BALDOR • RELIANCE

Product Information Packet

EM2543T-5BG

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

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Part Detail

Revision:	G	**Status:**	PRD/A	**Change #:**		**Proprietary:**	No
Type:	AC	**Elec. Spec:**	42WGW476	**CD Diagram:**	CD0006	**Mfg Plant:**	
Mech. Spec:	42E307	**Layout:**	42LYE307	**Poles:**	04	**Created Date:**	09-22-2014
Base:	RG	**Eff. Date:**	08-21-2018	**Leads:**	3#8		

Specs

Catalog Number:	EM2543T-5BG	**KVA Code:**	G
Enclosure:	OPSB	**Lifting Lugs:**	Standard Lifting Lugs
Frame:	326T	**Locked Bearing Indicator:**	No Locked Bearing
Frame Material:	Steel	**Motor Lead Quantity/Wire Size:**	3 @ 8 AWG
Output @ Frequency:	50.000 HP @ 60 HZ	**Motor Lead Exit:**	Ko Box
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	**Motor Lead Termination:**	Flying Leads
Voltage @ Frequency:	575.0 V @ 60 HZ	**Motor Type:**	4256M
Agency Approvals:	CSA	**Mounting Arrangement:**	F1
	CSA EEV	**Power Factor:**	87
	UR	**Product Family:**	General Purpose
Auxillary Box:	No Auxillary Box	**Pulley End Bearing Type:**	Ball
Auxillary Box Lead Termination:	None	**Pulley Face Code:**	Standard
Base Indicator:	Rigid	**Pulley Shaft Indicator:**	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	**Rodent Screen:**	None
Blower:	None	**Shaft Extension Location:**	Pulley End
Current @ Voltage:	46.000 A @ 575.0 V	**Shaft Ground Indicator:**	Shaft Grounding
Design Code:	A	**Shaft Rotation:**	Reversible
Drip Cover:	No Drip Cover	**Shaft Slinger Indicator:**	No Slinger

Duty Rating:	CONT	**Speed Code:**	Single Speed
Electrically Isolated Bearing:	Not Electrically Isolated	**Motor Standards:**	NEMA
Feedback Device:	NO FEEDBACK	**Starting Method:**	Direct on line
Front Face Code:	Standard	**Thermal Device - Bearing:**	NONE (OLD)
Front Shaft Indicator:	None	**Thermal Device - Winding:**	None
Heater Indicator:	No Heater	**Vibration Sensor Indicator:**	No Vibration Sensor
Insulation Class:	H	**Winding Thermal 1:**	None
Inverter Code:	Inverter Ready	**Winding Thermal 2:**	None

Nameplate NP2138L

CAT.NO.	EM2543T-5BG			**P/N**				**ENCLOSURE**	OPSB		
SPEC.	42E307W476G1	**CC**	010A	**FRAME**	326T			**S/N**			
HP	50			**CLASS**	H	**HZ**	60				
RPM	1775	**PH**	3	**DES**	A						
VOLT	575					**KVA-CODE**	G	**ODE BRG**	6311	**DE BRG**	6312
AMP	46					**USABLE AT 208V**					
RATING	40C AMB-CONT			**GREASE**	POLYREX EM						
NEMA-NOM-EFF	94.5	**PF**	87	**SER.F.**	1.15						
HTR-VOLTS		**HTR-AMPS**									

Parts List

Part Number	Description	Quantity
SA287428	SA 42E307W476G1	1.000 EA
RA273641	RA 42E307W476G1	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
LB1508	LABEL "SHAFT GROUNDING BRUSH" 1.50 X .81	1.000 EA
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA

Parts List (continued)

Part Number	Description	Quantity
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
LC0006	CONNECTION LABEL	1.000 EA
NP2138L	ALUM SUPER-E UL CSA-EEV PREM CC (300	1.000 EA
42PA1000	PACKAGING GROUP PRINT PK1024A06	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA

AC Induction Motor Performance Data

Record # 50233 - Typical performance - not guaranteed values

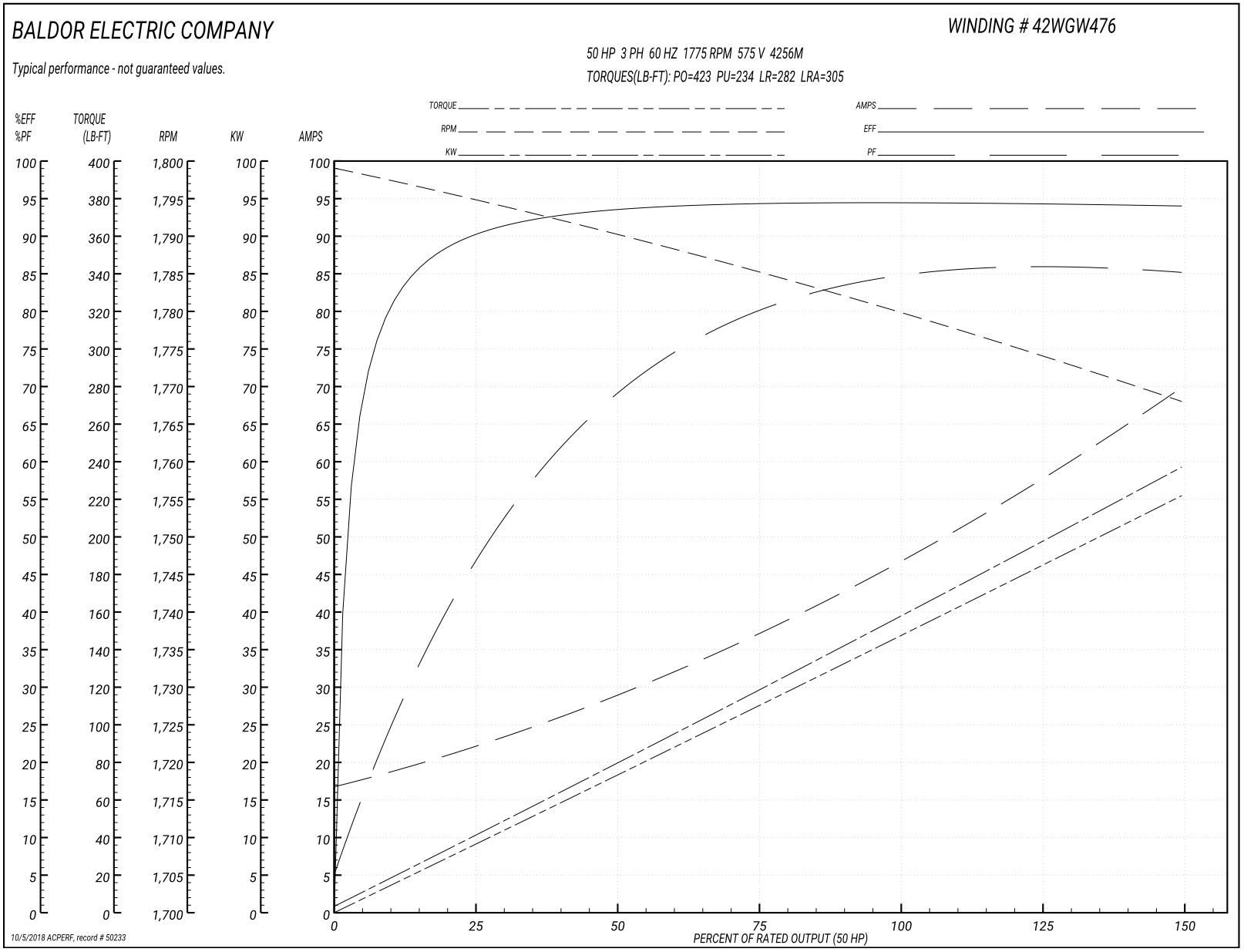
Winding: 42WGW476-R003	**Type:** 4256M	**Enclosure:** OPSB

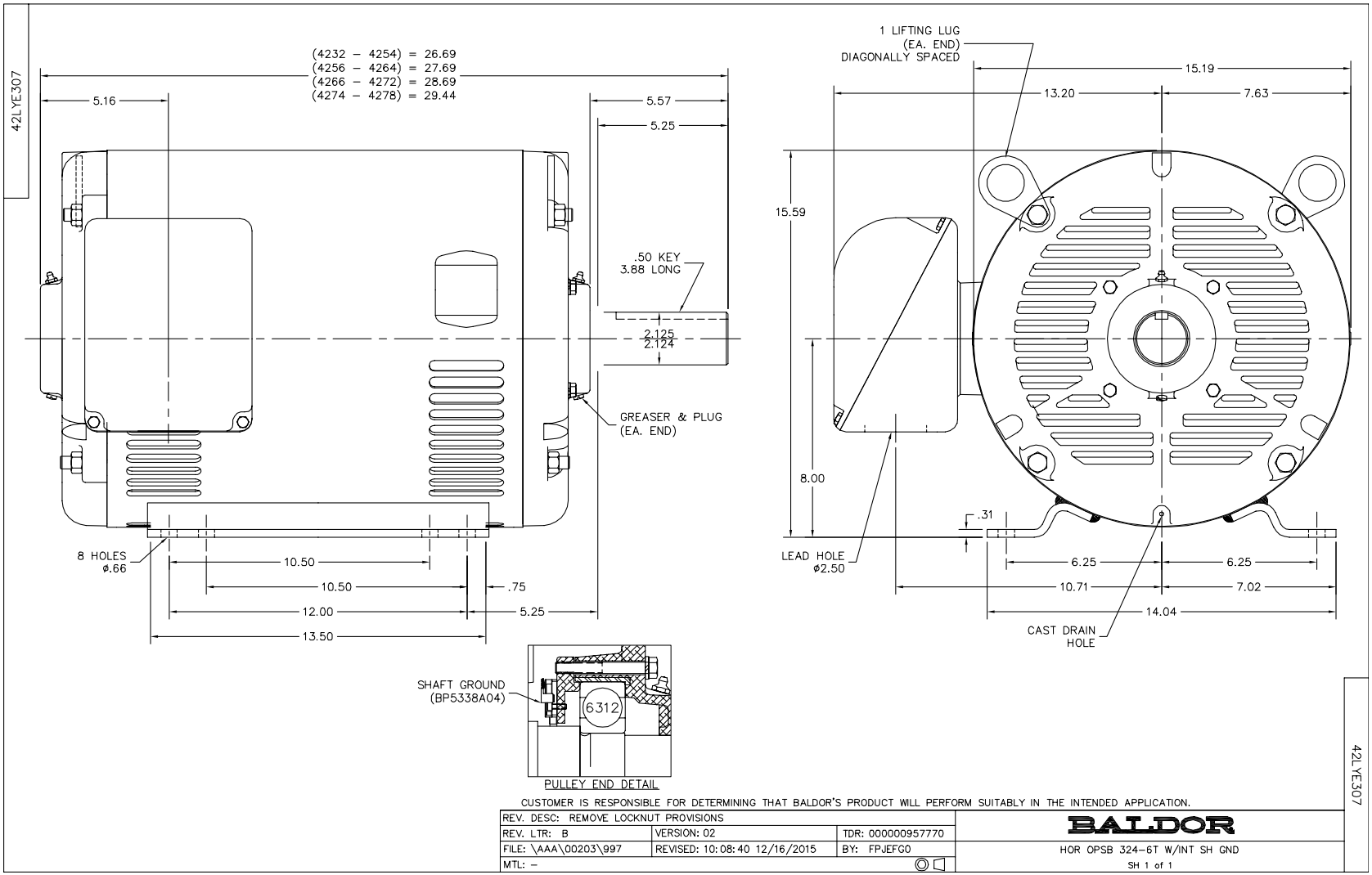
Nameplate Data				575 V, 60 Hz: Single Voltage Motor	
Rated Output (HP)	50			Full Load Torque	148 LB-FT
Volts	575			Start Configuration	direct on line
Full Load Amps	46			Breakdown Torque	423 LB-FT
R.P.M.	1775			Pull-up Torque	234 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	282 LB-FT
NEMA Design Code	A	KVA Code	G	Starting Current	305 A
Service Factor (S.F.)	1.15			No-load Current	16.5 A
NEMA Nom. Eff.	94.5	Power Factor	87	Line-line Res. @ 25ºC	0.194 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	36°C
S.F. Amps				Temp. Rise @ S.F. Load	42°C
				Locked-rotor Power Factor	27.1
				Rotor inertia	7.46 LB-FT2

Load Characteristics 575 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	47	69	79	86	86	85	86
Efficiency	90	93.5	94.4	94.5	94.3	94	94.4
Speed	1795	1790	1785	1780	1774	1768	1776
Line amperes	22.5	29.2	37.7	46	58	70	53.2

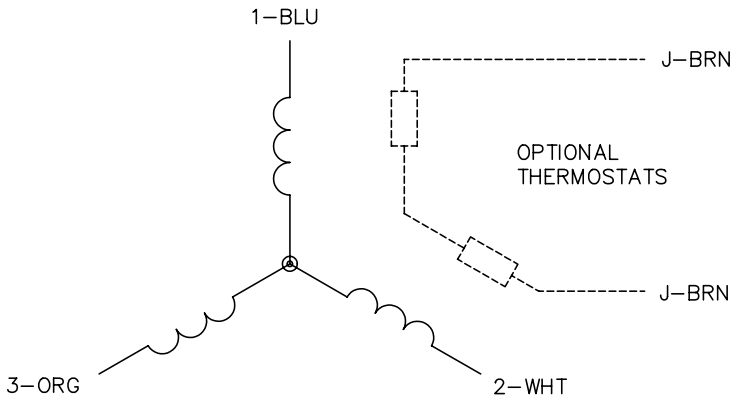
Performance Graph at 575V, 60Hz, 50.0HP Typical performance - Not guaranteed values

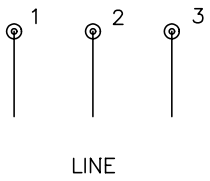



42LYE307
(4232 – 4254) = 26.69
(4256 – 4264) = 27.69
(4266 – 4272) = 28.69
(4274 – 4278) = 29.44
5.16
5.57
5.25
.50 KEY
3.88 LONG
2.125
2.124
GREASER & PLUG
(EA. END)
8 HOLES
ø.66
10.50
10.50
12.00
13.50
.75
5.25
1 LIFTING LUG
(EA. END)
DIAGONALLY SPACED
15.19
13.20
7.63
15.59
8.00
.31
LEAD HOLE
ø2.50
6.25
6.25
10.71
7.02
14.04
CAST DRAIN
HOLE
SHAFT GROUND
(BP5338A04)
6312
PULLEY END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.
REV. DESC: REMOVE LOCKNUT PROVISIONS
REV. LTR: B
VERSION: 02
TDR: 000000957770
FILE: \AAA\00203\997
REVISED: 10:08:40 12/16/2015
BY: FPJEFGO
MTL: –
BALDOR
HOR OPSB 324–6T W/INT SH GND
SH 1 of 1
42LYE307

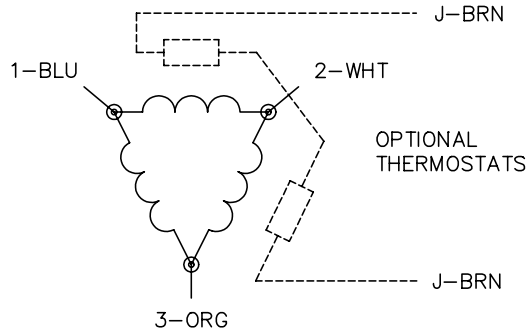
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: D	BY: JLP	REVISED: 01/21/99 4:02	TDR: 0171435
9000CD		FILE: AAA00005141	MDL: –
		MTL: –	3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

CD0006