ABB BALDOR RELIANCE

Customer information packet

EM2515T-BG

20HP, 1765RPM, 3PH, 60HZ, 256T, 3948M, OPSB, F1
Class -
Division - Not Applicable

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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. @ 25ºC**	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

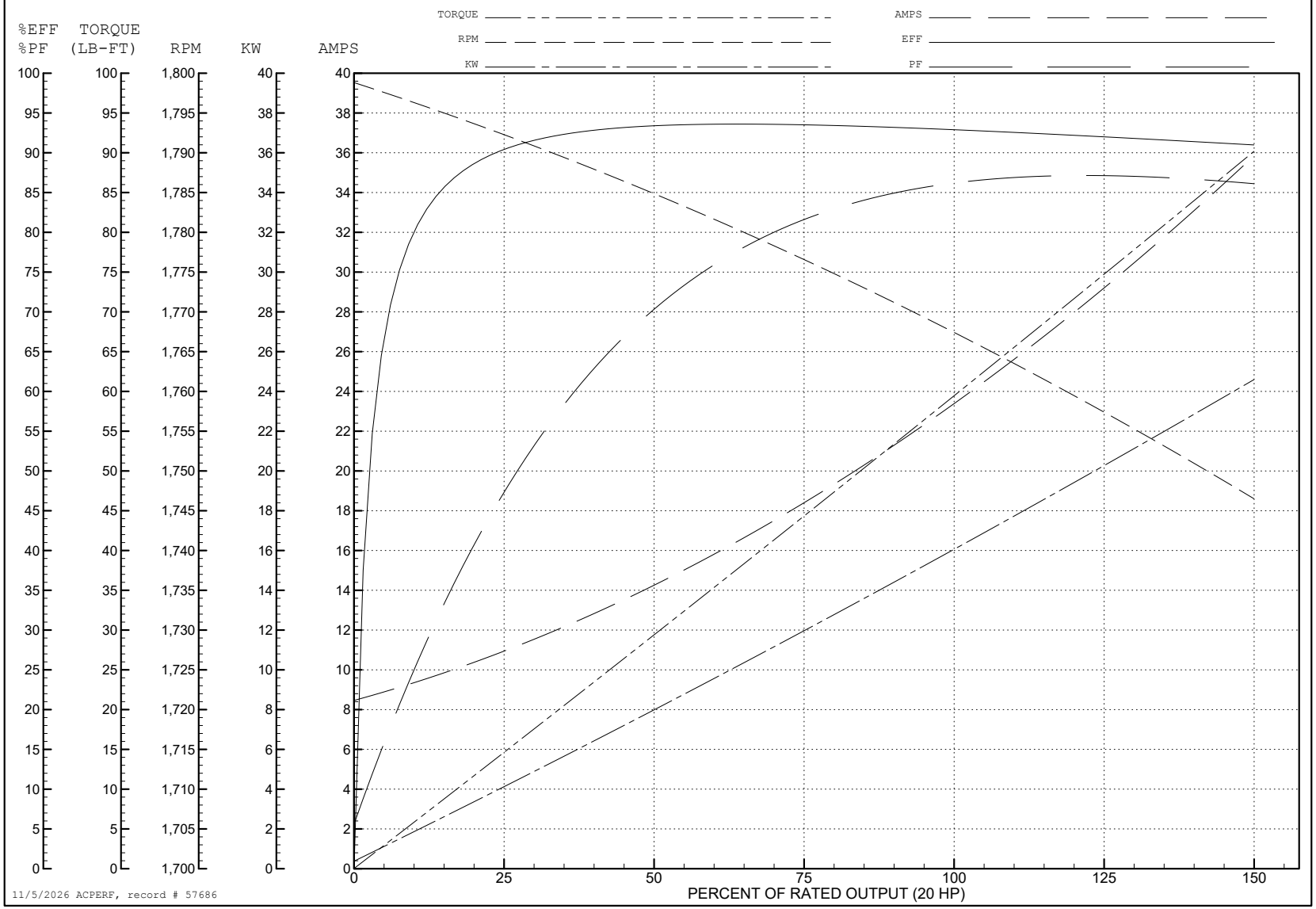
ABB Motors and Mechanical Inc.

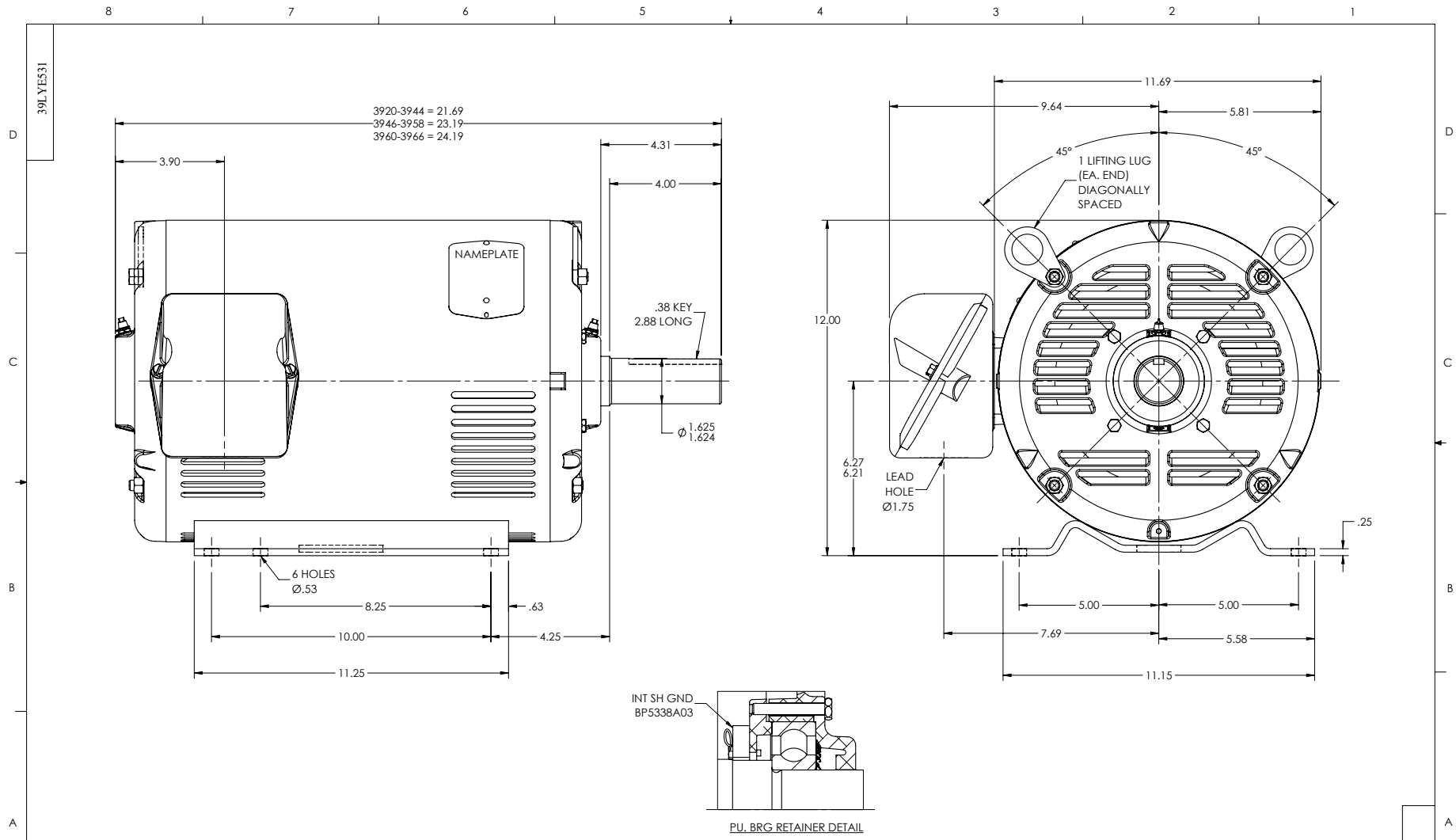
WINDING # 39WGX952

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

Typical performance - not guaranteed values.

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

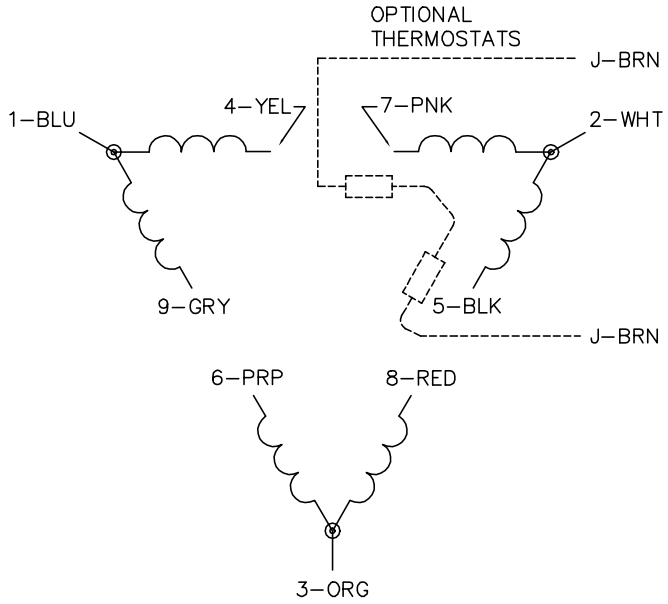


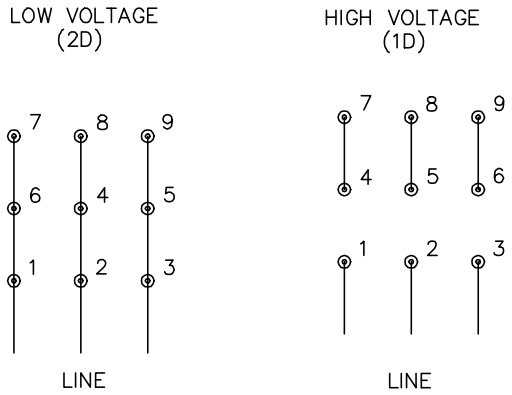


CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

REV. DESC: 09CB3003 WAS '3002(LIFE-CYCLE)			BALDOR - RELIANCE®
REV: C	VERSION: 03	REVISED: 09:52:01 04/28/2021	TDR: 000001166570
MODEL NO. 39LYE531			REF: -
BY: ENFRAJ0			B
			HORZ OPSB 254-6T W/INT SH GND KIT

CD0180





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: ENBRIR0
MTL: –		

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3PH, DV, 9 LEADS, DELTA CONNECTION

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