

ABB BALDOR RELIANCE III

Customer information packet

EM4109T-G

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 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	100.000 A @ 208.0 V 45.000 A @ 460.0 V 90.000 A @ 230.0 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.	10L266
Base	
Status	PRD/A
Elec. spec.	10WGY652
Layout	10LYL266
Eff. date	11-19-2025
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	H
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	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3530 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3443LUA												
CAT.NO.	EM4109T-G			CUST. P/N				ENCL				TEFC
SPEC.	10L266Y652G1	CC	010A	FRAME	324TS	SER.NO.						
HP	40		CLASS	H	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			SF1.0								
VOLTS	AMPS	MAX. SPACE HEATER TEMP.										

AC Induction Motor Performance Data

Record # 70959

Typical performance - not guaranteed values

Winding: 10WGY652-R011			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.		3530		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		0.14992 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		78°C
S.F. Amps				Temp. Rise @ S.F. Load		97°C
				Locked-rotor Power Factor		22.8
				Rotor inertia		2.49 LB-FT ²

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	90.7	93.4	93.7	93.2	92.4	91.1	92.7
Speed	3583.2	3567.3	3549.7	3530.6	3511.2	3484.5	3519
Line amperes	16.3	24.7	34.3	45.1	56.3	70.6	51.8

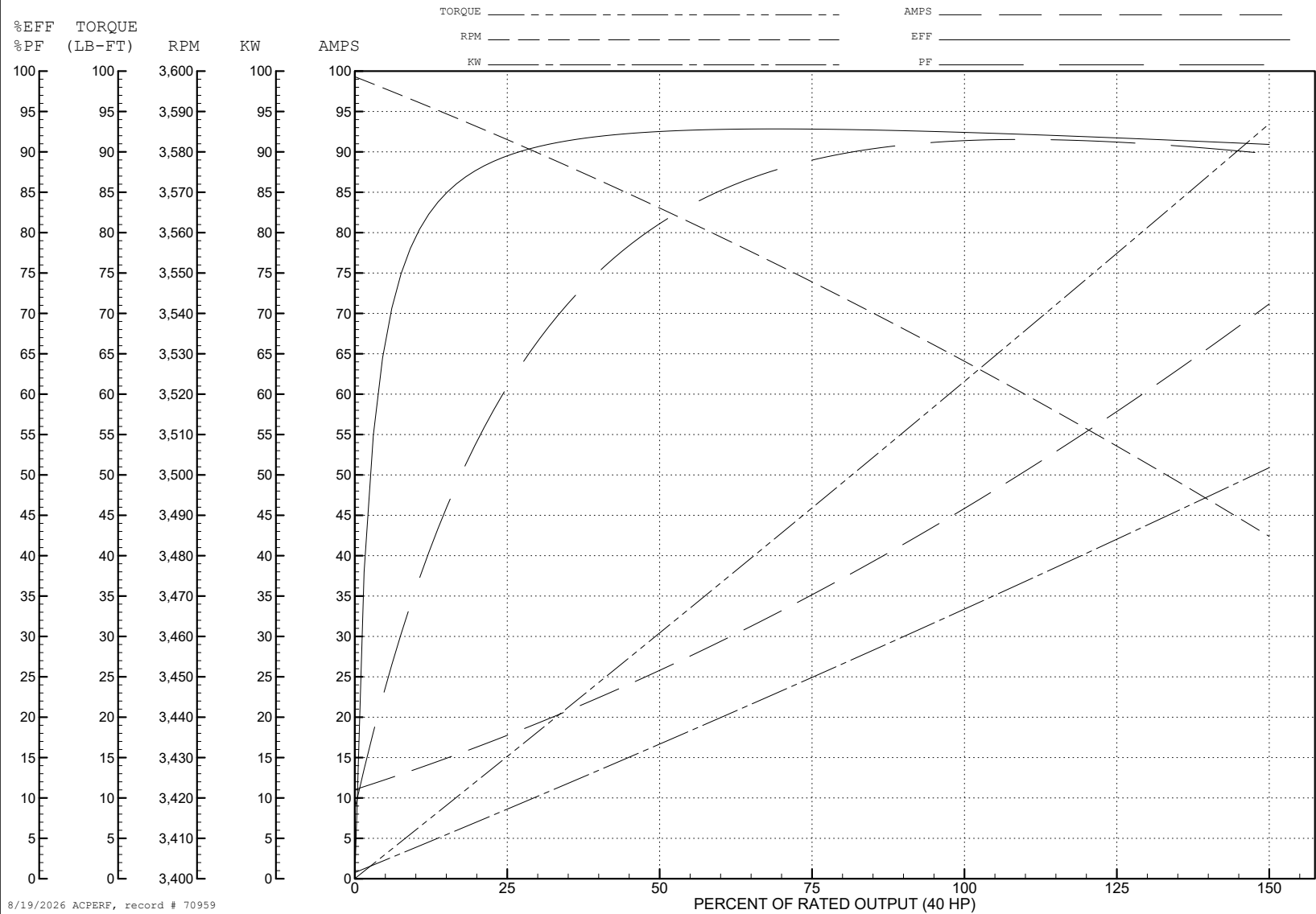
ABB Motors and Mechanical Inc.

WINDING # 10WGY652

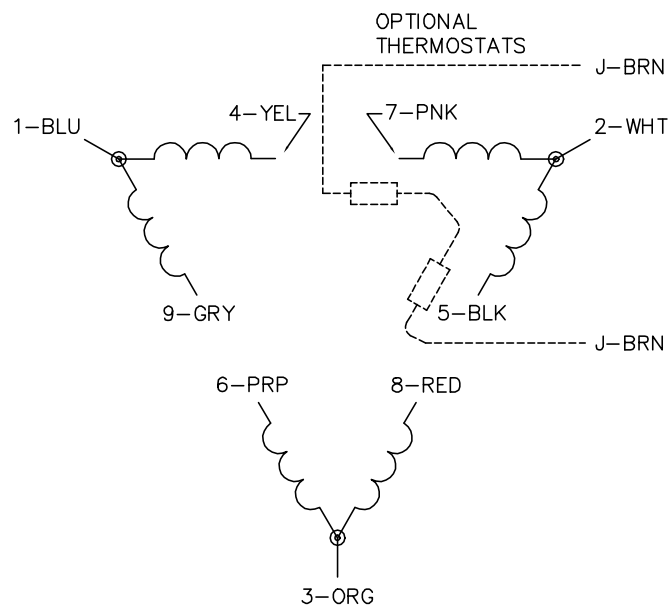
Typical performance - not guaranteed values.

40 HP 3 PH 60 HZ 3530 RPM 460 V 1058M

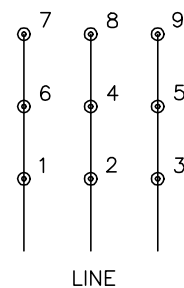
TORQUES (LB-FT): PO=197 PU=85.4 LR=125 LRA=324



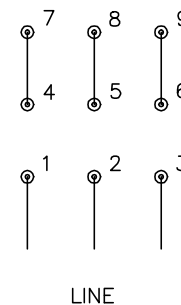
CD0180



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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