

ABB BALDOR RELIANCE III

Customer information packet

VLECP2334T

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

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	256LP
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	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	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
Feedback Device	NO FEEDBACK
Front Face Code	Standard

Part Detail

Revision	Q
Type	AC
Mech. spec.	09T01
Base	
Status	PRD/A
Elec. spec.	09WGT459
Layout	09LYT001
Eff. date	02-01-2024
CD Diagram	CD0180
Poles	04
Leads	9#10
Proprietary	False
Created date	11-29-2017

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	Vertical 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	25.73 IN
Power Factor	83
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Thrust
Pulley Face Code	P-Base
Pulley Shaft Indicator	P-Base Groove & Key
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
NP3241

CAT.NO.	VLECP2334T			P/N					ENCLOSURE	TEFC			
SPEC.	09T001T459G1		CC	010A	FRAME	256LP		S/N					
HP	20			CLASS	F	HZ	60	DES	A				
RPM	1770			RPM MAX	2700		PH	3	KVA-CODE	J			
VOLT	230/460			MOTOR WEIGHT			303						
AMP	48/24			SER.F.	1.15		PF	83	ODE BRG	6208	DE BRG	QJ213	
RATING	40C AMB-CONT			NEMA-NOM-EFF			93		GREASE	POLYREX EM			
							INV.TYPE		PWM				
TEMP CODE	T3C	INVERTER-TEMP-CODE			180								
TEMP =	160	C HP FR	60	C HP TO	90								
CT HZ FROM	1.0	CT HZ TO		60									
HTR-VOLTS		HTR-AMPS		HTR-WATTS		MAX. SPACE HEATER TEMP.				VT HZ FROM	O	VT HZ TO	60

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	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		26.5	

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

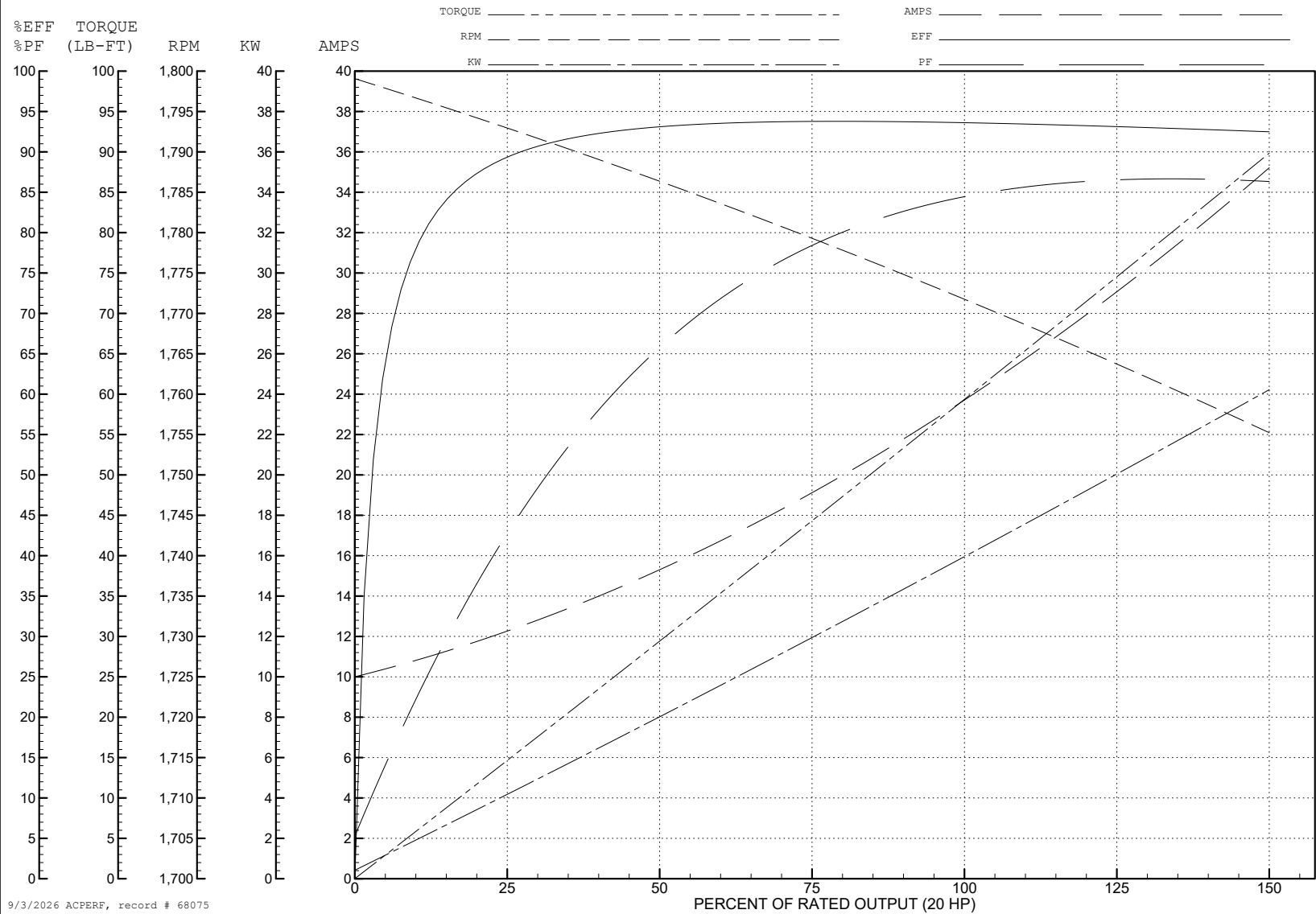
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WINDING # 09WGT459

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	J	Starting Current		168 A
Service Factor (S.F.)		1.15	No-load Current		7.96 A		
NEMA Nom. Eff.		92.4	Power Factor	83	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

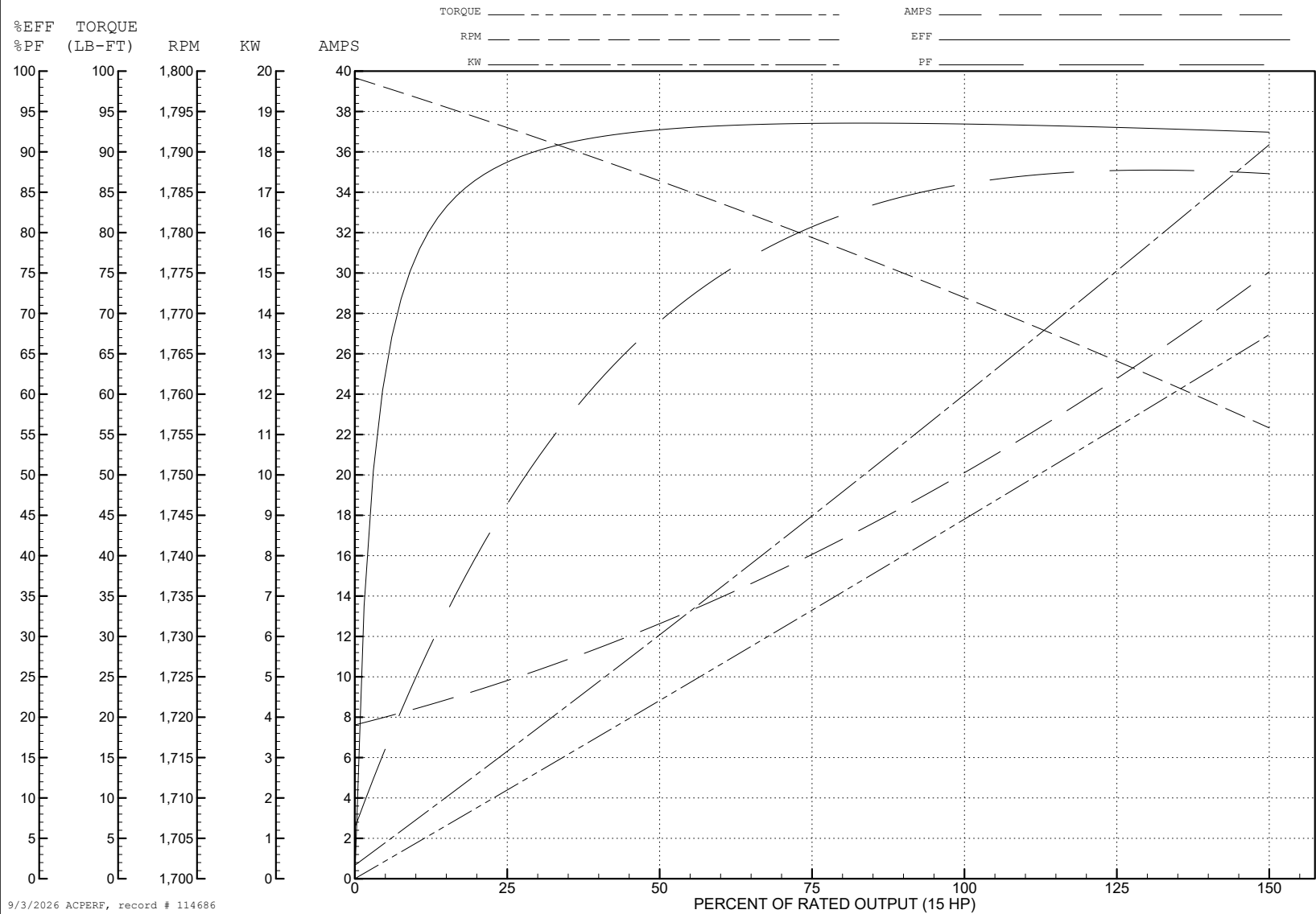
ABB Motors and Mechanical Inc.

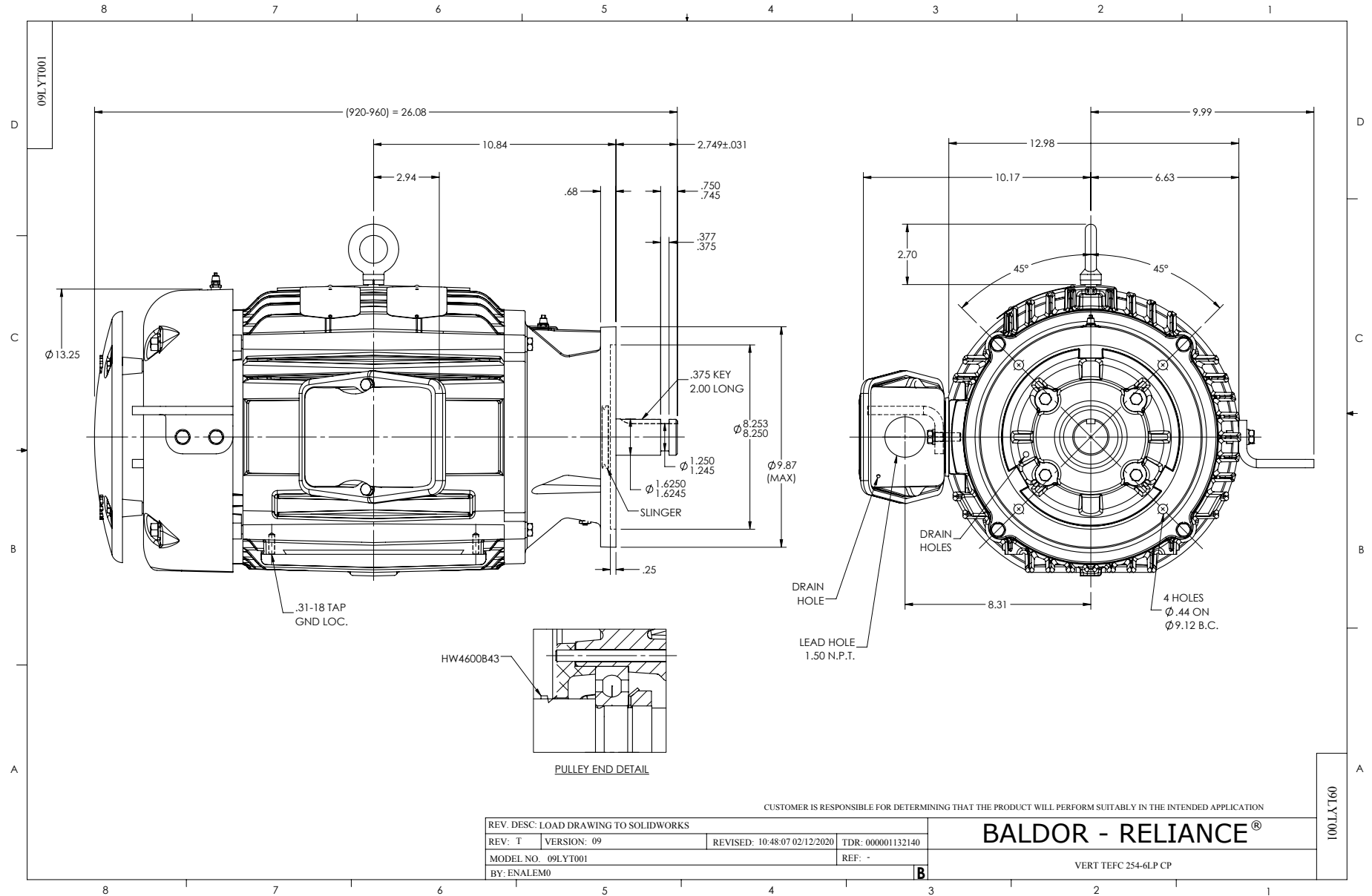
WINDING # 09WGT459

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





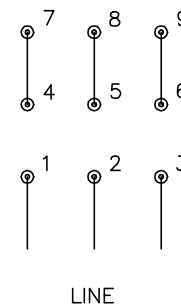
CD0180



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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