

**BALDOR® • RELIANCE** 

**Product Information Packet**

**EM2543T-BG**

**50HP, 1775RPM, 3PH, 60HZ, 326T, 4256M, OPSB, F1**

Part Detail							
Revision:	H	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	42WGW387	CD Diagram:	CD0180	Mfg Plant:	
Mech. Spec:	42E307	Layout:	42LYE307	Poles:	04	Created Date:	10-08-2013
Base:	RG	Eff. Date:	09-06-2017	Leads:	9#8		

Specs			
Catalog Number:	EM2543T-BG	Insulation Class:	H
Enclosure:	OPSB	Inverter Code:	Inverter Ready
Frame:	326T	KVA Code:	G
Frame Material:	Steel	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	50.000 HP @ 60 HZ	Locked Bearing Indicator:	No Locked Bearing
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 8 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:	4256M
	CSA EEV	Mounting Arrangement:	F1
	UR	Power Factor:	87
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:	57.000 A @ 460.0 V	Shaft Extension Location:	Pulley End
	120.000 A @ 208.0 V	Shaft Ground Indicator:	Shaft Grounding

	114.000 A @ 230.0 V	<b>Shaft Rotation:</b>	Reversible
<b>Design Code:</b>	A	<b>Shaft Slinger Indicator:</b>	No Slinger
<b>Drip Cover:</b>	No Drip Cover	<b>Speed Code:</b>	Single Speed
<b>Duty Rating:</b>	CONT	<b>Motor Standards:</b>	NEMA
<b>Electrically Isolated Bearing:</b>	Not Electrically Isolated	<b>Starting Method:</b>	Direct on line
<b>Feedback Device:</b>	NO FEEDBACK	<b>Thermal Device - Bearing:</b>	NONE (OLD)
<b>Front Face Code:</b>	Standard	<b>Thermal Device - Winding:</b>	None
<b>Front Shaft Indicator:</b>	None	<b>Vibration Sensor Indicator:</b>	No Vibration Sensor
<b>Heater Indicator:</b>	No Heater	<b>Winding Thermal 1:</b>	None
		<b>Winding Thermal 2:</b>	None

Nameplate NP3554L											
CAT.NO.	EM2543T-BG			P/N				ENCL	OPSB		
SPEC.	42E307W387G1		CC	010A		FRAME	326T		SER.NO.		
HP	50		CLASS	H		HZ	60				
RPM	1775		PH	3		DES	A				
VOLTS	230/460			CODE	G		ODE BRG	6311		DE BRG	6312
AMPS	114/57			USABLE AT 208V	120						
RATING	40C AMB-CONT			NEMA-NOM-EFF	94.5		GREASE	POLYREX EM			
PF	87		SER.F.	1.15		VPWM INVERTER READY					
HTR-VOLTS			HTR-AMPS			MAX. SPACE HEATER TEMP.					

Parts List		
Part Number	Description	Quantity
SA270436	SA 42E307W387G1	1.000 EA
RA257071	RA 42E307W387G1	1.000 EA
S/P107-000-004	SUPER-E(284 FR. & UP)-CL PLANT,POLYREX E	1.000 EA
HA6360	LIFTING LUG FOR 42 FRAME MOTORS.	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
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
10CB3001	CONDUIT BOX CAST W/2.500 LEAD HOLE	1.000 EA
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA
42EP3200A01	FR ENDPLATE, MACH	1.000 EA
HW5100A13	W4627-047 WVY WSHER	1.000 EA
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA
42EP3200B01	PU ENDPLATE, MACH	1.000 EA
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	8.000 EA
10CB3500SP	CONDUIT BOX LID, CAST	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 EA
HW2501H33	KEY, 1/2 SQ X 3.875	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA
LB1508	LABEL "SHAFT GROUNDING BRUSH" 1.50 X .81	1.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	0.030 LB
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.080 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 EA
42AD2001A01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 EA
42AD2001A01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 EA
HA3151A03	THRUBOLT STUD 1/2-13 X 20.5	4.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0181	CONNECTION LABEL	1.000 EA
NP3554L	SS SUPER-E UL CSA-EEV PREM CC	1.000 EA
42PA1000	PACKAGING GROUP PRINT PK1024A06	1.000 EA

**AC Induction Motor Performance Data**

Record # 35575 - Typical performance - not guaranteed values

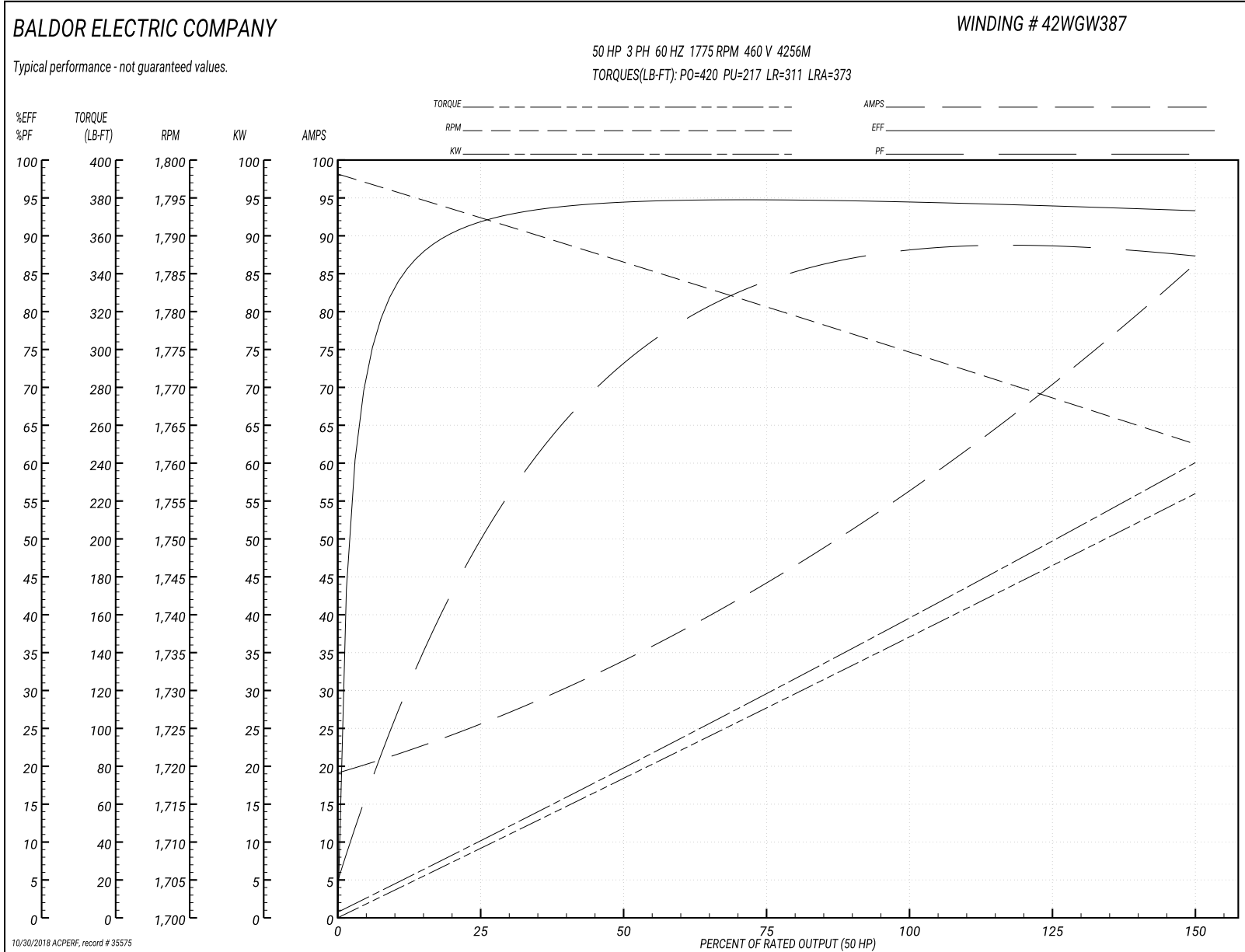
<b>Winding:</b> 42WGW387-R005	<b>Type:</b> 4256M	<b>Enclosure:</b> OPSB
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	50			Full Load Torque	149 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	114/57			Breakdown Torque	420 LB-FT
R.P.M.	1775			Pull-up Torque	217 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	311 LB-FT
NEMA Design Code	B	KVA Code	G	Starting Current	373 A
Service Factor (S.F.)	1.15			No-load Current	20.2 A
NEMA Nom. Eff.	94.5	Power Factor	87	Line-line Res. @ 25°C	0.127 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	39°C
S.F. Amps				Temp. Rise @ S.F. Load	47°C
				Locked-rotor Power Factor	27
				Rotor inertia	7.46 LB-FT <sup>2</sup>

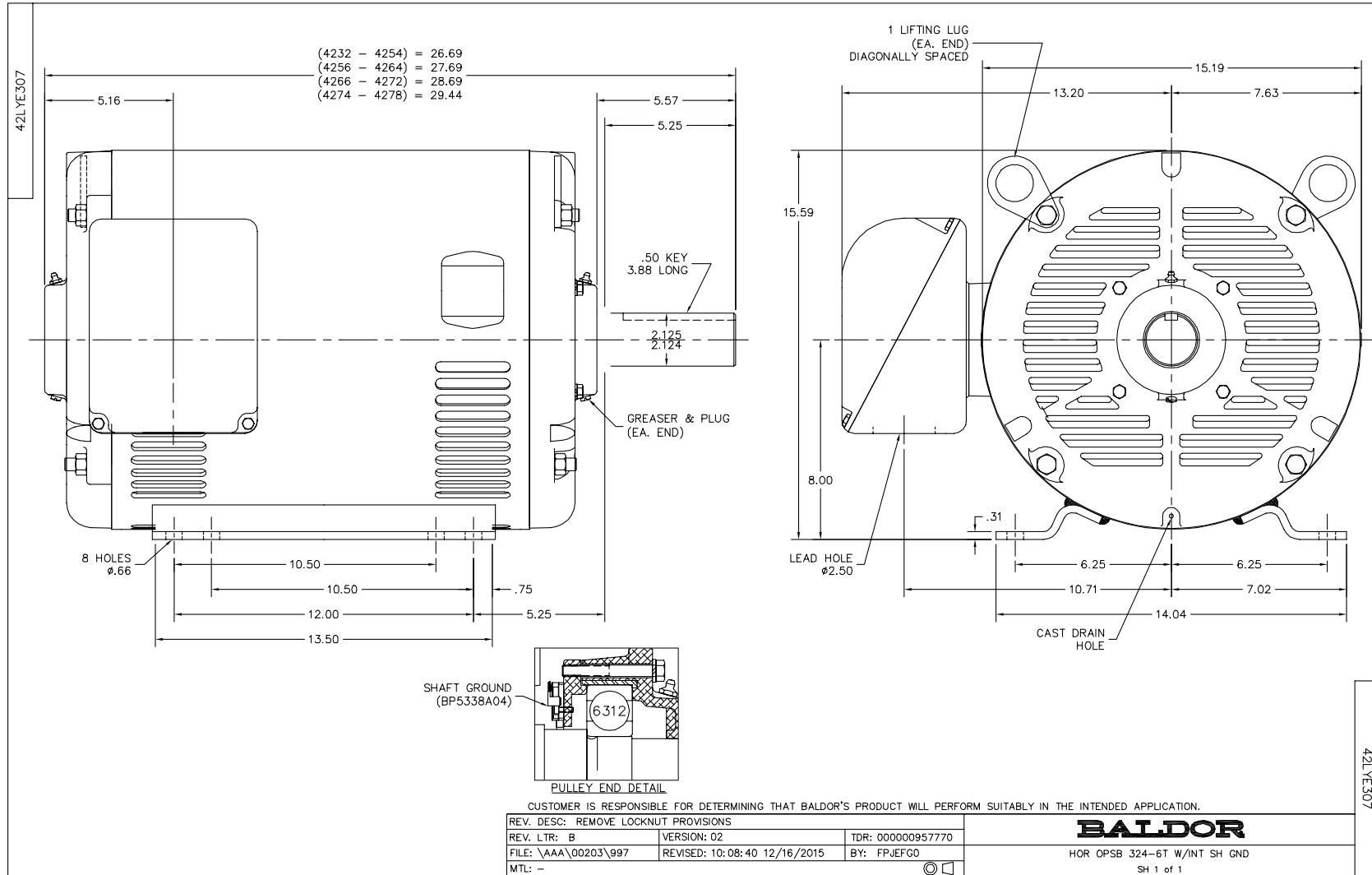
Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	54	75	83	87	88	88	87
Efficiency	92	94.5	94.5	94.7	93.9	93.3	94.4
Speed	1791	1786	1781	1775	1769	1762	1771
Line amperes	24.4	33.4	44.7	57.4	71	85.6	65.2

Performance Graph at 460V, 60Hz, 50.0HP Typical performance - Not guaranteed values



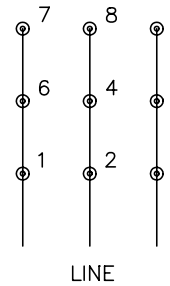




CD0180



LOW VOLTAGE  
(2D)



HIGH VOLTAGE  
(1D)



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: C	BY: JLP	REVISED: 01/21/99 2:28	TDR: 0171435
0810D0		FILE: AAA00005148	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS, DELTA CONNECTION

CD0180