

ABB BALDOR RELIANCE III

Customer information packet

FDEM4109T

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	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	90.000 A @ 230.0 V 45.000 A @ 460.0 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	E
Type	AC
Mech. spec.	10L267
Base	
Status	PRD/A
Elec. spec.	10WGY652
Layout	10LYL267
Eff. date	11-27-2024
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	06-19-2018

High Voltage Full Load Amps	45.0 a
Insulation Class	F
Inverter Code	Inverter Ready
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	28.89 IN
Power Factor	90
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	3530 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor

Nameplate

NP3126L											
CAT.NO.	FDEM4109T										
SPEC.	10L267Y652G1										
HP	40										
VOLTS	230/460										
AMP	90/45										
RPM	3530										
FRAME	324TS		HZ	60				PH	3		
SER.F.	1.15	CODE	H	DES	A	CL	F				
NEMA-NOM-EFF	92.4	PF	90								
RATING	40C AMB-CONT										
CC	010A										
DE	6312		ODE	6309							
ENCL	TEFC	SN									

Parts List

Part number	Description	Quantity
SA357283	SA 10L267Y652G1	1.000 ea
RA346267	RA 10L267Y652G1	1.000 ea
37FN3002C03	EXFN, PLASTIC, 6.00 OD, 1.690 ID	1.000 ea
10CB3000A05	CONDUIT BOX MACH. W/ 2.00" NPT 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
10EP1106A79	FREP MACH W/O GREASERS, W/"O" DRAINS	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
HW4600B67	V-RING SLINGER 1.770 X 2.170 X .28 VITON	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
10EP1108A23	PUEP 312 BRG W/O GRSR, W/LIP & SLING."O"	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
HW4600B34	SINGLE LIP SEAL 2.250 X 2.997 X .438,DBL	1.000 ea
HW4600B41	V-RING SLINGER 2.125 X 2.880 X 0.280	1.000 ea
10XN3118K40	5/16-18 X 2.75" HEX HD, GRADE 5	4.000 ea
10FH4000	310 FAN HOUSING STAMPED, PRIMED W/O P SU	1.000 ea
10XN2520K08	1/4-20 X .50 GRADE #5, STL, ZINC PLATE	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
10CB3500SP	CONDUIT BOX LID, CAST	1.000 ea
10GS1000	GASKET, CONDUIT BOX LID	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW2501H18	KEY, 1/2 SQ X 2.000	1.000 ea
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.130 lb
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea

51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
MG1025C02	WILKOFAST SG, 787.105, TAN	0.125 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP3126L	ALUM FARM DUTY SUPER-E UL CSA-EEV PREM	1.000 ea
12PA1000	PACKAGING GROUP PRINT PK1024A07	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	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	Starting Current		324 A	
Service Factor (S.F.)		1.15		No-load Current		12 A	
NEMA Nom. Eff.		92.4	Power Factor	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

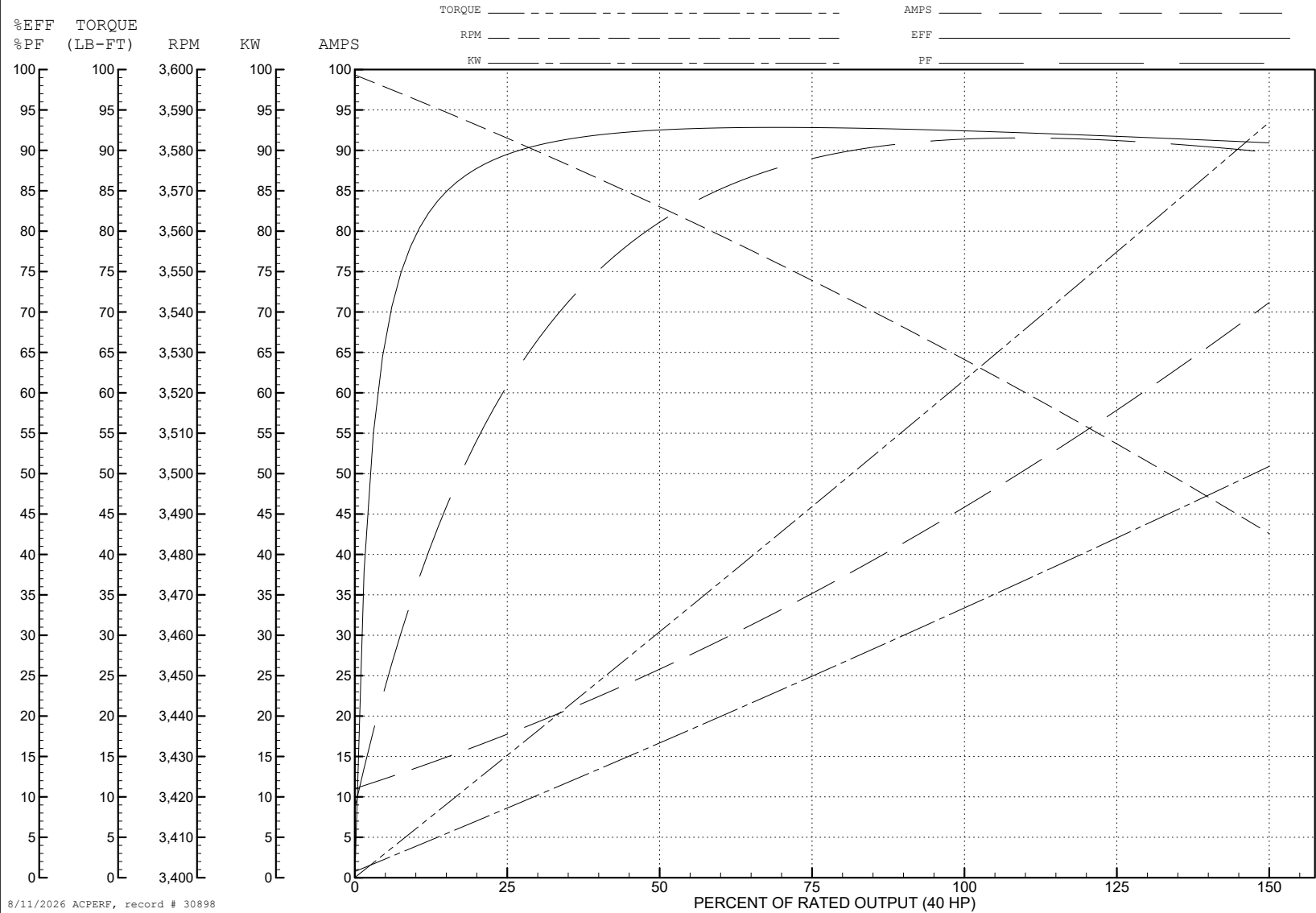
ABB Motors and Mechanical Inc.

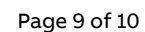
WINDING # 10WGY652

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.

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