

**BALDOR • RELIANCE**

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# Customer information packet

## EM2543T-G

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

## Specifications

Enclosure	OPSB
Frame	326T
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA CSA EEV UR
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	120.000 A @ 208.0 V 57.000 A @ 460.0 V 114.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	57.0 a

## Part detail

Revision	Y
Type	AC
Mech. spec.	42E245
Base	
Status	PRD/A
Elec. spec.	42WGW387
Layout	42LYE245
Eff. date	06-27-2024
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	08-24-2010

<b>Insulation Class</b>	H
<b>Inverter Code</b>	Inverter Ready
<b>KVA Code</b>	G
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Locked Bearing Indicator</b>	No Locked Bearing
<b>Motor Lead Exit</b>	Ko Box
<b>Motor Lead Quantity/Wire Size</b>	9 @ 8 AWG
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	4256M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	27.69 IN
<b>Power Factor</b>	87
<b>Product Family</b>	General Purpose
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Pulley Shaft Indicator</b>	Standard
<b>Rodent Screen</b>	None
<b>Service Factor</b>	1.15
<b>Shaft Diameter</b>	2.125 IN
<b>Shaft Extension Location</b>	Pulley End
<b>Shaft Ground Indicator</b>	Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	No Slinger
<b>Speed</b>	1775 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate**

**NP3554LUA**

<b>CAT.NO.</b>	EM2543T-G		<b>P/N</b>			<b>ENCL</b>	OPSB
<b>SPEC.</b>	42E245W387G1	<b>CC</b>	010A	<b>FRAME</b>	326T	<b>SER.NO.</b>	
<b>HP</b>	50	<b>CLASS</b>	H	<b>HZ</b>	60		
<b>RPM</b>	1775	<b>PH</b>	3	<b>DES</b>	A		
<b>VOLTS</b>	230/460	<b>CODE</b>	G	<b>ODE BRG</b>	6311	<b>DE BRG</b>	6312
<b>AMPS</b>	114/57						
<b>RATING</b>	40C AMB-CONT	<b>NEMA-NOM-EFF</b>	94.5	<b>GREASE</b>	POLYREX EM		
<b>PF</b>	87	<b>SER.F.</b>	1.15	<b>CT30-60(2:1) VT3-60(20:1)</b>			
<b>USABLE AT</b>	50HZ 50HP 190/380V 136/68A			SF1.0			
<b>HTR-VOLTS</b>	<b>HTR-AMPS</b>	<b>MAX. SPACE HEATER TEMP.</b>					

**AC Induction Motor Performance Data**

Record # 35575

Typical performance - not guaranteed values

Winding: 42WGW387-R005		Type: 4256M	Enclosure: OPSB		
<b>Nameplate Data</b>			<b>460 V, 60 Hz: High Voltage Connection</b>		
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	A	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

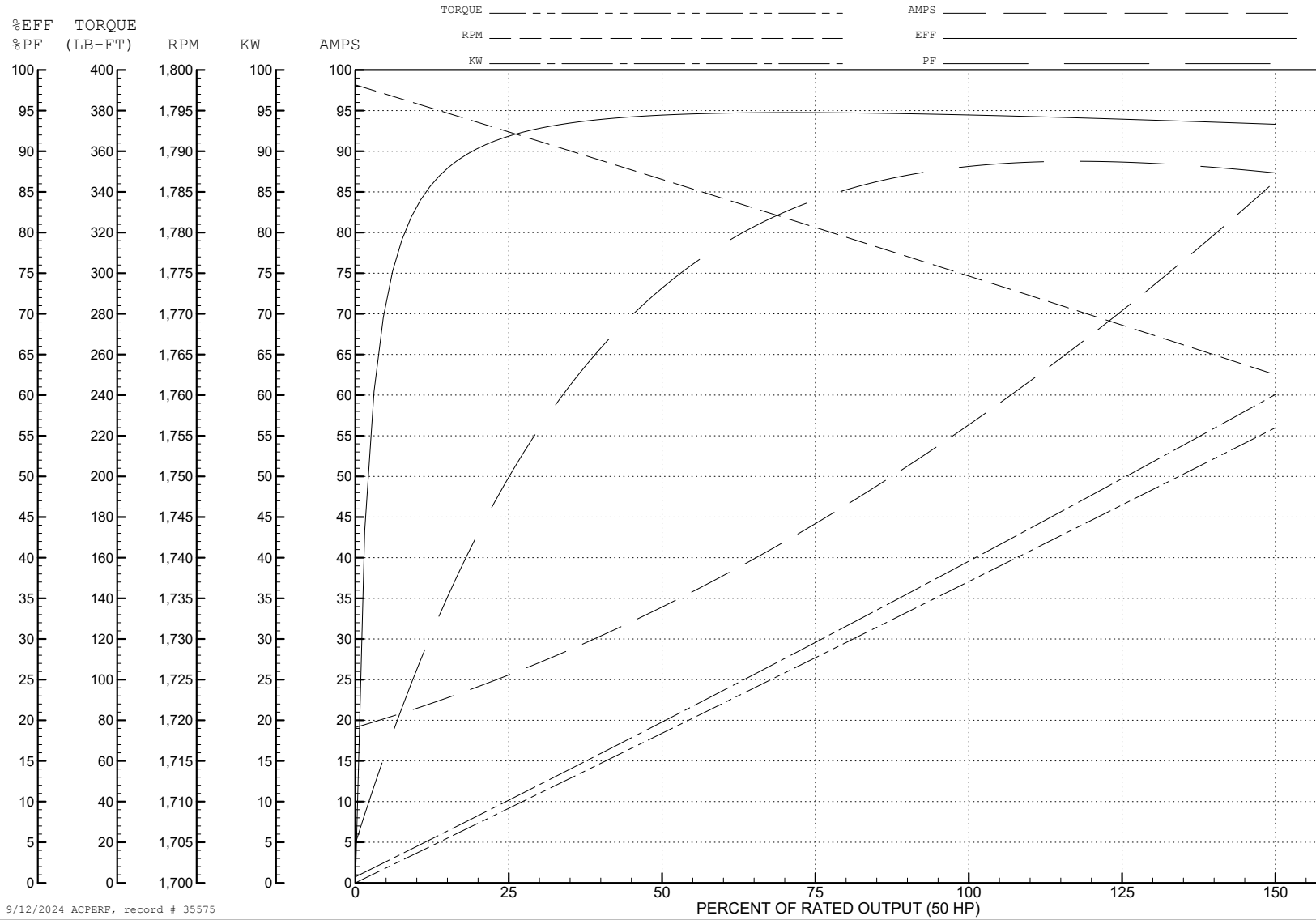
ABB Motors and Mechanical Inc.

WINDING # 42WGW387

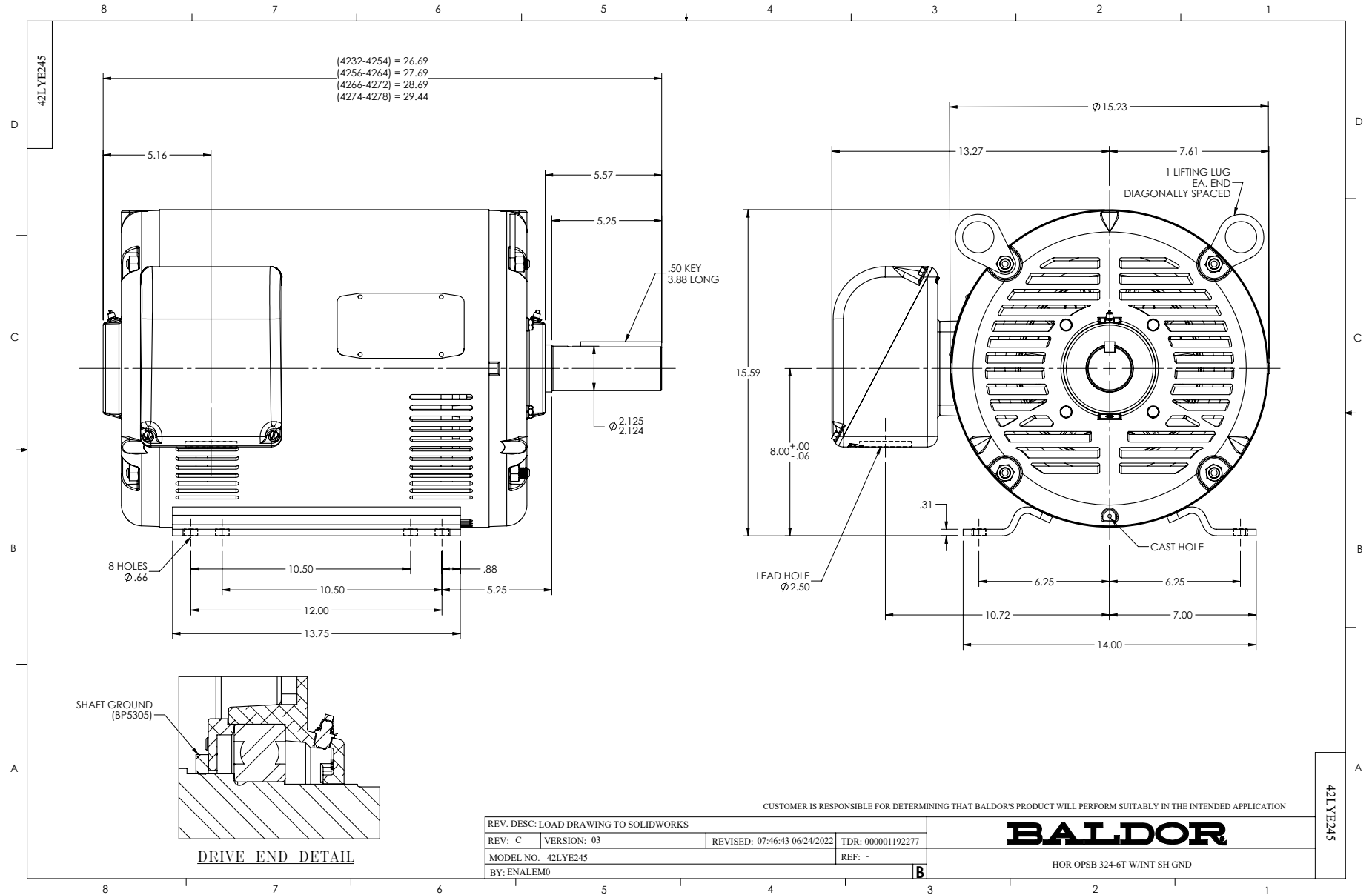
Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 1775 RPM 460 V 4256M

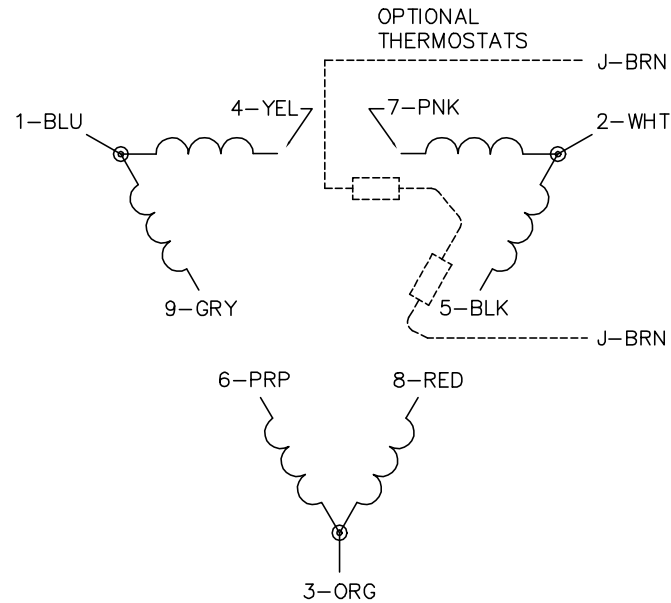
TORQUES (LB-FT): PO=420 PU=217 LR=311 LRA=373



9/12/2024 ACPERF, record # 35575



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.

CD0180

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: D	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\148	REVISED: 10: 25: 29 02/19/2019	BY: ENBRIRO
MTL: -	© □	

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3PH, DV, 9 LEADS, DELTA CONNECTION

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