

ABB BALDOR RELIANCE III

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
Auxiliary Box	NO AUXILLARY BOX
Auxiliary 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	AA
Type	AC
Mech. spec.	42E245
Base	
Status	PRD/A
Elec. spec.	42WGW387
Layout	42LYE245
Eff. date	09-04-2026
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	08-24-2010

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

Nameplate

NP3554LUA										
CAT.NO.	EM2543T-G			P/N					ENCL	OPSB
SPEC.	42E245W387G1	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									
RATING	40C AMB-CONT		NEMA-NOM-EFF			94.5	GREASE	POLYREX EM		
PF	87	SER.F.	1.15	CT30-60(2:1) VT3-60(20:1)						
USABLE AT	50HZ 50HP 190/380V 136/68A			SF1.0						
HTR-VOLTS	HTR-AMPS	MAX. SPACE HEATER TEMP.								

AC Induction Motor Performance Data

Record # 35575

Typical performance - not guaranteed values

Winding: 42WGW387-R005				Type: 4256M		Enclosure: OPSB	
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		A	KVA Code	Starting Current		373 A	
Service Factor (S.F.)		1.15		No-load Current		20.2 A	
NEMA Nom. Eff.		94.5	Power Factor	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-FT2	

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

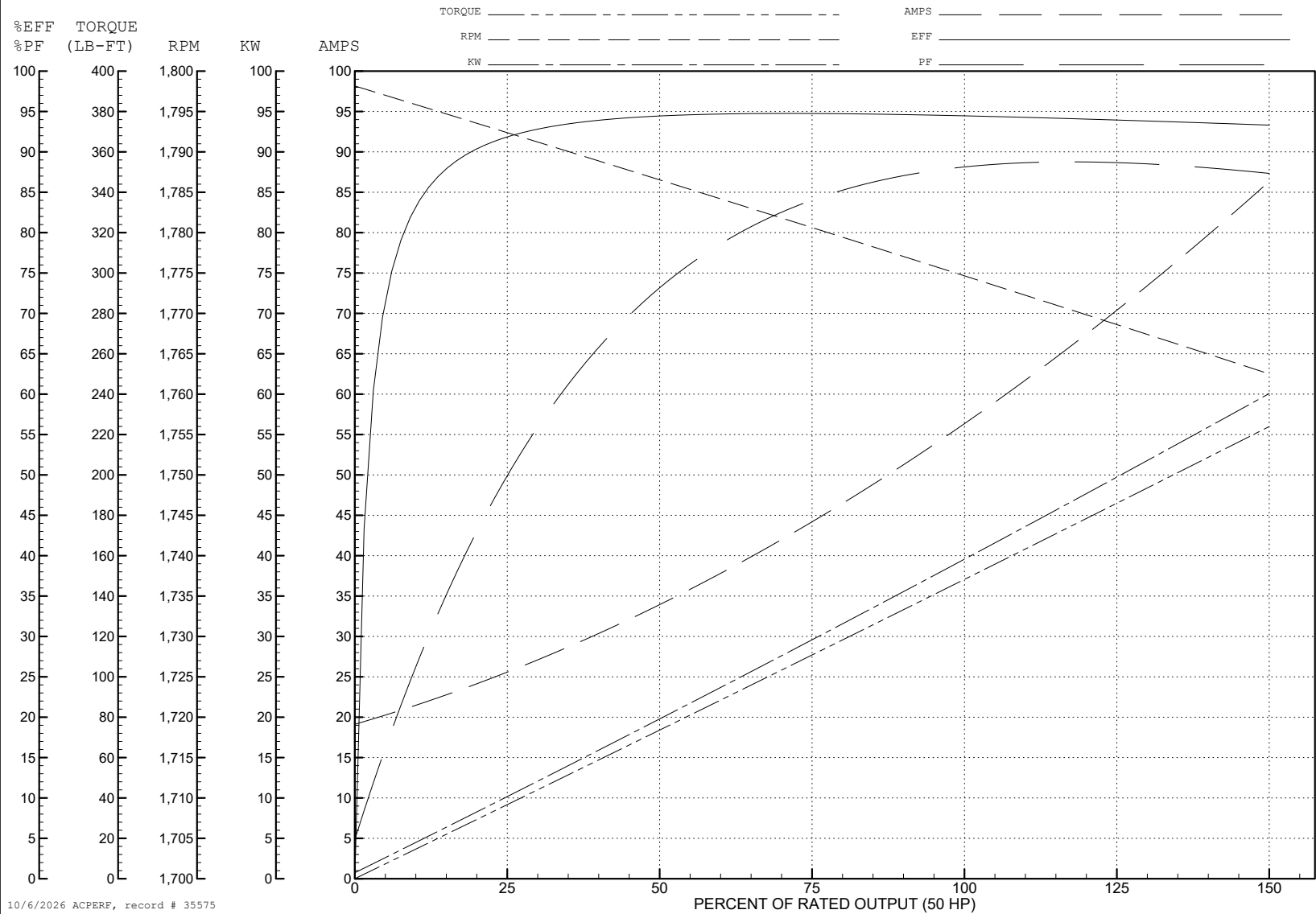
ABB Motors and Mechanical Inc.

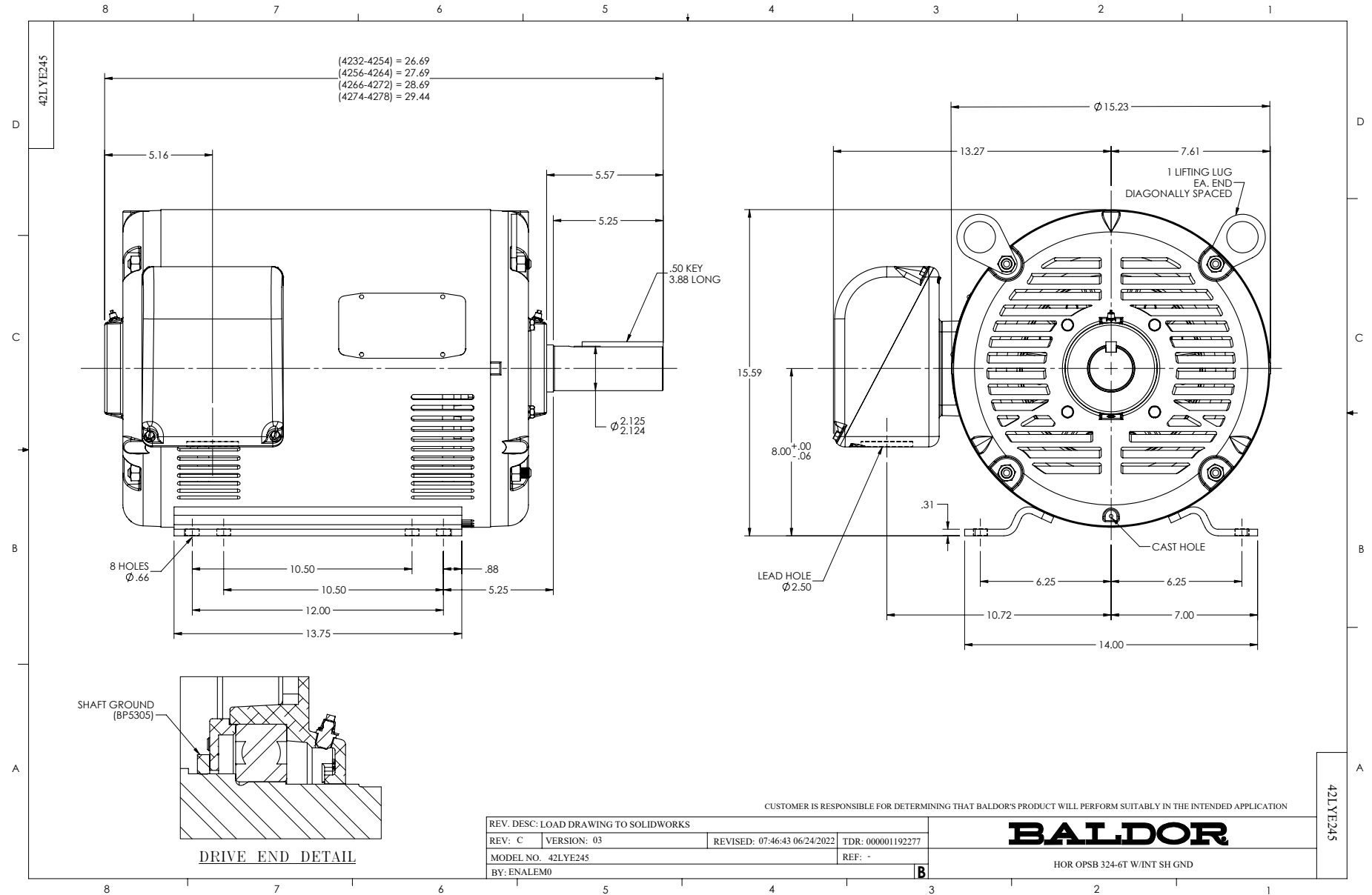
WINDING # 42GW387

Typical performance - not guaranteed values.

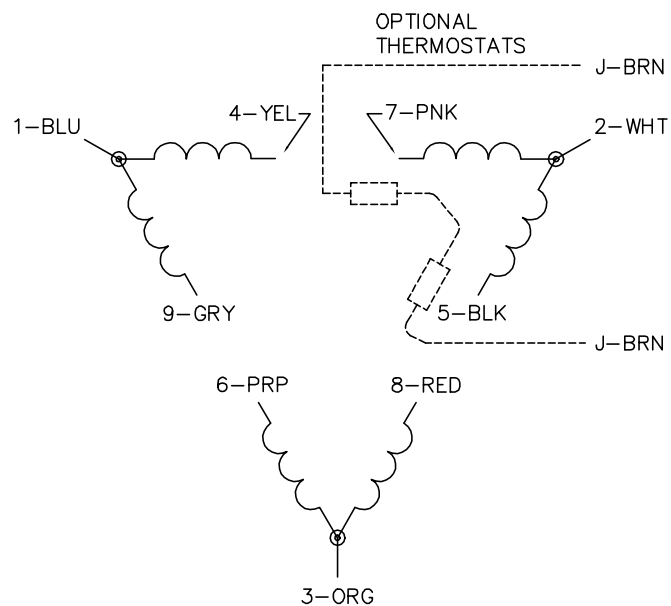
50 HP 3 PH 60 HZ 1775 RPM 460 V 4256M

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

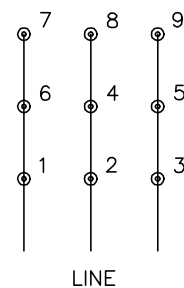




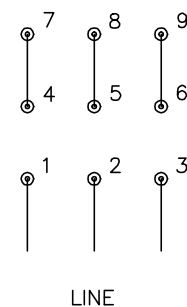
CD0180



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: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: -



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1

CD0180