

BALDOR® • RELIANCE 

Product Information Packet

EM2531T

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

Part Detail							
Revision:	E	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	40WGX806	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	40G48	Layout:	40LYG048	Poles:	04	Created Date:	11-19-2020
Base:	RG	Eff. Date:	02-28-2022	Leads:	9#10		

Specs			
Catalog Number:	EM2531T	Inverter Code:	Inverter Ready
Enclosure:	OPSB	IP Rating:	NONE
Frame:	284T	KVA Code:	G
Frame Material:	Steel	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	25.000 HP @ 60 HZ	Locked Bearing Indicator:	No Locked Bearing
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 10 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
Agency Approvals:	CSA	Motor Type:	4050M
	CSA EEV	Mounting Arrangement:	F1
	UR	Power Factor:	82
Auxillary Box:	No Auxillary Box	Product Family:	General Purpose
Auxillary Box Lead Termination:	None	Pulley End Bearing Type:	Ball
Base Indicator:	Rigid	Pulley Face Code:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Pulley Shaft Indicator:	Standard
Blower:	None	Rodent Screen:	None
Current @ Voltage:	64.000 A @ 208.0 V	Shaft Extension Location:	Pulley End
	60.000 A @ 230.0 V	Shaft Ground Indicator:	No Shaft Grounding

	30.000 A @ 460.0 V	Shaft Rotation:	Reversible
Design Code:	A	Shaft Slinger Indicator:	No Slinger
Drip Cover:	No Drip Cover	Speed Code:	Single Speed
Duty Rating:	CONT	Motor Standards:	NEMA
Electrically Isolated Bearing:	Not Electrically Isolated	Starting Method:	Direct on line
Feedback Device:	NO FEEDBACK	Thermal Device - Bearing:	None
Front Face Code:	Standard	Thermal Device - Winding:	None
Front Shaft Indicator:	None	Vibration Sensor Indicator:	No Vibration Sensor
Heater Indicator:	No Heater	Winding Thermal 1:	None
Insulation Class:	F	Winding Thermal 2:	None

Nameplate NP4295L	
CAT.NO.	EM2531T
SPEC.	40G048X806 IP 54
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 USABLE AT 208V 64
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

Parts List		
Part Number	Description	Quantity
SA388179	SA 40G048X806	1.000 EA
RA378528	RA 40G048X806	1.000 EA
HA6361A01	LIFTING LUG FOR 37, 39 & 40 FRAME ZINC	2.000 EA
HA6017	CAST ADAPTER, 40,42 KOBX	1.000 EA
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	2.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 EA
10CB3000SP	KOBX, CAST W/2.00 LEAD HOLE	1.000 EA
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	4.000 EA
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 EA
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 EA
40EP3200A02	STD FREP OPEN 309 BRG	1.000 EA
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 EA
40EP3200B05	STD PUEP OPEN 311 BRG	1.000 EA
XY3816A12	3/8-16 FINISHED NUT	8.000 EA
10CB3500SP	CONDUIT BOX LID, CAST	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 EA
HW2501H28	KEY, 1/2 SQ X 3.250	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.050 LB
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.070 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 EA
40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 EA
HA3154A04	THRUBOLT STUD 3/8-16 X 18.750	4.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0005	CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING	1.000 EA
NP4295L	SS SUPER-E UL CSA-EEV CE CC PREM	1.000 EA
40PA1000	PACKAGING GROUP	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (2100/bx) 4/22	1.000 EA

Accessories		
Part Number	Description	Multiplier
40-1400	C FACE KIT	A8

AC Induction Motor Performance Data

Record # 92775

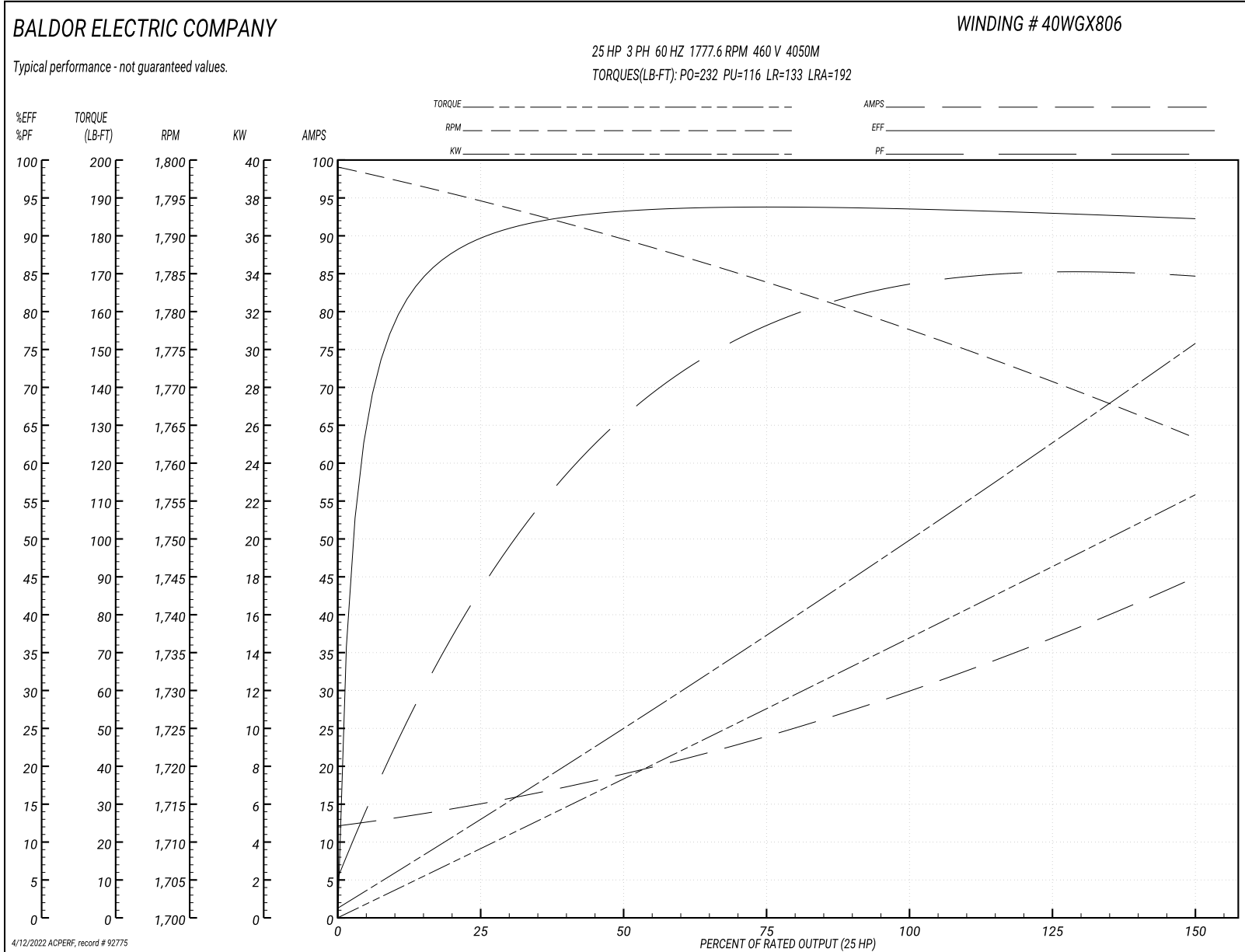
Typical performance - not guaranteed values

Winding: 40WGx806-R004		Type: 4050M		Enclosure: OPSB	
Nameplate Data			460 V, 60 Hz: High Voltage Connection		
Rated Output (HP)	25//20		Full Load Torque	73.81 LB-FT	
Volts	230/460//190/380-415		Start Configuration	direct on line	
Full Load Amps	60/30//58/29-30		Breakdown Torque	232 LB-FT	
R.P.M.	1775//1475		Pull-up Torque	116 LB-FT	
Hz	60//50	Phase	3	Locked-rotor Torque	133 LB-FT
NEMA Design Code	A	KVA Code	G	Starting Current	192 A
Service Factor (S.F.)	1.15		No-load Current	12.6 A	
NEMA Nom. Eff.	93.6	Power Factor	82	Line-line Res. @ 25°C	0.35407 Ω
Rating - Duty	40C AMB-CONT		Temp. Rise @ Rated Load	28°C	
S.F. Amps			Temp. Rise @ S.F. Load	34°C	
			Locked-rotor Power Factor	34.7	
			Rotor inertia	3.96 lb-ft ²	

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

Performance Graph at 460V, 60Hz, 25.0HP Typical performance - Not guaranteed values



AC Induction Motor Performance Data

Record # 92776

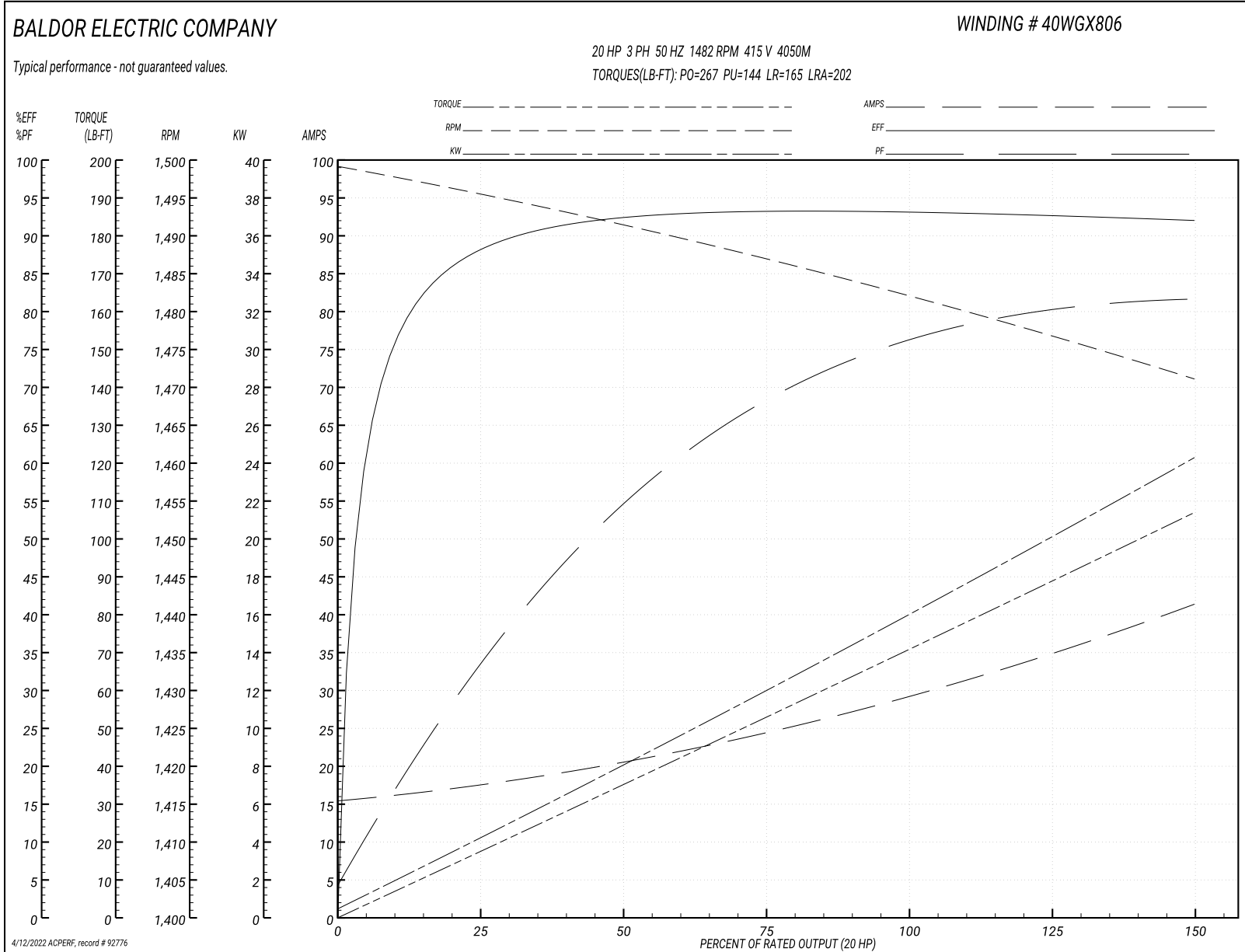
Typical performance - not guaranteed values

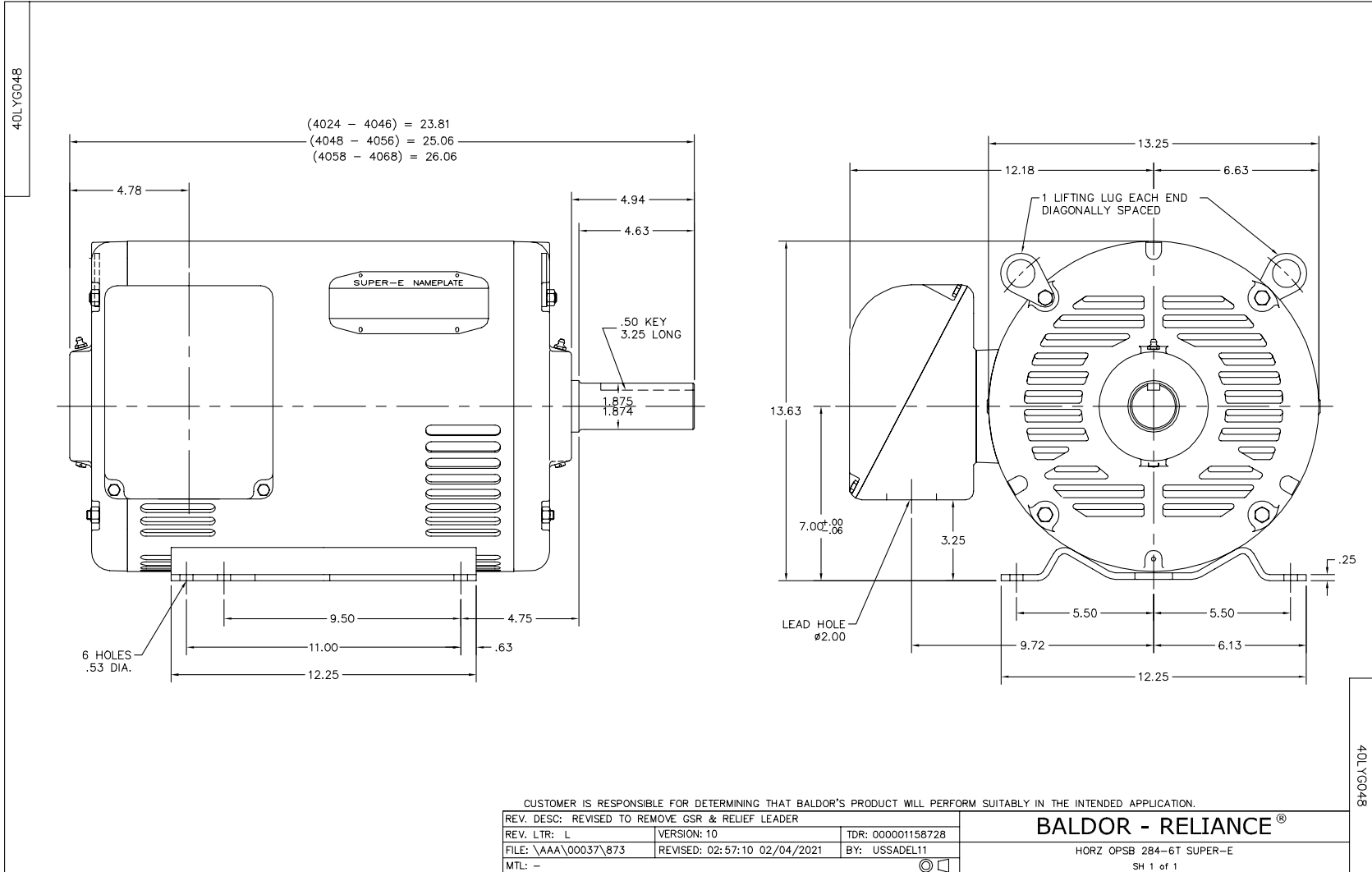
Winding: 40WGX806-R004		Type: 4050M		Enclosure: OPSB	
Nameplate Data			415 V, 50 Hz: High Voltage Connection		
Rated Output (HP)	25//20		Full Load Torque	70.85 LB-FT	
Volts	230/460//190/380-415		Start Configuration	direct on line	
Full Load Amps	60/30//58/29-30		Breakdown Torque	267 LB-FT	
R.P.M.	1775//1475		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. @ 25°C	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-ft ²	

Load Characteristics 415 V, 50 Hz, 20 HP

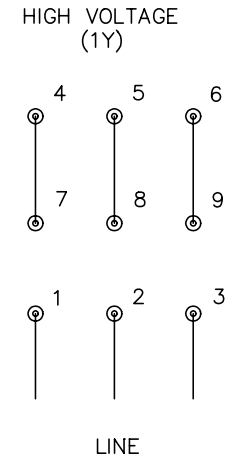
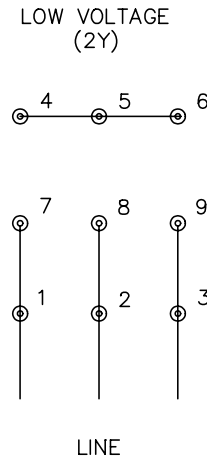
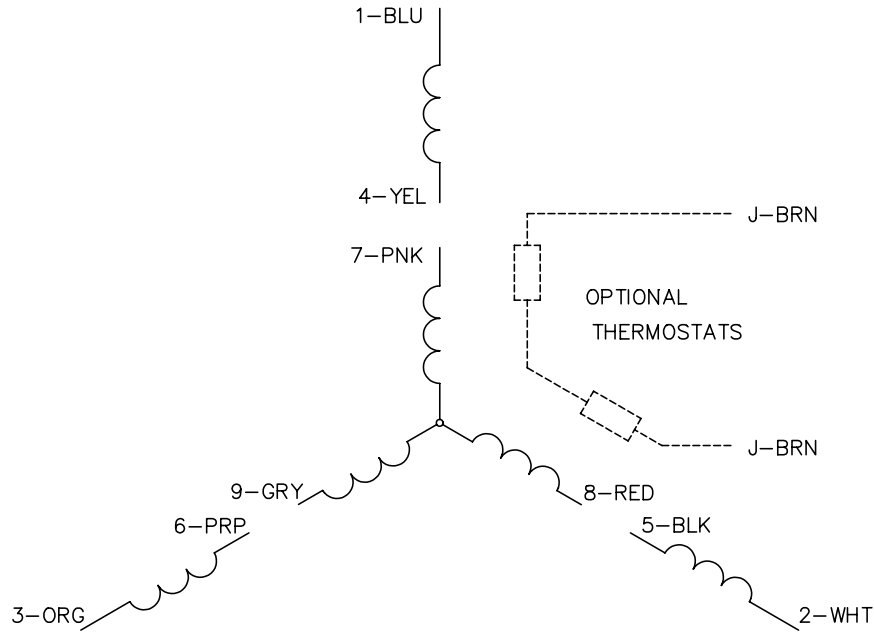
% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	35	56	68	75	80	82	78
Efficiency	87.8	92.2	93.2	93.1	92.7	92	92.9
Speed	1496	1491	1487	1482	1477	1471	1479
Line amperes	17.19	20.25	24.53	29.5	35.11	41.13	32.9

Performance Graph at 415V, 50Hz, 20.0HP Typical performance - Not guaranteed values





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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
90000		FILE: AAA00005140	MDL: -
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BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005

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