

**BALDOR® • RELIANCE** 

**Product Information Packet**

**EM2543T-12**

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

Part Detail							
Revision:	AA	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	42WGW480	CD Diagram:	CD0104	Mfg Plant:	
Mech. Spec:	42F56	Layout:	42LYF056	Poles:	04	Created Date:	
Base:	RG	Eff. Date:	08-23-2018	Leads:	12#8		

Specs			
Catalog Number:	EM2543T-12	Inverter Code:	Inverter Ready
Enclosure:	OPSB	KVA Code:	H
Frame:	326T	Lifting Lugs:	Standard Lifting Lugs
Frame Material:	Steel	Locked Bearing Indicator:	No Locked Bearing
Output @ Frequency:	50.000 HP @ 60 HZ	Motor Lead Quantity/Wire Size:	12 @ 8 AWG
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Exit:	Ko Box
Voltage @ Frequency:	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
	460.0 V @ 60 HZ	Motor Type:	4256M
Agency Approvals:	CSA	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	81
	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:	122.000 A @ 230.0 V	Shaft Ground Indicator:	No Shaft Grounding
	61.000 A @ 460.0 V	Shaft Rotation:	Reversible

<b>Design Code:</b>	B	<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>	Wye Start - Delta Run
<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>Insulation Class:</b>	F	<b>Winding Thermal 2:</b>	None

Nameplate NP3554LUA											
CAT.NO.	EM2543T-12			P/N				ENCL	OPSB		
SPEC.	42F056W480		CC	010A		FRAME	326T		SER.NO.		
HP	50		CLASS	F		HZ	60				
RPM	1775		PH	3		DES	B				
VOLTS	230/460			CODE	H		ODE BRG	6311		DE BRG	6312
AMPS	122/61			USABLE AT 208V							
RATING	40C AMB-CONT			NEMA-NOM-EFF	94.5		GREASE	POLYREX EM			
PF	81		SER.F.	1.15		VPWM INVERTER READY					
USABLE AT	50Hz 50Hp 190/380V 136/68A				SF	1.0					
HTR-VOLTS			HTR-AMPS			MAX. SPACE HEATER TEMP.					

Parts List		
Part Number	Description	Quantity
SA100841	SA 42F056W480	1.000 EA
RA092914	RA 42F056W480	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
42EP3200B02	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
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
42AD2001A01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 EA
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA

<b>Parts List (continued)</b>		
<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	0.030 LB
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
42AD2001A01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 EA
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
HA3151A03	THRUBOLT STUD 1/2-13 X 20.5	4.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.080 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0104A01	CONNECTION DIAGRAM	1.000 EA
NP3554LUA	SS SUPER-E VPWM INV READY UL CSA-EEV PRE	1.000 EA
40PA1000	PACKAGING GROUP	1.000 EA

**AC Induction Motor Performance Data**

Record # 13699 - Typical performance - not guaranteed values

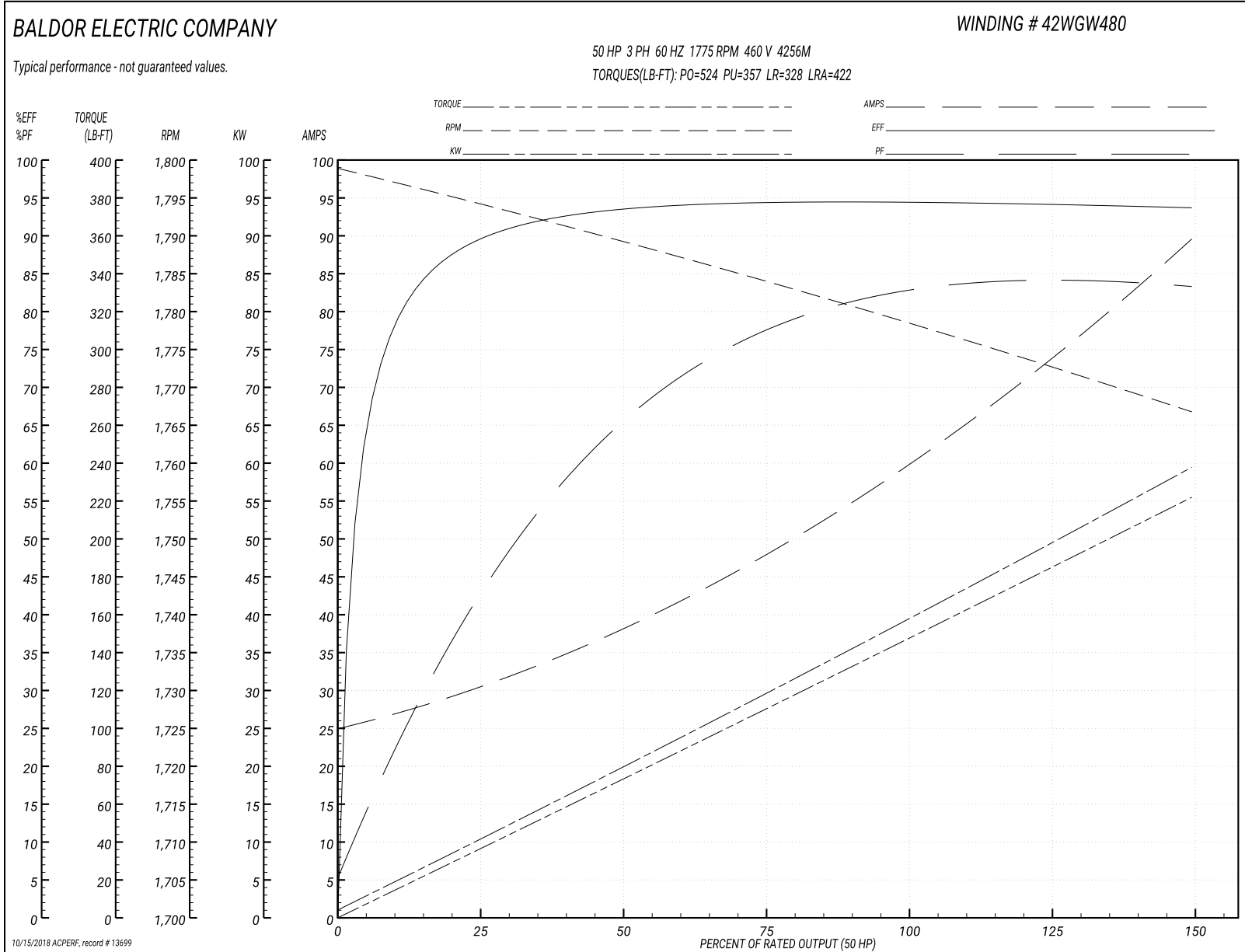
<b>Winding:</b> 42WGW480-R001	<b>Type:</b> 4256M	<b>Enclosure:</b> OPSB
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Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	50			Full Load Torque	148 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	122/61			Breakdown Torque	524 LB-FT
R.P.M.	1775			Pull-up Torque	357 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	328 LB-FT
NEMA Design Code	B	KVA Code	H	Starting Current	422 A
Service Factor (S.F.)	1.15			No-load Current	25.9 A
NEMA Nom. Eff.	94.5	Power Factor	81	Line-line Res. @ 25°C	0.112 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	18°C
S.F. Amps				Temp. Rise @ S.F. Load	21°C
				Locked-rotor Power Factor	27
				Rotor inertia	7.46 LB-FT <sup>2</sup>

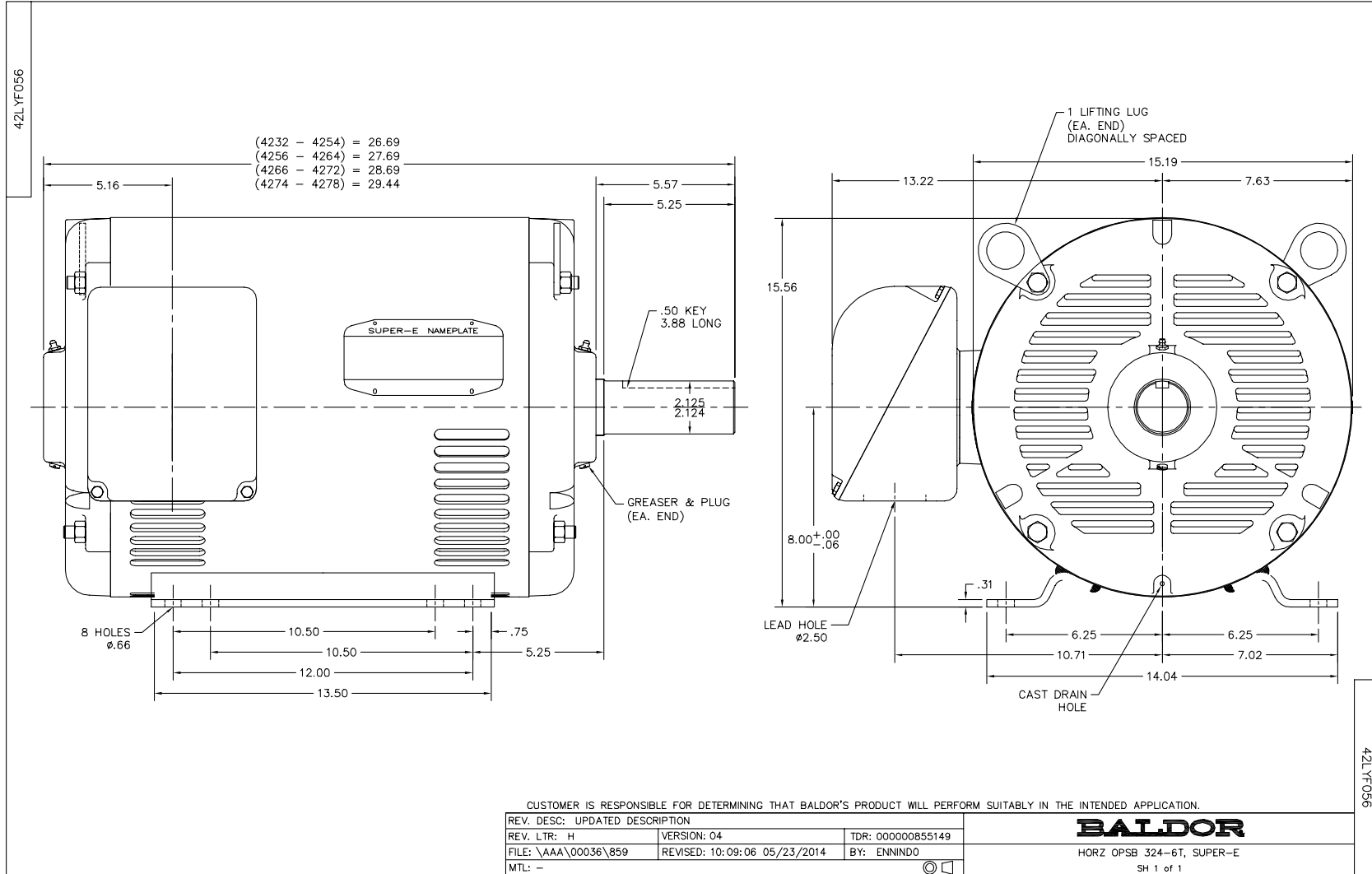
**Load Characteristics 460 V, 60 Hz, 50 HP**

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	45	67	77	82	84	84	83
Efficiency	89.6	93.5	94.4	94.5	94.1	93.7	94.3
Speed	1794	1789	1784	1779	1772	1767	1775
Line amperes	29.4	37.6	48.4	60.8	74.3	88.9	68.9

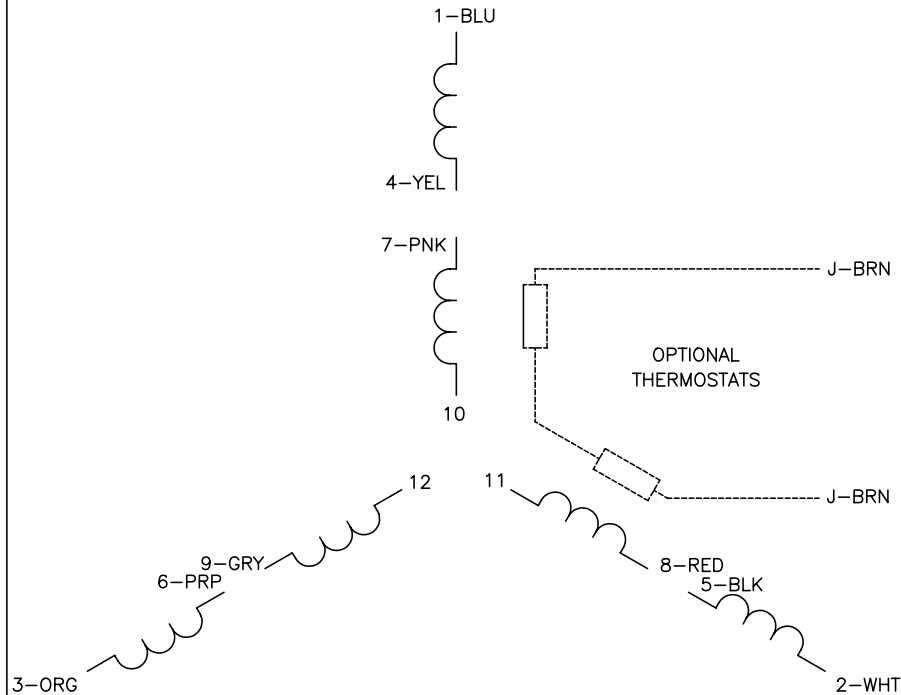
Performance Graph at 460V, 60Hz, 50.0HP Typical performance - Not guaranteed values



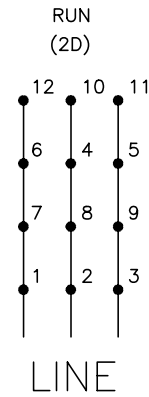
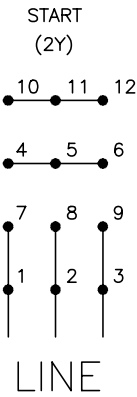




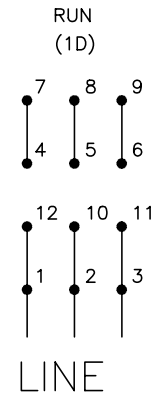
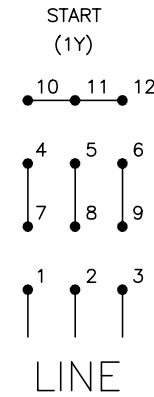
CD0104



**LOW VOLTAGE**



**HIGH VOLTAGE**



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: 01/19/99 4:24	TDR: 0171435
CD0104		FILE: AAA00008377	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

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

CD0104

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