

ABB BALDOR RELIANCE III

Customer information packet EJMM2542T

50HP, 3550RPM, 3PH, 60HZ, 324JM, 4248M, OPSB, F

Specifications

Enclosure	OPSB
Frame	324JM
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV UR CSA
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	116.000 A @ 230.0 V 58.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
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	58.0 a
Insulation Class	F

Part Detail

Revision	N
Type	AC
Mech. spec.	42F59
Base	
Status	PRD/A
Elec. spec.	42WGW284
Layout	42LYF059
Eff. date	11-29-2023
CD Diagram	CD0180
Poles	02
Leads	9#6
Proprietary	False
Created date	05-14-2012

Inverter Code	Inverter Ready
KVA Code	H
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	4248M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	26.94 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	1.250 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3550 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

NP2138LUA												
CAT.NO.	EJMM2542T			P/N					ENCLOSURE			OPSB
SPEC.	42F059W284G1		CC	010A	FRAME		324JM		S/N			
HP	50			CLASS		F	HZ	60				
RPM	3550			PH	3	DES		A				
VOLT	230/460			KVA-CODE			H	ODE BRG		6311	DE BRG	6312
AMP	116/58											
RATING	40C AMB-CONT			GREASE			POLYREX EM					
NEMA-NOM-EFF	93	PF	87	SER.F.		1.15						
	50HZ 50HP 190/380V 138/69A							SF1.0				
HTR-VOLTS	HTR-AMPS											

Parts List

Part number	Description	Quantity
SA244538	SA 42F059W284G1	1.000 ea
RA231422	RA 42F059W284G1	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
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
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
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.080 ga
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
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
42AD2001C01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 ea
42AD2001C01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 ea
HA3151A02	THRUBOLT STUD 1/2-13 X 19.25	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP2138LUA	ALUM SUPER-E UL PREM CC (300SER)	1.000 ea
42PA1000	PACKAGING GROUP PRINT PK1024A07	1.000 ea

AC Induction Motor Performance Data

Record # 85565

Typical performance - not guaranteed values

Winding: 42WGW284-R002			Type: 4248M		Enclosure: OPSB	
Nameplate Data			460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		50	Full Load Torque		73.94 LB-FT	
Volts		230/460	Start Configuration		direct on line	
Full Load Amps		116/58	Breakdown Torque		191 LB-FT	
R.P.M.		3550	Pull-up Torque		99 LB-FT	
Hz	60 Phase	3	Locked-rotor Torque		111 LB-FT	
NEMA Design Code		A	KVA Code		H	
Service Factor (S.F.)		1.15	Starting Current		414 A	
NEMA Nom. Eff.		93	Power Factor		87	
Rating - Duty		40C AMB-CONT	Line-line Res. @ 25°C		0.13749 Ω	
S.F. Amps			Temp. Rise @ Rated Load		32°C	
			Temp. Rise @ S.F. Load		39°C	
			Locked-rotor Power Factor		23.4	

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	58	78	85	88	89	89	89
Efficiency	90.7	93.8	94.3	94.2	93.7	92.9	93.9
Speed	3587.7	3577.2	3567.7	3556	3544.5	3531.2	3549
Line amperes	22.8	32.2	43.7	56.5	70	84.3	64.6

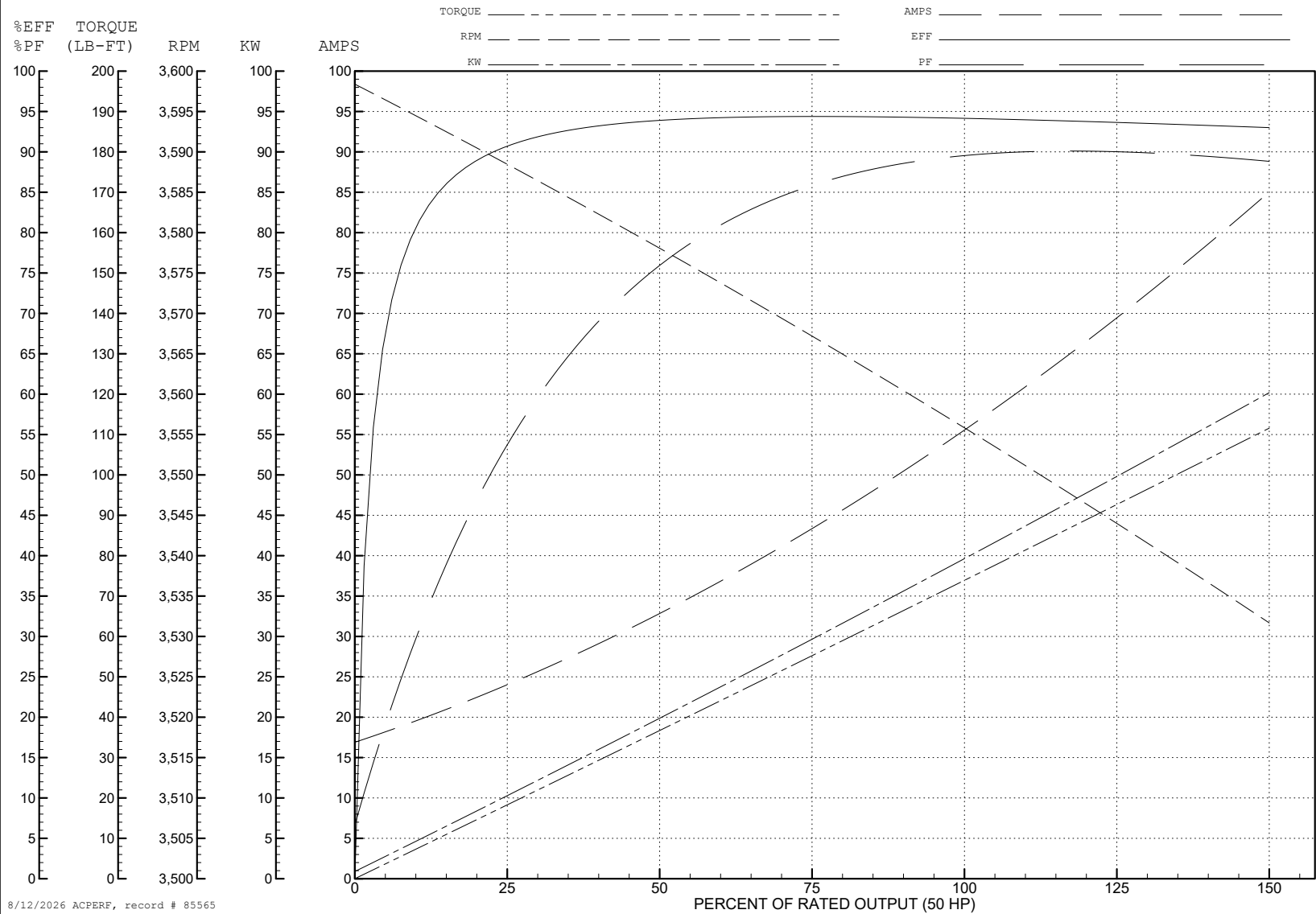
ABB Motors and Mechanical Inc.

WINDING # 42GW284

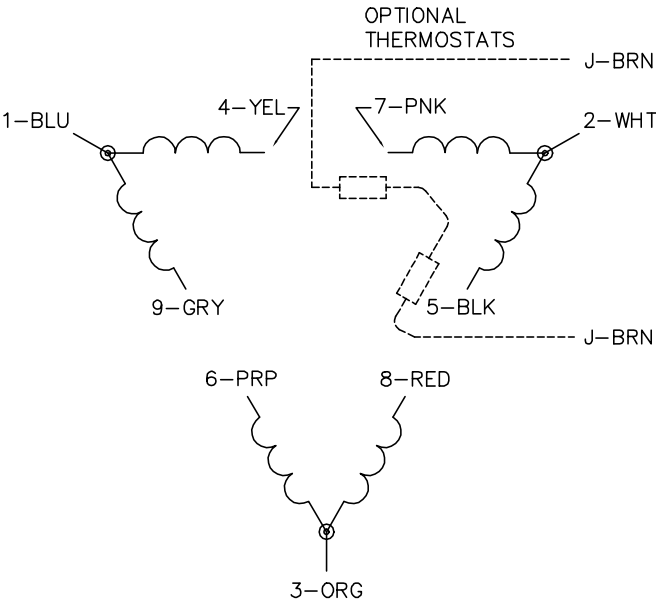
Typical performance - not guaranteed values.

50 HP 3 PH 60 HZ 3550 RPM 460 V 4248M

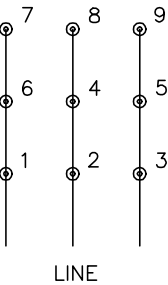
TORQUES (LB-FT): PO=191 PU=99 LR=111 LRA=414



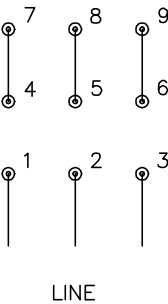
CD0180



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
SH 1 of 1