

ABB BALDOR RELIANCE III

Customer information packet

EM4109T

40HP, 3530RPM, 3PH, 60HZ, 324TS, 1058M, TEFC, F

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	324TS
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CURUSEEV NEMA PREMIUM NEMA PREMIUM (OLD LOGO)
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	45.000 A @ 460.0 V 90.000 A @ 230.0 V 100.000 A @ 208.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	H
Type	AC
Mech. spec.	10F371
Base	
Status	PRD/A
Elec. spec.	10WGY652
Layout	10LYF371
Eff. date	06-27-2024
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	05-31-2018

High Voltage Full Load Amps	45.0 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	NONE
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1058M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	28.94 IN
Power Factor	90
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	1.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3530 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

NP3443LUA												
CAT.NO.	EM4109T			CUST. P/N				ENCL				TEFC
SPEC.	10F371Y652G1	CC	010A	FRAME	324TS	SER.NO.						
HP	40		CLASS	F	HZ	60						
R.P.M.	3530		PH.	3	DES.	A						
VOLTS	230/460		CODE		H	ODE BRG		6309	DE BRG	6312		
AMPS	90/45											
RATING	40C AMB-CONT		NEMA NOM. EFF.			92.4	GREASE		POLYREX EM			
P.F.	90	SER.F.	1.15	CT6-60H(10:1)VT3-60H(20:1								
USABLE AT	50Hz 40HP 190/380V 110/55A			1.0SF								
VOLTS	AMPS	MAX. SPACE HEATER TEMP.										

Parts List

Part number	Description	Quantity
SA356555	SA 10F371Y652G1	1.000 ea
RA345507	RA 10F371Y652G1	1.000 ea
37FN3002C03	EXFN, PLASTIC, 6.00 OD, 1.690 ID	1.000 ea
10CB3001	CONDUIT BOX CAST W/2.500 LEAD HOLE	1.000 ea
09GS1000	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 ea
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 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
10EP1106A73	FREP TEFC W/"O" DRAIN W/O RET RING HLS	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
10XN3816K32	BOLT, 3/8-16X2 HH YZ(5)	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
10EP1108A16	PULLEY ENDPLATE - 312 BRG.- ENCL.	1.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
10FH4000	310 FAN HOUSING STAMPED, PRIMED W/O P SU	1.000 ea
51XF2520A08	SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L	4.000 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
HW2501H18	KEY, 1/2 SQ X 2.000	1.000 ea
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 ea
HA4017A01	1/8 X 4 GREASE EXT (F/S)	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb

HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 ea
10GS1000	GASKET, CONDUIT BOX LID	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.125 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP3443LUA	SS SUPER-E,CURUS-EEV,NEMA PREM, CC	1.000 ea
12PA1000	PACKAGING GROUP PRINT PK1024A07	1.000 ea
FE-0000022	ZRTG FE ASSEMBLY	1.000 ea
PE-0000013	ZRTG PE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data

Record # 30898

Typical performance - not guaranteed values

Winding: 10WGY652-R001			Type: 1058M	Enclosure: TEFC			
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		40	Full Load Torque		59.5 LB-FT		
Volts		230/460	Start Configuration		direct on line		
Full Load Amps		90/45	Breakdown Torque		197 LB-FT		
R.P.M.		3525	Pull-up Torque		85.4 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		125 LB-FT	
NEMA Design Code		A	KVA Code	H	Starting Current		324 A
Service Factor (S.F.)		1.15		No-load Current		12 A	
NEMA Nom. Eff.		92.4	Power Factor	90	Line-line Res. @ 25°C		0.159 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		78°C	
S.F. Amps				Temp. Rise @ S.F. Load		96°C	
				Locked-rotor Power Factor		22.8	
				Rotor inertia		2.49 LB-FT2	

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	65	82	88	90	90	91	90
Efficiency	88.6	92	92.8	92.6	91.9	90.8	92.7
Speed	3583	3567	3550	3531	3511	3485	3519
Line amperes	16.3	24.7	34.3	45.1	56.3	70.6	51.8

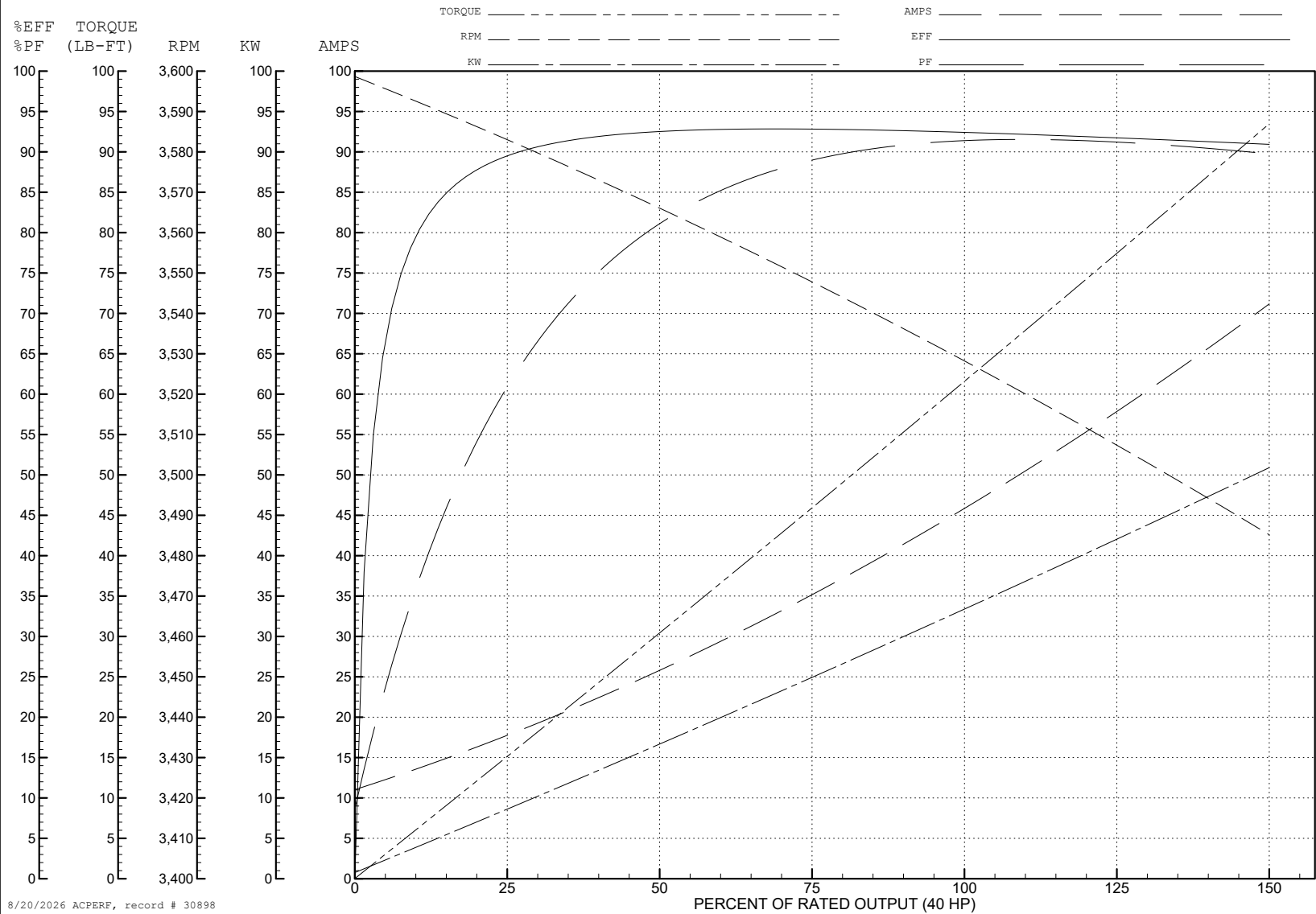
ABB Motors and Mechanical Inc.

WINDING # 10WGY652

Typical performance - not guaranteed values.

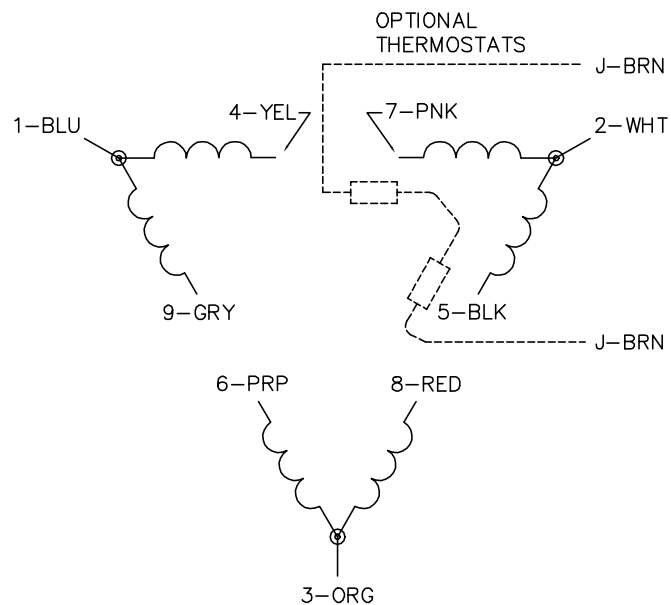
40 HP 3 PH 60 HZ 3525 RPM 460 V 1058M

TORQUES (LB-FT): PO=197 PU=85.4 LR=125 LRA=324

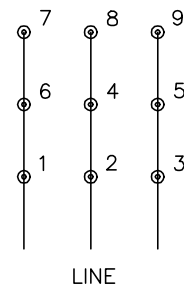




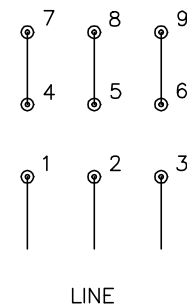
CD0180



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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