

ABB BALDOR RELIANCE III

Customer information packet

ZDVSCP4115T

50HP, 1775RPM, 3PH, 60HZ, 326T, 1272M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	326T
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	50.000 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	UR CSA
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	116.000 A @ 230.0 V 58.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	TACHOMETER
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	58.0 a
Insulation Class	F

Part Detail

Revision	F
Type	AC
Mech. spec.	12G537
Base	
Status	PRD/A
Elec. spec.	12WGZ279
Layout	12LYG537
Eff. date	11-03-2025
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	02-03-2021

Inverter Code	Inverter Duty
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	9 @ 6 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1272M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	33.14 IN
Power Factor	85
Product Family	Chemical Processing (Not DC)
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	2.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1775 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

NP3303L									
CAT NO	ZDVSCP4115T								
SPEC.	12G537Z279Z1								
FRAME	326T			HP	50 TE				
VOLTS	230/460								
MAG CUR	40/20			FLA			116/58		
RPM	1775		RPM MAX			2700			
HZ	60	PH	3	CLASS			F		
SER.F.	1.00			SL HZ			0.8		
NEMA-NOM-EFF	94.5		WK2		9.59				
RATING	40C AMB-CONT								
DE BRG	6312	ODE BRG			6312				
CC	010A	SN							
	1.5:1 CHP PWM								
	1000:1 CT, 1000:1 VT								

NP0090L	
FRONT	6312
PULLEY	6312
LUBRICATE WITH	
GREASE	POLYREX EM

Parts List

Part number	Description	Quantity
SA390457	SA 12G537Z279Z1	1.000 ea
RA380906	RA 12G537Z279Z1	1.000 ea
09FN3001C03	XTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
10CB1000A203P	KOBX W/2.00 NPT & .31 GND MTG, EPOXY PRI	1.000 ea
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	1.000 ea
10XN3118K16	5/16-18 X 1' GRADE #5, STL, ZINC PLATE	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 ea
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	1.000 ea
HA4017A11	1/8 X 2.75 GREASE EXT (F/S)	1.000 ea
HW4019A01	PIPE COUPLING 1/8 NPT,STEEL,ZINC COATING	1.000 ea
HA4017A01	1/8 X 4 GREASE EXT (F/S)	1.000 ea
HA3400A13	STUD, 1/2-13 X 7" WELKER	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
HA1005A04	SLINGER, OD 3.620, ID 1.98,	1.000 ea
HW5100A15	W4997-050 WVY WSHR (WB)	1.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 ea
12EP1111A30P	SPL PUEP 312 BRG W/EPOXY	1.000 ea
10XN5013K28	1/2-13 X 1.75 HEX HEAD MACH SCREW,GRAD	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HW4600B41	V-RING SLINGER 2.125 X 2.880 X 0.280	1.000 ea
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 ea
12FH1002A58P	FAN COVER, MACH W/EPOXY PRIMER	1.000 ea
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	4.000 ea
10XN2520K12	1/4-20 X.75 GRD 5	2.000 ea
HW1000A25	1/4 SAE FLAT WASHER (FS)	2.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 ea

10CB1503P	CONDUIT BOX LIPPED, CAST W/EPOXY PRIMER	1.000 ea
14GS1003	GASKET CONDUIT BOX LID, NEOP	1.000 ea
10XN2520K16	1/4-20 X 1" HX HD SCRW GRADE 5, ZINC P	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
HW2501H34	KEY, 1/2 SQ X 4.00	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 qt
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.033 ea
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.025 ea
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 ea
12EP1111A57LP5	ENDPLATE, MACH W/EPOXY PRIMER & PAINT	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.200 lb
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
611712073A	TACH 210	1.000 ea
10XN2520K12	1/4-20 X.75 GRD 5	1.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	1.000 ea
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8	0.080 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP3303L	SS VEC UL CSA CC (W/OUT DESIGN FIELD)	1.000 ea
NP0090L	NP BRG INFO LASER ETCHED	1.000 ea
10PA1010	PACKAGING GROUP, PRINT PK1151A06	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LD7026F09	LEAD SET, 8 AWG, 9 LEAD, 26" LONG LEADS	1.000 ea

NP VOLTS	230/460	MAX SAFE RPM	2700	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	116/58	Base Volt	460	R1	0.057	X1	0.352
HP	50HP	NL AMPS	20.8	R2	0.050	X2	0.440
BASE SPEED	1800	Slips (Hz)	0.80			XM	11.900
PHASE/HZ	3/60	WK ² (lb-ft ²)	9.59				

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1776	50.1	148.0	460	60	57.9
Max Speed	2663	50.0	98.5	460	90	55.9
Min Speed	0	0.0	148.0	18.38	0.80	57.9

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1799	0.0	0.0	460	60	20.8
1/4	1794	12.5	36.5	460	60	24.8
1/2	1788	25.0	73.5	460	60	33.9
3/4	1782	37.7	111.0	460	60	45.3
Full Load	1776	50.1	148.0	460	60	57.9
O/L	1753	99.8	299.0	460	60	116.0

Blower Data

Volts	Ph/HZ	FL Amps	LR Amps	Frame	CFM

Remarks: Calculated Data
Vector PWM Inverter Duty

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 DR BY BR

CK BY

 APP BY BR

 DATE 11/28/2023

**A-C MOTOR
PERFORMANCE
CURVES**

12WGZ279

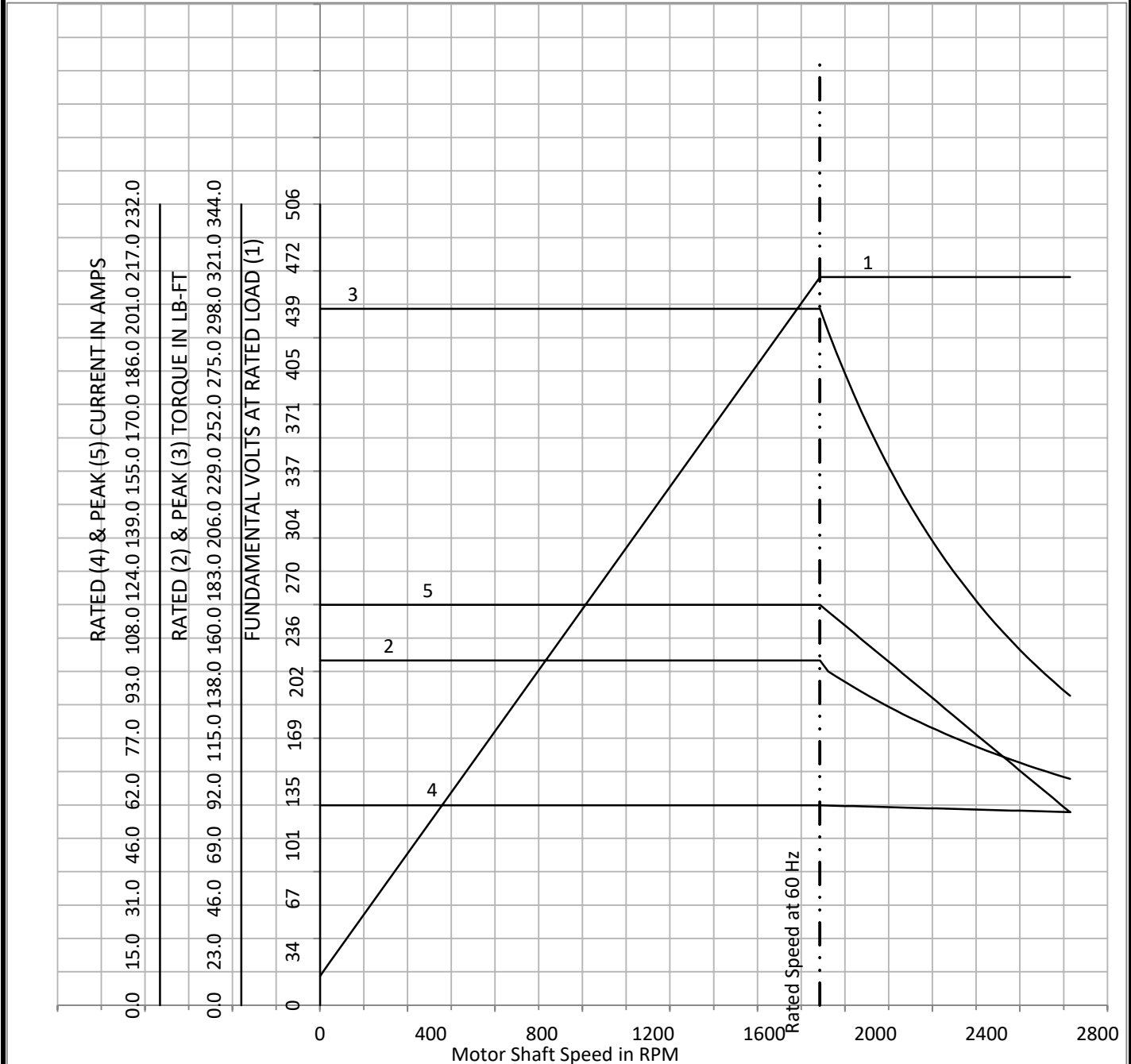
NP VOLTS 230/460
NP AMPS 116/58
HP 50HP
BASE SPEED 1800
PHASE/HZ 3/60

MAX SAFE RPM 2700
Base Volt 460
NL AMPS 20.8
Slips (Hz) 0.80
WK2 (lb-ft2) 9.59

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

R1	0.057	X1	0.352
R2	0.050	X2	0.440
		XM	11.900

Vector PWM Inverter Duty
Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

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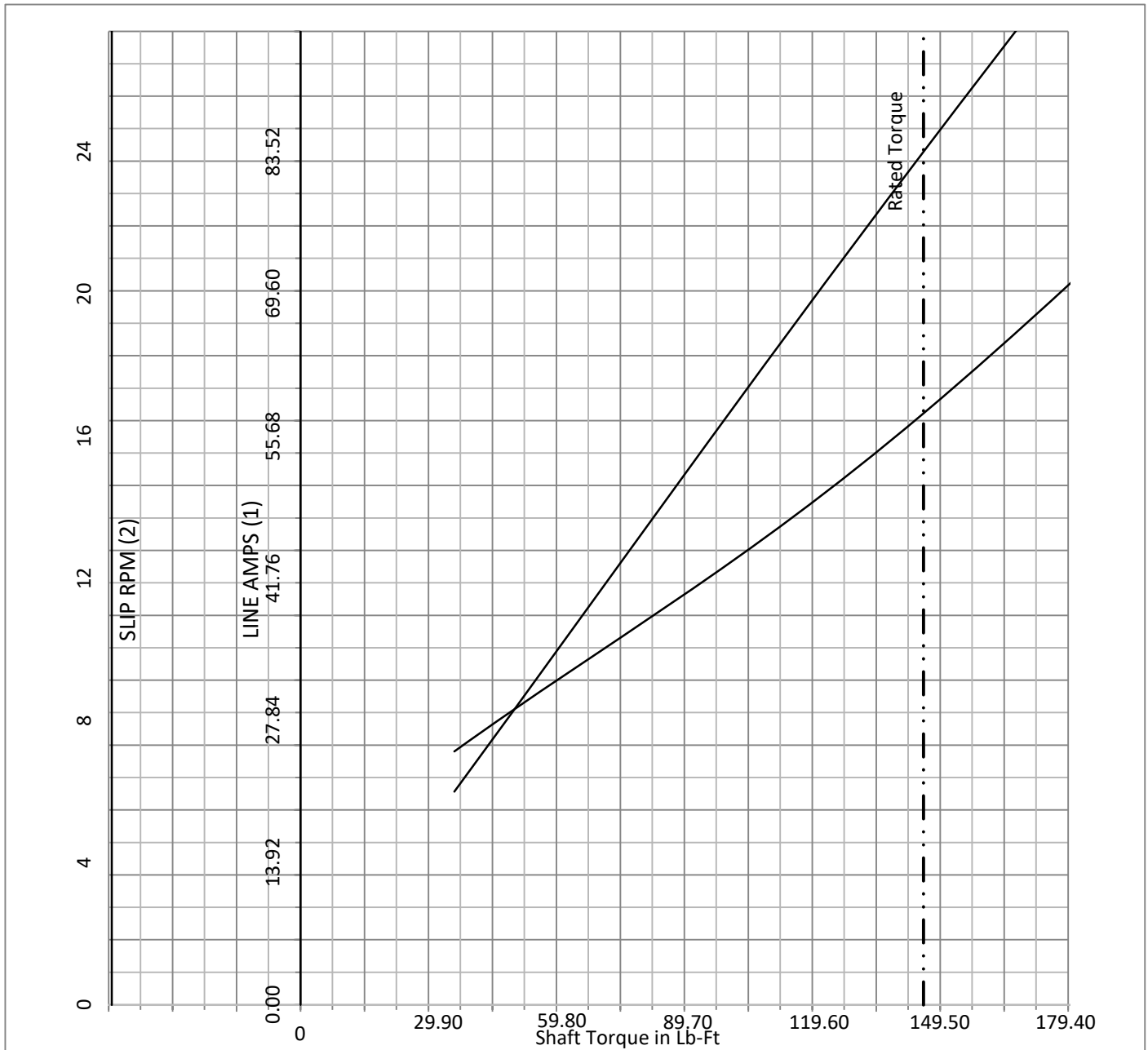
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DATE 11/28/2023

**A-C MOTOR
PERFORMANCE
CURVES**

12WGZ279

NP VOLTS	230/460	MAX SAFE RPM	2700	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
NP AMPS	116/58	Base Volt	460	R1	0.057	X1	0.352
HP	50HP	NL AMPS	20.8	R2	0.050	X2	0.440
BASE SPEED	1800	Slips (Hz)	0.80			XM	11.900
PHASE/HZ	3/60	WK2 (lb-ft2)	9.59				

Vector PWM Inverer Duty
Vaible Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

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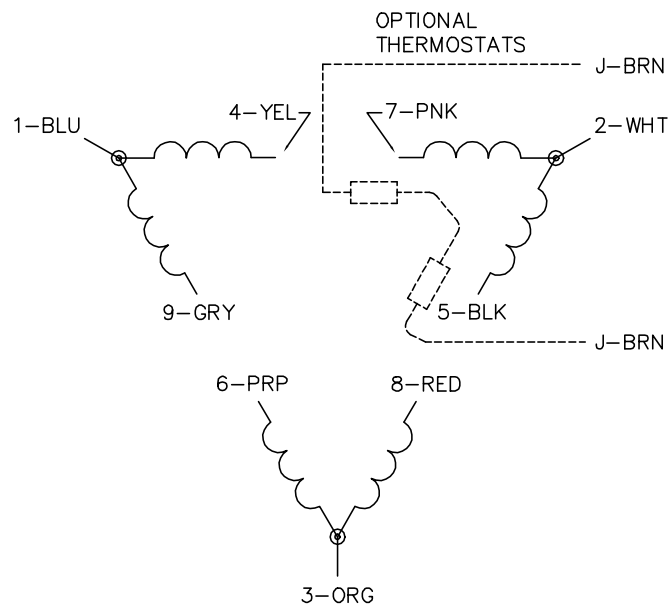
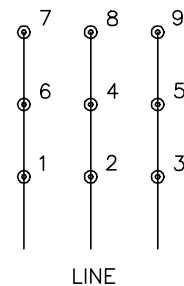
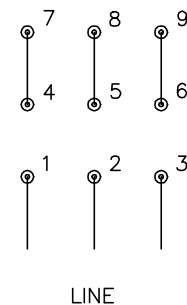
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**A-C MOTOR
PERFORMANCE
CURVES**

12WGZ279



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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