

ABB BALDOR RELIANCE III

Customer information packet

ZDVSM2334T

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

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	256TC
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 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	None
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	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	ENCODER
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	Q
Type	AC
Mech. spec.	09K343
Base	
Status	PRD/A
Elec. spec.	09WGT459
Layout	09LYK343
Eff. date	08-28-2025
CD Diagram	CD0180
Poles	04
Leads	9#10
Proprietary	False
Created date	11-27-2017

High Voltage Full Load Amps	24.0 a
Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	J
Lifting Lugs	Standard 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	26.83 IN
Power Factor	83
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	1.625 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	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

Winding Thermal 2

None

Nameplate

NP3304L									
CAT NO	ZDVSM2334T								
SPEC.	09K343T459Z1								
FRAME	256TC			HP	20 TE				
VOLTS	230/460								
MAG CUR	20.8/10.4				FLA	48/24			
RPM	1770		RPM MAX			2700			
HZ	60	PH	3	CLASS		F			
SER.F.	1.00			SL HZ		1			
NEMA-NOM-EFF	93	WK2		2.62					
RATING	40C AMB-CONT								
DE BRG	6309	ODE BRG				6208			
CC	010A	SER.NO							
	1.5:1 CHP PWM								
	1000:1 CT, 1000:1 VT								

ABB BALDOR/460 RELIANCE III		CUSTOMER INFORMATION PACKET		MAX SAFE RPM 2700 Base Volt 460 NL AMPS 10.40 Slips(HZ) 0.94 WK2 () 0.000	WYE CONNECTION, CT, OHMS PER PHASE (BASE RATING, 20C) R1 0.167 X1 0.876 R2 0.159 X2 1.160 XM 30.000
HP 20 HP					
BASE SPEED 1772					
PHASE/HZ 3/60					

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1771.9	20.0	59.3	460	60	24.0
Max Speed	2657	20.0	39.5	460	90	23.1
Min Speed	0	0.0	59.3	17.91	0.94	24.0

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1798.9	0.0	0.0	460	60	10.4
1/4	1793.2	5.0	14.7	460	60	11.8
1/2	1786.4	10.0	29.4	460	60	15.0
3/4	1779.1	15.0	44.3	460	60	19.2
Full Load	1771.9	20.0	59.3	460	60	24.0
O/L	1741	40.1	121.0	460	60	48.7

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

Remarks: Calculated Data
Vector PWM Inverter Duty

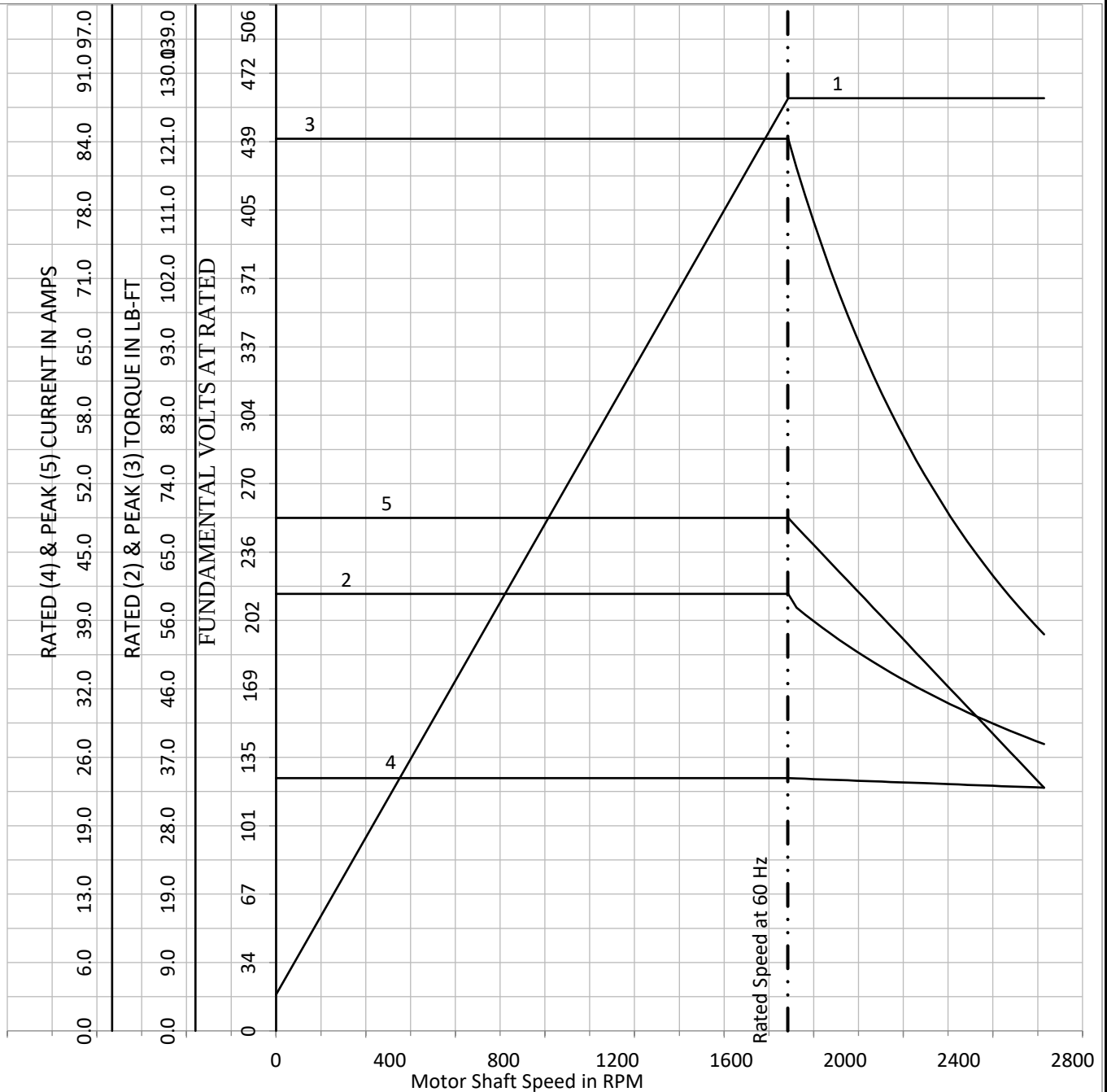
BALDOR
A MEMBER OF THE ABB GROUP

DR BY USBRRAN1
CK BY
APP BY USBRRAN1
DATE 11/27/2017

**A-C MOTOR
PERFORMANCE
CURVES**
09WGT459
Record: 67965

ABB BALDOR RELIANCE		CUSTOMER INFORMATION PACKET		MAX SAFE RPM 2700	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)		
HP 20 HP		BASE SPEED 1771.90002		Base Volt 460	R1 0.167	X1 0.876	
PHASE/HZ 3/60				NL AMPS 10.40	R2 0.159	X2 1.160	
				Slips(HZ) 0.94		XM 30.000	
				WK2 () 0.000			

Vector PWM Inverter Duty
Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

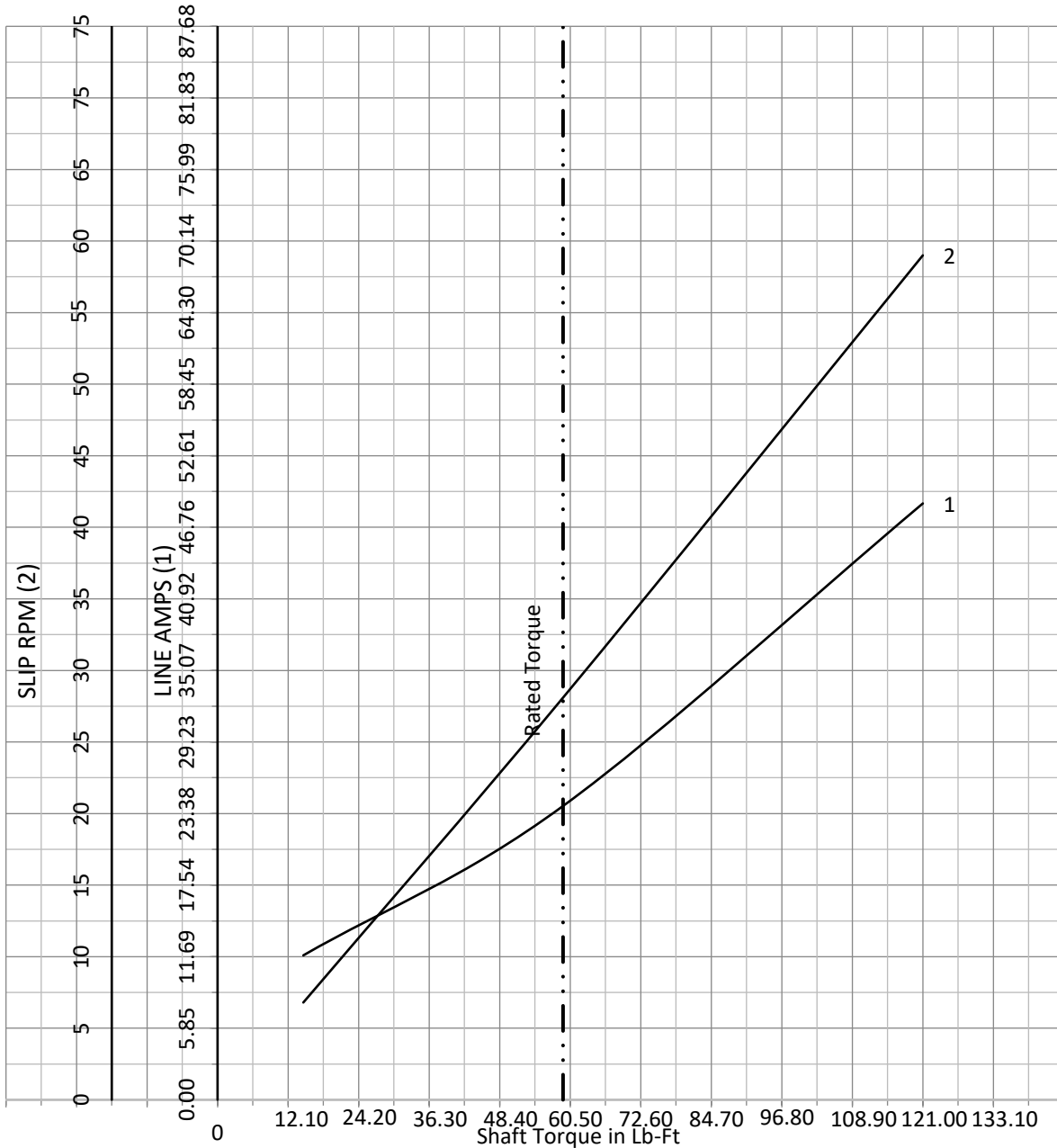


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**A-C MOTOR
PERFORMANCE
CURVES**
09WGT459
Record: 67965

ABB BALDOR RELIANCE		333/460 20HP	CUSTOMER INFORMATION PACKET		MAX SAFE RPM 2700 ZDVSM2334T - 20HP, 1770RPM, Base Volt 460	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
HP	20 HP				NL AMPS 10.40	R1	0.167	X1	0.876
BASE SPEED 1771.900024					Slips(HZ) 0.94	R2	0.159	X2	1.160
PHASE/HZ	3/60				WK2 () 0.000			XM	30.000

Vector PWM Inverer Duty
Vaiable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

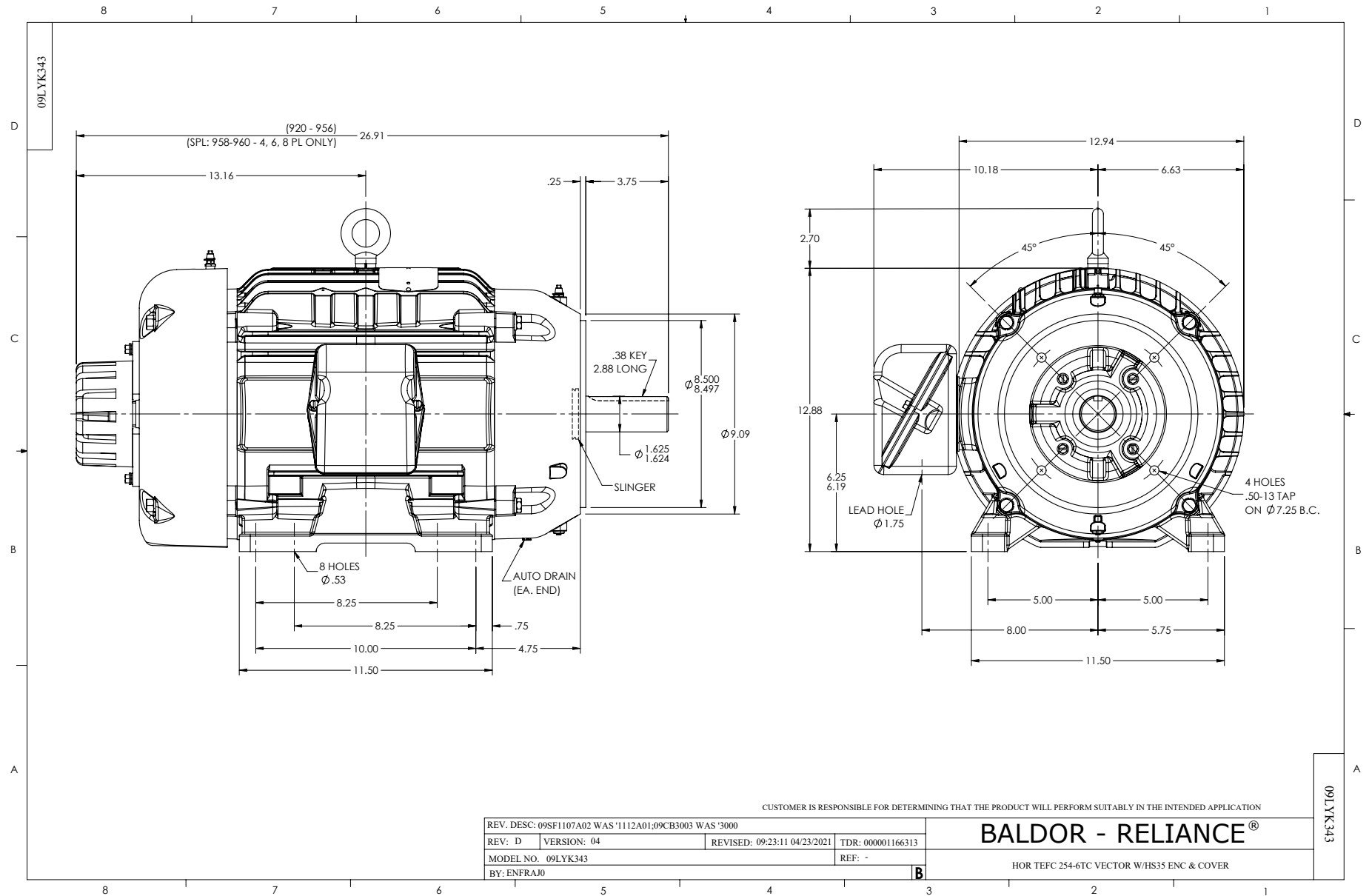


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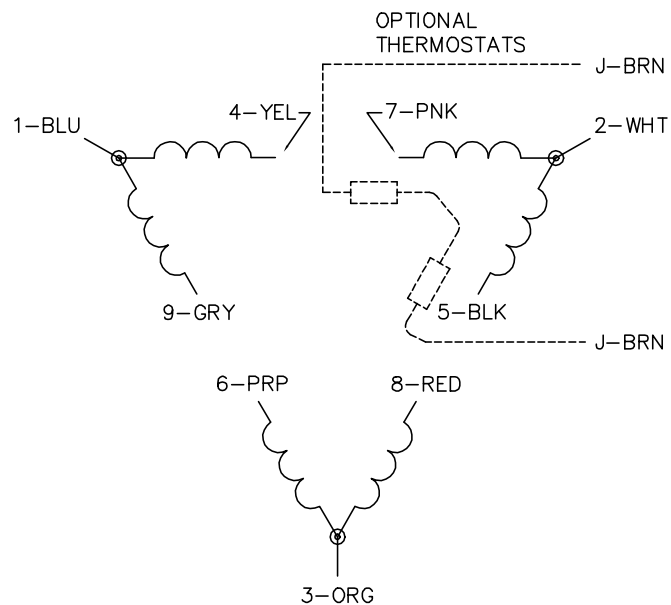
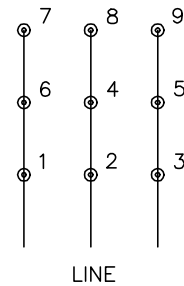
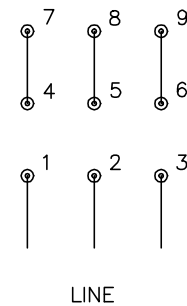
**A-C MOTOR
PERFORMANCE
CURVES**

09WGT459

Record: 67965



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

SH 1 of 1