

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		

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	Starting Current		156 A
Service Factor (S.F.)		1.15	No-load Current		8.83 A		
NEMA Nom. Eff.		93	Power Factor	85	Line-line Res. @ 25°C		0.48438 Ω
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

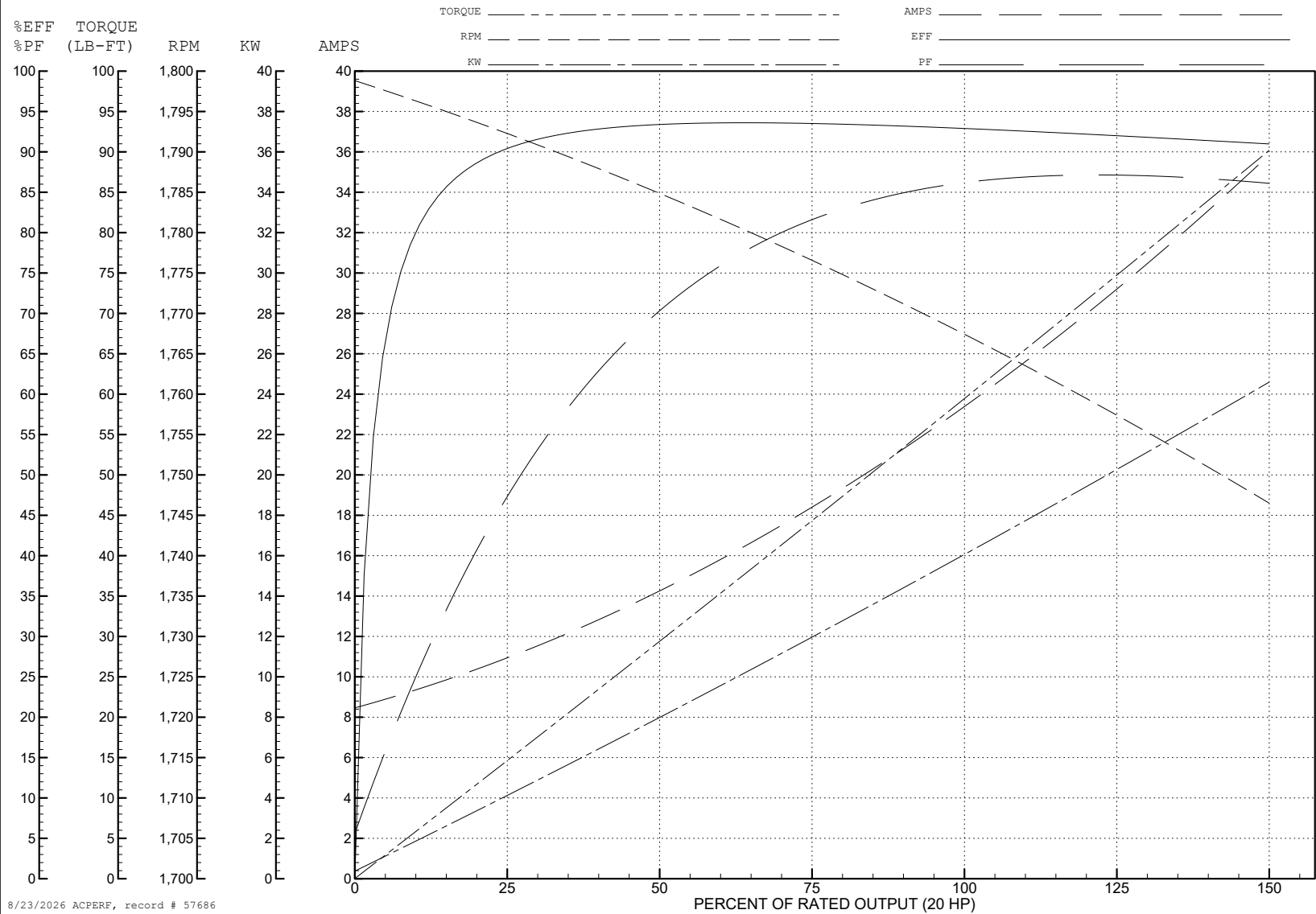
ABB Motors and Mechanical Inc.

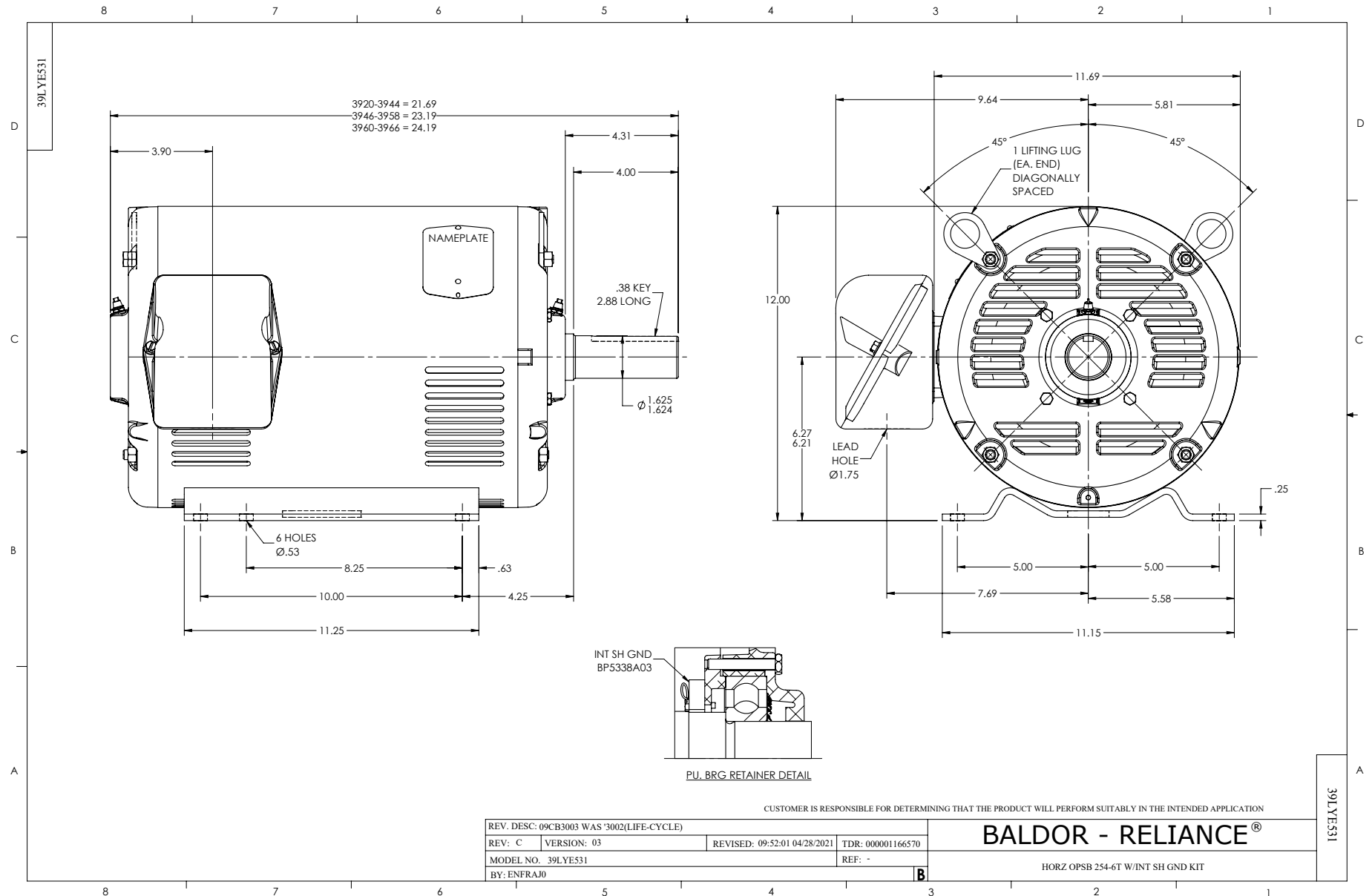
WINDING # 39WGX952

Typical performance - not guaranteed values.

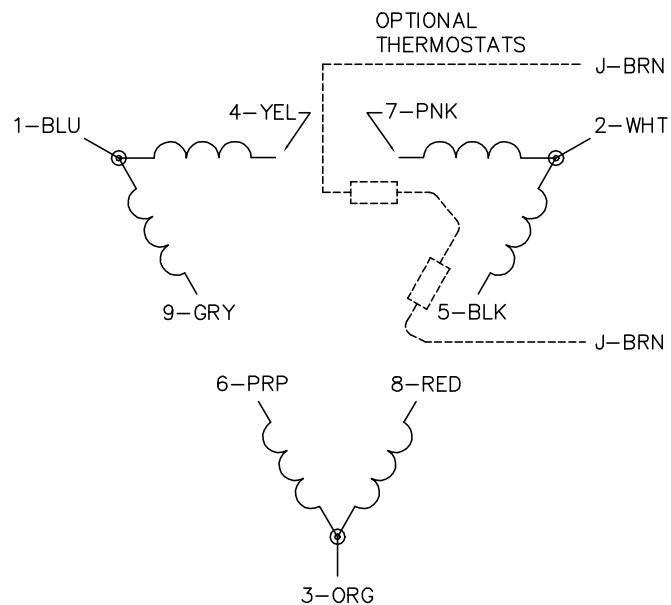
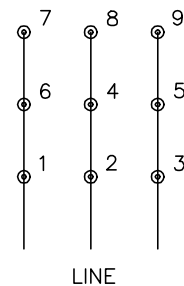
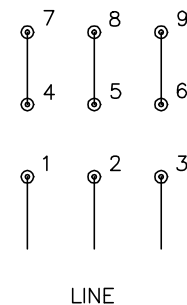
20 HP 3 PH 60 HZ 1765 RPM 460 V 3948M

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





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.

CD0180

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

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