ABB BALDOR RELIANCE

Customer information packet

SPM3914T

20HP, 1775RPM, 3PH, 60HZ, 256T, 3976M, TEFC, F1
Class - None
Division - Not Applicable

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11/10/2026 6:30:40 AM

Specifications

Enclosure	TEFC
Frame	256T
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	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	460.0 V @ 60 HZ
Agency Approvals	CURUSEEV
	NEMA PREMIUM 4
	WEEE
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	94.1 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	24.0 a

Part Detail

Revision	C
Type	AC
Mech. spec.	39E762
Base	
Status	PRD/A
Elec. spec.	39WGY451
Layout	39LYE762
Eff. date	12-18-2025
CD Diagram	CD0180
Poles	04
Leads	9#10 Y
Proprietary	False
Created date	10-24-2023

Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	9 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3976M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	27.57 IN
Power Factor	84
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.25
Shaft Diameter	1.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1775 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

NP4423A01A05L												
CAT #	SPM3914T			**WGT**	436	**LBS**						
SPEC	39E762Y451			**ENCL**	TEFC							
SER #				**CC**	010A	**IP**	54					
HP	20			**MAG CUR**	19.6/9.8							
VOLTS	230/460					**NEMA NOM. EFF**	94.1					
AMPS	48/24					**PF**	84					
RATING	40C AMB-CONT											
RPM	1775				**MAX RPM**	2700						
FRAME	256T	**HZ**	60	**CODE**	J	**CLASS**	F					
SER.F.	1.25	**SF AMP**	58/29			**PH**	3	**DES**	A			
DE	6309			**ODE**	6208							
LUBRICATION	POLYREX EM											
ID LOGO	**INVERTER TYPE**			**VPWM**		**CHP**	60	**TO**	90	1.5:1		
ID LOGO	**WK2**	3.32	**CT**	6	**TO**	60		10:1				
ID LOGO	**SL HZ**	0.8	**VT**	3	**TO**	60		20:1				
						QR						
YR												

AC Induction Motor Performance Data
Record # 109527
Typical performance - not guaranteed values

Winding: 39WGY451-R003	**Type:** 3976M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			20	**Full Load Torque**	59.21 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			48/24	**Breakdown Torque**	247 LB-FT
R.P.M.			1775	**Pull-up Torque**	125 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	141 LB-FT
NEMA Design Code	A	**KVA Code**	J	**Starting Current**	215 A
Service Factor (S.F.)			1.25	**No-load Current**	10.3 A
NEMA Nom. Eff.	94.1	**Power Factor**	84	**Line-line Res. @ 25ºC**	0.287 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	57°C
S.F. Amps			58.2/29.1	**Temp. Rise @ S.F. Load**	75°C
				Locked-rotor Power Factor	29.4
				Rotor inertia	3.32 lb-ft²

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	44	67	78	83	86	87	86
Efficiency	90.9	94	94.6	94.5	94	93.3	94
Speed	1793	1788	1782	1775	1768	1761	1768
Line amperes	11.8	14.9	19.1	23.8	28.9	34.4	28.9

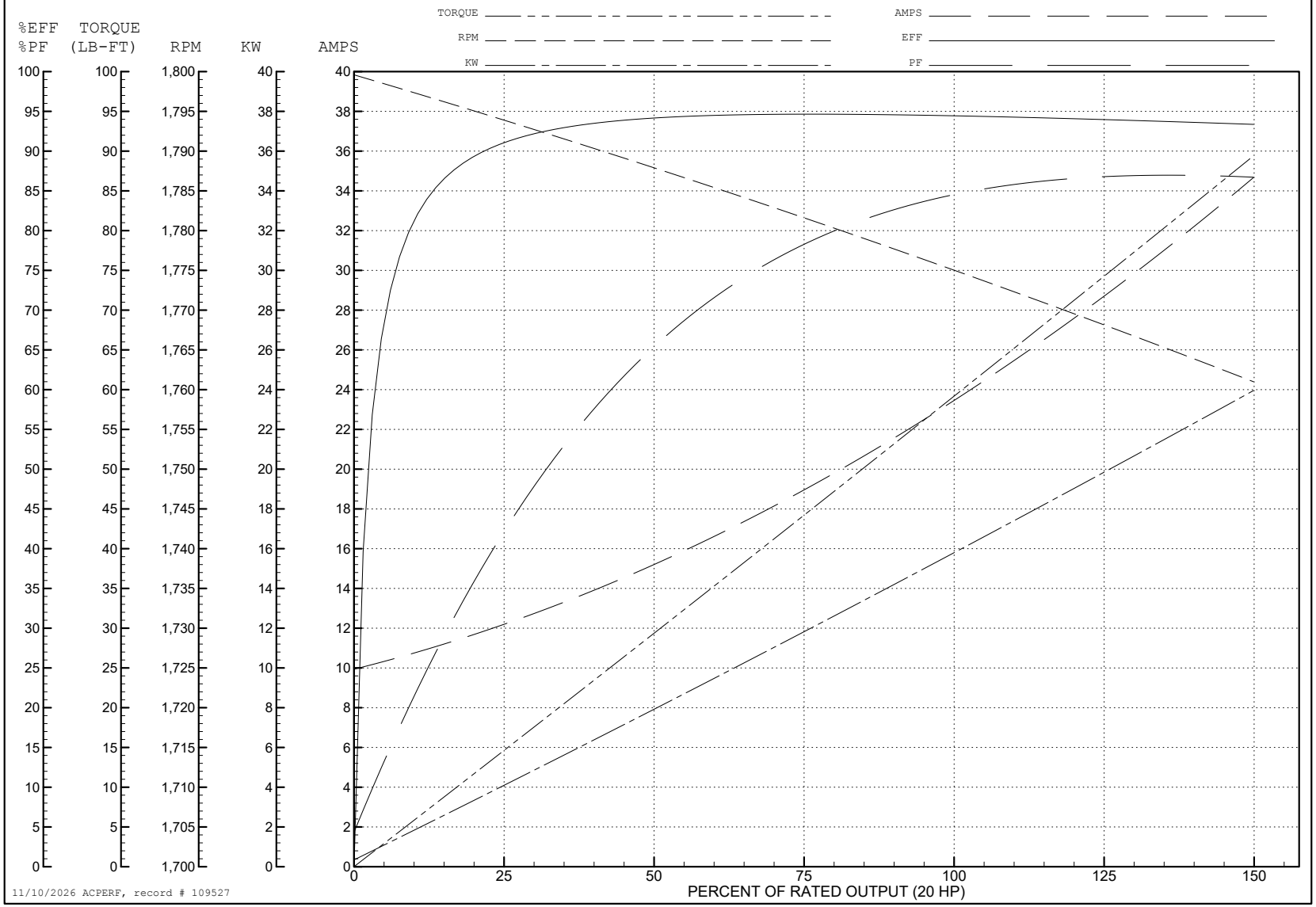
ABB Motors and Mechanical Inc.

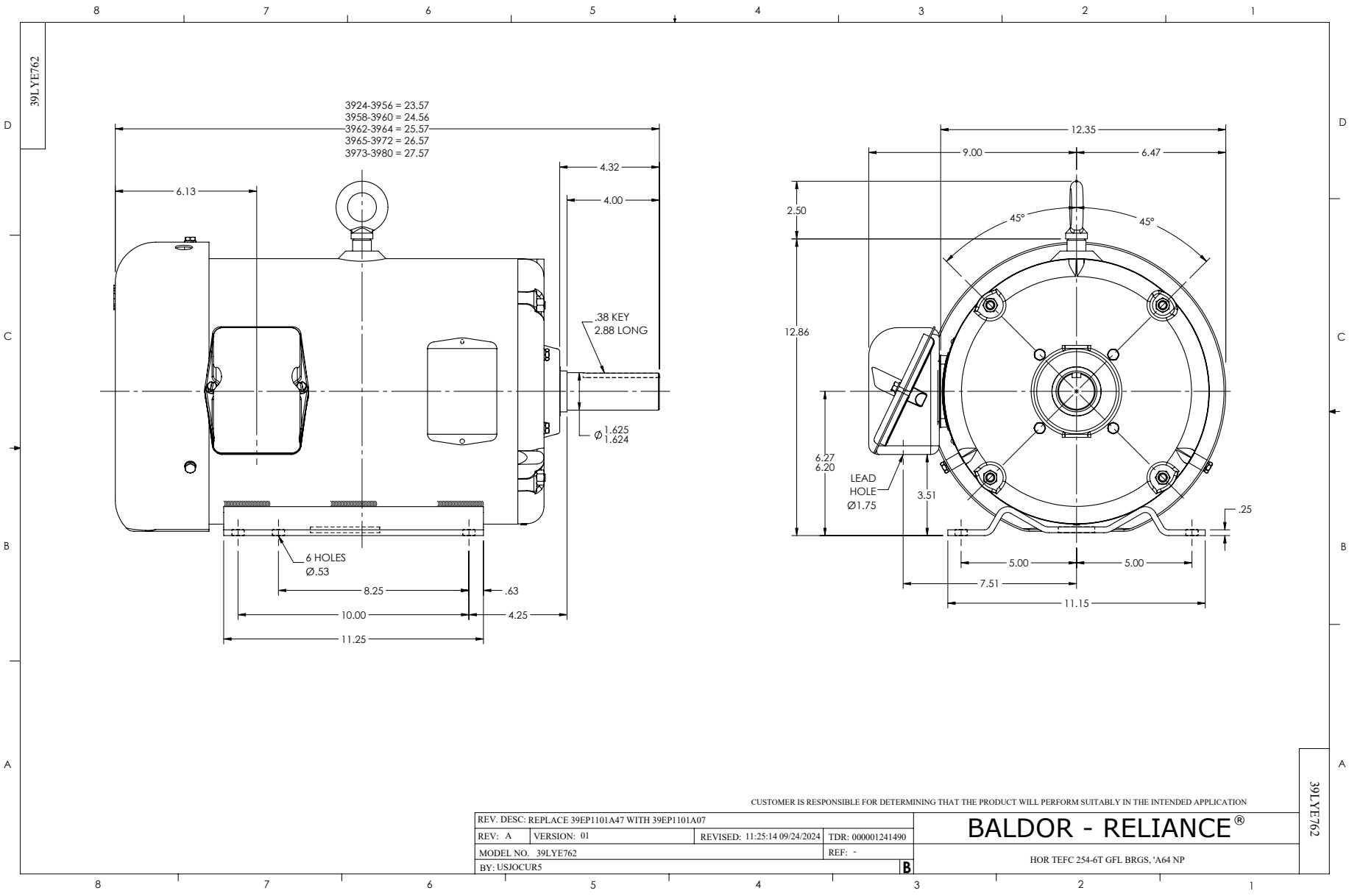
WINDING # 39WGY451

20 HP 3 PH 60 HZ 1775 RPM 460 V 3976M

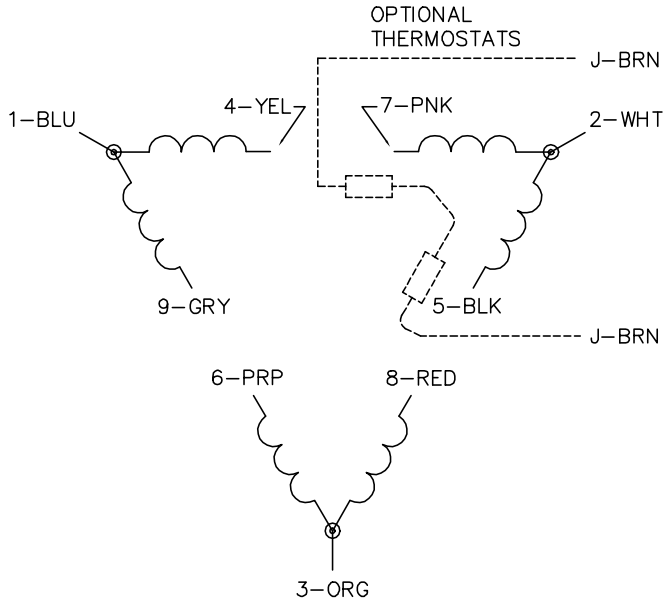
Typical performance - not guaranteed values.

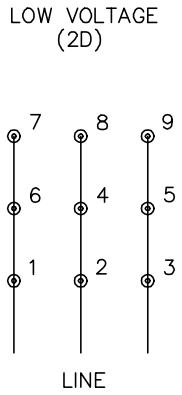
TORQUES(LB-FT): PO=247 PU=125 LR=141 LRA=215

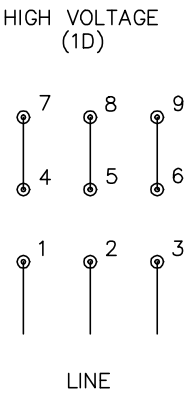



39LYE762
3924-3956 = 23.57
3958-3960 = 24.56
3962-3964 = 25.57
3965-3972 = 26.57
3973-3980 = 27.57
6.13
4.32
4.00
.38 KEY
2.88 LONG
Ø 1.625
1.624
6 HOLES
Ø.53
8.25
.63
10.00
4.25
11.25
12.35
9.00
6.47
2.50
45°
45°
12.86
6.27
6.20
LEAD
HOLE
Ø1.75
3.51
.25
5.00
5.00
7.51
11.15
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: REPLACE 39EP1101A47 WITH 39EP1101A07
REV: A
VERSION: 01
REVISED: 11:25:14 09/24/2024
TDR: 000001241490
MODEL NO. 39LYE762
REF: -
BY: USJOCUR5
B
BALDOR - RELIANCE®
HOR TEFC 254-6T GFL BRGS, 'A64 NP
39LYE762

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

SH 1 of 1