

ABB BALDOR RELIANCE III

Customer information packet

VECP2334T

20HP, 1770RPM, 3PH, 60HZ, 256TC, 0960M, TEFC, F

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	256TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	CL I GP A,B,C,D
Haz Area Division	Division II
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	CCSA US CSA EEV NEMA PREMIUM NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Constant Torque Speed Range	1.0
Current @ Voltage	52.000 A @ 208.0 V 48.000 A @ 230.0 V 24.000 A @ 460.0 V
Design Code	A
Drip Cover	Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Electrically Isolated Bearing	Not Electrically Isolated

Part Detail

Revision	P
Type	AC
Mech. spec.	09H181
Base	
Status	PRD/A
Elec. spec.	09WGT459
Layout	09LYH181
Eff. date	09-16-2025
CD Diagram	CD0180
Poles	04
Leads	9#10
Proprietary	False
Created date	11-27-2017

Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	24.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
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	27.41 IN
Power Factor	83
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
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
NP3995ABEL

CAT #		VECP2334T					SER				CC		010A										
SPEC		09H181T459G1					RATING		40C AMB-CONT														
HZ		VOLTS			AMPS			RPM		HP		CODE		SF		DES		PF		NEMA NOM. EFF			
60		230/460			48/24			1770		20		J		1.15		A		83 %		93 %			
																		% %					
PH		3	CL	F	MAX RPM		2700		MAX CORR KVAR			5.35		USABLE AT 208V					N/A				
IP55				FR		256TC		ENCL		TEFC		DE BRG		6309		ODE BRG		6309					
GREASE		POLYREX EM												MTR WT		354		LBS					
USABLE AT		50HZ 15HP 190/380V 44/22A												SF1.0									
CL I DIV 2 GRPS A,B,C,D										CL I ZONE 2 GRPS					IIA,IIB,IIC			TEMP T		160	C		
1.0 SF ON PWM INVERTER					POWER			INV TEMP CL			180		C										
CHP		60-90		HZ		1.5:1		CT		1.0-60		HZ		60:1		VT		0-60		HZ		1000:1	
SPACE HEATER LEADS H1-H2:										TIE LIKE NUMBERS					TOGETHER								
V			A			W				MAX SPACE HEATER TEMP													

AC Induction Motor Performance Data

Record # 68075

Typical performance - not guaranteed values

Winding: 09WGT459-R011			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	
Service Factor (S.F.)		1.15	No-load Current		10.4 A	
NEMA Nom. Eff.		93	Power Factor		83	
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		26.5

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

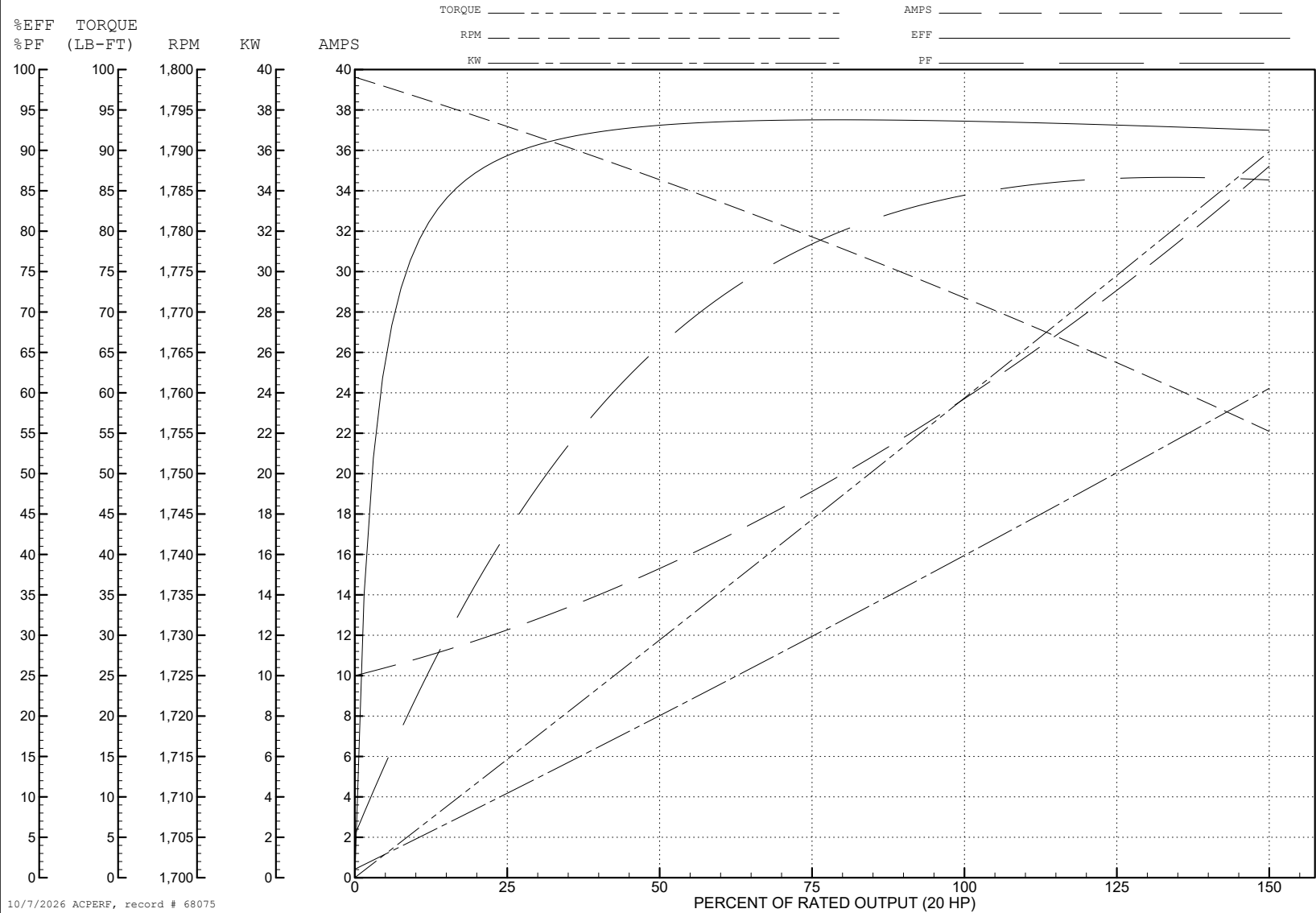
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WINDING # 09WGT459

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



AC Induction Motor Performance Data

Record # 114686

Typical performance - not guaranteed values

Winding: 09WGT459-RXXX			Type: 0960M		Enclosure: TEFC	
Nameplate Data				400 V, 60 Hz: High Voltage Connection		
Rated Output (HP)		15		Full Load Torque		44.44 LB-FT
Volts		200/400		Start Configuration		direct on line
Full Load Amps		40.6/20.3		Breakdown Torque		172 LB-FT
R.P.M.		1770		Pull-up Torque		91 LB-FT
Hz	60	Phase	3	Locked-rotor Torque		102 LB-FT
NEMA Design Code		A	KVA Code	Starting Current		168 A
Service Factor (S.F.)		1.15		No-load Current		7.96 A
NEMA Nom. Eff.		92.4	Power Factor	Line-line Res. @ 25°C		0.332 Ω
Rating - Duty		50C AMB-CONT		Temp. Rise @ Rated Load		43°C
S.F. Amps				Temp. Rise @ S.F. Load		51°C
				Locked-rotor Power Factor		27
				Rotor inertia		2.65 lb-ft²

Load Characteristics 400 V, 60 Hz, 15 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	49	70	80	85	87	88	86
Efficiency	88.6	92.6	93.5	93.5	93	92.4	93.2
Speed	1793	1787	1779	1772	1764	1756	1767
Line amperes	9.41	12.38	16.14	20.34	24.94	29.8	23.1

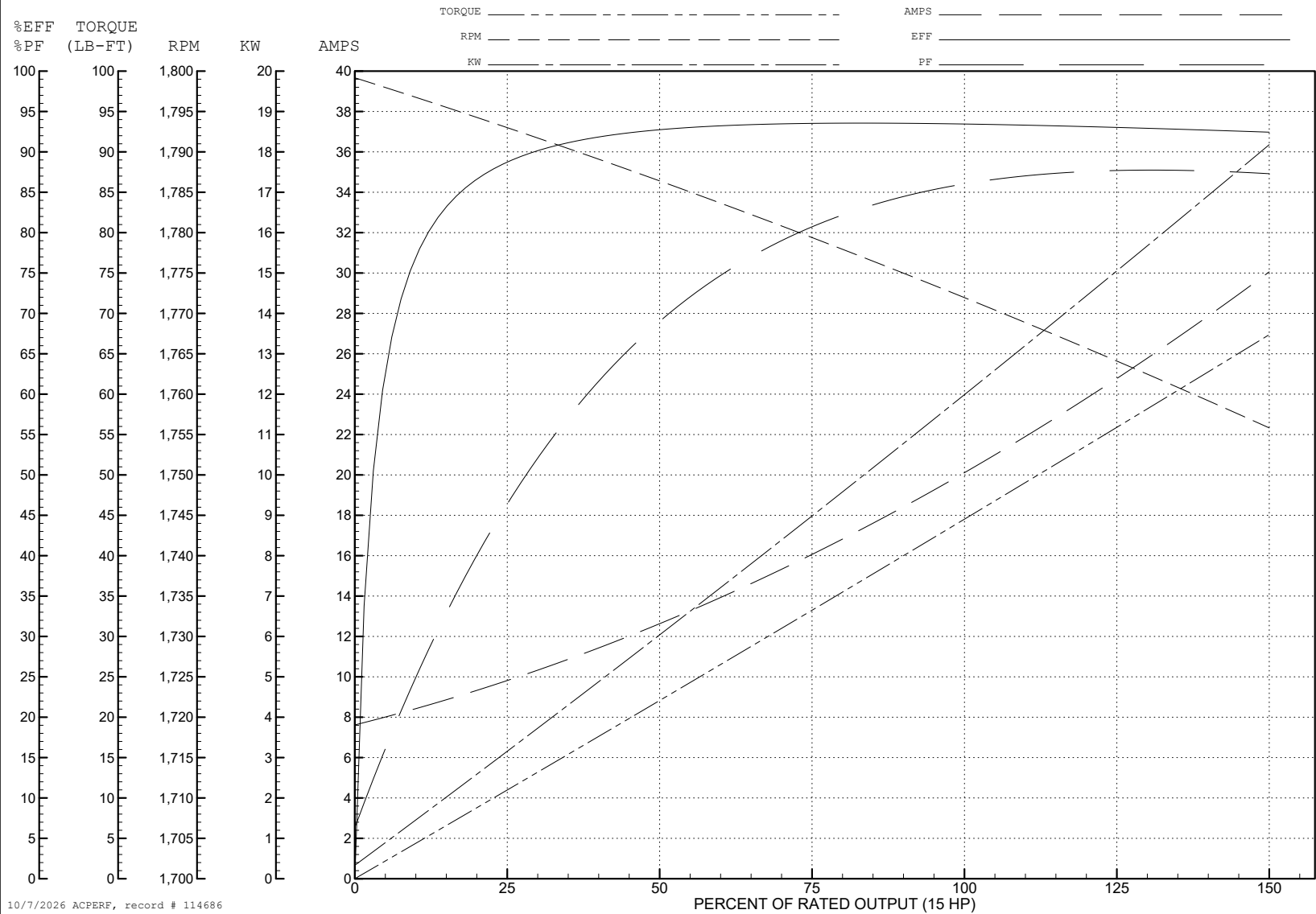
ABB Motors and Mechanical Inc.

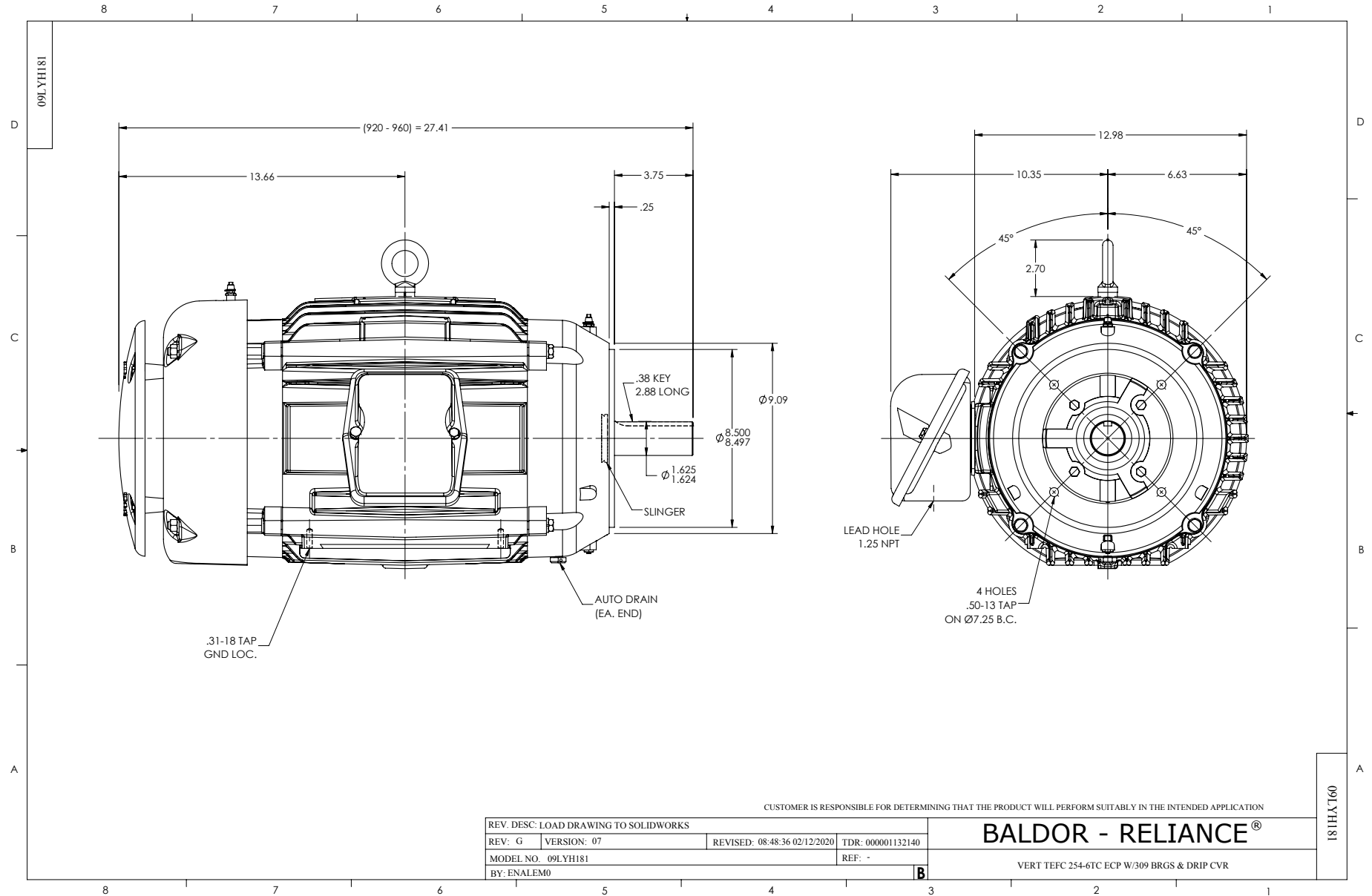
WINDING # 09WGT459

Typical performance - not guaranteed values.

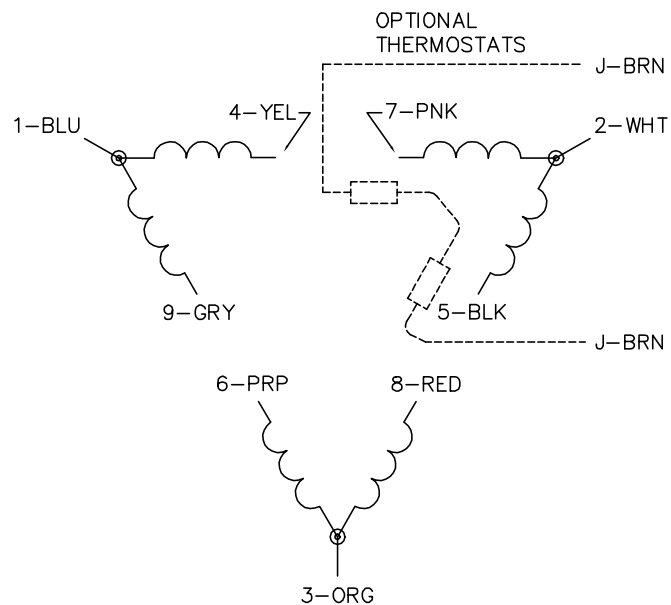
15 HP 3 PH 60 HZ 1770 RPM 400 V 0960M

TORQUES (LB-FT): PO=172 PU=91 LR=102 LRA=168

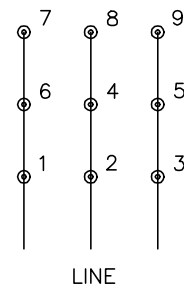




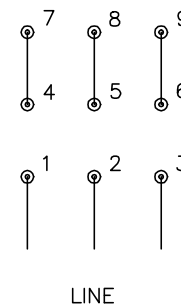
CD0180



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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