

BALDOR® • RELIANCE 

Product Information Packet

EBM2354TY

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

Part Detail							
Revision:	D	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	09WGT459	CD Diagram:	CD0180	Mfg Plant:	
Mech. Spec:	09E427	Layout:	09LYE427	Poles:	04	Created Date:	11-17-2017
Base:	RG	Eff. Date:	02-27-2018	Leads:	9#10		

Specs			
Catalog Number:	EBM2354TY	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	256T	Inverter Code:	Inverter Ready
Frame Material:	Iron	KVA Code:	J
Output @ Frequency:	20.000 HP @ 60 HZ	Lifting Lugs:	Standard Lifting Lugs
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Locked Bearing Indicator:	No Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 10 AWG
	230.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
XP Class and Group:	None	Motor Lead Termination:	Flying Leads
XP Division:	Not Applicable	Motor Type:	0960M
Agency Approvals:	UR	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	83
	CSA	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	Standard
Base Indicator:	Rigid	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End

Current @ Voltage:	24.000 A @ 460.0 V	Shaft Ground Indicator:	No Shaft Grounding
	48.000 A @ 230.0 V	Shaft Rotation:	Reversible
	52.000 A @ 208.0 V	Shaft Slinger Indicator:	Shaft Slinger
Design Code:	A	Speed Code:	Single Speed
Drip Cover:	No Drip Cover	Motor Standards:	NEMA
Duty Rating:	CONT	Starting Method:	Direct on line
Electrically Isolated Bearing:	Not Electrically Isolated	Thermal Device - Bearing:	None
Feedback Device:	NO FEEDBACK	Thermal Device - Winding:	None
Front Face Code:	Brake Mounting	Vibration Sensor Indicator:	No Vibration Sensor
Front Shaft Indicator:	None	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								
SER.F.	1.15								
NEMA-NOM-EFF	93								
RATING	40C AMB-CONT								
CC	010A								
DE	6309								
ENCL	TEFC								

Parts List		
Part Number	Description	Quantity
SA347945	SA 09E427T459G1	1.000 EA
RA336504	RA 09E427T459G1	1.000 EA
HW1002A63	0ASHER, 5/8 HI-COLLAR SPRLCKWASHER	1.000 EA
09CB3002SP	CB W/1.38 LEAD HOLE FOR 37, 39, 307 & 30	1.000 EA
09GS1000SP	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 EA
10XN2520K12	1/4-20 X.75 GRD 5	2.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 EA
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 EA
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 EA
09EP1301A10	PU/FR ENDPLATE, MACH	1.000 EA
XY3816A12	3/8-16 FINISHED NUT	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
HW5100A10	W3519-038 WAVY WASHER, FOR 6308 BRG	1.000 EA
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	2.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 EA
09EP1101A11SP	PU ENDPLATE, MACH	1.000 EA
HW4600B44	V-RING SLINGER 1.500 X 1.810 X .28 VITON	1.000 EA
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
HA3113A05	THRUBOLT 3/8 - 16 X 17.250	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
84XN5013L16	1/2-13X1 NYLOK TYP HX SOCHD CAP SCREW TD	4.000 EA
HW2501F16	KEY, 5/16 SQ X 1.750	1.000 EA
09FH4000A35	FAN COVER, STAMPED	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
WD4100A02	DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL	1.000 EA
HA2081A02	TUBULAR SPACER, 309 HSG	4.000 EA
XY3816A12	3/8-16 FINISHED NUT	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
09CB3501SP	CONDUIT BOX LID FOR 09CB3001 & 09CB3002	1.000 EA
09GS1013SP	09 GS FOR 09CB3501 LID - LEXIDE	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 EA
HW2501G25	KEY, 3/8 SQ X 2.875	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
ML1400B14	14 AWG,BLANK,BLACK	36.000 IN
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
HA4001A01SP	DRAIN PLUG, PLASTIC (MICRO PLAS)	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.080 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
HA4001A01SP	DRAIN PLUG, PLASTIC (MICRO PLAS)	1.000 EA
09FN2003A09	EXTERNAL FAN, MACH	1.000 EA
80XN3118A10	5/16-18X5/8 HEX HEAD SET SCREW	2.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.050 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
87BK6100GQF	1-087-061-00-GQF BRAKE	1.000 EA

Product Information Packet: EBM2354TY - 20HP,1770RPM,3PH,60HZ,256T,0960M,TEFC,F1

LB1119N	WARNING LABEL	1.000 EA
LC0181	CONNECTION LABEL	1.000 EA
NP1259L	ALUM SUPER-E UL CSA-EEV CC NEMA PREMIUM	1.000 EA
42PA1010	PACKAGING GROUP, PRINT PK1151A06	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 EA
PE-0000003	ZRTG PE ASSEMBLY	1.000 EA

AC Induction Motor Performance Data

Record # 67948 - Typical performance - not guaranteed values

Winding: 09WGT459-R001	Type: 0960M	Enclosure: TEFC
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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

Performance Graph at 460V, 60Hz, 20.0HP Typical performance - Not guaranteed values

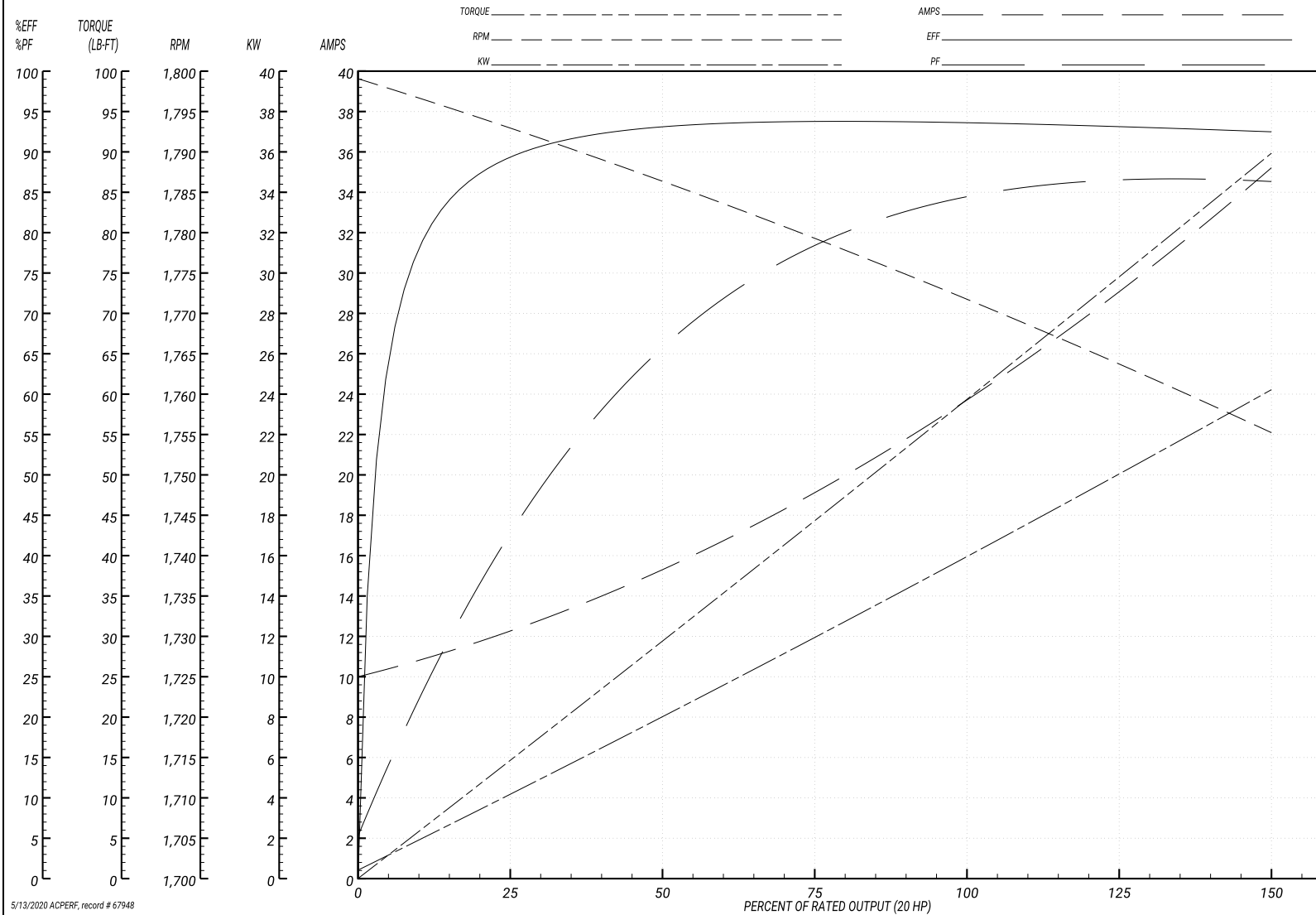
ABB Motors and Mechanical Inc.

WINDING # 09WGT459

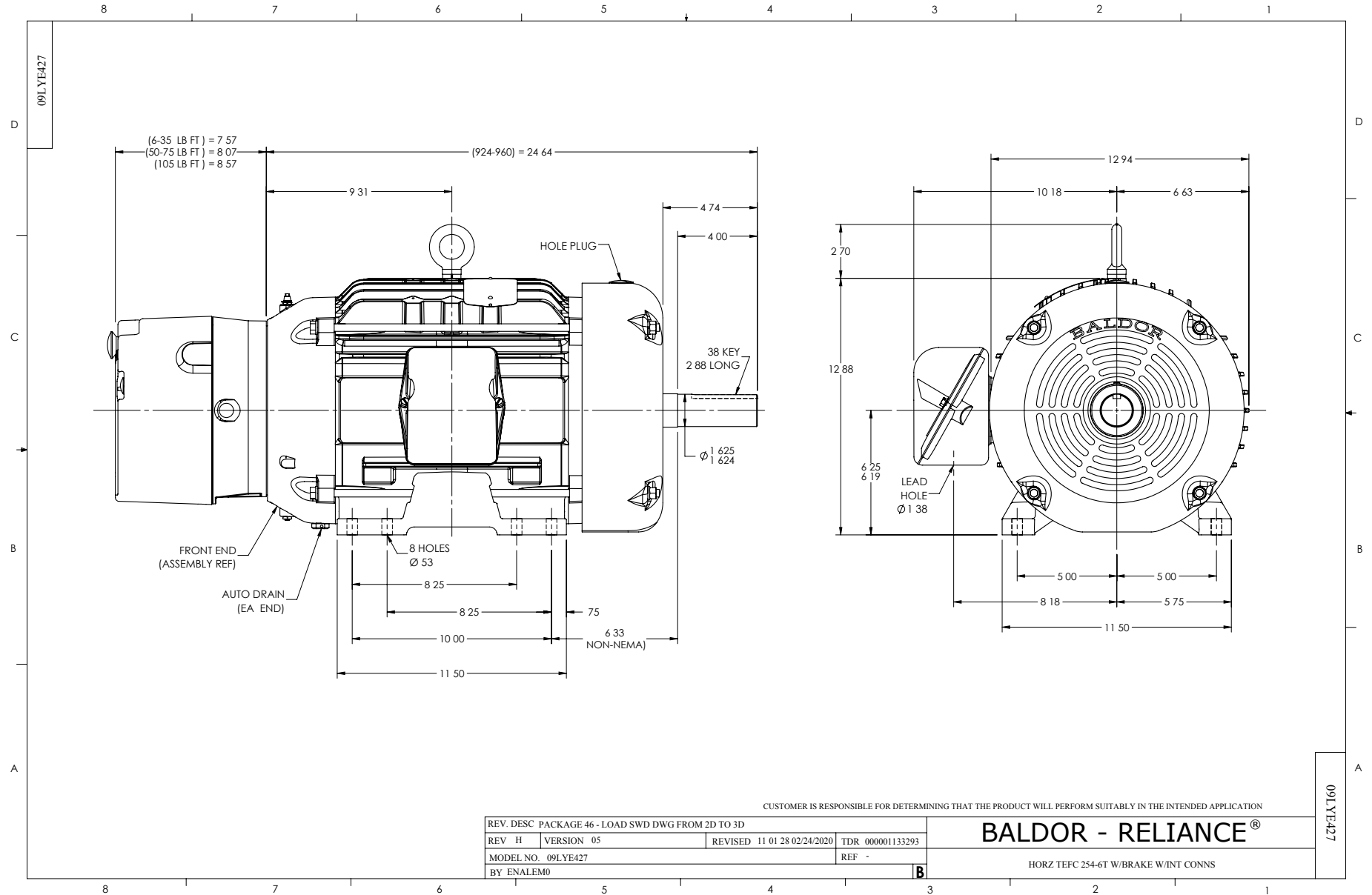
Typical performance - not guaranteed values.

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

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



5/13/2020 ACPERF, record # 67948



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

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BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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