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# Customer information packet

## EM2515T-5BG

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	575.0 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	19.100 A @ 575.0 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	19.1 a
Insulation Class	H
Inverter Code	Inverter Ready

## Part detail

Revision	R
Type	AC
Mech. spec.	39E531
Base	
Status	PRD/A
Elec. spec.	39WGX995
Layout	39LYE531
Eff. date	06-11-2024
CD Diagram	CD0006
Poles	04
Leads	3#12
Proprietary	False
Created date	09-08-2016

<b>KVA Code</b>	G
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Locked Bearing Indicator</b>	No Locked Bearing
<b>Motor Lead Exit</b>	Ko Box
<b>Motor Lead Quantity/Wire Size</b>	3 @ 12 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	3948M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	23.19 IN
<b>Power Factor</b>	85
<b>Product Family</b>	General Purpose
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Pulley Shaft Indicator</b>	Standard
<b>Rodent Screen</b>	None
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	1.625 IN
<b>Shaft Extension Location</b>	Pulley End
<b>Shaft Ground Indicator</b>	Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	1765 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate**

<b>NP3553L</b>									
<b>CAT.NO.</b>	EM2515T-5BG								
<b>SPEC</b>	39E531X995G1								
<b>HP</b>	20								
<b>VOLTS</b>	575								
<b>AMPS</b>	19.1								
<b>RPM</b>	1765								
<b>FRAME</b>	256T		<b>HZ</b>	60		<b>PH</b>	3		
<b>SF</b>	1.15	<b>CODE</b>	G	<b>DES</b>	A	<b>CLASS</b>	H		
<b>NEMA NOM. EFF</b>	93	<b>PF</b>	85						
<b>RATING</b>	40C AMB-CONT								
<b>CC</b>	010A								
<b>ENCL</b>	OPSB	<b>SER</b>							
<b>DE</b>	6309		<b>ODE</b>	6208					
<b>VPWM INVERTER READY</b>									
<b>CT30-60(2:1) VT3-60(20:1)</b>									

**AC Induction Motor Performance Data**

Record # 59144

Typical performance - not guaranteed values

Winding: 39WGX995-R002		Type: 3948M	Enclosure: OPSB		
<b>Nameplate Data</b>			<b>575 V, 60 Hz: Single Voltage Motor</b>		
Rated Output (HP)	20	Full Load Torque	59.7 LB-FT		
Volts	575	Start Configuration	direct on line		
Full Load Amps	19.1	Breakdown Torque	189 LB-FT		
R.P.M.	1765	Pull-up Torque	78.9 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque	113 LB-FT
NEMA Design Code	A	KVA Code	G	Starting Current	126 A
Service Factor (S.F.)	1.15	No-load Current	7.18 A		
NEMA Nom. Eff.	93	Power Factor	85	Line-line Res. @ 25°C	0.711 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	
			Rotor inertia	2.1 LB-FT <sup>2</sup>	

**Load Characteristics 575 V, 60 Hz, 20 HP**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	49	72	81	85	86	87	86
Efficiency	90.2	93.1	93.4	93.1	92.1	91	92.5
Speed	1792	1785	1776	1768	1758	1747	1762
Line amperes	8.49	11.3	14.9	19.1	23.6	28.5	21.8

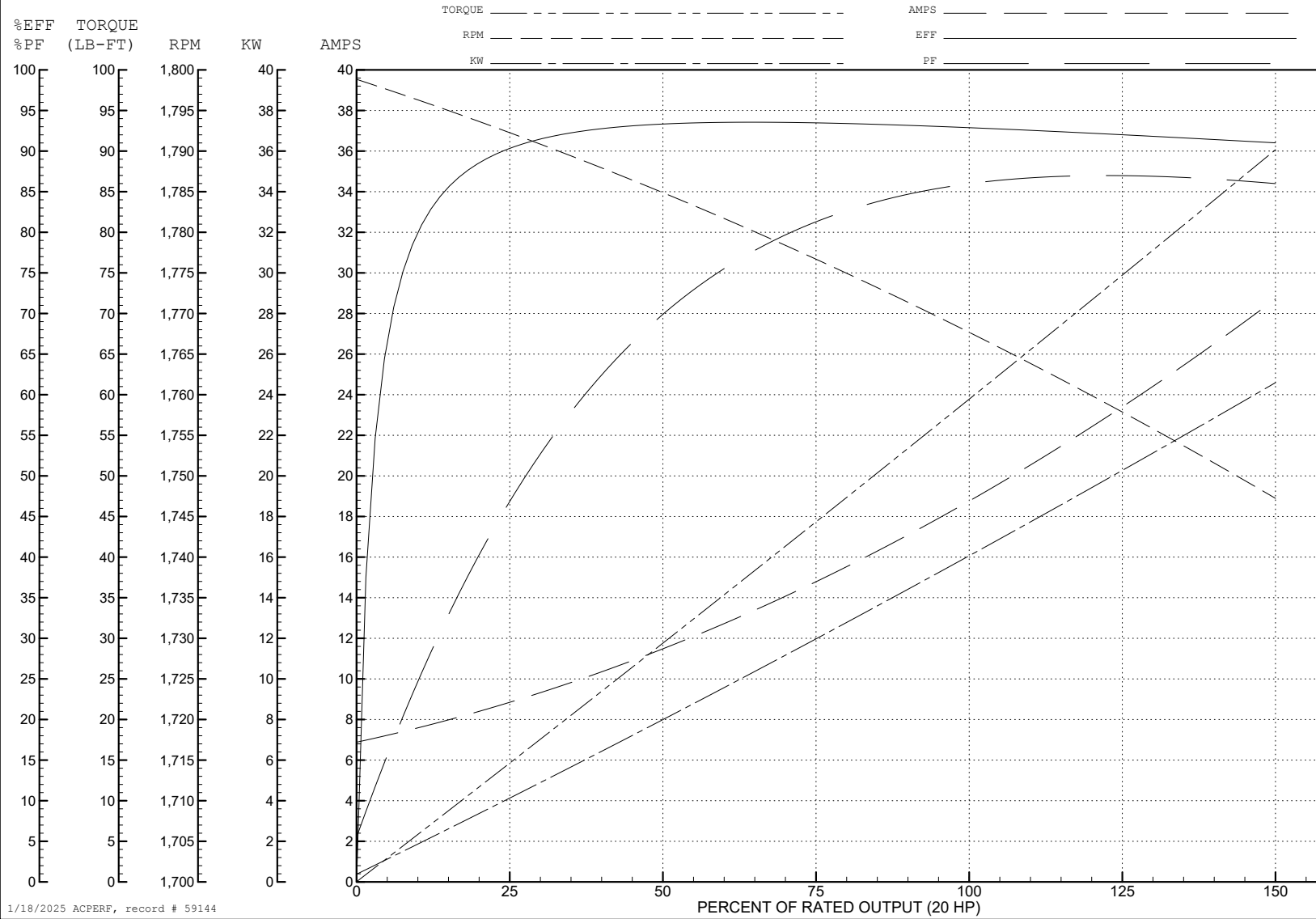
ABB Motors and Mechanical Inc.

WINDING # 39WGX995

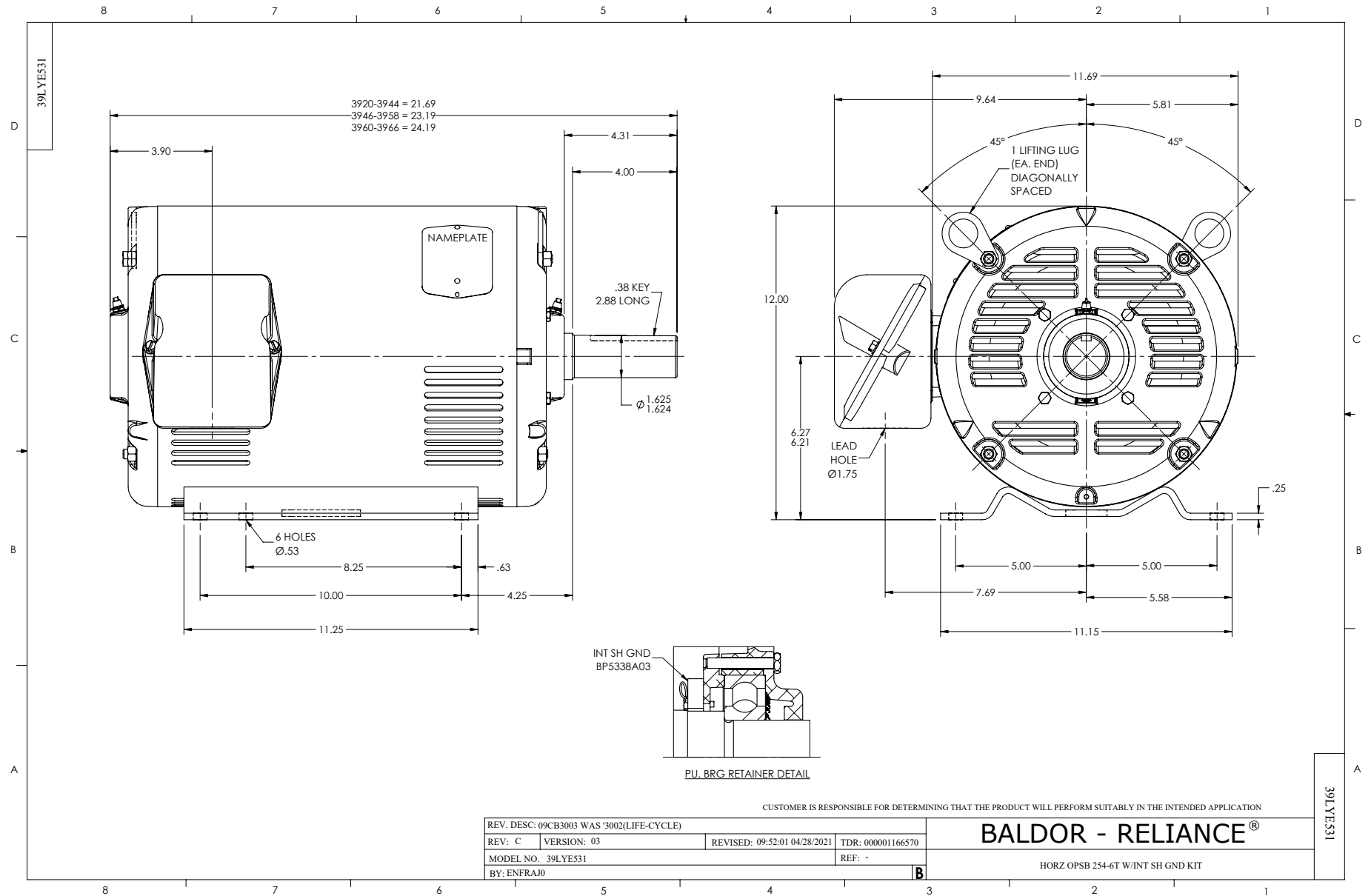
Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 1765 RPM 575 V 3948M

TORQUES (LB-FT): PO=189 PU=78.9 LR=113 LRA=126



1/18/2025 ACPERF, record # 59144



CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

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3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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