



Customer information packet

39E490X191G1

20HP, 3520RPM, 3PH, 60HZ, 256TC, 3940M, TEFC, F

Class -

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	256TC
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CSA CSA EEV UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	23.000 A @ 460.0 V 46.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	23.0 a

Part detail

Revision	X
Type	AC
Mech. spec.	39E490
Base	
Status	PRD/A
Elec. spec.	39WGX191
Layout	39LYE490
Eff. date	02-14-2024
CD Diagram	CD0005
Poles	02
Leads	9#12
Proprietary	False
Created date	11-21-2012

Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 12 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3940M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	23.57 IN
Power Factor	90
Product Family	Super White Washdown
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3520 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1669L									
CAT.NO.	CEWWDM41906T								
SPEC.	39E490X191G1								
HP	20								
VOLTS	230/460								
AMP	46/23								
RPM	3520								
FRAME	256TC		HZ	60			PH	3	
SER.F.	1.15	CODE	H	DES	A	CLASS	F		
NEMA-NOM-EFF	91	PF	90						
RATING	40C AMB-CONT								
CC	010A								
DE	6309		ODE	6309					
ENCL	TEFC	SN							
BLANK									

Parts list

Part number	Description	Quantity
SA254720	SA 39E490X191G1	1.000 ea
RA241526	RA 39E490X191G1	1.000 ea
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.025 ea
HA6016WP	ADAPTER, CONDUIT BOX, W/WHITE EPOXY, PRIM	1.000 ea
09GS1006	GASKET, CONDUIT BOX, NEOP-1/16 THICK-BLA	1.000 ea
09CB3002A01P	CB MACH - 1.25 N.P.T. LEAD HOLE W/EPOXY	1.000 ea
19XW2520A16	SCREW,1/4-20X1 TAPTITE-II OR ROLOC 91	2.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 ea
39EP1101A30WP	FREP, MACH W/LOCKED 309 BRG, WHITE EPOXY	1.000 ea
HW4032A01	BLACK DRAIN PLUG FOR WASH DOWN MOTORS	3.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
HW4606A15	PROTECH/SEAL (WDE-1688-2250-BG37)	1.000 ea
39EP1500A33P	PU ENDPLATE, MACH W/EPOXY PRIMER	1.000 ea
HW4032A01	BLACK DRAIN PLUG FOR WASH DOWN MOTORS	3.000 ea
10XN2520S28	1/4-20X 1 3/4 HEX HD SS X	4.000 ea
HW4606A15	PROTECH/SEAL (WDE-1688-2250-BG37)	1.000 ea
HA3154S02	THRUBOLT STUD 3/8-16 X 15.875 SS	4.000 ea
XY3816S12	3/8-16 HEX FINISHED NUT SS	8.000 ea
HA2001S08	S.S. SPACER FOR FAN COVER	3.000 ea
09FH4000A23MWP	FAN COVER, MACH W/WHITE EPOXY	1.000 ea
10XN2520S20	1/4-20X 1 1/4 HEX HD CAP SS	3.000 ea
09CB3501P	CONDUIT BOX LID FOR 09CB3001 & 09CB3002	1.000 ea
12GS1002	GASKET, CONDUIT BOX LID, NEOP	1.000 ea
19XT2520S12	1/4-20X3/4 HWH NO SLOT TY.23 18-8 S.S.	2.000 ea
HW1001S25	WASHER, 1/4 SPLT LK, STAINLESS STEEL	2.000 ea
HW2502G25	#303 SS,SQ KEY 3/8 X 2.880	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 qt
LB1164	LABEL,WARNING AND DRAIN	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2400 bx)4/22	1.000 ea

HA5027A01	HA4066A01 T-DRAIN X2 BAGGED	1.000 ea
09GS1017	GASKET, CONDUIT BOX, .125 THICK BLACK NE	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.085 lb
09FN3001D01SP	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MG1025W01	WILKOFAS, 781.01, SIGNAL WHITE #9003	0.050 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 ea
NP1669L	SS WD SUPER-E UL PREM REV MTG	1.000 ea
39PA1000	PACKAGING GROUP 39 PRINT	1.000 ea

AC Induction Motor Performance Data

Record # 41946

Typical performance - not guaranteed values

Winding: 39WGX191-R001			Type: 3940M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection		
Rated Output (HP)		20		Full Load Torque		29.6 LB-FT
Volts		230/460		Start Configuration		direct on line
Full Load Amps		46/23		Breakdown Torque		108 LB-FT
R.P.M.		3520		Pull-up Torque		40.8 LB-FT
Hz	60	Phase	3	Locked-rotor Torque		51.6 LB-FT
NEMA Design Code		A	KVA Code	Starting Current		168 A
Service Factor (S.F.)		1.15		No-load Current		6.78 A
NEMA Nom. Eff.		91	Power Factor	Line-line Res. @ 25°C		0.446 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		77°C
S.F. Amps				Temp. Rise @ S.F. Load		94°C
				Locked-rotor Power Factor		28.4
				Rotor inertia		1.02 lb-ft²

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	59	80	87	90	91	91	91
Efficiency	85.1	90.4	91.3	91.1	90.3	89.2	90.6
Speed	3580.6	3561.9	3542.4	3521.2	3498.6	3473.5	3508
Line amperes	8.79	12.7	17.5	22.6	28.5	34.3	26.1

ABB Motors and Mechanical Inc.

WINDING # 39WGX191

Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 3520 RPM 460 V 3940M

TORQUES (LB-FT): PO=108 PU=40.8 LR=51.6 LRA=168





