

ABB BALDOR RELIANCE III

Customer information packet

EM2515T-BG

20HP, 1765RPM, 3PH, 60HZ, 256T, 3948M, OPSB, F1

Class -

Division - Not Applicable

Specifications

Enclosure	OPSB
Frame	256T
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	1800 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
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	24.000 A @ 460.0 V 48.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
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	24.0 a

Part Detail

Revision	Q
Type	AC
Mech. spec.	39E531
Base	
Status	PRD/A
Elec. spec.	39WGX952
Layout	39LYE531
Eff. date	06-11-2024
CD Diagram	CD0180
Poles	04
Leads	9#10
Proprietary	False
Created date	06-22-2016

Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3948M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	23.19 IN
Power Factor	85
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1765 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

NP3553LUA									
CAT.NO.	EM2515T-BG								
SPEC.	39E531X952G1								
HP	20								
VOLTS	230/460								
AMPS	48/24								
RPM	1765								
FRAME	256T		HZ	60		PH	3		
SF	1.15	CODE	G	DES	A	CLASS	H		
NEMA NOM. EFF	93	PF	85						
RATING	40C AMB-CONT								
CC	010A								
ENCL	OPSB	SN							
DE	6309		ODE	6208					
VPWM INVERTER READY									
CT30-60(2:1) VT3-60(20:1)									
USABLE AT	50HZ 20HP 190/380V 58/29A						SF1.0		

Parts List

Part number	Description	Quantity
SA322855	SA 39E531X952G1	1.000 ea
RA310664	RA 39E531X952G1	1.000 ea
HA6361A01	LIFTING LUG FOR 37, 39 & 40 FRAME ZINC	2.000 ea
HA6016	ADAPTER, CAST CONDUIT BOX	1.000 ea
09CB3003	CB W/1.75" DIA LD HL - 37, 39, 307 & 309	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	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
39EP3200A01SP	FR/PU ENDPLATE, MACH	1.000 ea
HW5100A08	W3118-035 WVY WSHR (WB)	1.000 ea
39EP3201A22	PU ENDPLATE, MACH	1.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	8.000 ea
10XN2520K28	1/4-20 X 1.75" HX HD SCRWGRADE 5, ZINC P	4.000 ea
09CB3501SP	CONDUIT BOX LID FOR 09CB3001 & 09CB3002	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
HW2501G25	KEY, 3/8 SQ X 2.875	1.000 ea
LB1508	LABEL "SHAFT GROUNDING BRUSH" 1.50 X .81	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.030 lb
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.050 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
39AD2002A01	BAFFLE PLATE 39 OPEN, SLOTTED BAND MTRS	1.000 ea
39AD2002A01	BAFFLE PLATE 39 OPEN, SLOTTED BAND MTRS	1.000 ea
HA3154A03	STUD, 3/8-16 X 17.75	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea

NP3553LUA	ALUM SUPER-E VPWM INV READY UL CC NEMA P	1.000 ea
39PA1000	PACKAGING GROUP 39 PRINT	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LD7020E09	LEAD SET, 10AWG, 9 LEAD, 20" LONG LEADS	1.000 ea

AC Induction Motor Performance Data

Record # 57686

Typical performance - not guaranteed values

Winding: 39WGX952-R003			Type: 3948M		Enclosure: OPSB	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		20	Full Load Torque		59.7 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		48/24	Breakdown Torque		187 LB-FT	
R.P.M.		1765	Pull-up Torque		78.1 LB-FT	
Hz	60	Phase	3	Locked-rotor Torque		112 LB-FT
NEMA Design Code		A	KVA Code		G	
Service Factor (S.F.)		1.15	No-load Current		8.83 A	
NEMA Nom. Eff.		93	Power Factor		85	
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		37°C
S.F. Amps				Temp. Rise @ S.F. Load		46°C
				Locked-rotor Power Factor		33.3

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	50	72	81	85	87	87	86
Efficiency	90.2	93.3	93.5	93	92.2	91	92.5
Speed	1792.2	1784.8	1776.1	1767.5	1757.6	1746.3	1762
Line amperes	10.5	14	18.6	23.8	29.4	35.6	27.2

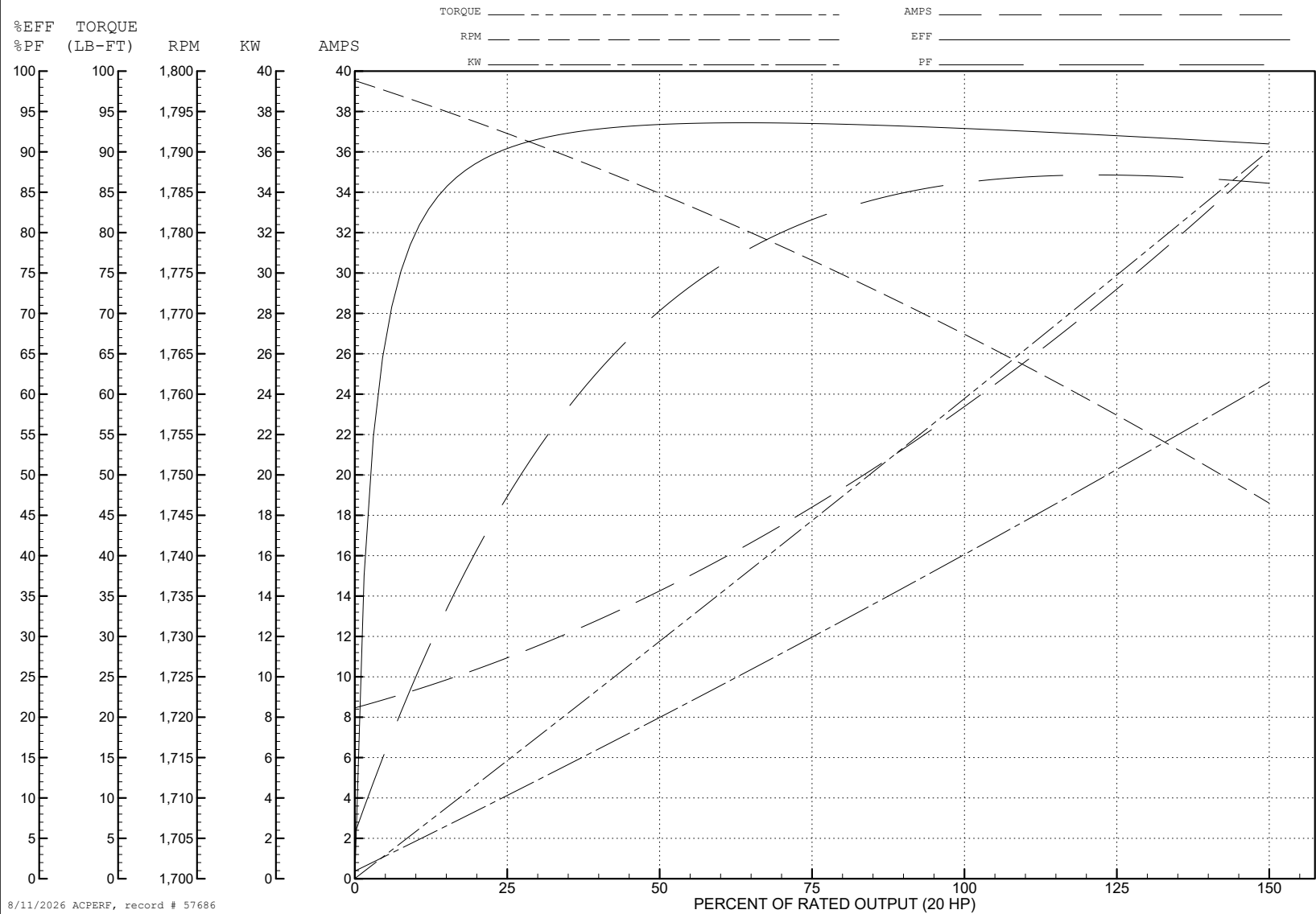
ABB Motors and Mechanical Inc.

WINDING # 39WGX952

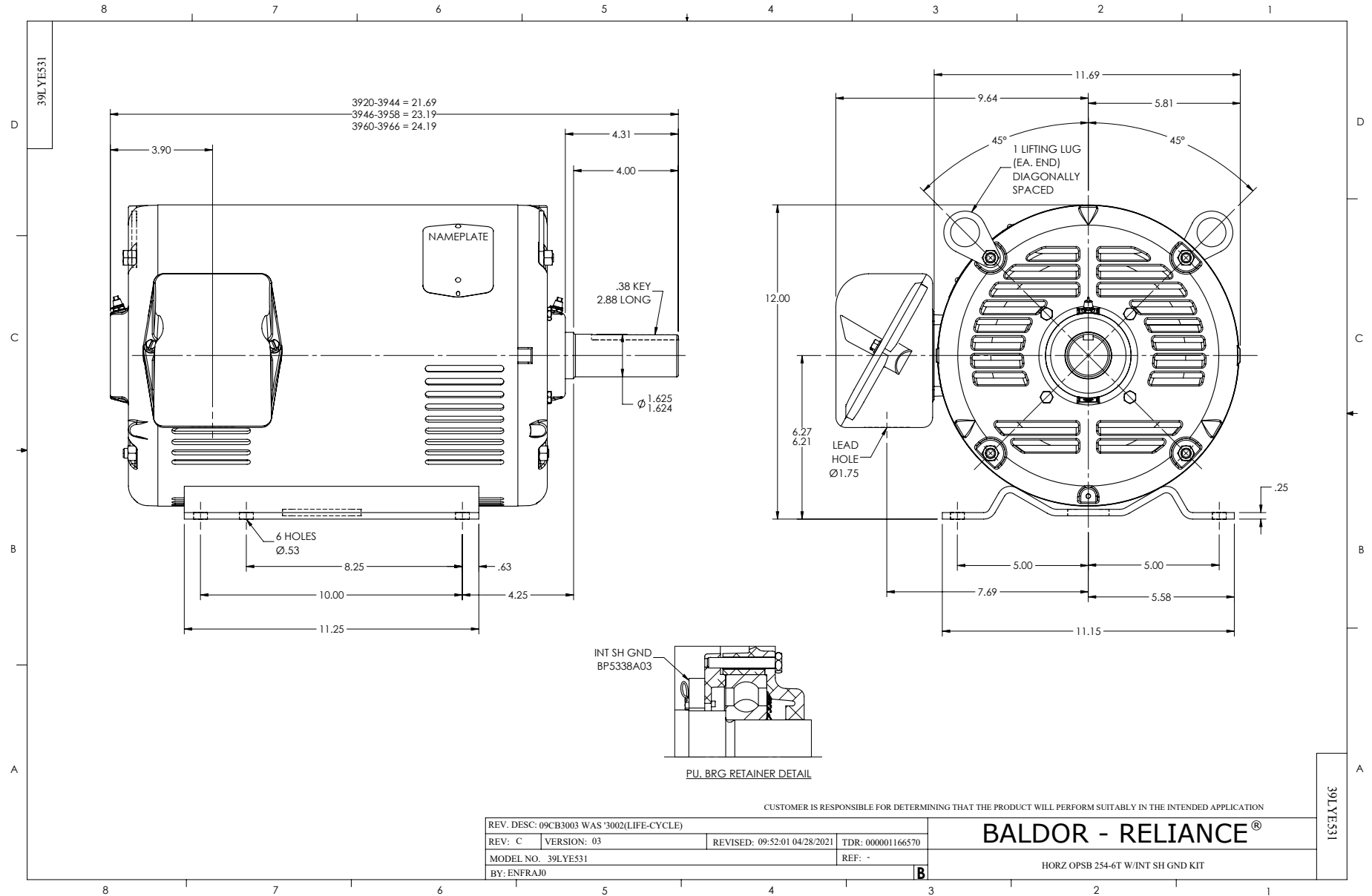
Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 1765 RPM 460 V 3948M

TORQUES (LB-FT): PO=187 PU=78.1 LR=112 LRA=156



8/11/2026 ACPERF, record # 57686



CD0180



LOW VOLTAGE
(2D)



HIGH VOLTAGE
(1D)



NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: -



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1

CD0180