ABB BALDOR RELIANCE

Customer information packet

EM2531T

25HP, 1775RPM, 3PH, 60HZ, 284T, 4050M, OPSB, F1

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Specifications

Enclosure	OPSB
Frame	284T
Frame Material	Steel
Frequency	50.00 Hz
	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 50 HZ
	25.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ
	190.0 V @ 50 HZ
	380.0 V @ 50 HZ
	460.0 V @ 60 HZ
	415.0 V @ 50 HZ
Agency Approvals	WEEE
	CURUSEEV
	NEMA PREMIUM
	CE
	NEMA PREMIUM (OLD LOGO)
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	64.000 A @ 208.0 V
	60.000 A @ 230.0 V
	58.000 A @ 190.0 V
	30.000 A @ 460.0 V
	30.000 A @ 415.0 V
	29.000 A @ 380.0 V

Part Detail

Revision	M
Type	AC
Mech. spec.	40G48
Base	
Status	PRD/A
Elec. spec.	40WGX806
Layout	40LYG048
Eff. date	09-02-2025
CD Diagram	CD0005
Poles	04
Leads	9#10
Proprietary	False
Created date	11-19-2020

Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	29.0 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 Quantity/Wire Size	9 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4050M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	25.06 IN
Power Factor	82
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 Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1475 rpm

	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

NP4295L										
CAT.NO.	EM2531T									
SPEC.	40G048X806							**IP**	23	
HP	25HP/18.5KW//20HP/15KW									
VOLTS	230/460//190/380-415									
AMPS	60/30//58/29-30									
R.P.M. (1/MIN)	1775//1475									
FRAME	284T		**HZ**	60//50				**PH**	3	
SER.F.	1.15	**CODE**	G	**DES.**	A			**CLASS**	F	
NEMA NOM. EFF.	93.6//92.1		**P.F.**	82						
RATING	40C AMB-CONT					**WT.**	171			
CC	010A									
ENCL	OPSB	**SN**								
DE	6311		**ODE**	6309						
	IE3-60:93.8(75%)93.1(50%)									
	IE3-50:93.2(75%)92.2(50%									
	IC01 2:1 CT/20:1 VT									

Accessories

Part number	Description	Multiplier
40-1400	C FACE KIT	A8

AC Induction Motor Performance Data
Record # 92775
Typical performance - not guaranteed values

Winding: 40WGX806-R004	**Type:** 4050M	**Enclosure:** OPSB

Nameplate Data			
Rated Output (HP)			25//20
Volts			230/460//190/380-415
Full Load Amps			60/30//58/29-30
R.P.M.			1775//1475
Hz	60//50	**Phase**	3
NEMA Design Code	A	**KVA Code**	G
Service Factor (S.F.)			1.15
NEMA Nom. Eff.	93.6	**Power Factor**	82
Rating - Duty			40C AMB-CONT
S.F. Amps			

460 V, 60 Hz: High Voltage Connection	
Full Load Torque	73.81 LB-FT
Start Configuration	direct on line
Breakdown Torque	232 LB-FT
Pull-up Torque	116 LB-FT
Locked-rotor Torque	133 LB-FT
Starting Current	192 A
No-load Current	12.6 A
Line-line Res. @ 25ºC	0.35407 Ω
Temp. Rise @ Rated Load	28°C
Temp. Rise @ S.F. Load	34°C
Locked-rotor Power Factor	34.7
Rotor inertia	3.96 lb-ft²

Load Characteristics 460 V, 60 Hz, 25 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	45	67	78	82	85	85	84
Efficiency	89.4	93.1	93.8	93.6	93	92.1	93.2
Speed	1794.8	1789.5	1783.7	1777.6	1771	1763.2	1774
Line amperes	14.5	18.6	24.1	30.3	37.2	44.6	34.4

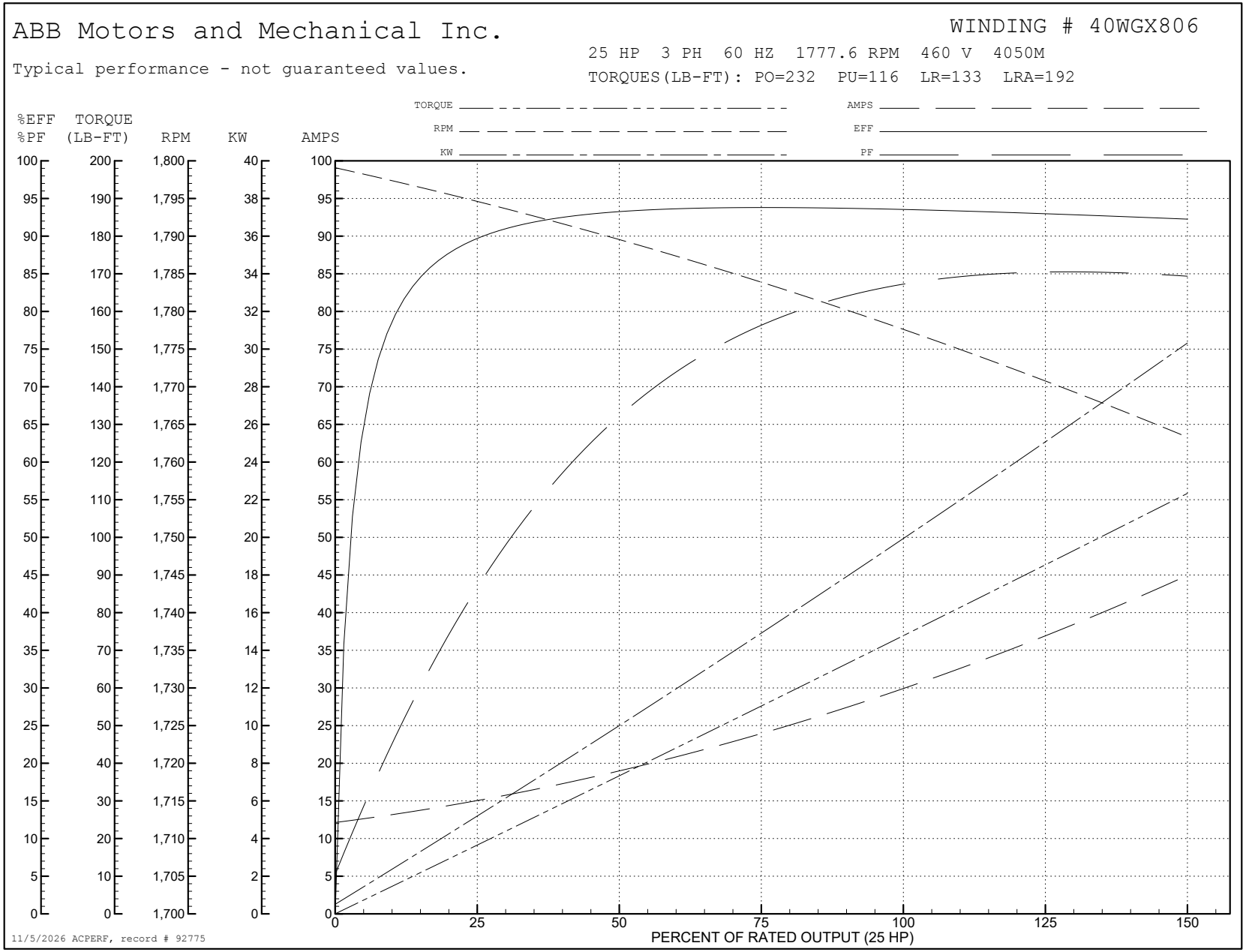


ABB Motors and Mechanical Inc.
WINDING # 40WGX806
Typical performance - not guaranteed values.
25 HP 3 PH 60 HZ 1777.6 RPM 460 V 4050M
TORQUES(LB-FT): PO=232 PU=116 LR=133 LRA=192
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (25 HP)
11/5/2026 ACPERF, record # 92775

AC Induction Motor Performance Data
Record # 92776
Typical performance - not guaranteed values

Winding: 40WGX806-R004	**Type:** 4050M	**Enclosure:** OPSB

Nameplate Data				**415 V, 50 Hz: High Voltage Connection**	
Rated Output (HP)			25//20	**Full Load Torque**	70.85 LB-FT
Volts			230/460//190/380-415	**Start Configuration**	direct on line
Full Load Amps			60/30//58/29-30	**Breakdown Torque**	267 LB-FT
R.P.M.			1775//1475	**Pull-up Torque**	144 LB-FT
Hz	60//50	**Phase**	3	**Locked-rotor Torque**	165 LB-FT
NEMA Design Code	A	**KVA Code**	G	**Starting Current**	202 A
Service Factor (S.F.)			1.15	**No-load Current**	15.76 A
NEMA Nom. Eff.	93.6	**Power Factor**	82	**Line-line Res. @ 25ºC**	0.335 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	27°C
S.F. Amps				**Temp. Rise @ S.F. Load**	32°C
				Locked-rotor Power Factor	38.7
				Rotor inertia	3.96 lb-ft²

Load Characteristics 415 V, 50 Hz, 20 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	35	56	68	75	80	82	78
Efficiency	87.8	92.2	93.2	93.1	92.7	92	92.9
Speed	1496	1491	1487	1482	1477	1471	1479
Line amperes	17.19	20.25	24.53	29.5	35.11	41.13	32.9

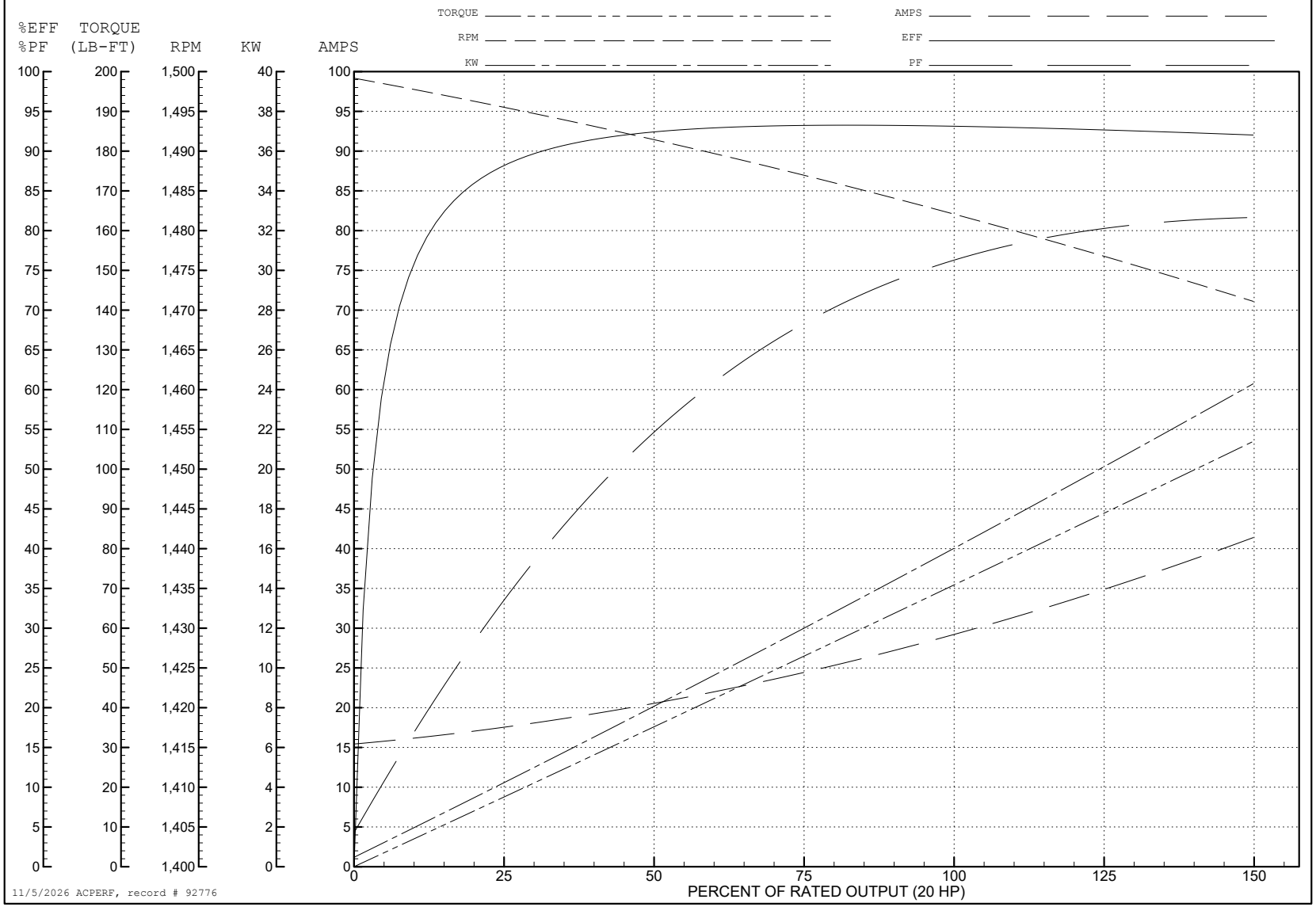
ABB Motors and Mechanical Inc.

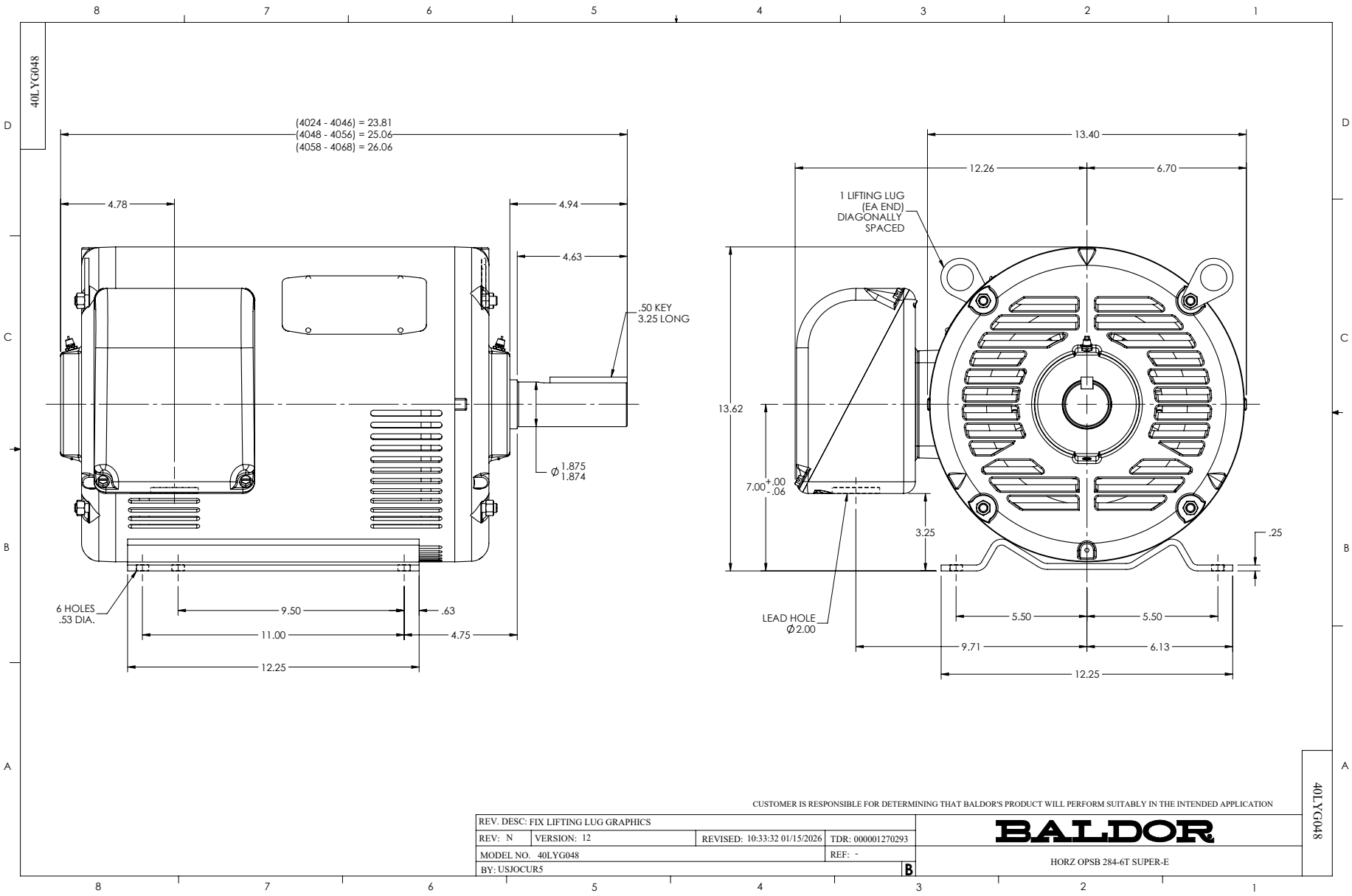
WINDING # 40WGX806

20 HP 3 PH 50 HZ 1482 RPM 415 V 4050M

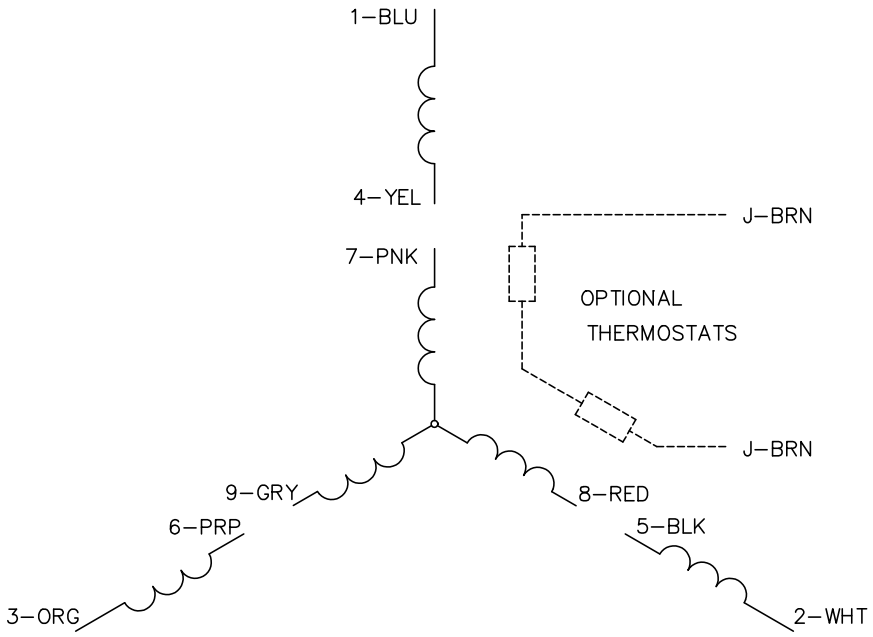
Typical performance - not guaranteed values.

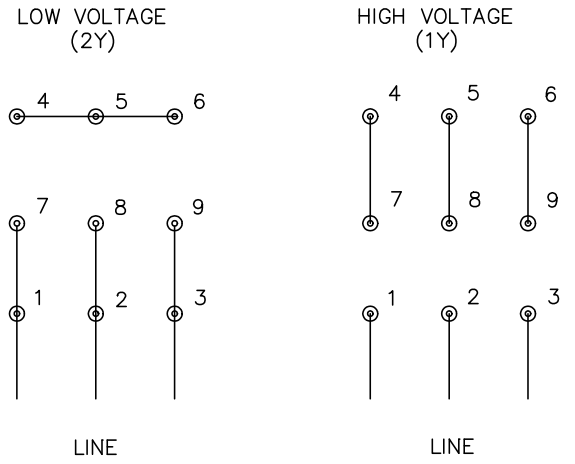
TORQUES(LB-FT): PO=267 PU=144 LR=165 LRA=202




40LYG048
(4024 - 4046) = 23.81
(4048 - 4056) = 25.06
(4058 - 4068) = 26.06
4.78
4.94
4.63
.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
12.26
6.70
1 LIFTING LUG
(EA END)
DIAGONALLY
SPACED
13.62
7.00 +.00 -.06
3.25
.25
LEAD HOLE
Ø 2.00
5.50
5.50
9.71
6.13
12.25
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: FIX LIFTING LUG GRAPHICS
REV: N
VERSION: 12
REVISED: 10:33:32 01/15/2026
TDR: 000001270293
MODEL NO. 40LYG048
REF: -
BY: USJOCUR5
B
BALDOR
HORZ OPSB 284-6T SUPER-E
40LYG048

CD0005





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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS