

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								

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

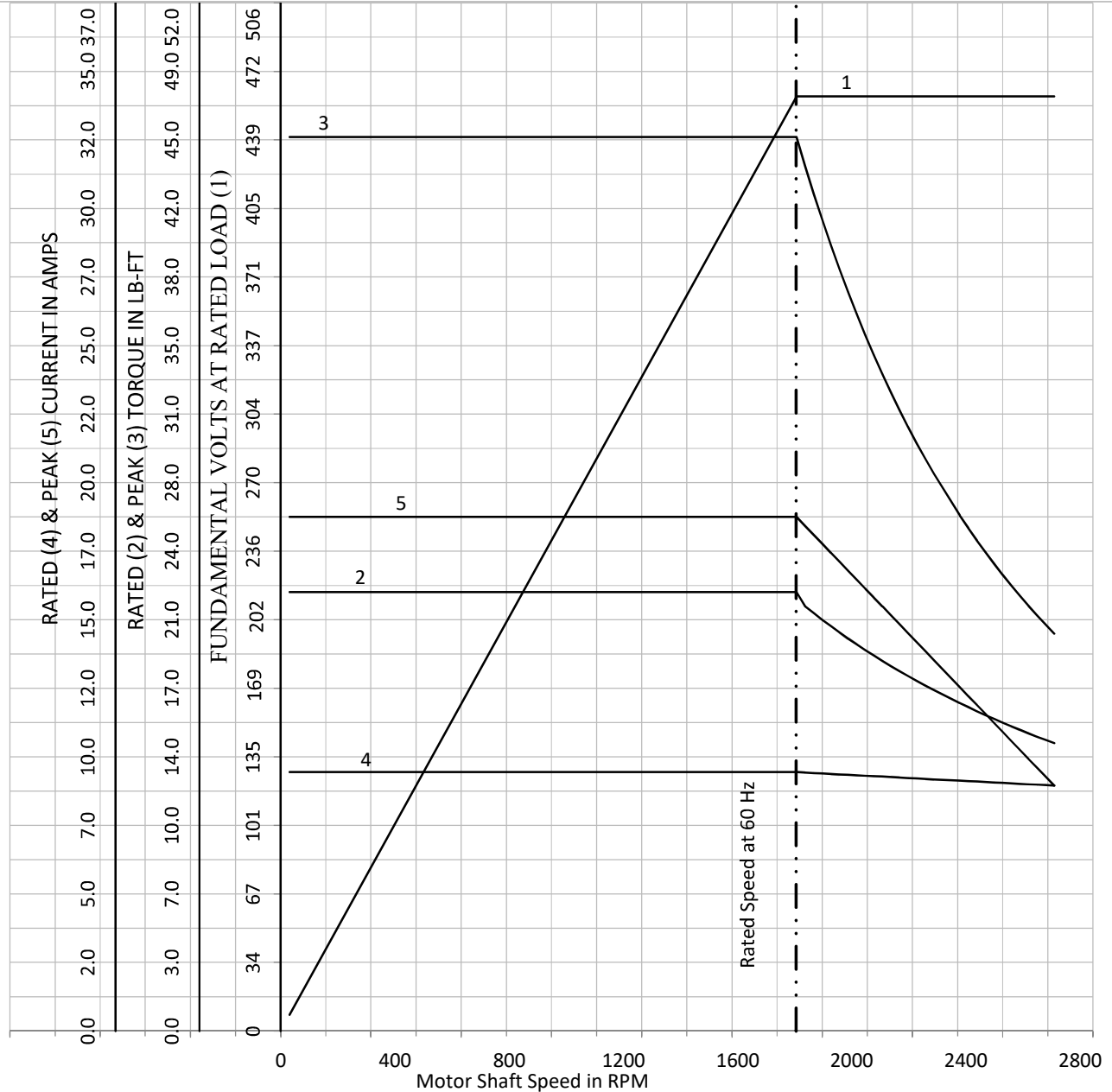
NP VOLTS 230/460
NP AMPS 19/9.5
HP 7.5
BASE SPEED 1769
PHASE/HZ 3/60

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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DR BY USBRRAN1
CK BY CD
APP BY USBRRAN1
DATE 3/21/2025

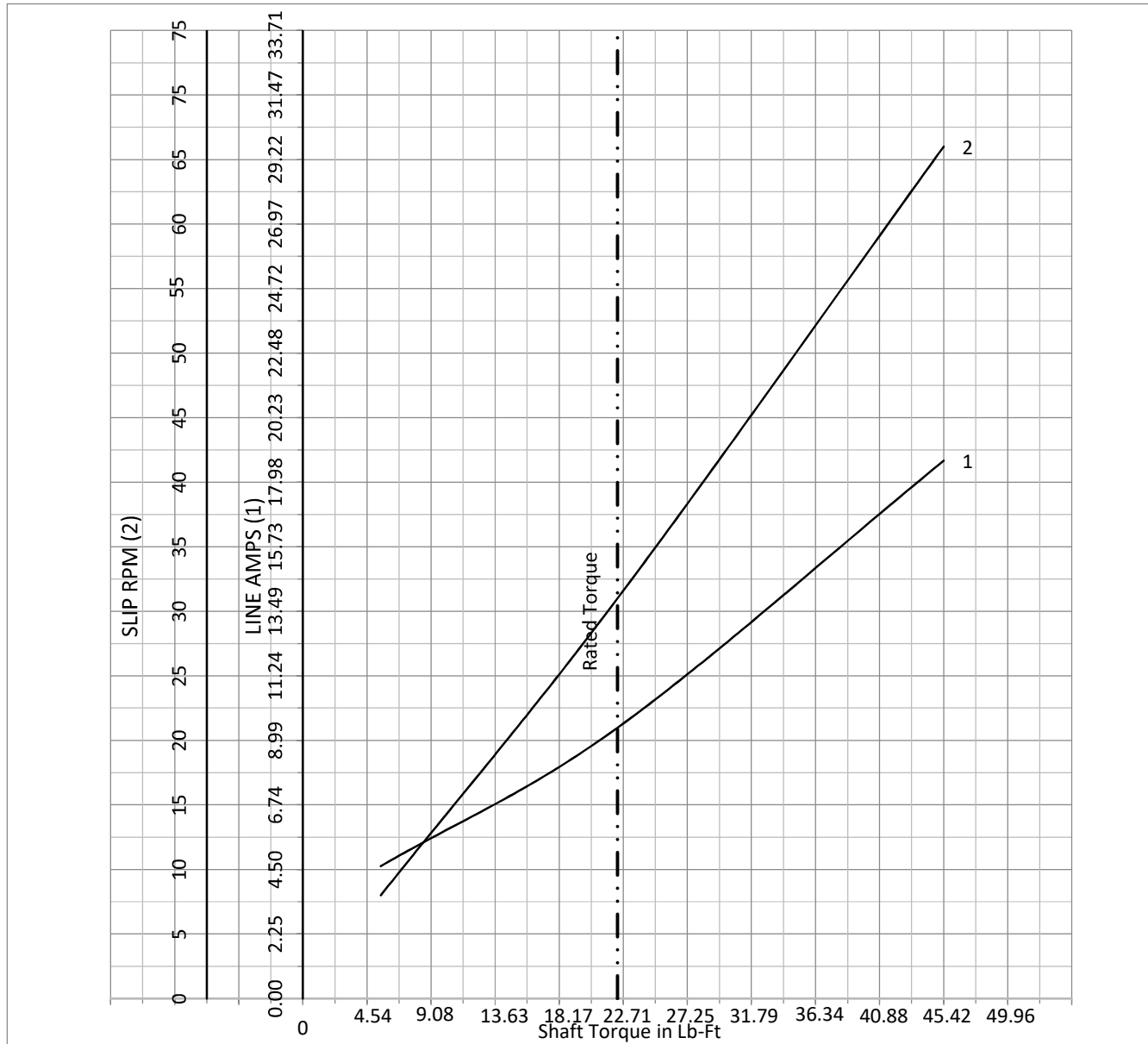
**A-C MOTOR
PERFORMANCE
CURVES**

07WGT510

Record: 86626

NP VOLTS	230/460	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

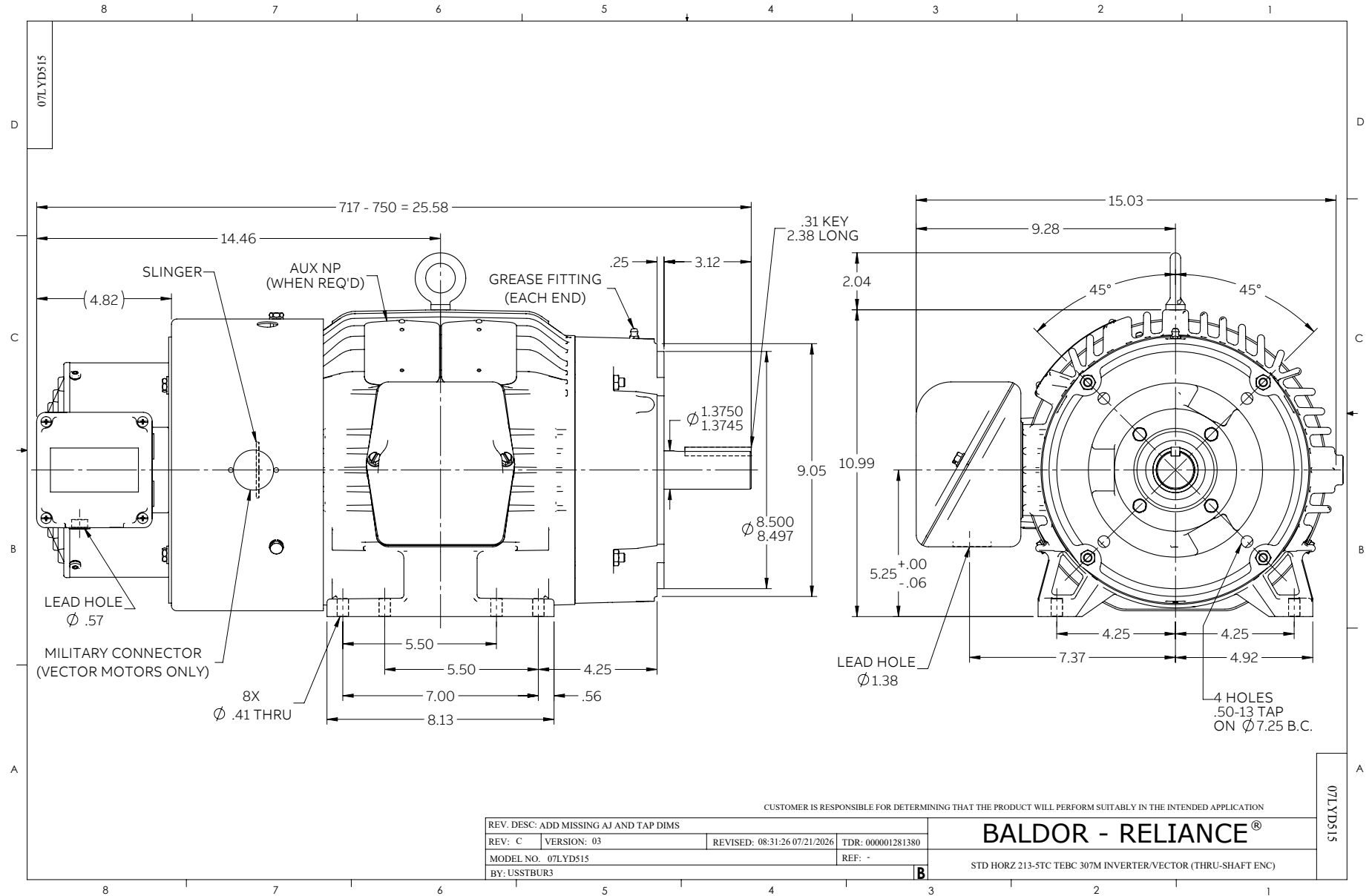
APP BY USBRRAN1

DATE 3/21/2025

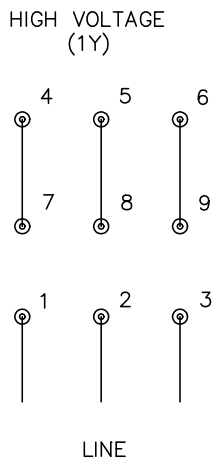
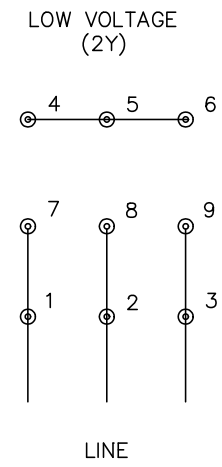
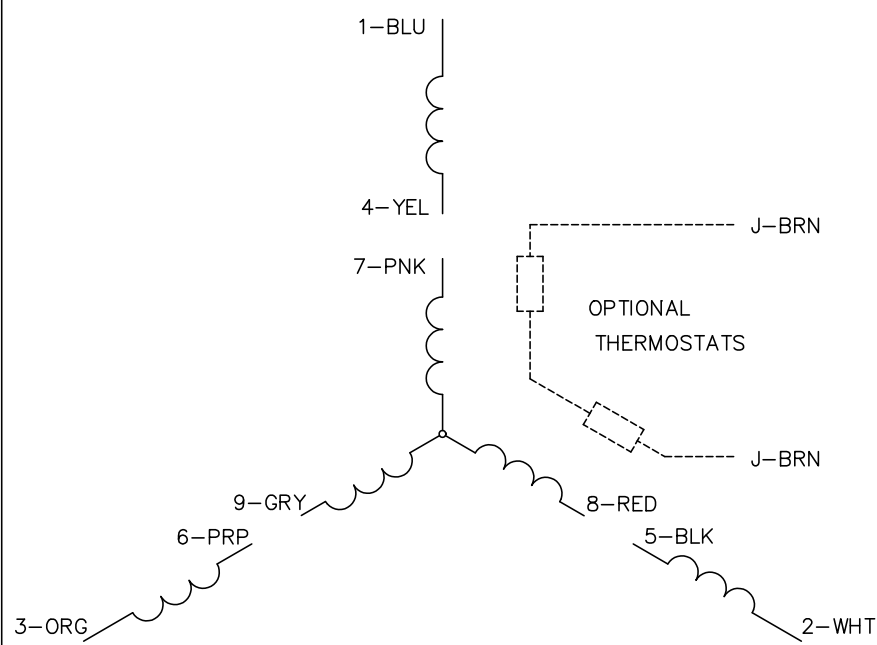
**A-C MOTOR
PERFORMANCE
CURVES**

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