

BALDOR • RELIANCE

Customer information packet

FPM2542T

50//40HP, 3520//2930RPM, 3PH, 60//50HZ, 324T

Specifications

Enclosure	OPSB
Frame	324TS
Frame Material	Steel
Frequency	50.00 Hz 60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ 40.000 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	3000 RPM @ 50 HZ
Voltage @ Frequency	190.0 V @ 50 HZ 230.0 V @ 60 HZ 380.0 V @ 50 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV UL
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	58.000 A @ 460.0 V 56.000 A @ 380.0 V 116.000 A @ 230.0 V 112.000 A @ 190.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK

Part detail

Revision	G
Type	AC
Mech. spec.	40H07
Base	
Status	PRD/A
Elec. spec.	40WGX319
Layout	40LYH007
Eff. date	07-24-2023
CD Diagram	CD0104
Poles	02
Leads	12#8
Proprietary	False
Created date	09-17-2015

Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	56.0 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	12 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4044M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	24.69 IN
Power Factor	87
Product Family	Fire Pump Motor
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	2930 rpm 3520 rpm
Speed Code	Single Speed
Starting Method	Wye Start - Delta Run
Thermal Device - Bearing	None

Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3454L

CAT.NO.	FPM2542T	CUST P/N		I.P.	23
SPEC.	40H007X319H2	SER.NO.		FRAME	324TS
HZ	60	HP	50	RPM	3520
		HZ	50	HP	40
		RPM	2930		
VOLTS	230/460	CODE	G	VOLTS	190/380
		CODE	G		
AMPS	116/58	DES	B	AMPS	112/56
		DES	B		
EFF	92.4	SER.F.	1.15	PF	87
				EFF	91.7
		SER.F.	1.15	PF	87
RATING	40C AMB-CONT	DE BRG	6312	GREASE	POLYREX EM
BLANK		ODE BRG	6309	MTR. WT.	331
		CLASS	F	PH	3
		ENCL	OPSB	CC	010A
HTR-VOLTS		HTR-AMPS		HTR-WATTS	

AC Induction Motor Performance Data

Record # 52895

Typical performance - not guaranteed values

Winding: 40WGX319-R001		Type: 4044M		Enclosure: OPSB	
Nameplate Data			460 V, 60 Hz: High Voltage Connection		
Rated Output (HP)	50//40		Full Load Torque	74.2 LB-FT	
Volts	230/460//190/380		Start Configuration	direct on line	
Full Load Amps	116/58//112/56		Breakdown Torque	236.2 LB-FT	
R.P.M.	3520//2930		Pull-up Torque	86.9 LB-FT	
Hz	60//50	Phase	3	Locked-rotor Torque	126.3 LB-FT
NEMA Design Code	B KVA Code		G	Starting Current	353 A
Service Factor (S.F.)			1.15	No-load Current	16.1 A
NEMA Nom. Eff.	92.4	Power Factor	87	Line-line Res. @ 25°C	0.157 Ω
Rating - Duty			40C AMB-CONT	Temp. Rise @ Rated Load	44°C
S.F. Amps				Temp. Rise @ S.F. Load	59°C
				Locked-rotor Power Factor	24
				Rotor inertia	1.89 LB-FT ²

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	62	79	85	87	88	88	88
Efficiency	89.4	92.6	93	92.5	91.6	90.4	92
Speed	3583	3565	3547	3527	3505	3479	3514
Line amperes	21.8	32	44.3	57.9	72.6	88.2	66.7

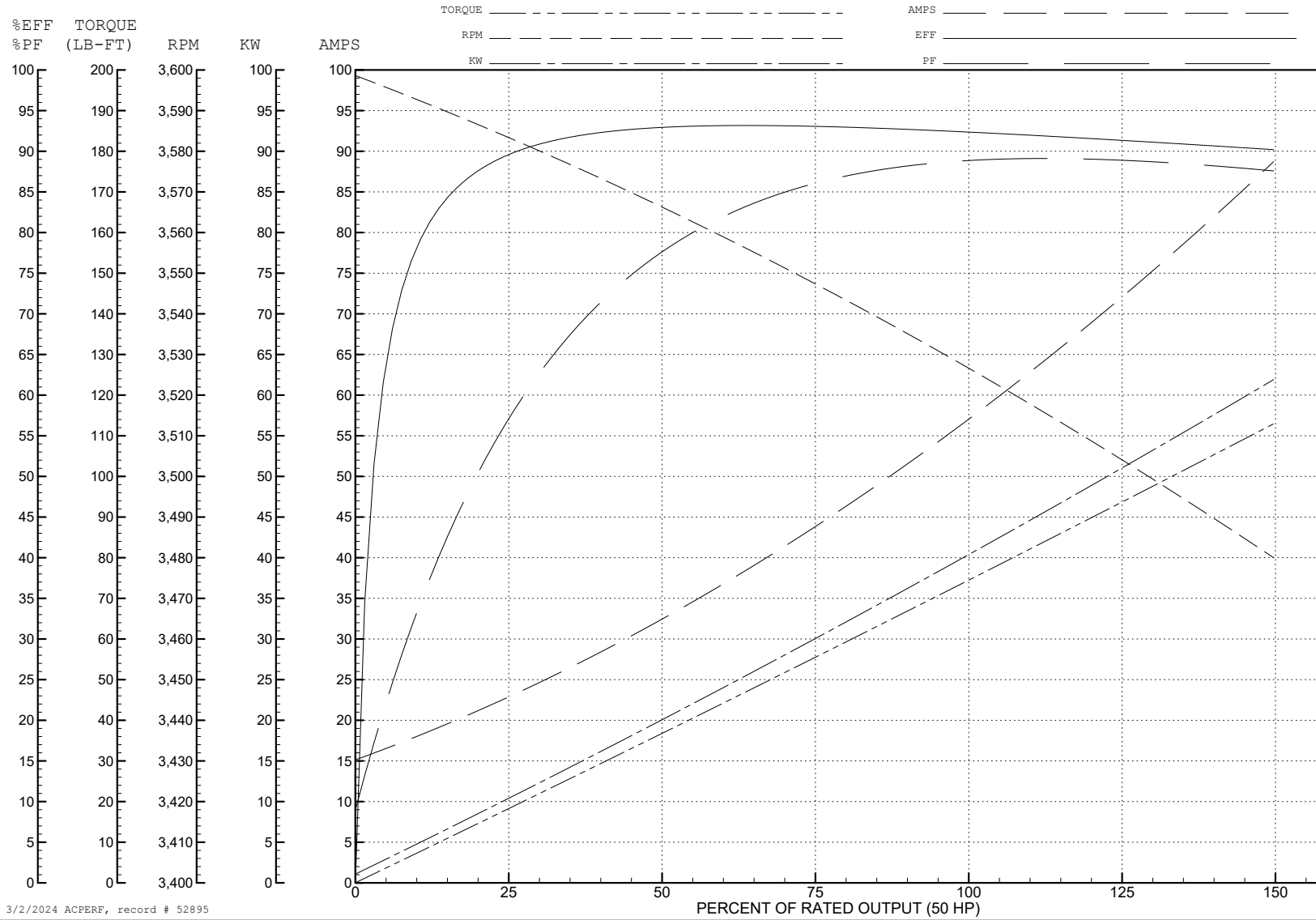
ABB Motors and Mechanical Inc.

WINDING # 40WG319

50 HP 3 PH 60 HZ 3527 RPM 460 V 4044M

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=236.2 PU=86.9 LR=126.3 LRA=353



3/2/2024 ACPERF, record # 52895

AC Induction Motor Performance Data

Record # 52896

Typical performance - not guaranteed values

Winding: 40WGX319-R001		Type: 4044M		Enclosure: OPSB	
Nameplate Data			380 V, 50 Hz: High Voltage Connection		
Rated Output (HP)	50//40		Full Load Torque	71.4 LB-FT	
Volts	230/460//190/380		Start Configuration	direct on line	
Full Load Amps	116/58//112/56		Breakdown Torque	228 LB-FT	
R.P.M.	3520//2930		Pull-up Torque	92.3 LB-FT	
Hz	60//50	Phase	3	Locked-rotor Torque	134 LB-FT
NEMA Design Code	B KVA Code		G	Starting Current	346 A
Service Factor (S.F.)			1.15	No-load Current	15.7 A
NEMA Nom. Eff.	92.4	Power Factor	87	Line-line Res. @ 25°C	0.171 Ω
Rating - Duty			40C AMB-CONT	Temp. Rise @ Rated Load	42°C
S.F. Amps				Temp. Rise @ S.F. Load	52°C
				Locked-rotor Power Factor	27.5
				Rotor inertia	1.89 LB-FT ²

Load Characteristics 380 V, 50 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	61	79	86	87	89	89	88
Efficiency	90.4	92.8	93.2	92	91.2	89.2	91.5
Speed	2984	2967	2950	2930	2909	2884	2917
Line amperes	21.1	30.9	42.9	56.2	70.5	85.9	64.8

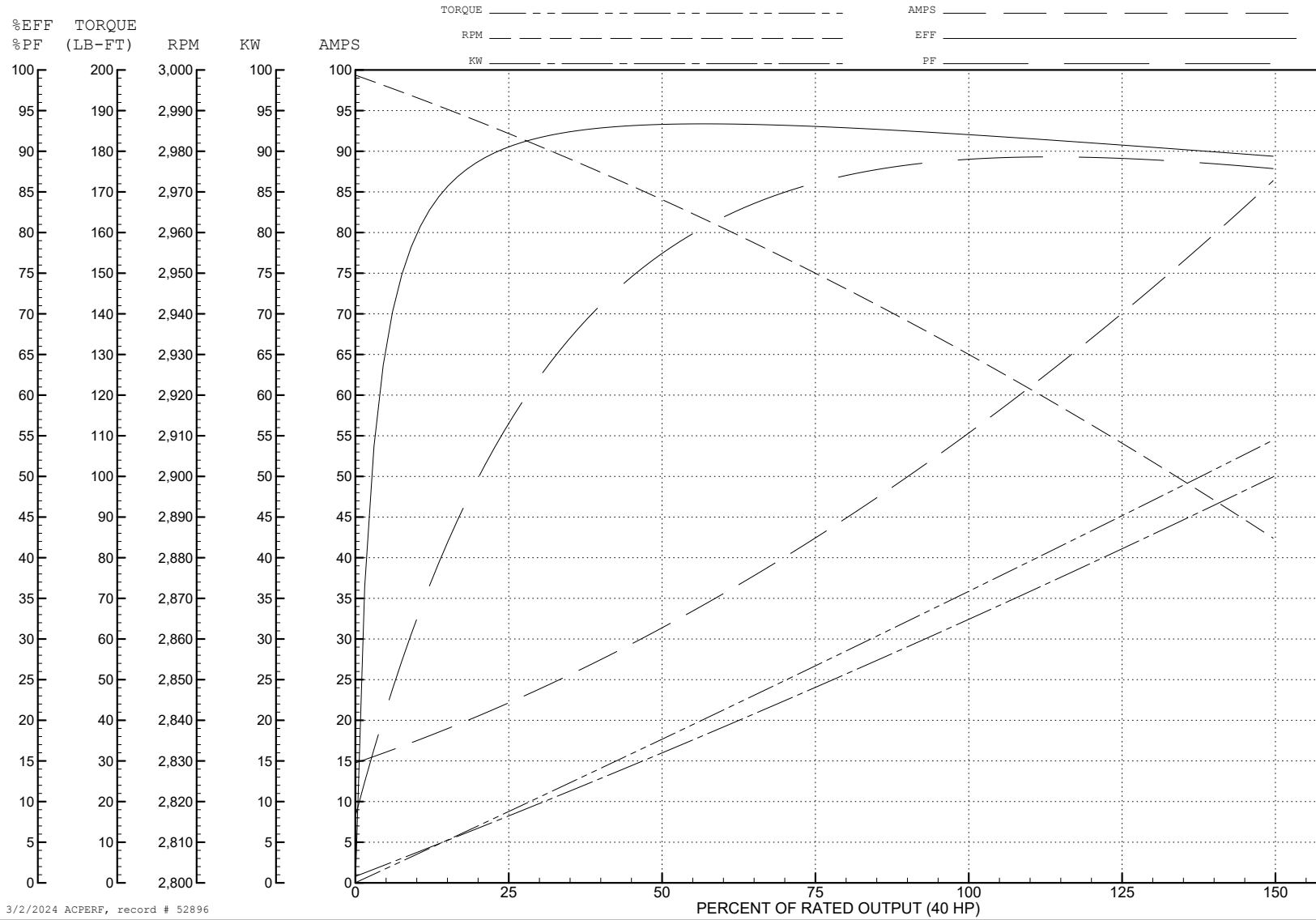
ABB Motors and Mechanical Inc.

WINDING # 40WGX319

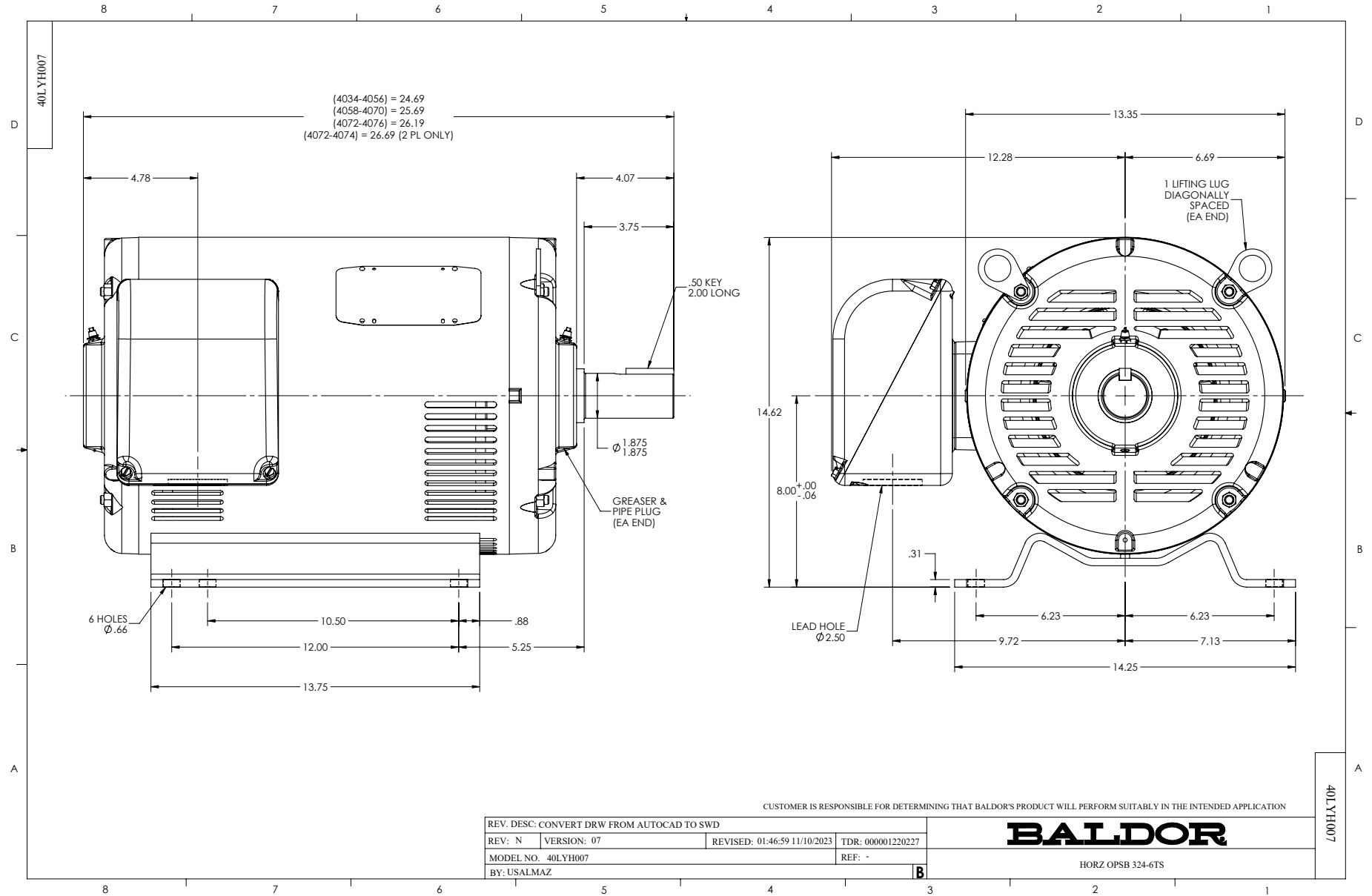
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Typical performance - not guaranteed values.

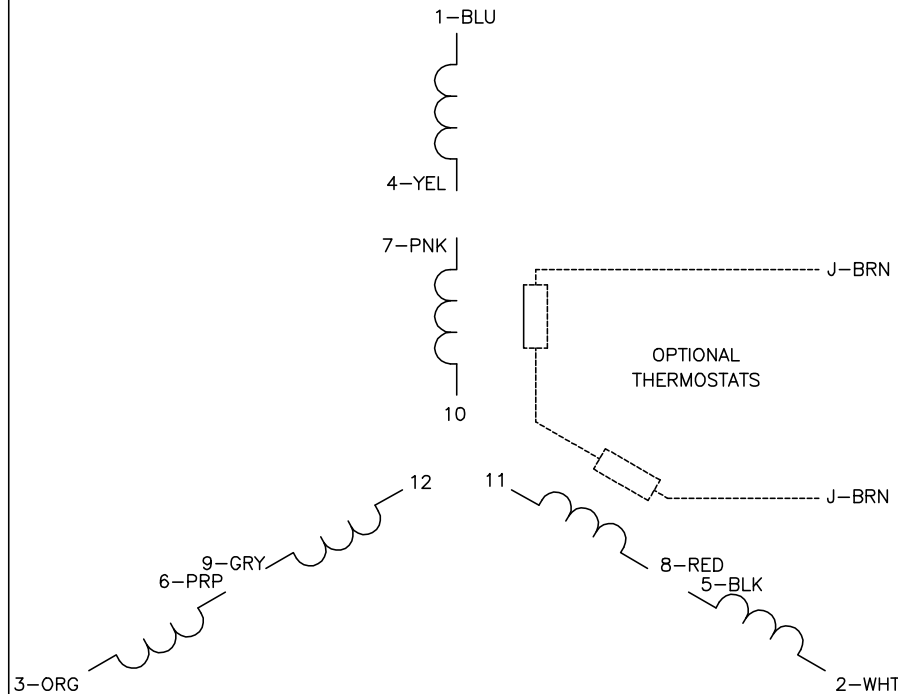
TORQUES (LB-FT): PO=228 PU=92.3 LR=134 LRA=346



3/2/2024 ACPERF, record # 52896

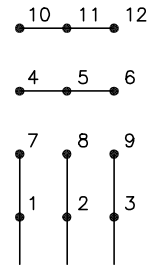


CD0104



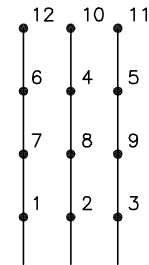
LOW VOLTAGE

START (2Y)



LINE

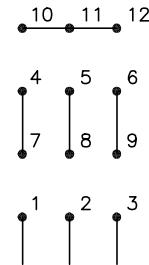
RUN (2D)



LINE

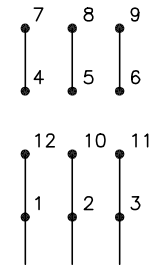
HIGH VOLTAGE

START (1Y)



LINE

RUN (1D)



LINE

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.

CD0104

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: D	VERSION: 01	TDR: 000001099922
FILE: \AAA\00008\377	REVISED: 09:02:55 02/19/2019	BY: ENBRIRO
MTL: -	© □	

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3PH, DV, 12 LEADS, Y START/D RUN

SH 1 of 1