

**BALDOR • RELIANCE**

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# Customer information packet

## 610490001BW

32M 2P TEFC VER 145TCZ S/P32-6 SUPER E

Class - None

Division - Not Applicable

## Specifications

Enclosure	TEFC
Frame	143TCZ
Frame Material	Steel
Frequency	50.00 Hz 60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	2.500 HP @ 50 HZ 3.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3000 RPM @ 50 HZ
Voltage @ Frequency	380.0 V @ 50 HZ 240.0 V @ 60 HZ 190.0 V @ 50 HZ 480.0 V @ 60 HZ
Agency Approvals	CSA UR WEEE CE
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	7.900 A @ 208.0 V 7.400 A @ 190.0 V 7.200 A @ 240.0 V 3.700 A @ 380.0 V 3.600 A @ 480.0 V
Design Code	B
Drip Cover	No Drip Cover

## Part detail

Revision	A
Type	AC
Mech. spec.	35W581
Base	
Status	PRD/A
Elec. spec.	35WGQ060
Layout	35LYW581
Eff. date	05-13-2024
CD Diagram	CD0005
Poles	02
Leads	9#18
Proprietary	False
Created date	08-31-2023

Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	3.6 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	L
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3532M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	14.16 IN
Power Factor	92
Product Family	Chemical Processing (Not DC)
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.750 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	2850 rpm 3450 rpm
Speed Code	Single Speed
Starting Method	Direct on line

<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	None
<b>Vibration Sensor Indicator</b>	No Vibration Sensor
<b>Winding Thermal 1</b>	None
<b>Winding Thermal 2</b>	None

**Nameplate**

<b>NP2923</b>									
<b>CAT NO</b>	610490001BW								
<b>SPEC.</b>	35W581Q060G2				<b>I.P.</b>	55			
<b>HP</b>	3//2.5		<b>WEIGHT</b>	85					
<b>VOLTS</b>	240/480//190/380								
<b>AMP</b>	7.2/3.6//7.4/3.7								
<b>RPM</b>	3450//2850 1/MIN								
<b>FRAME</b>	143TCZ	<b>HZ</b>	60//50		<b>PH</b>	3			
<b>SER.F.</b>	1.00	<b>CODE</b>	L	<b>DES</b>	B	<b>CL</b>	F		
<b>IEC EFF</b>	86.5	<b>% (100%)</b>			<b>PF</b>	92			
<b>RATING</b>	40C AMB-CONT		<b>MTG</b>	F1					
<b>CC</b>	010A								
<b>ENCL</b>	TEFC	<b>SN</b>							
<b>DE BRG</b>	6205	<b>ODE</b>	6203						
<b>BLANK</b>	2.2//1.9KW IC411								
	IE3-50HZ-86 100%								

**AC Induction Motor Performance Data**

Record # 96314

Typical performance - not guaranteed values

Winding: 35WGQ060-R004		Type: 3532M	Enclosure: TEFC			
<b>Nameplate Data</b>			<b>480 V, 60 Hz: High Voltage Connection</b>			
Rated Output (HP)	3//2.5		Full Load Torque	4.6 LB-FT		
Volts	240/480//190/380		Start Configuration	direct on line		
Full Load Amps	7.2/3.6//7.4/3.7		Breakdown Torque	21.9 LB-FT		
R.P.M.	3450//2850		Pull-up Torque	13.3 LB-FT		
Hz	60//50	Phase	3	Locked-rotor Torque	21 LB-FT	
NEMA Design Code	B		KVA Code	L	Starting Current	35 A
Service Factor (S.F.)	1		No-load Current	1.29 A		
NEMA Nom. Eff.	86.5	Power Factor	92		Line-line Res. @ 25°C	4.7 Ω
Rating - Duty	40C AMB-CONT		Temp. Rise @ Rated Load	57°C		
			Locked-rotor Power Factor	47.7		
			Rotor inertia	0.0885 lb-ft <sup>2</sup>		

**Load Characteristics 480 V, 60 Hz, 3 HP**

% of Rated Load	25	50	75	100	125	150
Power Factor	57	77	86	90	92	93
Efficiency	82	87	88	87	86	84
Speed	3564	3535	3505	3472	3434	3393
Line amperes	1.59	2.11	2.76	3.6	4.31	5.22

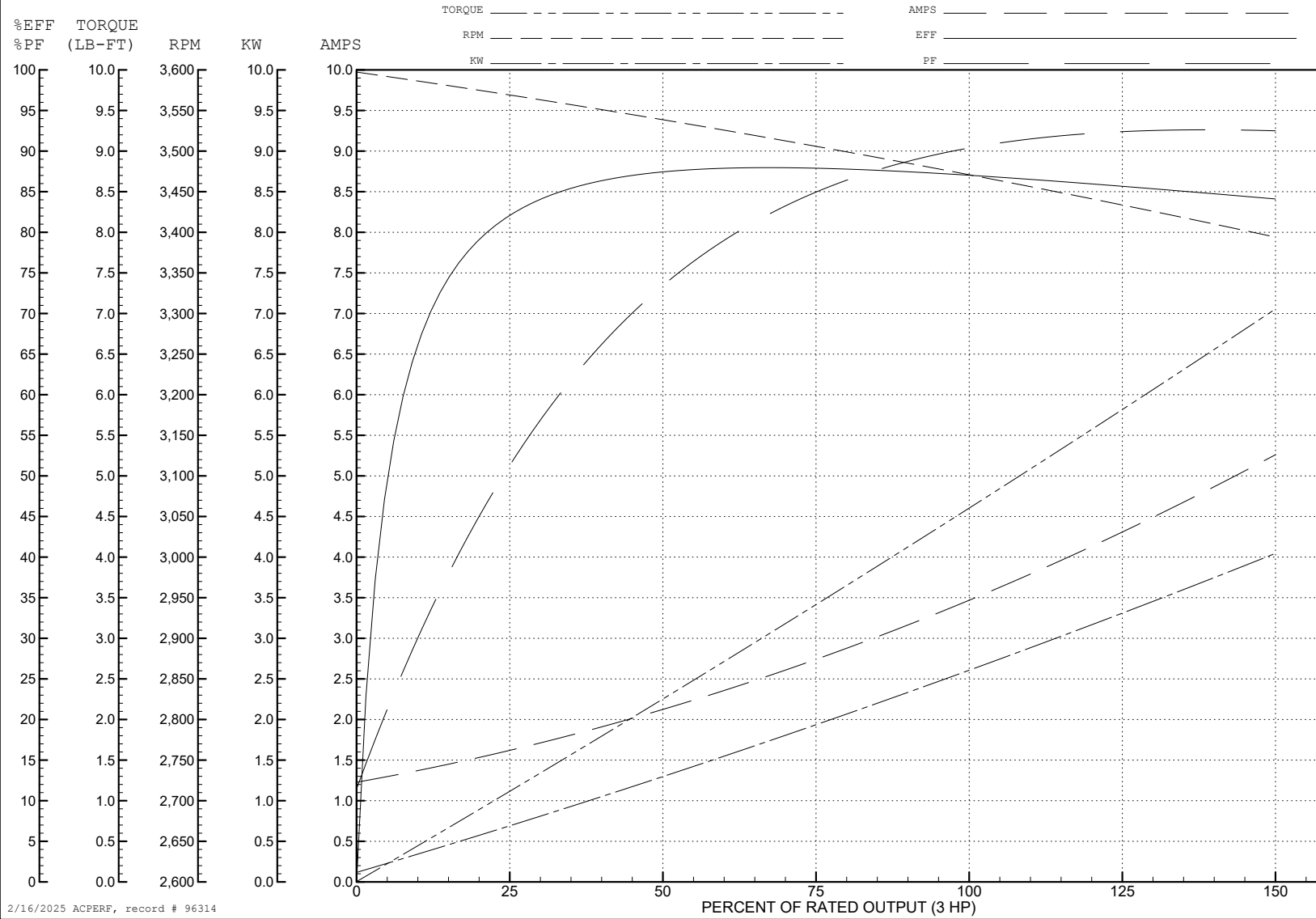
ABB Motors and Mechanical Inc.

WINDING # 35WGQ060

3 HP 3 PH 60 HZ 3472 RPM 480 V 3532M

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=21.9 PU=13.3 LR=21 LRA=35



2/16/2025 ACPERF, record # 96314

**AC Induction Motor Performance Data**

Record # 96315

Typical performance - not guaranteed values

<b>Winding:</b> 35WGQ060-R004		<b>Type:</b> 3532M		<b>Enclosure:</b> TEFC	
<b>Nameplate Data</b>			<b>380 V, 50 Hz: High Voltage Connection</b>		
<b>Rated Output (HP)</b>	3//2.5		<b>Full Load Torque</b>	4.65 LB-FT	
<b>Volts</b>	240/480//190/380		<b>Start Configuration</b>	direct on line	
<b>Full Load Amps</b>	7.2/3.6//7.4/3.7		<b>Breakdown Torque</b>	18.6 LB-FT	
<b>R.P.M.</b>	3450//2850		<b>Pull-up Torque</b>	12.6 LB-FT	
<b>Hz</b>	60//50	<b>Phase</b>	3	<b>Locked-rotor Torque</b>	19.8 LB-FT
<b>NEMA Design Code</b>	<b>B KVA Code</b>		L	<b>Starting Current</b>	31.3 A
<b>Service Factor (S.F.)</b>			1	<b>No-load Current</b>	1.15 A
<b>NEMA Nom. Eff.</b>	86.5	<b>Power Factor</b>	92	<b>Line-line Res. @ 25°C</b>	4.7 Ω
<b>Rating - Duty</b>	40C AMB-CONT			<b>Temp. Rise @ Rated Load</b>	58°C
				<b>Locked-rotor Power Factor</b>	53.4
				<b>Rotor inertia</b>	0.0885 lb-ft <sup>2</sup>

**Load Characteristics 380 V, 50 Hz, 2.5 HP**

<b>% of Rated Load</b>	<b>25</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	<b>150</b>
<b>Power Factor</b>	63	82	89	92	94	94
<b>Efficiency</b>	83	87	87	86	84	81
<b>Speed</b>	2962	2931	2897	2861	2818	2770
<b>Line amperes</b>	1.49	2.09	2.82	3.7	4.58	5.63

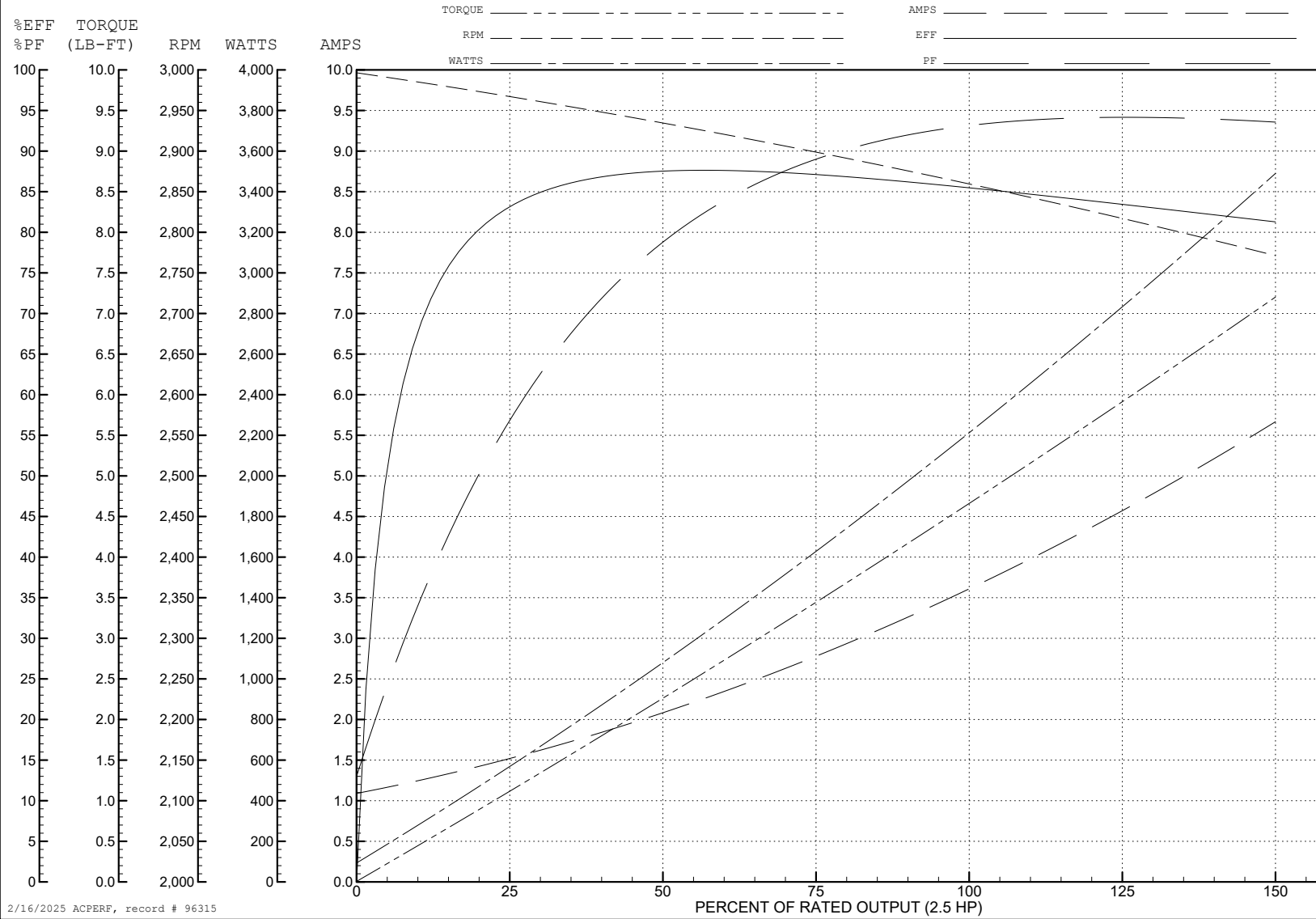
ABB Motors and Mechanical Inc.

WINDING # 35WGQ060

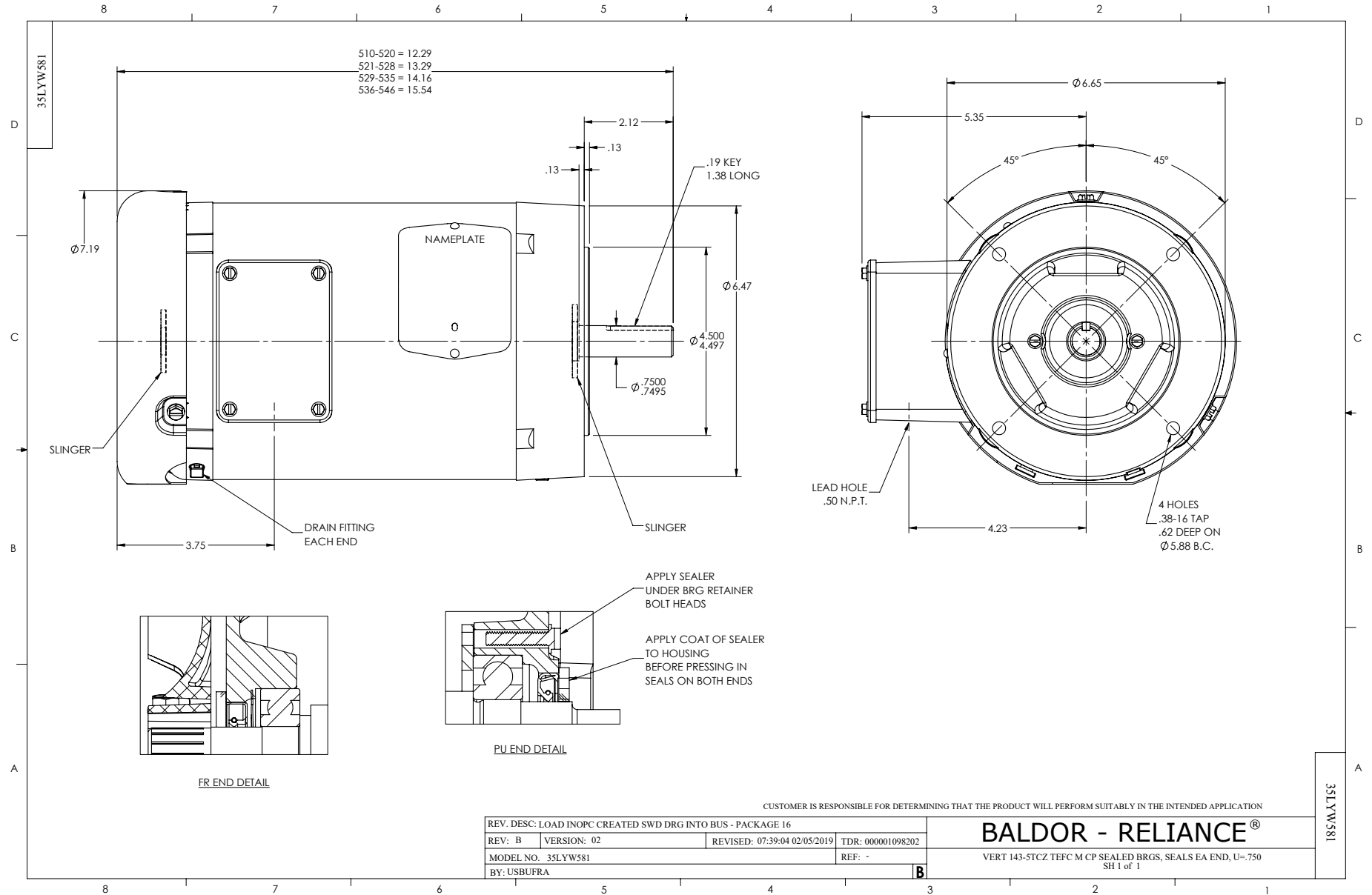
2.5 HP 3 PH 50 HZ 2861 RPM 380 V 3532M

Typical performance - not guaranteed values.

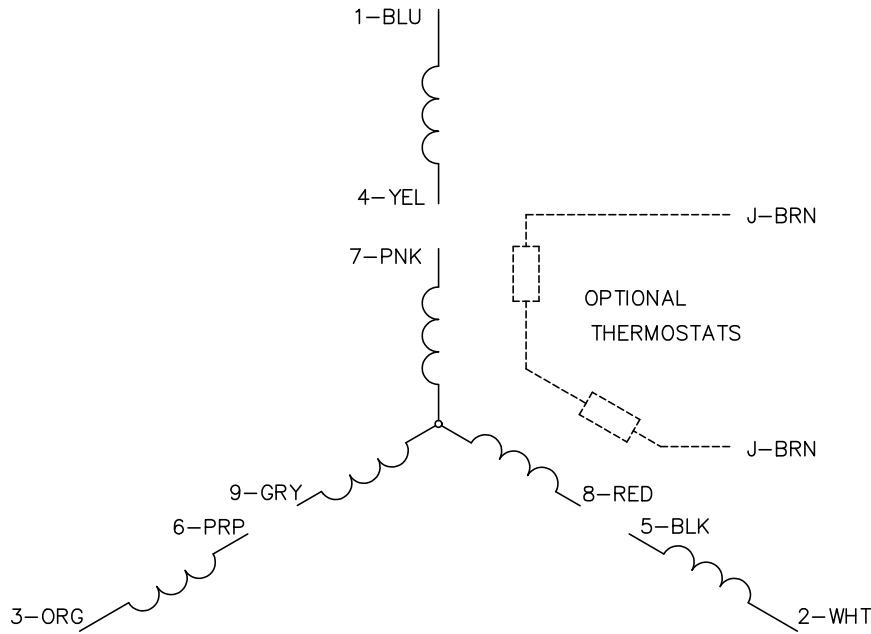
TORQUES (LB-FT): PO=18.6 PU=12.6 LR=19.8 LRA=31.3



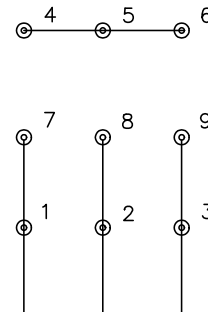
2/16/2025 ACPERF, record # 96315



CD0005

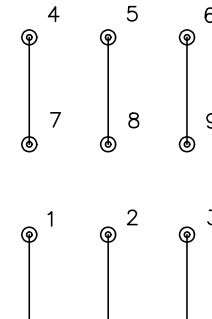


LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

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.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS