

ABB BALDOR RELIANCE III

Customer information packet

EJMM2543T

50HP, 1775RPM, 3PH, 60HZ, 326JM, 4256M, OPSB, F

Specifications

Enclosure	OPSB
Frame	326JM
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	121.000 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	AD
Type	AC
Mech. spec.	42F59
Base	
Status	PRD/A
Elec. spec.	42WGW387
Layout	42LYF059
Eff. date	06-27-2024
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	01-01-0001

Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	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	27.94 IN
Power Factor	87
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Tapped & Key
Rodent Screen	Included
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft 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.	EJMM2543T			P/N						ENCL	OPSE
SPEC.	42F059W387G4	CC	010A	FRAME		326JM	SER.NO.				
HP	50		CLASS		F	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.									

Parts List

Part number	Description	Quantity
SA111841	SA 42F059W387G4	1.000 ea
RA103154	RA 42F059W387G4	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
HA1108A01	RODENT SCREEN	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.080 ga
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	4.000 ea
HW5100A13	W4627-047 WVY WSHR	1.000 ea
42EP1300A44	PU ENDPLATE, MACH	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HA1165A01	RODENT SCREEN FOR 42 PU. C-FACE EP (INSI	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	4.000 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
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
HW4600B41	V-RING SLINGER 2.125 X 2.880 X 0.280	1.000 ea
HW2501E22	KEY, 1/4 SQ X 2.500	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea

MJ1000A02	GREASE, POLYREX EM EXXON	0.030 lb
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
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
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP3554LUA	SS SUPER-E VPWM INV READY,CURUS-EEV,PREM	1.000 ea
42PA1000	PACKAGING GROUP PRINT PK1024A07	1.000 ea

AC Induction Motor Performance Data

Record # 53755

Typical performance - not guaranteed values

Winding: 42WGW387-R001			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	0.12266 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	88
Efficiency	92	94.5	94.9	94.7	94.2	93.4	94.4
Speed	1791	1786.1	1781.1	1775.2	1769.2	1762.1	1772
Line amperes	24.4	33.4	44.7	57.4	71	85.6	65.6

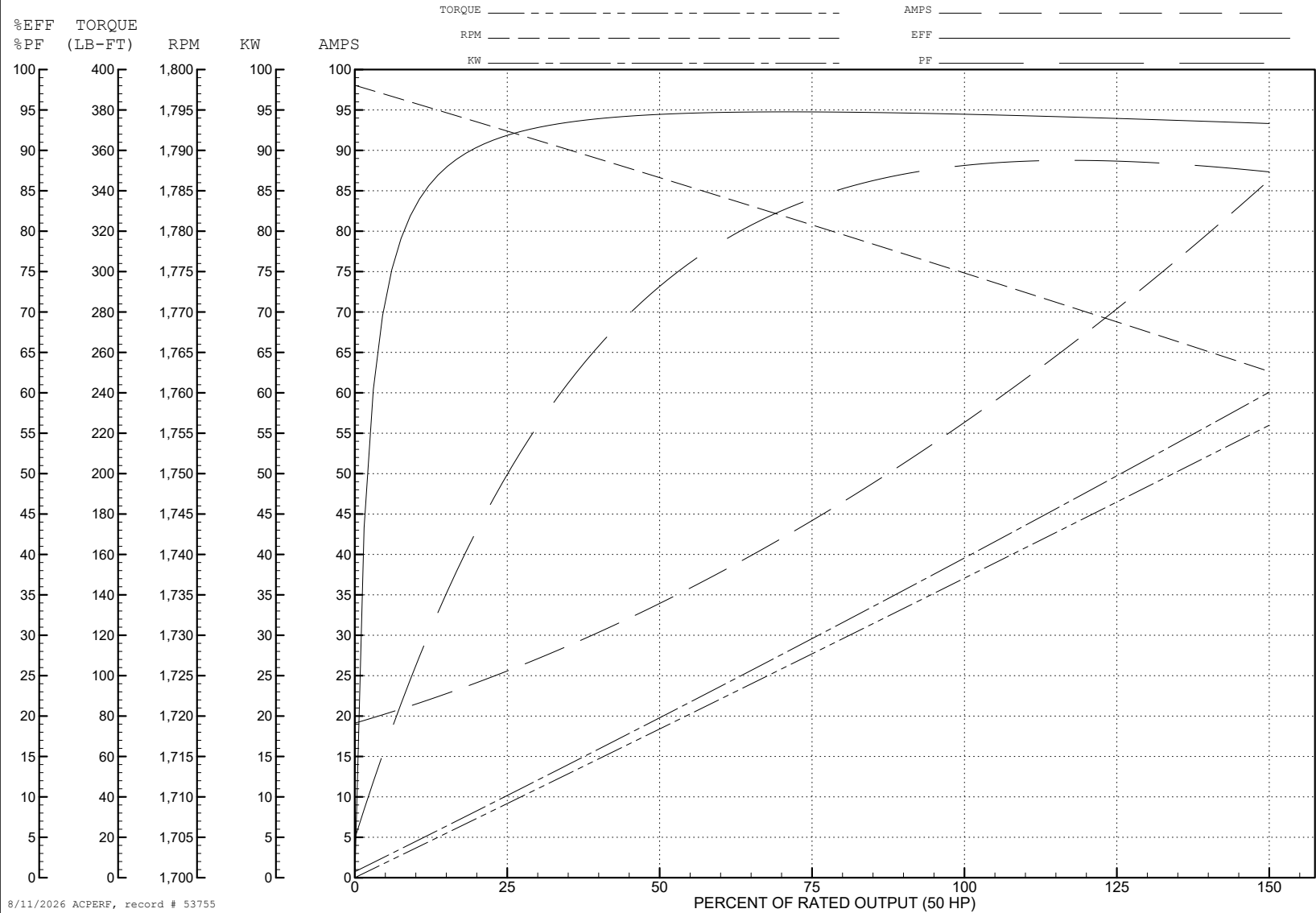
ABB Motors and Mechanical Inc.

WINDING # 42GW387

Typical performance - not guaranteed values.

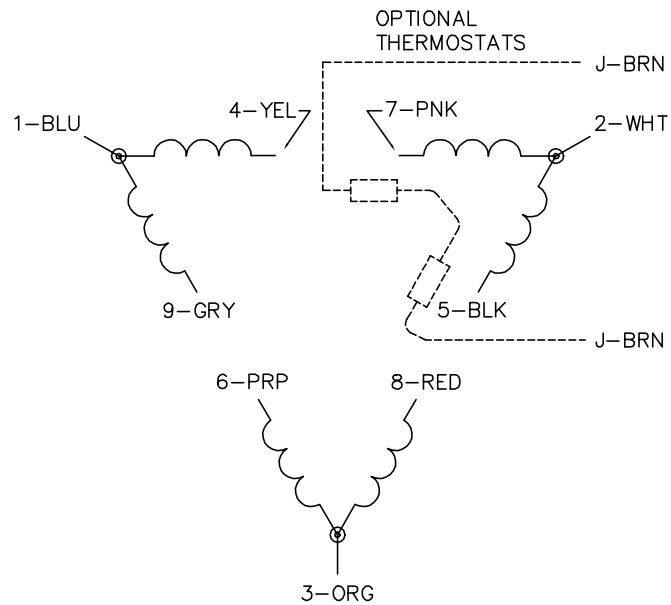
50 HP 3 PH 60 HZ 1775 RPM 460 V 4256M

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

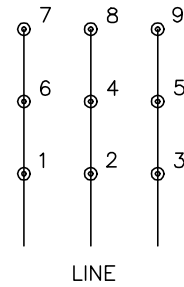




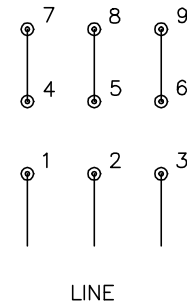
CD0180



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