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# Customer information packet

## EM2514T

20HP, 3510RPM, 3PH, 60HZ, 254T, 3928M, OPSB, F1

Class - None

Division - Not Applicable

## Specifications

Enclosure	OPSB
Frame	254T
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
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	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV CURUSEEV NEMA PREMIUM NEMA_PREMIUM 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	47.000 A @ 230.0 V 51.000 A @ 208.0 V 23.500 A @ 460.0 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

## Part detail

Revision	Z
Type	AC
Mech. spec.	39K57
Base	
Status	PRD/A
Elec. spec.	39WGX101
Layout	39LYK057
Eff. date	06-27-2024
CD Diagram	CD0180
Poles	02
Leads	9#10
Proprietary	False
Created date	10-22-2010

Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	23.5 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
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	3928M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	21.69 IN
Power Factor	88
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	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3510 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	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**

NP3554LUA										
<b>CAT.NO.</b>	EM2514T			<b>P/N</b>				<b>ENCL</b>		<b>OPSB</b>
<b>SPEC.</b>	39K057X101G1	<b>CC</b>	010A	<b>FRAME</b>		254T	<b>SER.NO.</b>			
<b>HP</b>	20	<b>CLASS</b>		F	<b>HZ</b>	60				
<b>RPM</b>	3510	<b>PH</b>	3	<b>DES</b>		A				
<b>VOLTS</b>	230/460			<b>CODE</b>		G	<b>ODE BRG</b>	6208	<b>DE BRG</b>	6309
<b>AMPS</b>	47/23.5									
<b>RATING</b>	40C AMB-CONT			<b>NEMA-NOM-EFF</b>		91	<b>GREASE</b>	POLYREX EM		
<b>PF</b>	88	<b>SER.F.</b>	1.15	<b>CT30-60(2:1) VT3-60(20:1)</b>						
<b>USABLE AT</b>	50HZ 20HP 190/380V 56/28A			SF 1.0						
<b>HTR-VOLTS</b>	<b>HTR-AMPS</b>	<b>MAX. SPACE HEATER TEMP.</b>								

**Accessories**

<b>Part number</b>	<b>Description</b>	<b>Multiplier</b>
39-3400	C FACE KIT	A8

**AC Induction Motor Performance Data**

Record # 13049

Typical performance - not guaranteed values

<b>Winding:</b> 39WGX101-R004		<b>Type:</b> 3928M		<b>Enclosure:</b> OPSB	
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	20	<b>Full Load Torque</b>	29.6 LB-FT		
<b>Volts</b>	230/460	<b>Start Configuration</b>	direct on line		
<b>Full Load Amps</b>	47/23.5	<b>Breakdown Torque</b>	111 LB-FT		
<b>R.P.M.</b>	3510	<b>Pull-up Torque</b>	36.1 LB-FT		
<b>Hz</b>	60	<b>Phase</b>	3	<b>Locked-rotor Torque</b>	50.6 LB-FT
<b>NEMA Design Code</b>	B	<b>KVA Code</b>	G	<b>Starting Current</b>	153 A
<b>Service Factor (S.F.)</b>	1.15	<b>No-load Current</b>	8.61 A		
<b>NEMA Nom. Eff.</b>	91	<b>Power Factor</b>	88	<b>Line-line Res. @ 25°C</b>	0.512 Ω
<b>Rating - Duty</b>	40C AMB-CONT		<b>Temp. Rise @ Rated Load</b>	44°C	
<b>S.F. Amps</b>			<b>Temp. Rise @ S.F. Load</b>	54°C	
			<b>Locked-rotor Power Factor</b>	30	
			<b>Rotor inertia</b>	0.715 lb-ft <sup>2</sup>	

**Load Characteristics 460 V, 60 Hz, 20 HP**

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>S.F.</b>
<b>Power Factor</b>	52	74	83	87	89	89	88
<b>Efficiency</b>	84.7	90.1	91.2	91	90.1	89.1	90.5
<b>Speed</b>	3581	3563	3544	3522	3496	3472	3506
<b>Line amperes</b>	10.2	13.9	18.1	23.3	29.1	35	26.78

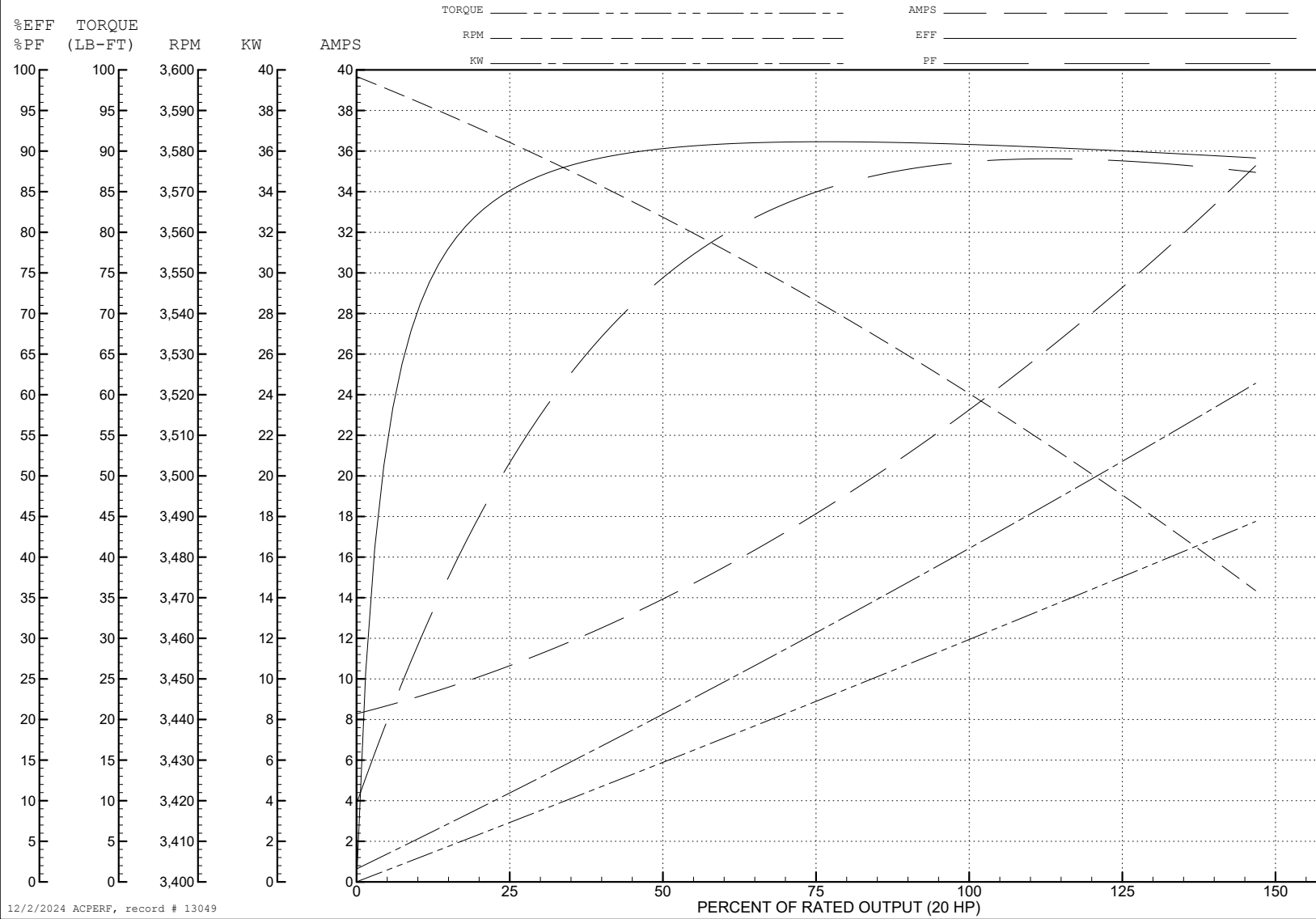
ABB Motors and Mechanical Inc.

WINDING # 39WGX101

Typical performance - not guaranteed values.

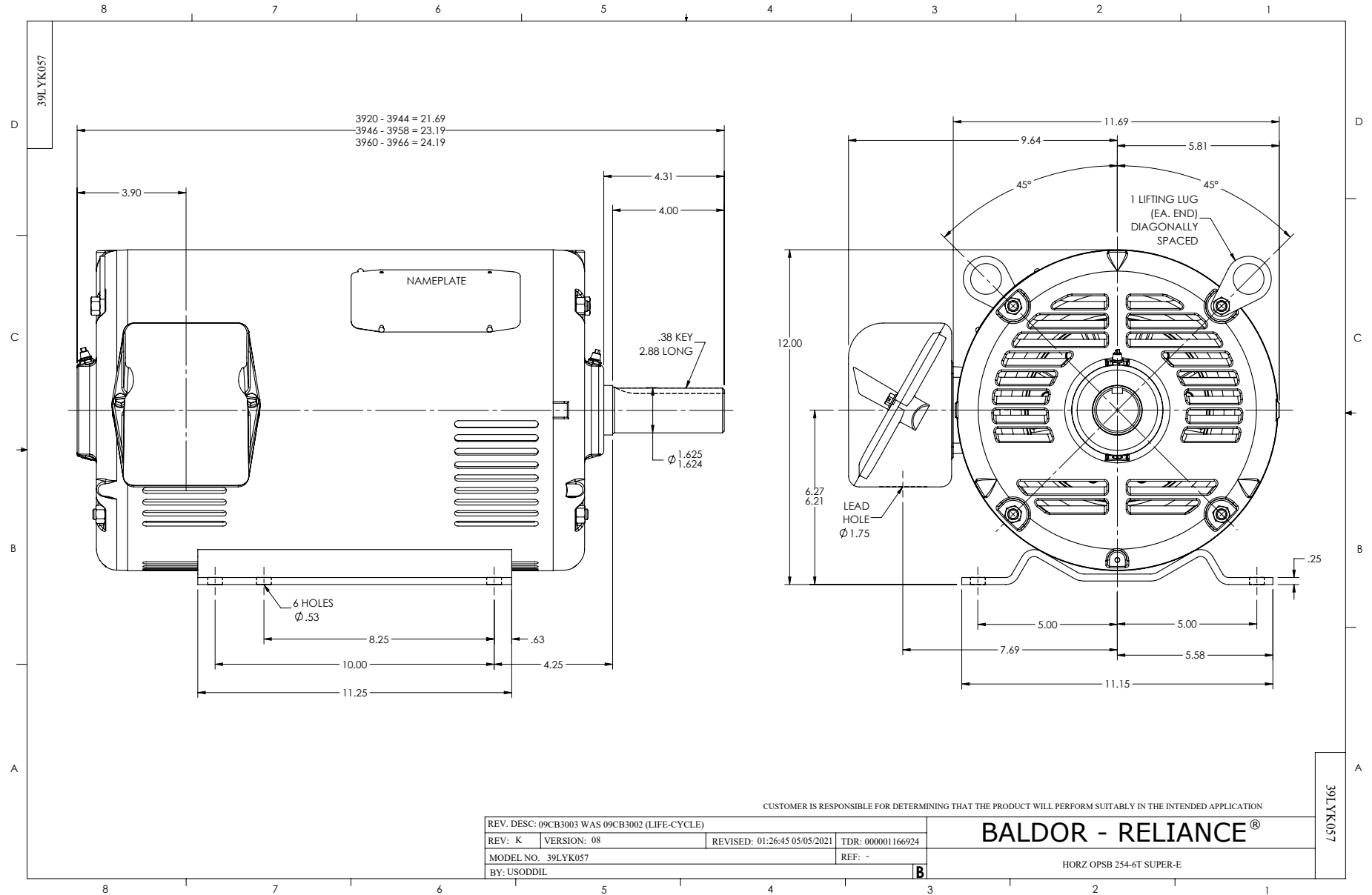
20 HP 3 PH 60 HZ 3510 RPM 460 V 3928M

TORQUES (LB-FT): PO=111 PU=36.1 LR=50.6 LRA=153

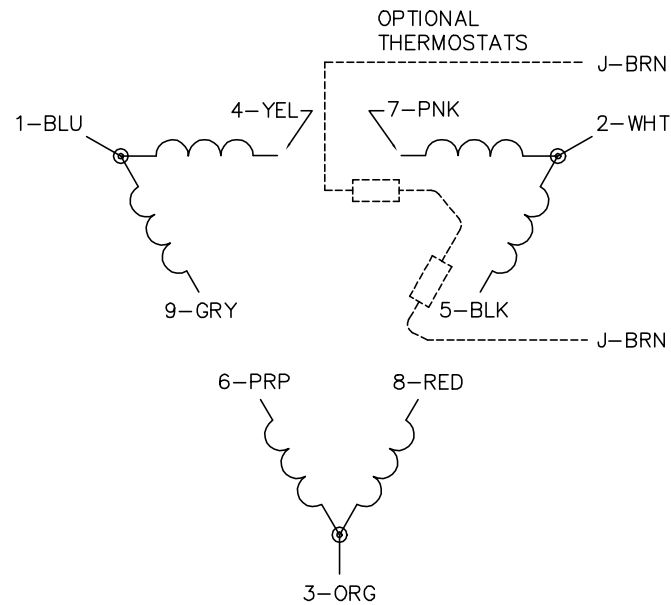


12/2/2024 ACPERF, record # 13049

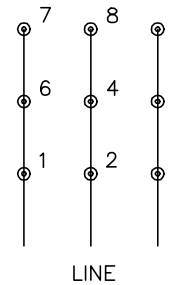




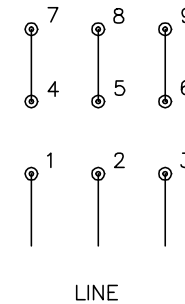
CD0180



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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