ABB BALDOR RELIANCE

Customer information packet

M1228T

20/8.9HP, 1760/1160RPM, 3PH, 60HZ, 286T, 4046

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Specifications

Enclosure	OPSB
Frame	286T
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 60 HZ
	8.900 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CSA
	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
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
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	18.0 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	H
Lifting Lugs	Standard Lifting Lugs

Part Detail

Revision	Q
Type	AC
Mech. spec.	40D101
Base	
Status	PRD/A
Elec. spec.	40WGX174
Layout	40LYD101
Eff. date	06-13-2025
CD Diagram	CD0013
Poles	04/06
Leads	6#10
Proprietary	False
Created date	02-12-2010

Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	6 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4046M
Mounting Arrangement	F1
Number of Poles	4
	6
Overall Length	23.81 IN
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	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1160 rpm
	1760 rpm
Speed Code	2S-2W-VT
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

NP1256L											
CAT.NO.	M1228T										
SPEC.	40D101X174										
HP	20/8.9										
VOLTS	460										
AMP	24/18										
RPM	1760/1160										
FRAME	286T		**HZ**	60			**PH**	3			
SER.F.	1.15	**CODE**	H	**DES**	A	**CLASS**	F				
NEMA-NOM-EFF		**PF**									
RATING	40C AMB-CONT										
CC											
DE	6311		**ODE**	6309							
ENCL	OPSB	**SN**									

Accessories

Part number	Description	Multiplier
40-1400	C FACE KIT	A8

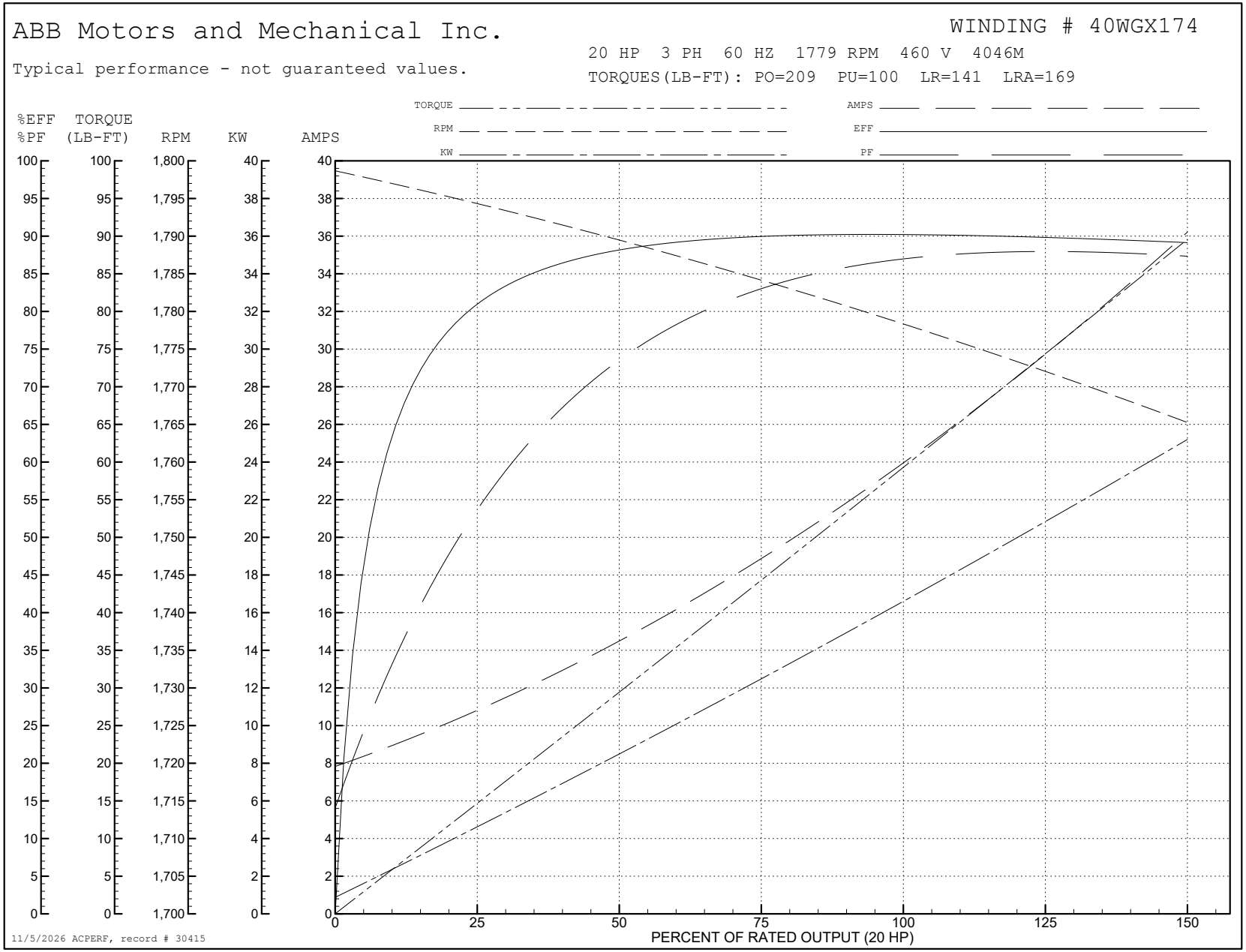
AC Induction Motor Performance Data
Record # 30415
Typical performance - not guaranteed values

Winding: 40WGX174-R001	**Type:** 4046M	**Enclosure:** OPEN

Nameplate Data				**460 V, 60 Hz: High Speed Connection**	
Rated Output (HP)			20/8.9	**Full Load Torque**	59.4 LB-FT
Volts			460	**Start Configuration**	direct on line
Full Load Amps			24/18	**Breakdown Torque**	209 LB-FT
R.P.M.			1760/1160	**Pull-up Torque**	100 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	141 LB-FT
NEMA Design Code	A	**KVA Code**	H	**Starting Current**	169 A
Service Factor (S.F.)			1.15	**No-load Current**	8.13 A
NEMA Nom. Eff.	0	**Power Factor**	0	**Line-line Res. @ 25ºC**	0.678 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	39°C
S.F. Amps				**Temp. Rise @ S.F. Load**	48°C

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	57	75	83	86	87	88	87
Efficiency	80.1	87.9	90	90.5	89.8	89.1	90.1
Speed	1794	1789	1784	1779	1772	1765	1775
Line amperes	10.5	14.3	19	24.1	30.2	35.9	27.8


ABB Motors and Mechanical Inc.
WINDING # 40WGX174
Typical performance - not guaranteed values.
20 HP 3 PH 60 HZ 1779 RPM 460 V 4046M
TORQUES(LB-FT): PO=209 PU=100 LR=141 LRA=169
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (20 HP)
11/5/2026 ACPERF, record # 30415

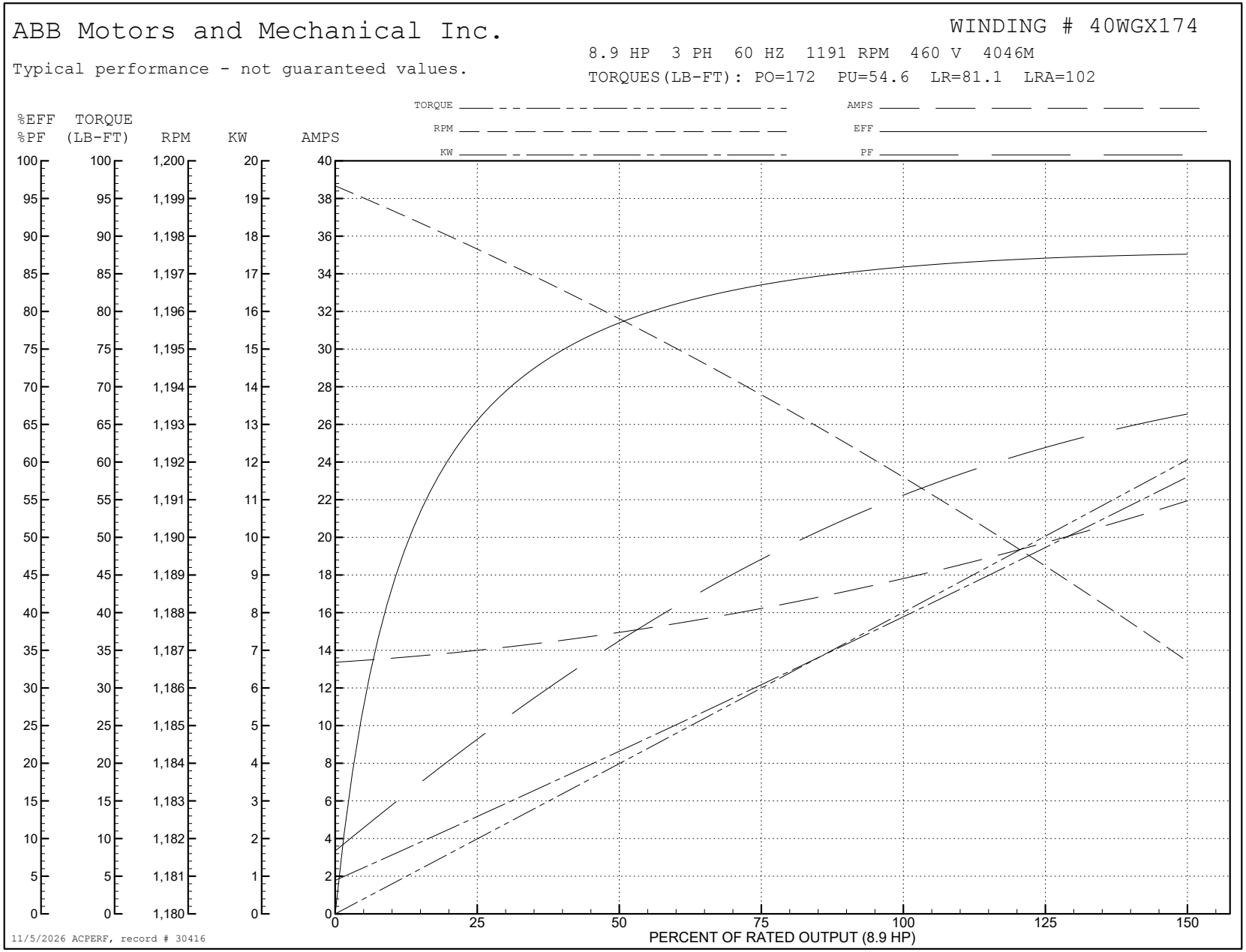
AC Induction Motor Performance Data
Record # 30416
Typical performance - not guaranteed values

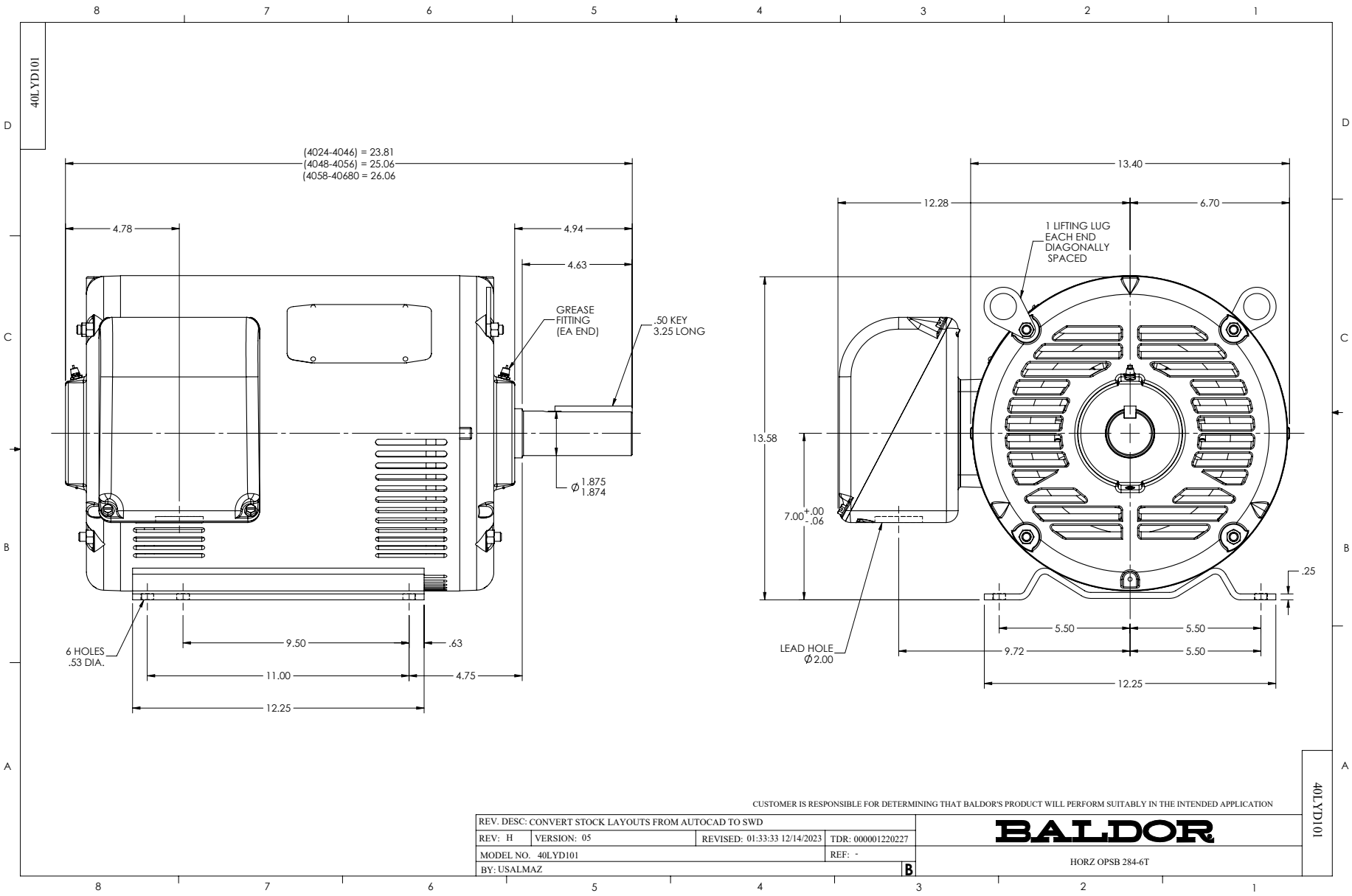
Winding: 40WGX174-R001	**Type:** 4046M	**Enclosure:** OPEN

Nameplate Data				**460 V, 60 Hz: Low Speed Connection**	
Rated Output (HP)			20/8.9	**Full Load Torque**	39.8 LB-FT
Volts			460	**Start Configuration**	direct on line
Full Load Amps			24/18	**Breakdown Torque**	172 LB-FT
R.P.M.			1760/1160	**Pull-up Torque**	54.6 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	81.1 LB-FT
NEMA Design Code	A	**KVA Code**	H	**Starting Current**	102 A
Service Factor (S.F.)			1.15	**No-load Current**	13.4 A
NEMA Nom. Eff.	0	**Power Factor**	0	**Line-line Res. @ 25ºC**	0.959 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	50°C
S.F. Amps				**Temp. Rise @ S.F. Load**	55°C

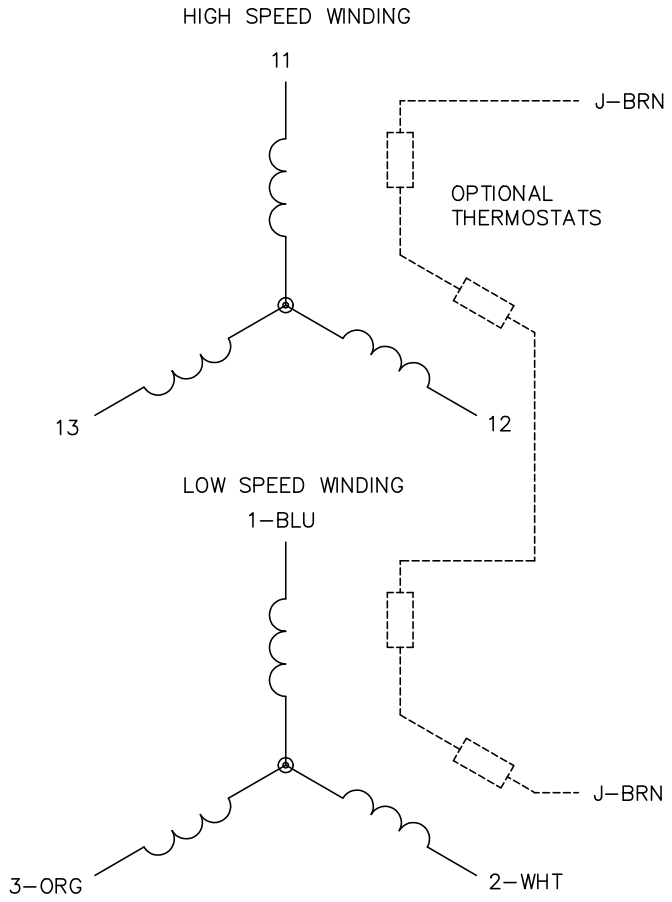
Load Characteristics 460 V, 60 Hz, 8.9 HP

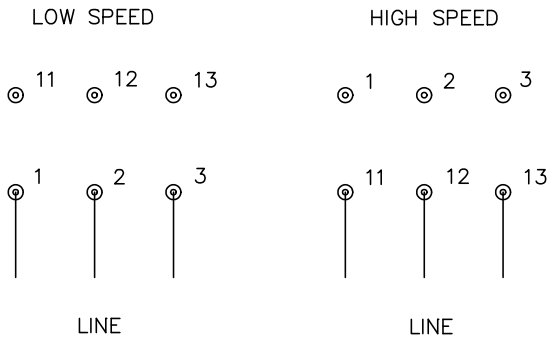
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	23	37	47	55	62	66	59
Efficiency	66.8	78.8	84	85.2	87	87.8	86.3
Speed	1198	1196	1194	1191	1189	1187	1190
Line amperes	14	14.9	16.2	17.9	19.8	21.9	19


ABB Motors and Mechanical Inc.
WINDING # 40WGX174
8.9 HP 3 PH 60 HZ 1191 RPM 460 V 4046M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=172 PU=54.6 LR=81.1 LRA=102
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF
%PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (8.9 HP)
11/5/2026 ACPERF, record # 30416


40LYD101
(4024-4046) = 23.81
(4048-4056) = 25.06
(4058-40680 = 26.06
4.78
4.94
4.63
GREASE FITTING (EA END)
.50 KEY 3.25 LONG
Ø 1.875 1.874
6 HOLES .53 DIA.
9.50
.63
11.00
4.75
12.25
13.40
12.28
6.70
1 LIFTING LUG EACH END DIAGONALLY SPACED
13.58
7.00 +.00 -.06
.25
LEAD HOLE Ø 2.00
5.50
5.50
9.72
5.50
12.25
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT STOCK LAYOUTS FROM AUTOCAD TO SWD
REV: H
VERSION: 05
REVISED: 01:33:33 12/14/2023
TDR: 000001220227
MODEL NO. 40LYD101
REF: -
BY: USALMAZ
B
BALDOR
HORZ OPSB 284-6T
40LYD101

CD0013





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 VARY.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: D	BY: JLP	REVISED: 01/22/99 8:50	TDR: 0171435
CD0013		FILE: AAA00005143	MDL: –
		MTL: –	3PH, SV, 6 LEADS, 2–SPEED 2–WINDING

CD0013