

ABB BALDOR RELIANCE III

Customer information packet

VDRX25244T

20HP, 1770//1470RPM, 3PH, 60/50HZ, 256TC, XPF

Class - CLI GP C,D

Division - Division I

Specifications

Enclosure	XPFC
Frame	256TC
Frame Material	Iron
Frequency	50.00 Hz 60.00 Hz
Haz Area Class and Group	CLI GP C,D
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	15.000 HP @ 50 HZ 20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	380.0 V @ 50 HZ 230.0 V @ 60 HZ 190.0 V @ 50 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV UL
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	6
Current @ Voltage	52.000 A @ 208.0 V 48.000 A @ 230.0 V 44.000 A @ 190.0 V 24.000 A @ 460.0 V 22.000 A @ 380.0 V
Design Code	A
Drip Cover	No Drip Cover

Part Detail

Revision	K
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	09WGT459
Layout	09LYF525
Eff. date	02-14-2024
CD Diagram	CD0180
Poles	04
Leads	9#10
Proprietary	False
Created date	06-06-2019

Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	22.0 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	NONE
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0960M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	26.00 IN
Power Factor	83
Product Family	Hazardous Location Motor
Pulley Face Code	C-Face
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	1.625 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP1401XPSLEV												
NO.							CC	010A				
S/N							TEMP CODE	T3C				
SPEC.	09-0000-1467						INV.TYPE	PWM				
CAT.NO.	VDRX25244T						C HP FR	60	C HP TO	90		
HP	20//15						CT HZ FROM	6	CT HZ TO	60		
VOLTS	230/460//190/380						VT HZ FROM	6	VT HZ TO	60		
AMPS	48/24//44/22						MAG CUR	20.8/10.4				
RPM	1770//1470						MX RPM	2700				
HZ	60//50	PH	3	CL	F	NOM.EFF.	93					
SER.F.	1.00	DES	A	SL HZ	1	WK2	2.62					
FRAME	256TC	RATING		40C AMB-CONT								
	55C AMB @ 1.0 SF, 60C RISE											
	1.15SF ON SINEWAVE						NEMA MG-1 PT.5,IP55					

AC Induction Motor Performance Data

Record # 68068

Typical performance - not guaranteed values

Winding: 09WGT459-R009			Type: 0960M		Enclosure: XPFC		
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		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	
				Locked-rotor Power Factor		26.5	

Load Characteristics 460 V, 60 Hz, 20 HP

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

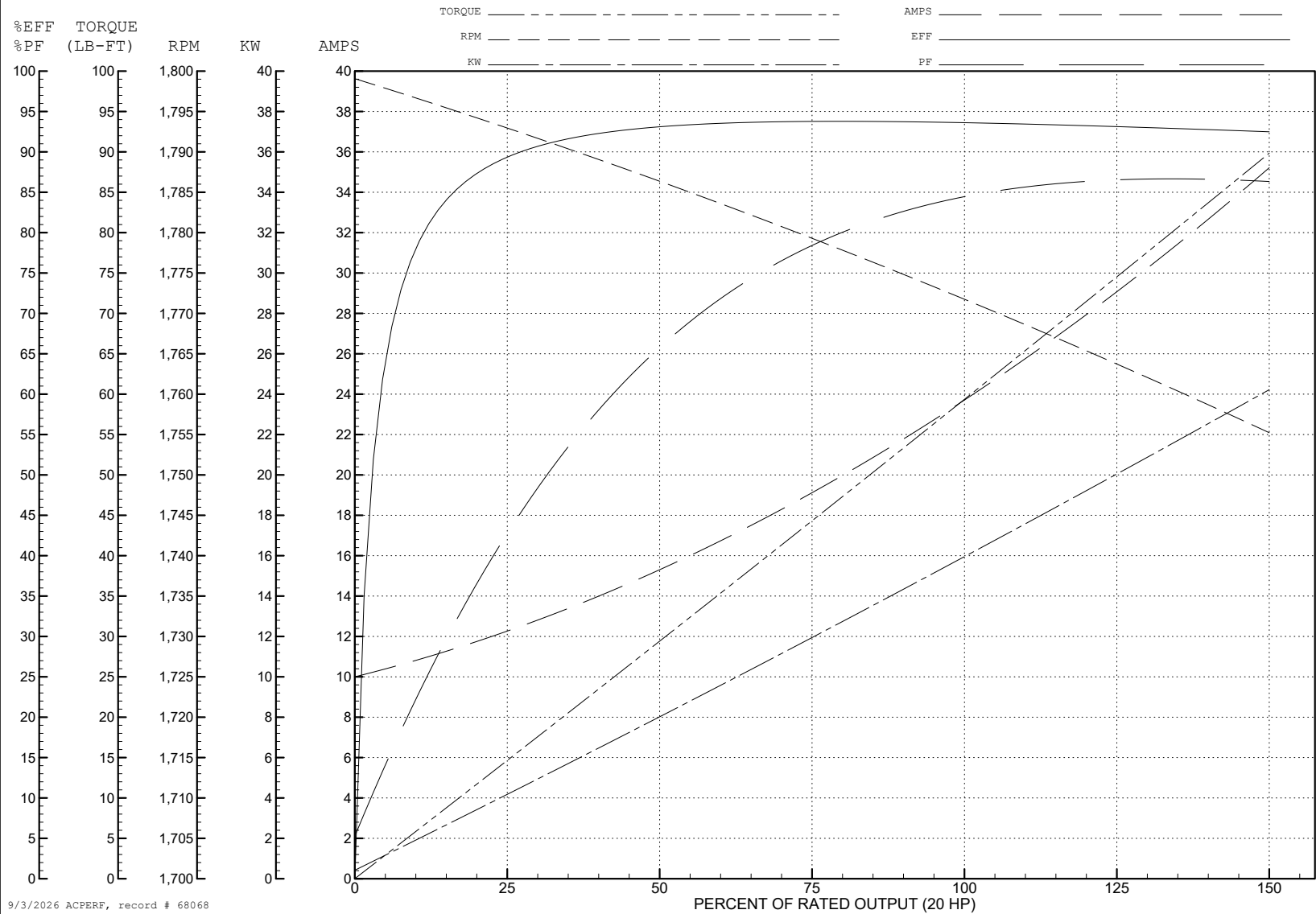
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WINDING # 09WGT459

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 # 75710

Typical performance - not guaranteed values

Winding: 09WGT459-R033				Type: 0960M		Enclosure: XPFC	
Nameplate Data				380 V, 50 Hz: High Voltage Connection			
Rated Output (HP)		20//15		Full Load Torque		53.39 LB-FT	
Volts		230/460//190/380		Start Configuration		direct on line	
Full Load Amps		48/24//44/22		Breakdown Torque		224 LB-FT	
R.P.M.		1770//1470		Pull-up Torque		130 LB-FT	
Hz		60//50		Phase		3	
NEMA Design Code		A		KVA Code		J	
Service Factor (S.F.)		1		No-load Current		10.15 A	
NEMA Nom. Eff.		93		Power Factor		83	
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		50°C	
				Locked-rotor Power Factor		29.8	
				Rotor inertia		2.65 lb-ft²	

Load Characteristics 380 V, 50 Hz, 15 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	43	65	77	83	85	87
Efficiency	89.1	92.8	93.5	93.4	92.8	92.1
Speed	1494	1488	1481	1475	1467	1460
Line amperes	11.28	14	17.72	21.99	26.74	31.76

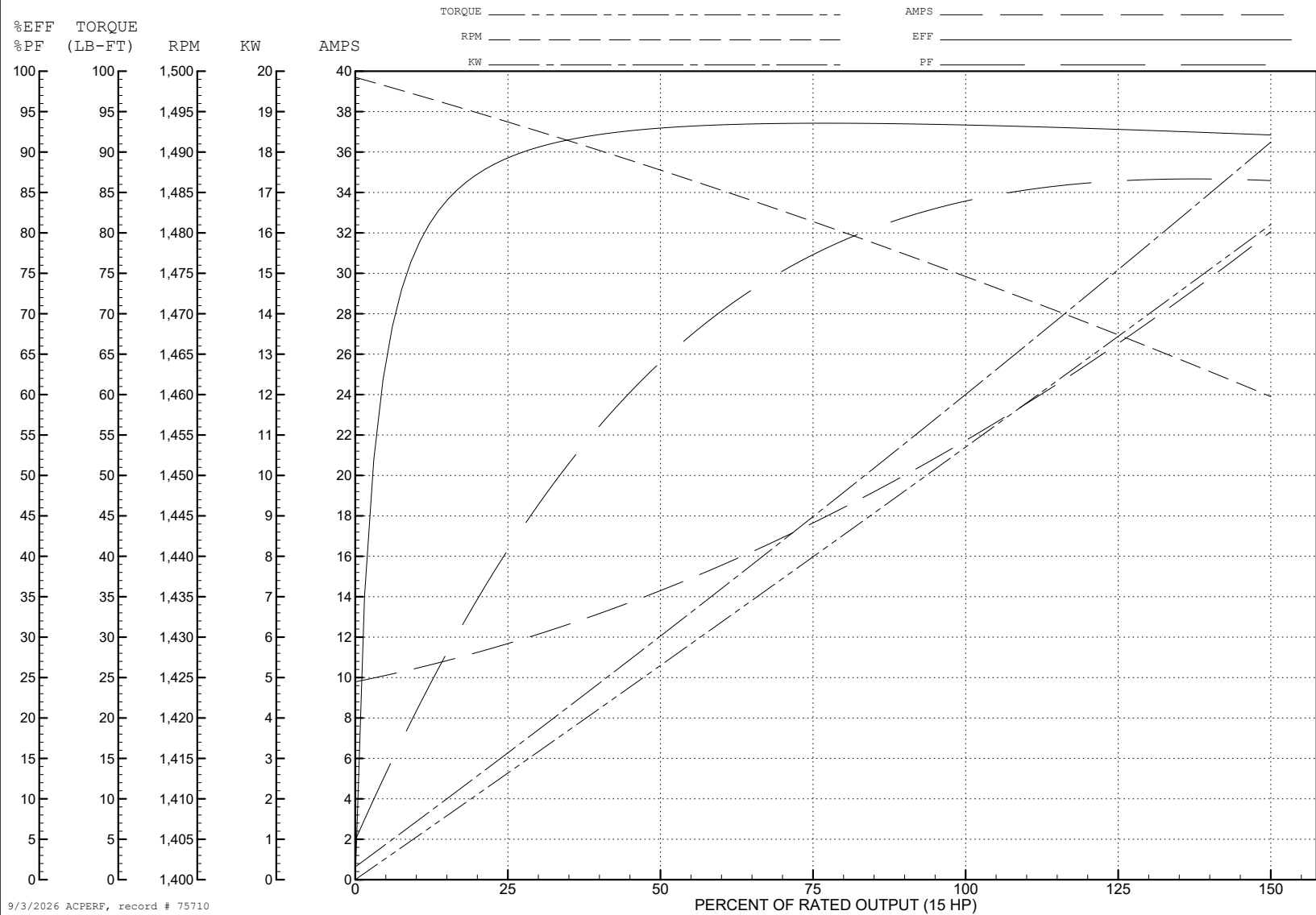
ABB Motors and Mechanical Inc.

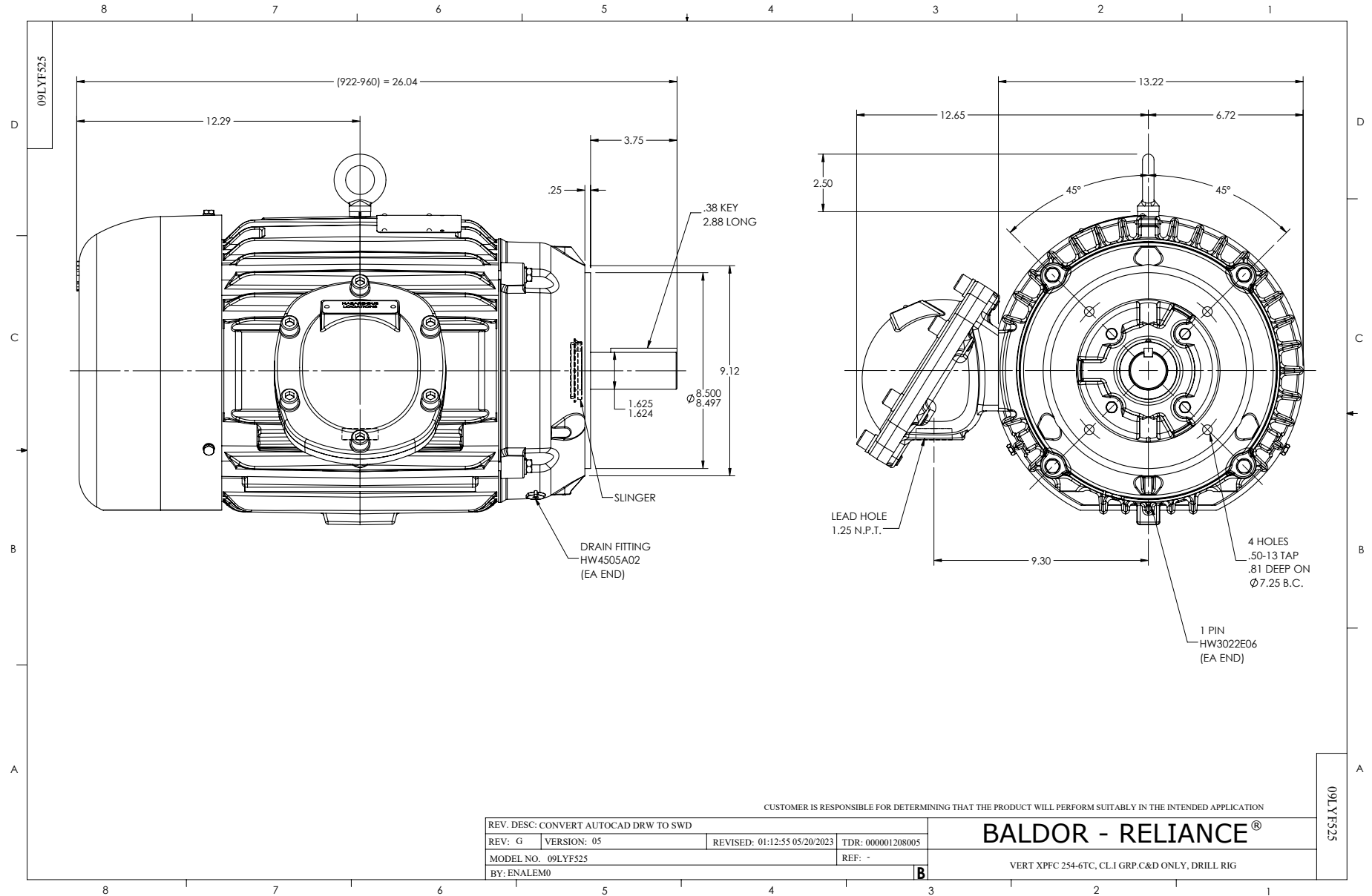
WINDING # 09WGT459

Typical performance - not guaranteed values.

15 HP 3 PH 50 HZ 1475 RPM 380 V 0960M

TORQUES (LB-FT): PO=224 PU=130 LR=146 LRA=193

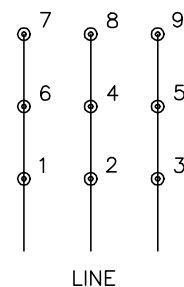




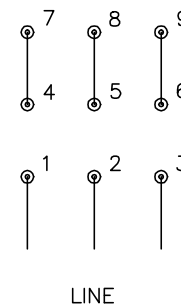
CD0180



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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