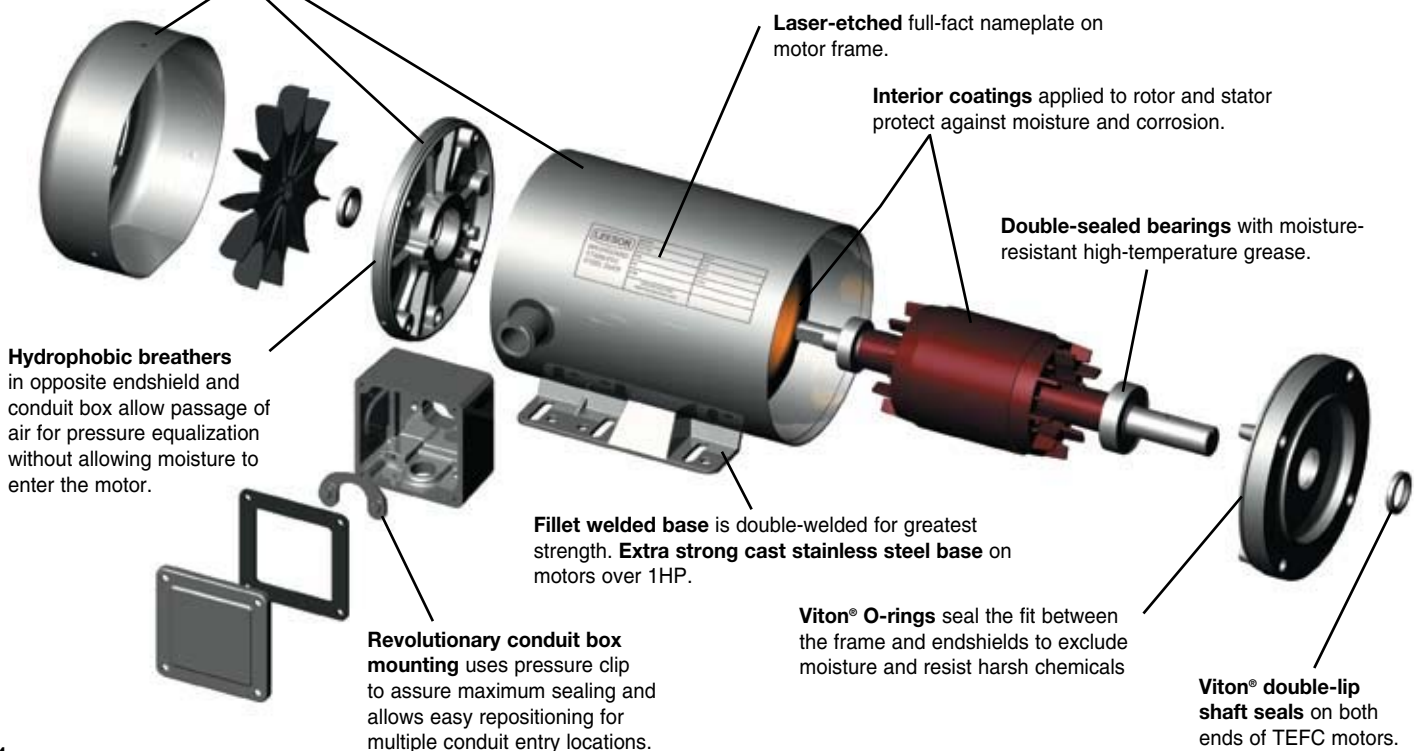
Electrical Performance and Protection Features

- WASHGUARD™ efficiencies meet EPACT mandates for non-exempt motors when tested without shaft seals.
- Windings are immersed and cured in polyester insulating varnish for extra moisture-resistance.
- LEESON's exclusive IRIS™ Inverter-Rated Insulation System provides extra protection and long life, especially in inverter-driven applications.
- Single-phase motors use Solid State Sinpac® switch – no mechanical switch contacts to corrode and fail.

Standards and Approvals

- Single and three phase motors are UL component recognized – file number E57948, guide number PRGY2.
- CSA Energy Efficiency Verification Program, report number EEV 78720-1.
- Construction is CSA Certified for safety report number LR33543 and listed under BISSC authorization number 769.

300-Series stainless steel exterior components – frame, base, endshields, shaft extension, fan guard, hardware, conduit box and cover – for maximum corrosion resistance.



CHEMICAL RESISTANCE RATING CHART

CHEMICAL	CONCENTRATION	ALL STAINLESS COMPONENTS
WATER:		
De-ionized Boiling	100%	Excellent
Salt (Immersed)	30%	Excellent
Salt (Spray)	5%	Excellent
Tap - 250°F/120°C @ 10,000 PSI	100%	Excellent
ACIDS:		
Hydrochloric	35%	Poor
Sulfuric	25%	Poor
Nitric	35%	Excellent
Picric	Saturated Solution	Excellent
BASE:		
Caustic	100%	Excellent
Caustic	12.5 pH	Excellent
Caustic - 125°F/50°C	9.5 pH	Excellent
SOLVENTS:		
	-	Excellent



WASHGUARD™ ALL-STAINLESS MOTORS

SINGLE & THREE PHASE



ALL-STAINLESS • SINGLE PHASE TENV/TEFC • C FACE LESS BASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1800	56C	116349●	35	115/208-230	None	2.7	11.70
1/2	1800	56C	116350●	38	115/208-230	None	3.3	12.70
3/4	1800	56C	116351●	42	115/208-230	None	3.8	12.70
1	1800	56C	116352●	49	115/208-230	None	4.5	13.70
1½	1800	145TC	121624	53	115/208-230	None	7.4	14.87
2	1800	145TC	121633	57	115/208-230	None	10.0	14.87

● These motors are totally enclosed, non-ventilated—Others are fan cooled.

208-230/460V • ALL STAINLESS • THREE PHASE • TEFC • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	F.L. Eff.	"C" Dim. (Inches)
3	1800	182TC	G131900	70	208-230/460	8.2	87.5	14.77
	1800	182TC	132206	85	208-230/460	8.2	89.5	14.77
5	3600	184TC	G131901	80	208-230/460	12.0	87.5	14.77
	3600	184TC	132207	90	208-230/460	12.0	88.5	14.77
	1800	184TC	G131902	80	208-230/460	13.0	87.5	15.27
	1800	184TC	132208	96	208-230/460	13.0	89.5	15.27
7½	3600	213TC	G140698	150	208-230/460	18.4	88.5	18.69
	3600	213TC	140825	160	208-230/460	18.4	89.5	18.69
	1800	213TC	G140675	153	208-230/460	20.4	89.5	18.69
	1800	213TC	140826	160	208-230/460	20.4	91.7	18.69
10	3600	215TC	G140699	165	208-230/460	24.0	89.5	18.69
	3600	215TC	140827	165	208-230/460	24.0	90.2	18.69
	1800	215TC	G140676	170	208-230/460	26.0	89.5	18.69
	1800	215TC	140828	173	208-230/460	26.0	91.7	18.69

575V • ALL STAINLESS • THREE PHASE TEFC • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 575V	F.L. Eff.	"C" Dim. (Inches)
3	1800	182TC	G132012	70	575	4.2	87.5	14.77
	1800	182TC	132266	85	575	3.3	89.5	14.77
5	3600	184TC	G132013	80	575	4.8	87.5	14.77
	3600	184TC	132267	90	575	4.8	88.5	14.77
	1800	184TC	G132014	80	575	5.2	87.5	15.27
	1800	184TC	132268	96	575	5.2	89.5	15.27
7½	3600	213TC	G140748	150	575	7.4	88.5	18.69
	3600	213TC	141125	160	575	7.4	89.5	18.69
	1800	213TC	G140749	153	575	8.2	89.5	18.69
	1800	213TC	141126	160	575	8.2	91.7	18.69
10	3600	215TC	G140750	165	575	9.6	89.5	18.69
	3600	215TC	141127	165	575	9.6	90.2	18.69
	1800	215TC	G140751	170	575	10.4	89.5	18.69
	1800	215TC	141128	173	575	10.4	91.7	18.69

Premium efficiency WATTSERVER® Motors meet NEMA efficiency requirements.

ALL-STAINLESS SINGLE PHASE • TENV/TEFC • C FACE WITH BASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1750	56C	116343●□	35	115/208-230	None	2.7	12.20
1/2	3450	56C	116344●□	38	115/208-230	None	3.8	12.20
	1750	56C	116345●□	38	115/208-230	None	3.3	12.70
3/4	1750	56C	116346●□	42	115/208-230	None	3.8	12.70
1	3450	56C	116347●□	49	115/208-230	None	6.0	13.70
	1750	56C	116348●□	49	115/208-230	None	4.5	13.70
1½	3450	56C	116482□	49	115/208-230	None	6.8	13.81
	1750	145TC	121622	53	115/208-230	None	7.4	14.81
2	3450	145TC	121623	57	115/208-230	None	8.8	14.81
	1750	145TC	121632	57	115/208-230	None	10.0	14.81

● These motors are totally enclosed, non-ventilated—Others are fan cooled.

□ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.



All three phase motors, 1HP and above, are inverter rated.



WASHGUARD ALL-STAINLESS MOTORS

ALL-STAINLESS • THREE PHASE • STANDARD & NEMA PREMIUM RATINGS



EXTREME DUCK



General Specifications:

These Revolutionary Designed Stainless Steel Motors are built using our "Voice of the customer" design criteria to withstand extreme washdown and sanitation requirements of the food processing, pharmaceutical, packaging and beverage industries. Our Innovative Hydro Sealed System "HS²™" protects from the "outside-in" by reducing entrance points of contaminants and eliminates the need for drain plugs and breathers. This proven process also minimizes exterior hardware, which may trap application elements. Our unique Rotor/Cartridge Seal System, "Q-CAR™" gives quick access to the interior of the motor should the need arise. 300-Series Stainless Steel used on all exterior surfaces gives ideal protection against severe chemical-processing applications and frequent washdown processes using Salt water, Nitric Acids and Solvents.

Mechanical Protection Features:

- All exterior components are 300-Series stainless steel
- Protech Bearing isolator used for the output shaft seal
- Double Lip Viton shaft seal used on non-drive output shaft on TEFC motors
- Minimal exterior fasteners due to no through-bolt design and screw on conduit box covers reduces surface areas that may trap contaminants
- Double-sealed bearings are pre-lubricated with moisture resistant, high temperature grease for long life
- Rotor/Cartridge, "Q-CAR™," design for quick access to motor interior (patent pending).
- O-ring sealed openings on conduit box covers and Rotor/Cartridge cover
- Rigid Cast Base for rugged applications
- Conduit box lead hole location rotatable on TEFC designs
- Full fact nameplate is laser etched to the motor frame making frame surface smooth, which eliminates areas that trap contaminants
- Ease of clean construction is BISSC certified for bakery applications and motors meet Pharmaceutical Duty specifications
- IP 56 Enclosure protection

Electrical Performance and Protection Features

- Motors meet EPACT mandates for non-exempt motors when tested without shaft seals
- Total winding encapsulation using an Epoxy Resin.
- LEESON's exclusive IRIS™ Inverter-Rated Insulation System provides extra protection and long life, especially when used in applications driven by an Inverter.
- 3 year warranty
- 10:1 constant torque operation

Standards and Approvals

- Motors are UL component recognized – file number E57948, guide number PRGY2
- CSA Energy Efficiency Verification Program, report number EEV 78720-1
- Construction is CSA Certified for safety, report number LR33543 and listed under BISSC authorization number 769
- 3 year warranty



CHEMICAL RESISTANCE RATING CHART

CHEMICAL	CONCENTRATION	ALL STAINLESS COMPONENTS
WATER:		
De-Ionized Boiling	100%	Excellent
Salt (Immersed)	30%	Excellent
Salt (Spray)	5%	Excellent
Tap - 250°F/120°C @ 10,000 PSI	100%	Excellent
ACIDS:		
Hydrochloric	35%	Poor
Sulfuric	25%	Poor
Nitric	35%	Excellent
Picric	Saturated Solution	Excellent
BASE:		
Caustic	100%	Excellent
Caustic	12.5 pH	Excellent
Caustic - 125°F/50°C	9.5 pH	Excellent
SOLVENTS:		
	-	Excellent

WASHGUARD ALL-STAINLESS MOTORS

ALL-STAINLESS • THREE PHASE • STANDARD & NEMA PREMIUM RATINGS



AC Motors



EXTREME DUCK



THREE PHASE • TENV/TEFC • C FACE WITH BASE

SYN HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	"C" Dim. (Inches)
1/3
1/2	3600	56C	117118 ●	39	208-230/460	1.6	10.47
...
1800	S56C	103411 ●	33	208-230/460	1.6	11.49	
1800	56C	117119 ●	40	208-230/460	1.6	10.72	
1800	56C	117527 ●	40	575	0.64	10.72	
3/4	3600	56C	117120 ●	46	208-230/460	2.4	10.47
1800	S56C	103412	39	208-230/460	2.3	12.50	
1800	56C	117121 ●	47	208-230/460	2.3	11.22	
1800	56C	117525 ●	47	575	0.92	11.22	
1	3600	56C	117122 ●	48	208-230/460	2.6	10.97
1800	56C	117123 ●	50	208-230/460	3.0	11.97	
1800	56C	117526 ●	50	575	1.2	11.97	
1 1/2	3600	143TC	121879 [w]	54	208-230/460	4.0	11.75
3600	143TC	G121748	54	208-230/460	4.0	11.00	
1800	56C	117296	56	208-230/460	4.4	11.69	
1800	145TC	121880 [w]	56	208-230/460	4.4	12.75	
1800	145TC	G121749	56	208-230/460	4.4	11.25	
2	3600	145TC	121881 [w]	56	208-230/460	5.2	12.75
3600	145TC	G121739	56	208-230/460	5.2	12.50	
1800	56C	117299 [w]	57	208-230/460	5.6	12.69	
1800	145TC	121955 [w]	57	575	5.6	13.25	
1800	145TC	121882	57	208-230/460	5.6	13.25	
1800	145TC	G121740	57	208-230/460	5.6	12.50	

● These motors are totally enclosed, non-ventilated—Others are fan cooled.
[w] Premium efficiency WATTSAVER[®] Motors. See page 24 for details.

THREE PHASE • TENV/TEFC • C FACE LESS BASE

SYN HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1800	48C	103417 ●	30	208-230/460	1.3	9.58
1/2	3600	56C	117126 ●	38	208-230/460	1.6	10.47
1800	48C	103418 ●	32	208-230/460	1.6	11.33	
1800	S56C	103413 ●	32	208-230/460	1.6	11.49	
1800	56C	117127 ●	39	208-230/460	1.6	10.72	
...
3/4	3600	56C	117128 ●	45	208-230/460	2.4	10.47
1800	S56C	103414	38	208-230/460	2.3	12.50	
1800	56C	117129 ●	46	208-230/460	2.3	11.22	
...
1	3600	56C	117130 ●	47	208-230/460	2.6	10.97
1800	56C	117131 ●	50	208-230/460	3.0	11.69	
...
1 1/2	3600	143TC	121908 [w]	53	208-230/460	4.0	11.75
3600	143TC	121750	53	208-230/460	4.0	11.00	
1800	56C	117297	55	208-230/460	4.4	11.69	
1800	145TC	121909 [w]	55	208-230/460	4.4	12.75	
1800	145TC	121751	55	208-230/460	4.4	11.25	
2	3600	145TC	121910 [w]	55	208-230/460	5.2	12.75
3600	145TC	121742	55	208-230/460	5.2	12.50	
1800	145TC	121743	56	208-230/460	5.6	12.50	
...
1800	145TC	121911 [w]	56	208-230/460	5.6	13.25	
1800	56C	117298	56	208-230/460	5.6	12.69	

● These motors are totally enclosed, non-ventilated—Others are fan cooled.
[w] Premium efficiency WATTSAVER[®] Motors. See page 24 for details.

