

ABB BALDOR RELIANCE III

Customer information packet

ZDM3770T

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 0738M, TEBC

Class - None

Division - Not Applicable

Specifications

Enclosure	TEBC
Frame	213TC
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	7.500 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 UR
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	BLOWER
Current @ Voltage	9.500 A @ 460.0 V 19.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	ENCODER
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	9.5 a
Insulation Class	H

Part Detail

Revision	B
Type	AC
Mech. spec.	07D515
Base	
Status	PRD/A
Elec. spec.	07WGT510
Layout	07LYD515
Eff. date	09-30-2025
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	01-28-2021

Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	4000 rpm
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0738M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	25.58 IN
Power Factor	81
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
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

NP4539L									
CAT.NO.	ZDM3770T								
SPEC.	07D515T510Z1								
FRAME	213TC			H.P.	7.5 TE				
VOLTS	230/460								
MAG. CUR.	8.6/4.3			F.L. AMPS				19/9.5	
R.P.M.	1770			R.P.M. MAX			4000		
HZ.	60		PH.	3	CLASS			H	
SER.F.	1.00		DES.	A	SL HZ			1	
NEMA NOM. EFF.	91.7		WK2	0.934					
BLWR V		PH		HZ		AMPS			
RATING	40C AMB-CONT								
DE	6307	ODE	6206						
CC	010A	SN							
	1000:1 CT/VT								

Parts List

Part number	Description	Quantity
SA390720	SA 07D515T510Z1	1.000 ea
RA381178	RA 07D515T510Z1	1.000 ea
HW3201A05	3/8-16 EYEBOLT	1.000 ea
09CB3002SP	CB W/1.38 LEAD HOLE FOR 37, 39, 307 & 30	1.000 ea
09GS1000	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 ea
37EP1100B61	FR TEBC 206 BRG W/ GRSR & THRU-SHAFT ENC	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 ea
37EP1300A01SP	FACE MT ENDPLATE-ENCL-307 BRG-213TC-215T	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
10XN2520A30	HEX HD CAP SCREW-STD THD-.25 X 20 THD PE	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 ea
10XN2520A08	1/4-20X1/2 HEX HEAD CAP	2.000 ea
09CB3501SP	CONDUIT BOX LID FOR 09CB3001 & 09CB3002	1.000 ea
09GS1013SP	GS FOR 09CB3501, 12CB1500 & 12CB1503 LID	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
HA1005A11	SLINGER, OD 2.00, ID 1.15,	1.000 ea
HW2501F21	KEY, 5/16 SQ X 2.375	1.000 ea
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
BLWM07-F	307 BLOWER ASSY. (07FH4015 & EF5100) F1,	1.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.036 ga
OE5011A04	HS25 ENCODER ASSY - TEBC	1.000 ea
HA3104A32	THRUBOLT- 5/16-18 X12.750	4.000 ea
LC0145B01	CONNECTION LABEL	1.000 ea
NP4539L	SS VEC UL EEV NEMA PREM CC	1.000 ea

07PA1011	PKG GRP, 07 CAST IRON PK1181	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
MJ5004A05	#242-21 LOCTITE GENERAL PURPOSE MED. STR	0.005 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

NP VOLTS	230/460					WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)
NP AMPS	19/9.5	Base Volt	460	R1	0.784	X1 2.650
HP	7.5	NL AMPS	4.07	R2	0.464	X2 2.040
BASE SPEED	1769	Slip (HZ)	1.03			XM 62.900
PHASE/HZ	3/60	WK ² (lb-ft ²)	0.934			

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1769	7.5	22.3	460	60	9.4
Max Speed	2653	7.5	14.9	460	90	8.9
CT Min Speed	1.769	0.008	22.3	0.46	0.06	9.4

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1799	0.0	0.0	460	60	4.1
1/4	1792	1.9	5.5	460	60	4.6
1/2	1785	3.7	11.0	460	60	5.8
3/4	1777	5.6	16.6	460	60	7.5
Full Load	1769	7.5	22.3	460	60	9.4
O/L	1734	15.0	45.4	460	60	18.7

Blower Data	Volts	Ph/Hz	FL Amps	LR Amps	Frame	CFM

Remarks: Calculated Data

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DR BY USBRRAN1
CK BY CD
APP BY USBRRAN1
DATE 3/21/2025
**A-C MOTOR
PERFORMANCE
CURVES**
07WGT510

Record: 86626

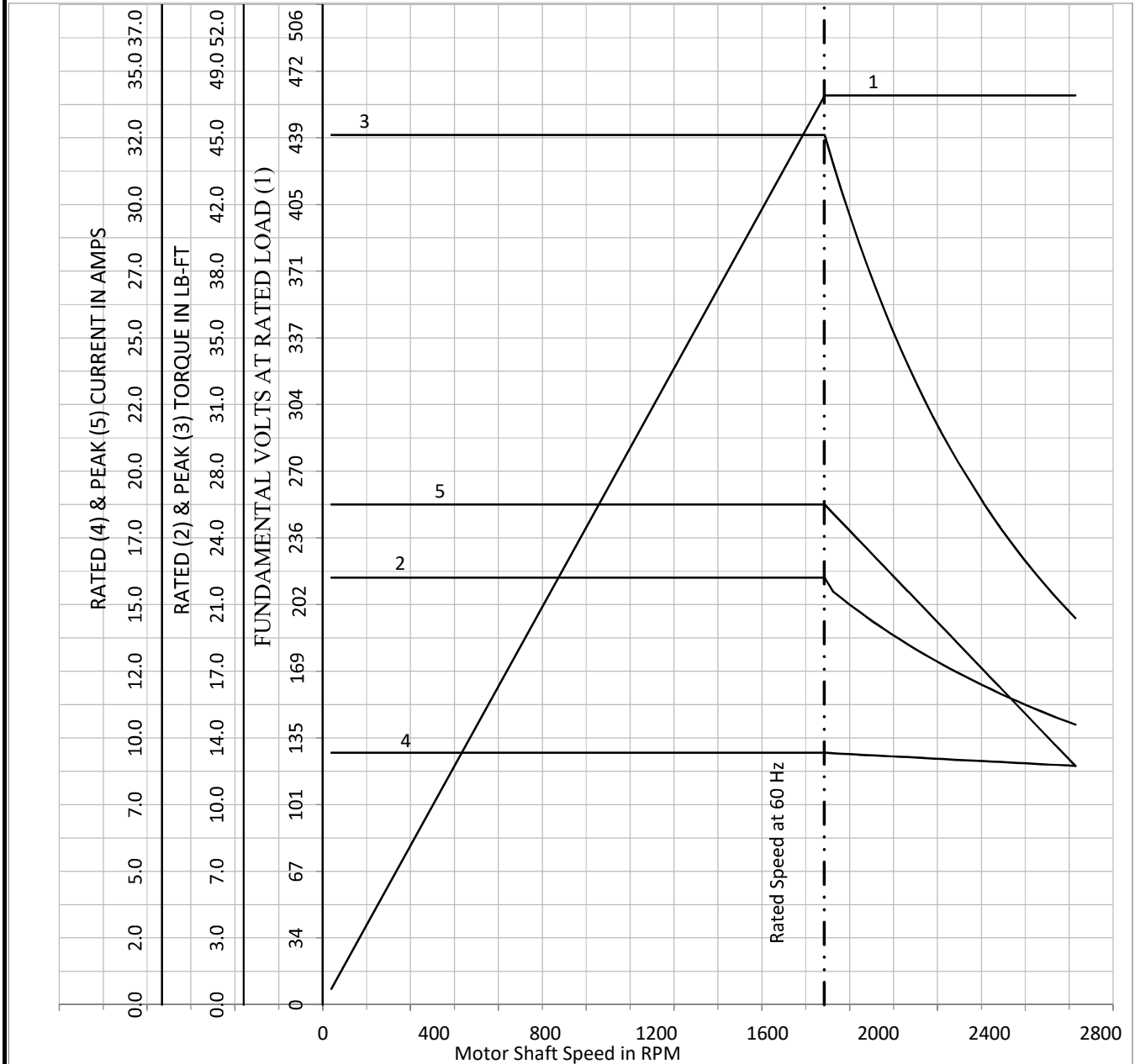
NP VOLTS 230/460
NP AMPS 19/9.5
HP 7.5
BASE SPEED 1769
PHASE/HZ 3/60

Base Volt 460
NL AMPS 4.07
Slip (HZ) 1.03
WK² (lb-ft²) 0.934

WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)

R1	0.784	X1	2.650
R2	0.464	X2	2.040
		XM	62.900

Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

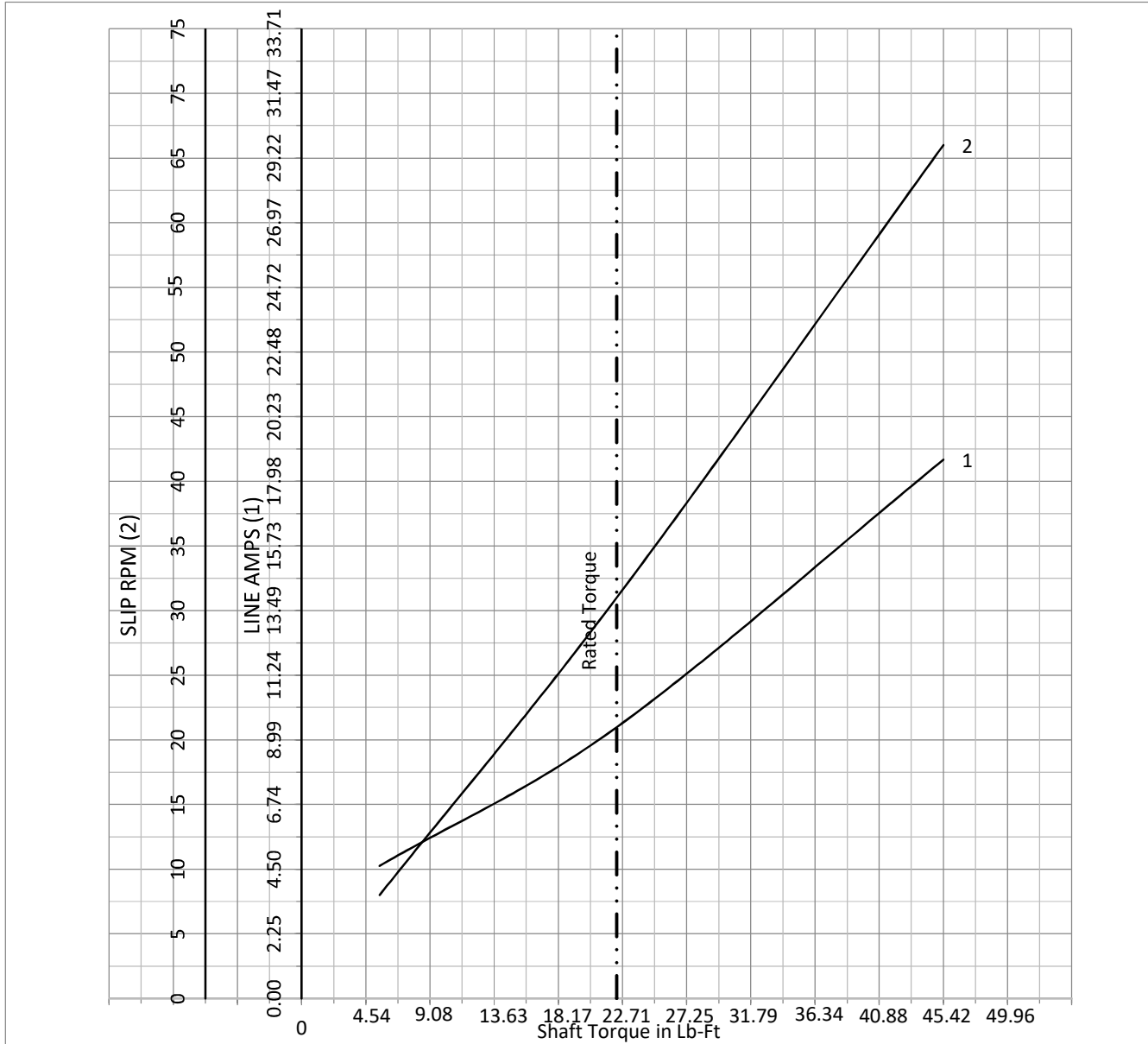
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CK BY CD
APP BY USBRRAN1
DATE 3/21/2025
**A-C MOTOR
PERFORMANCE
CURVES**
07WGT510

Record: 86626

NP VOLTS	230/460	0	0	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	19/9.5	Base Volt	460	R1	0.784	X1	2.650
HP	7.5	NL AMPS	4.07	R2	0.464	X2	2.040
BASE SPEED	1769	Slip (HZ)	1.03			XM	62.900
PHASE/HZ	3/60	WK2 (lb-ft2)	0.934				

Vector PWM Inverter Duty
Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

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DR BY USBRRAN1

CK BY CD

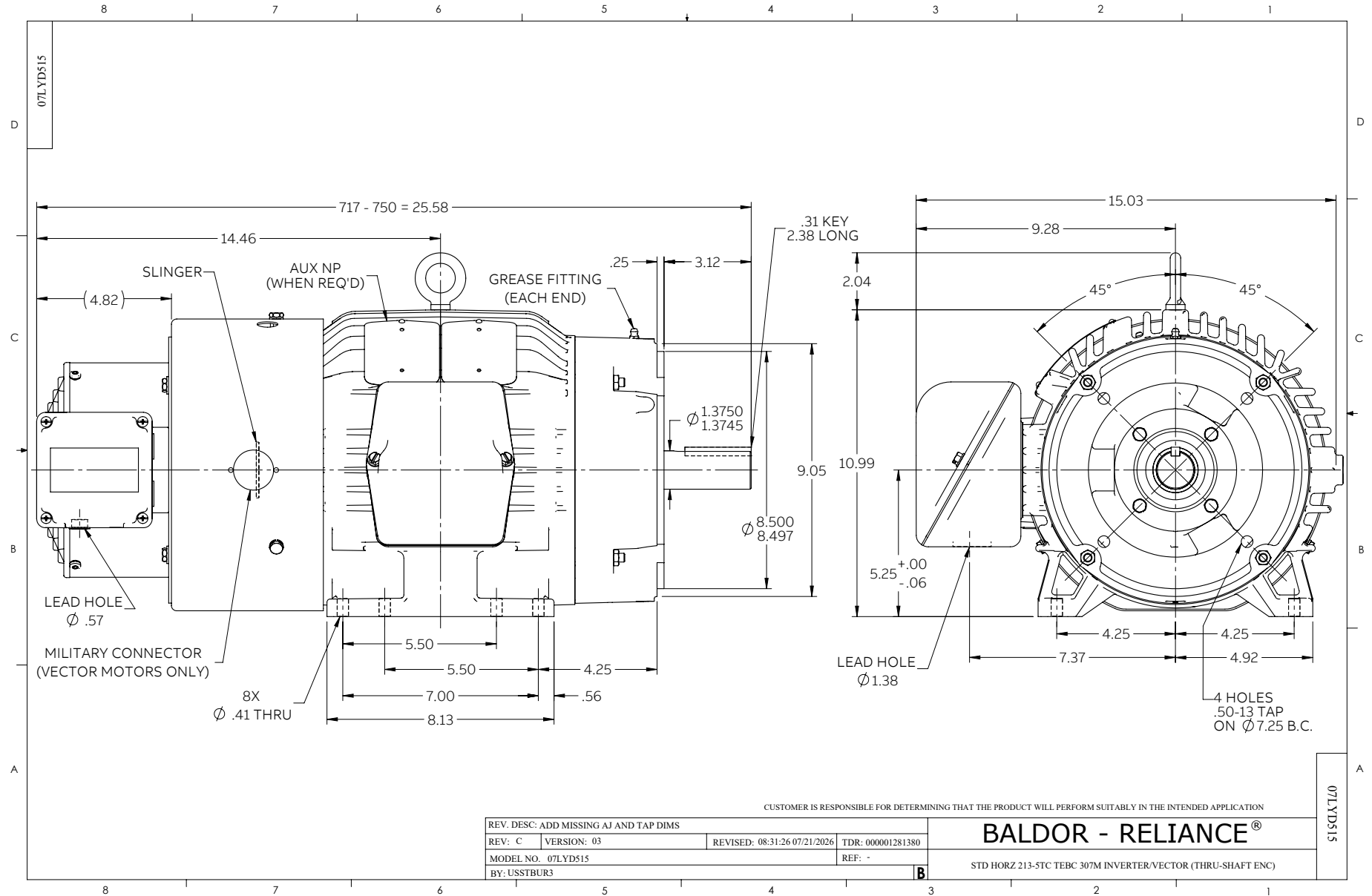
APP BY USBRRAN1

DATE 3/21/2025

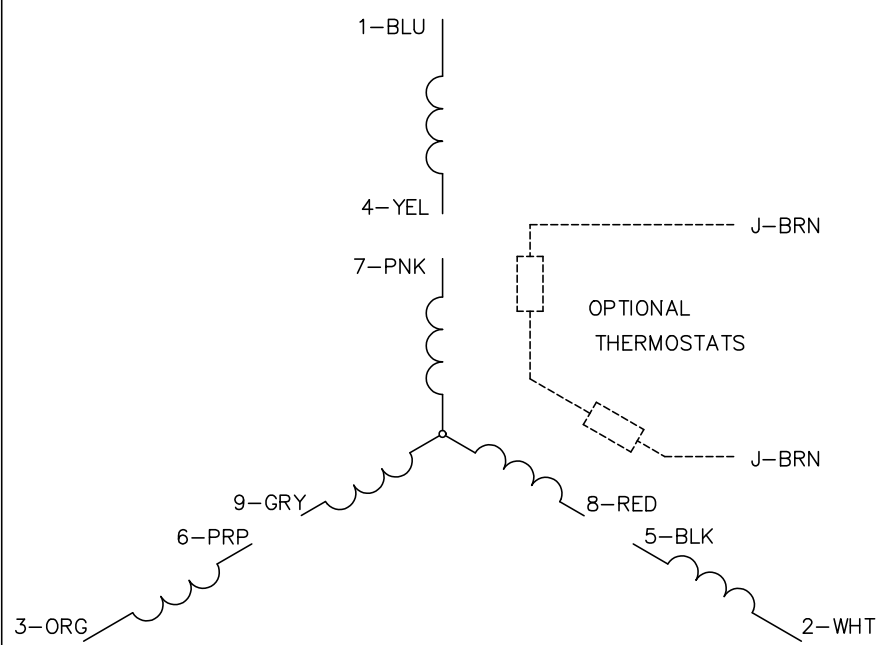
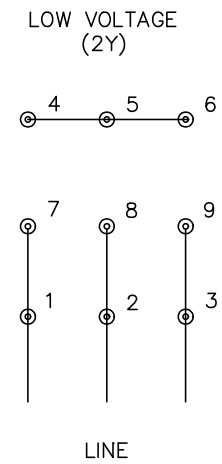
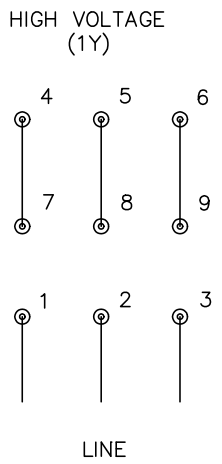
**A-C MOTOR
PERFORMANCE
CURVES**

07WGT510

Record: 86626



CD0005



- 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.

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

CD0005