

ABB BALDOR RELIANCE III

Customer information packet

CEM2543T-G

50HP, 1775RPM, 3PH, 60HZ, 326TC, OPSB, F1

Specifications

Enclosure	OPSB
Frame	326TC
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 NEMA PREMIUM 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	114.000 A @ 230.0 V 57.000 A @ 460.0 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
Heater Indicator	No Heater
High Voltage Full Load Amps	57.0 a
Insulation Class	H
Inverter Code	Inverter Ready

Part Detail

Revision	E
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	42WGW387
Layout	42LYE339
Eff. date	06-27-2024
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	08-20-2019

IP Rating	NONE
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
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 Face Code	C-Face
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	2.125 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
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.	CEM2543T-G			P/N			ENCL			OPSB
SPEC.	42-0000-0050	CC	010A	FRAME		326TC	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				SF 1.0					
HTR-VOLTS	HTR-AMPS	MAX. SPACE HEATER TEMP.								

Parts List

Part number	Description	Quantity
SA373560	SA 42-0000-0050	1.000 ea
RA363367	RA 42-0000-0050	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP3554LUA	SS SUPER-E VPWM INV READY,CURUS-EEV,PREM	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
HA6360	LIFTING LUG FOR 42 FRAME MOTORS.	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.200 lb
HA3151A03	THRUBOLT STUD 1/2-13 X 20.5	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	8.000 ea
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	8.000 ea
42EP3200A01	FR ENDPLATE, MACH	1.000 ea
HW5100A13	W4627-047 WVY WSHER	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
42EP1300A20	PU ENDPLATE, MACH	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
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
BP5305	SHAFT GRD BOLT THROUGH (SGR-68.4-3FH)	1.000 ea
10CB3001A31	KOBX, MACH W/2.50 LD HL,.38-16 GND	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
WD1000B19	TERMINAL BURNDY L250HP	1.000 ea
10XN3816K08	3/8-16 X .50 HEX HD CAP SCREW GRADE 5	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	1.000 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
10CB3500SP	CONDUIT BOX LID, CAST	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
42AD2001B01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.125 ga
42AD2001B01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 ea
40PA1000	PACKAGING GROUP	1.000 ea
HW2501H34	KEY, 1/2 SQ X 4.00	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea

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	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-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

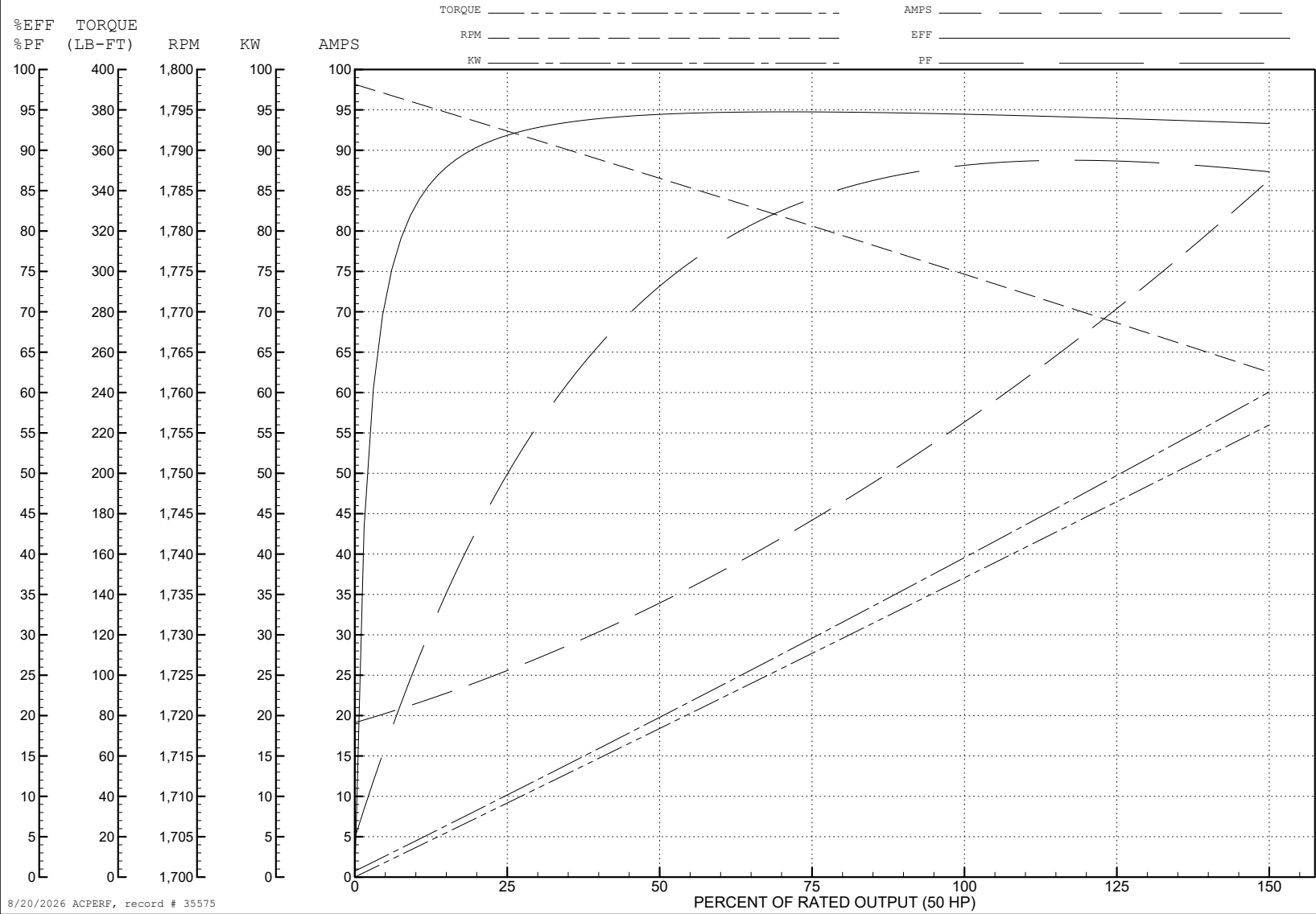
ABB Motors and Mechanical Inc.

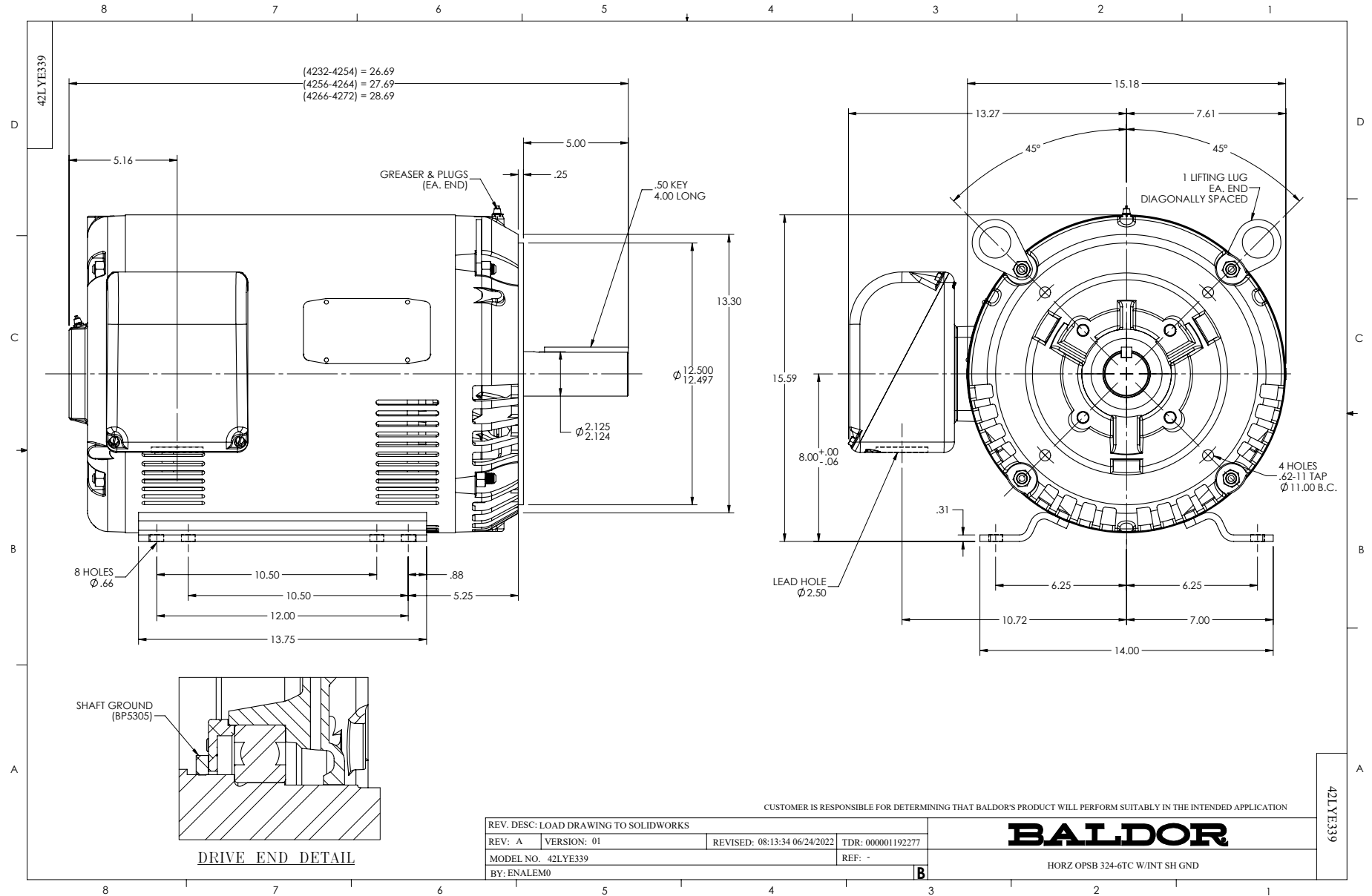
WINDING # 42GW387

Typical performance - not guaranteed values.

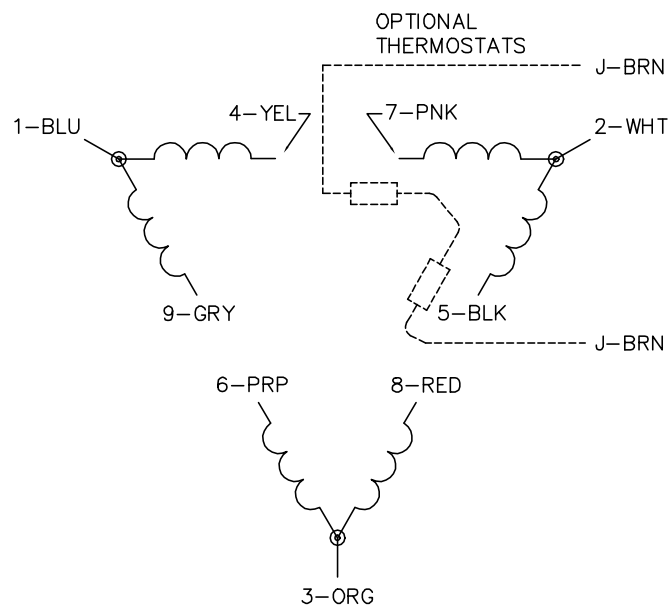
50 HP 3 PH 60 HZ 1775 RPM 460 V 4256M

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

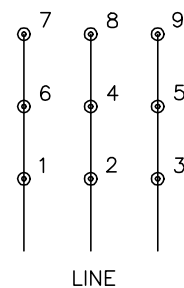




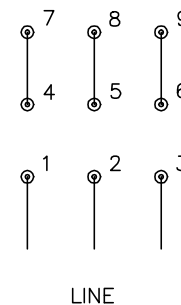
CD0180



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.

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: —



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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