

ABB BALDOR RELIANCE III

Customer information packet

EBM2354TY

20HP, 1770RPM, 3PH, 60HZ, 256T, 0960M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	256T
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	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 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	48.000 A @ 230.0 V 52.000 A @ 208.0 V 24.000 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	Brake Mounting
Front Shaft Indicator	None

Part Detail

Revision	T
Type	AC
Mech. spec.	09E427
Base	
Status	PRD/A
Elec. spec.	09WGT459
Layout	09LYE427
Eff. date	08-05-2026
CD Diagram	CD0180
Poles	04
Leads	9#10
Proprietary	False
Created date	11-17-2017

Heater Indicator	No Heater
High Voltage Full Load Amps	24.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0960M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	32.71 IN
Power Factor	83
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	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1770 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

NP1259L											
CAT.NO.	EBM2354TY										
SPEC.	09E427T459G1										
HP	20										
VOLTS	230/460										
AMP	48/24										
RPM	1770										
FRAME	256T		HZ	60				PH	3		
SER.F.	1.15	CODE	J	DES	A	CL	F				
NEMA-NOM-EFF	93	PF	83								
RATING	40C AMB-CONT										
CC	010A										
DE	6309		ODE	6308							
ENCL	TEFC	SN									
	SFA 54.4/27.2										

AC Induction Motor Performance Data

Record # 67948

Typical performance - not guaranteed values

Winding: 09WGT459-R001			Type: 0960M		Enclosure: TEFC			
Nameplate Data			460 V, 60 Hz: High Voltage Connection					
Rated Output (HP)		20	Full Load Torque		59.27 LB-FT			
Volts		230/460	Start Configuration		direct on line			
Full Load Amps		48/24	Breakdown Torque		232 LB-FT			
R.P.M.		1770	Pull-up Torque		126 LB-FT			
Hz	60	Phase	3	Locked-rotor Torque		141 LB-FT		
NEMA Design Code		A	KVA Code	J	Starting Current		198 A	
Service Factor (S.F.)		1.15	No-load Current		10.4 A			
NEMA Nom. Eff.		93	Power Factor		83	Line-line Res. @ 25°C		0.33814 Ω
Rating - Duty		40C	AMB-CONT		Temp. Rise @ Rated Load		58°C	
S.F. Amps			Temp. Rise @ S.F. Load		70°C			
			Locked-rotor Power Factor		26.9			

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	45	67	78	83	86	87	85
Efficiency	89.2	93	93.7	93.6	93.1	92.4	93.3
Speed	1793.2	1786.4	1779.1	1771.9	1763.7	1755.3	1767
Line amperes	11.8	15	19.2	24	29.3	34.9	27.2

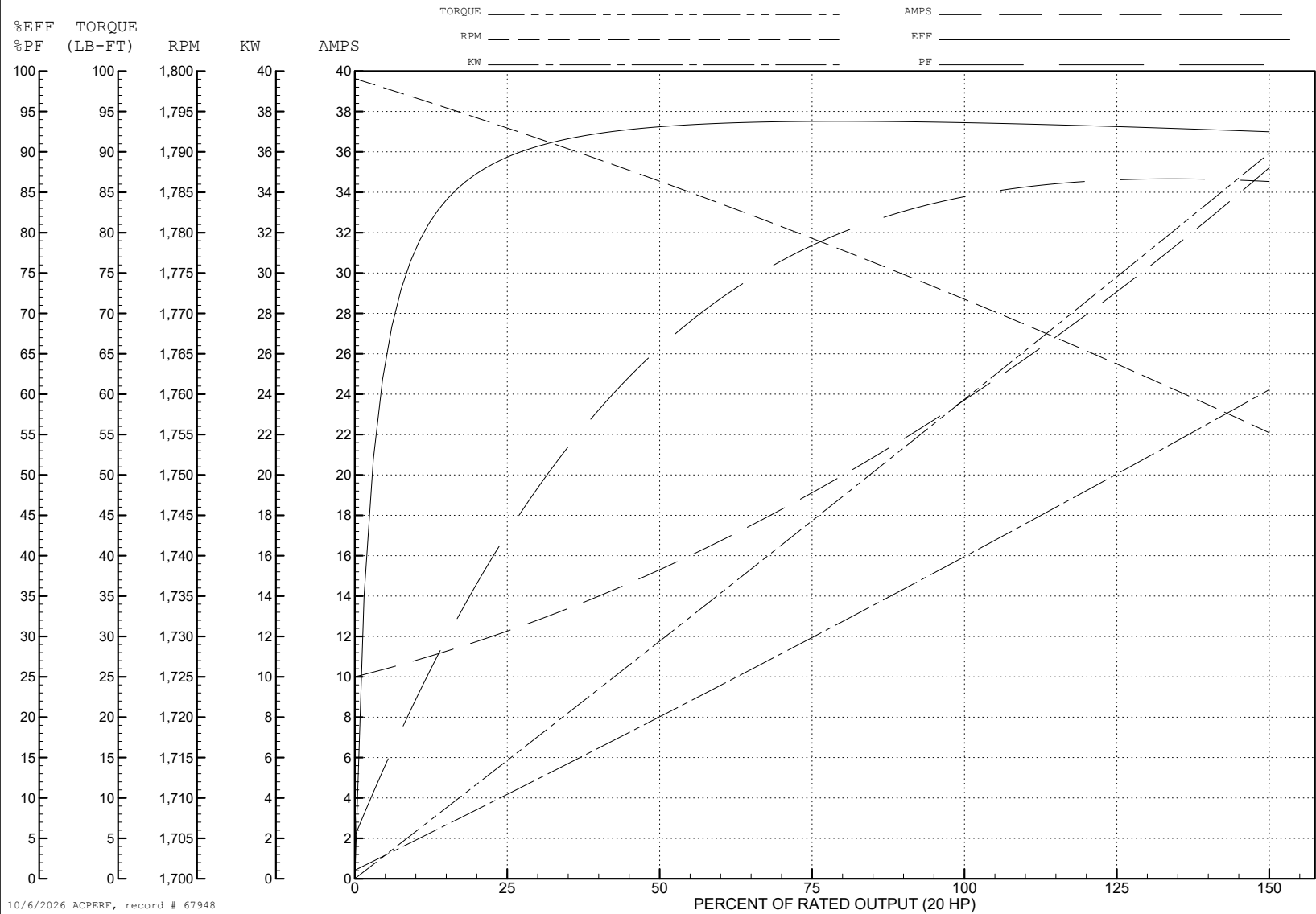
ABB Motors and Mechanical Inc.

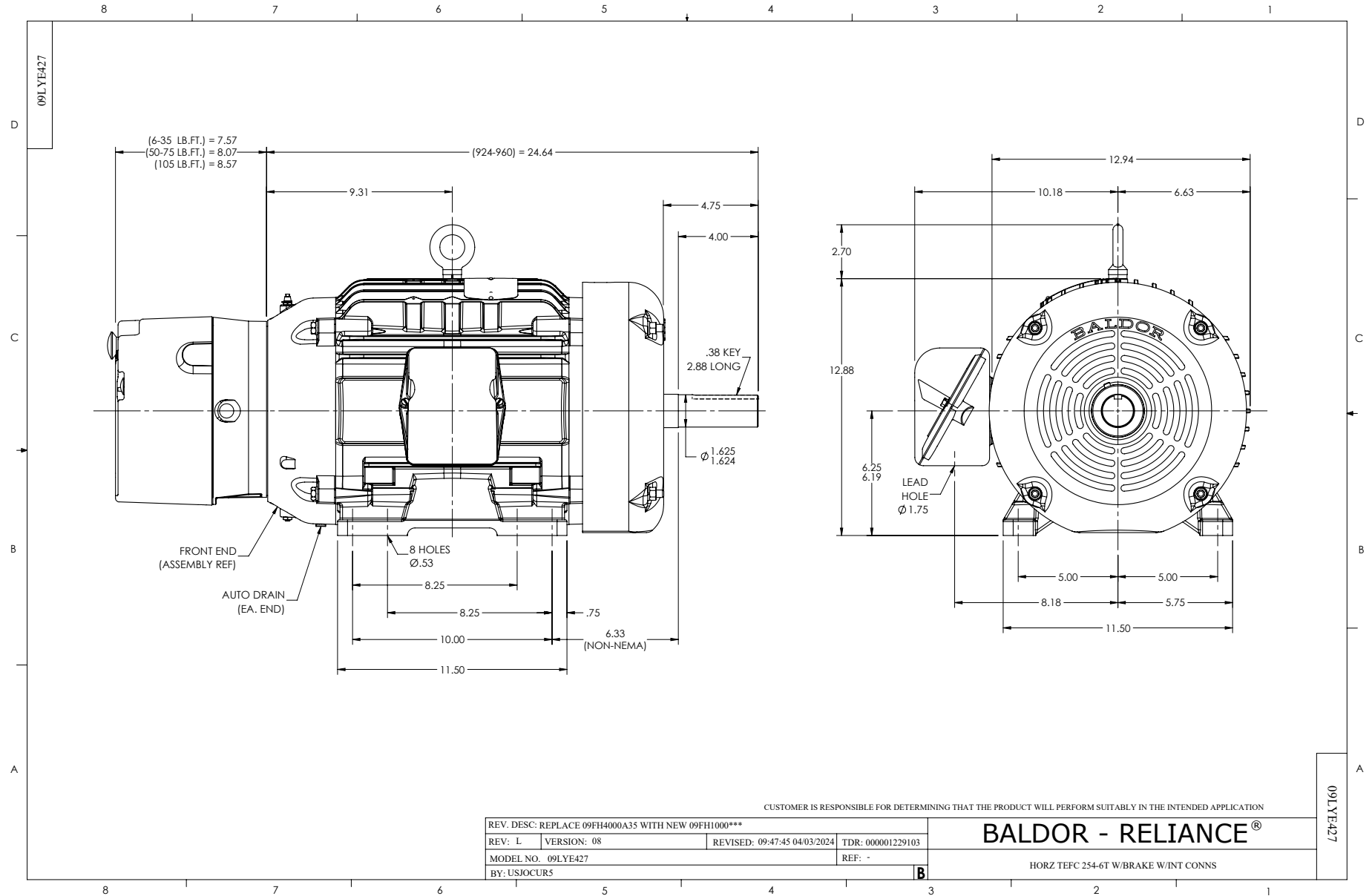
WINDING # 09WGT459

Typical performance - not guaranteed values.

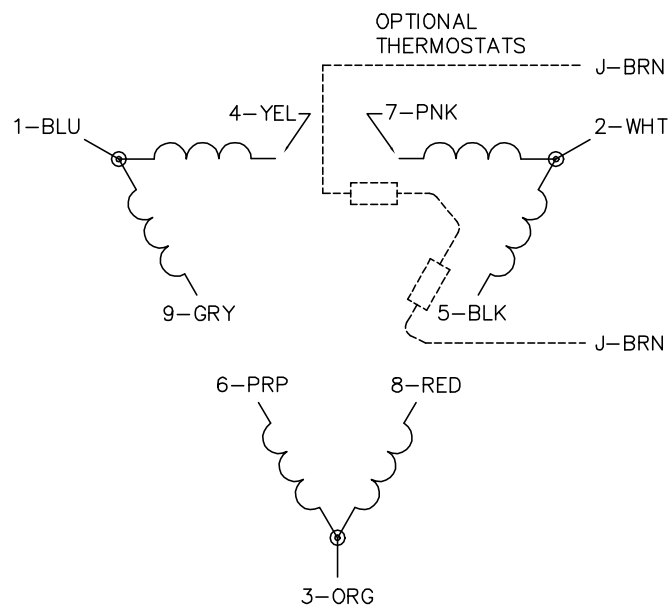
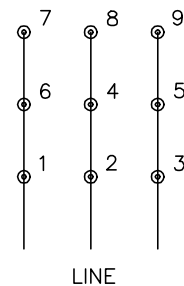
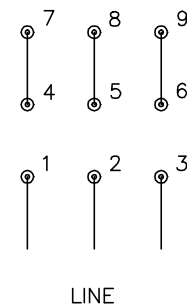
20 HP 3 PH 60 HZ 1770 RPM 460 V 0960M

TORQUES (LB-FT): PO=232 PU=126 LR=141 LRA=198





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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