

# ABB BALDOR RELIANCE III

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## Customer information packet

ECS101M0K4EC4

4KW, 1500RPM, 3PH, 50HZ, D112C, 3632B, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

<b>Enclosure</b>	TEFC
<b>Frame</b>	D112C
<b>Frame Material</b>	Steel
<b>Frequency</b>	50.00 Hz
<b>Haz Area Class and Group</b>	None
<b>Haz Area Division</b>	Not Applicable
<b>Motor Letter Type</b>	Brushless Wound Field PM Rotor
<b>Output @ Frequency</b>	4.000 KW @ 50 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	1500 RPM @ 50 HZ
<b>Voltage @ Frequency</b>	190.0 V @ 50 HZ 380.0 V @ 50 HZ
<b>Agency Approvals</b>	CE WEEE CULUS
<b>Ambient Temperature</b>	40 °C
<b>Auxiliary Box</b>	NO AUXILLARY BOX
<b>Auxiliary Box Lead Termination</b>	None
<b>Base Indicator</b>	No Mounting
<b>Bearing Grease Type</b>	Polyrex EM (-20F +300F)
<b>Blower</b>	None
<b>Constant Torque Speed Range</b>	5
<b>Current @ Voltage</b>	5.300 A @ 380.0 V 10.600 A @ 190.0 V
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	S1
<b>Efficiency @ 100% Load</b>	92.4 %
<b>Electrically Isolated Bearing</b>	Not Electrically Isolated
<b>Feedback Device</b>	NO FEEDBACK
<b>Frame Prefix</b>	D
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	5.3 a

**Part Detail**

<b>Revision</b>	H
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	36WGA0020
<b>Layout</b>	36LY-000-292
<b>Eff. date</b>	05-08-2024
<b>CD Diagram</b>	CD0005A25
<b>Poles</b>	04
<b>Leads</b>	9#12
<b>Proprietary</b>	False
<b>Created date</b>	05-17-2022

<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Duty
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Locked Bearing Indicator</b>	No Locked Bearing
<b>Motor Lead Termination</b>	Flying Leads
<b>Motor Standards</b>	IEC
<b>Motor Type</b>	3632B
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	4
<b>Overall Length</b>	15.88 IN
<b>Power Factor</b>	97
<b>Product Family</b>	General Purpose
<b>Pulley Face Code</b>	C-Face
<b>Rodent Screen</b>	None
<b>Service Factor</b>	1.00
<b>Shaft Diameter</b>	1.103 IN
<b>Shaft Ground Indicator</b>	Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Speed</b>	1500 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	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>NP3968B01A01</b>									
<b>CAT.NO.</b>	ECS101MOK4EC4								
<b>SPEC.</b>	36-0000-3622			<b>YR</b>					
<b>FRAME</b>	D112C	<b>IP</b>	55	<b>WT.</b>	42				
<b>KW</b>	4	<b>HZ</b>	50	<b>PH</b>	3	<b>DUTY-IPM</b>	S1		
<b>INS CL</b>	F	<b>CLASS RISE</b>		B	<b>AMB-C</b>	40			
<b>EFF. CL</b>	IE5	<b>EFF</b>	91.6	<b>COSφ</b>	97				
<b>VOLTS</b>	190/380		<b>FLA</b>	13.6/6.8					
<b>1/MIN</b>	1500			<b>1/MIN MAX</b>	3000				
<b>BEMF (V)</b>	105/210			<b>RS (OHMS)</b>	0.82/3.30				
<b>LD (MH)</b>	13.5/54.0			<b>LQ (MH)</b>	47.8/191.0				
<b>VPWM</b>	<b>CP =</b>	50	<b>TO</b>	100					
<b>CT</b>	5	<b>TO</b>	50	<b>VT</b>	1	<b>TO</b>	50		
<b>MATCHED INV</b>	0								
<b>DE</b>	6206		<b>ODE</b>	6205					
<b>SERIAL #</b>									

Volts	190/380	Max RPM	3000	Conn Diag.	CD0005A25	Leads	9
Amps	13.6/6.8	Max Amps		Cs Diagram	CS0576	BEMF	105/210
KW	4	VFD#	ACS380-040S-09			LD	13.5/54.0
RPM	1500	S.F.	1.00			LQ	47.8/191.0
Phase/Hz	3/50	Rating	40C AMB-S1			Rs	3.3231 Meas. L-L

**60034-2-3 Motor Performance at Standardized Operating Points**

	RPM	% Speed	LB-FT	% Torque	KW	Efficiency	Loss (% FL)	Watts Loss (W)
P1	1350	90%	18.8	100%	4.8	90.4	9.48%	383
P2	750	50%	18.8	100%	2.7	86.5	7.72%	312
P3	375	25%	18.8	100%	1.3	78.3	6.87%	278
P4	1350	90%	9.4	50%	2.4	92.4	3.67%	149
P5	750	50%	9.4	50%	1.3	89.2	2.98%	121
P6	750	50%	4.7	25%	0.7	89.8	1.40%	57
P7	375	25%	4.7	25%	0.3	84.7	1.12%	45

**61800-9-2 PDS Performance at Reference Operating Points**

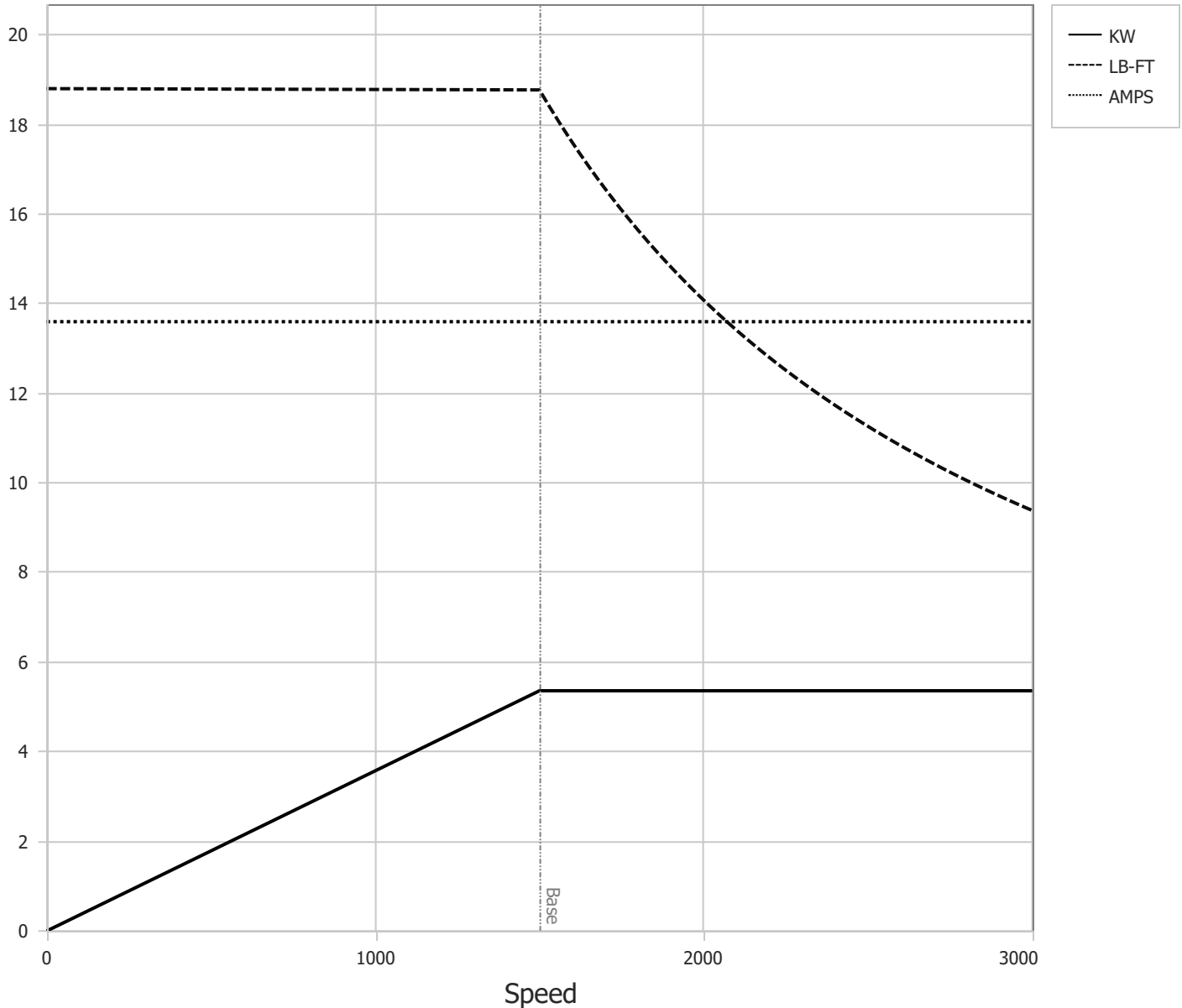
	RPM	% Speed	LB-FT	% Torque	KW	System Efficiency	Loss (% FL)	Watts Loss (W)
P1	1500	100%	18.8	100%	5.4	87.9	13.58%	549
P2	750	50%	18.8	100%	2.7	84.1	9.35%	378
P3	255	17%	18.8	100%	0.9	67.7	8.02%	324
P4	1500	100%	9.4	50%	2.7	91.1	4.85%	196
P5	750	50%	9.4	50%	1.3	86.1	3.99%	162
P6	255	17%	9.4	50%	0.5	71.8	3.30%	133
P7	750	50%	4.7	25%	0.7	85.2	2.14%	87
P8	255	17%	4.7	25%	0.2	71.1	1.71%	69

Points not taken in certified order.

<b>BALDOR • RELIANCE</b>	DR By:	<u>R &amp; D</u>	<b>AC MOTOR PERFORMANCE CURVES</b>	<b>36WGA0020</b> 36-0000-3634 Test - 112234
	CK By:	<u>USGAHIL</u>		
	APP By:			
	Date:	<u>04/09/2025</u>		

Volts	190/380	Max RPM	3000	Conn Diag.	CD0005A25	Leads	9
Amps	13.6/6.8	Max Amps		Cs Diagram	CS0576	BEMF	105/210
KW	4	VFD #	ACS380-040S-09			LD	13.5/54.0
RPM	1500	S.F.	1.00			LQ	47.8/191.0
Phase/Hz	3/50	Rating	40C AMB-S1			Rs	3.3231 Meas L-L

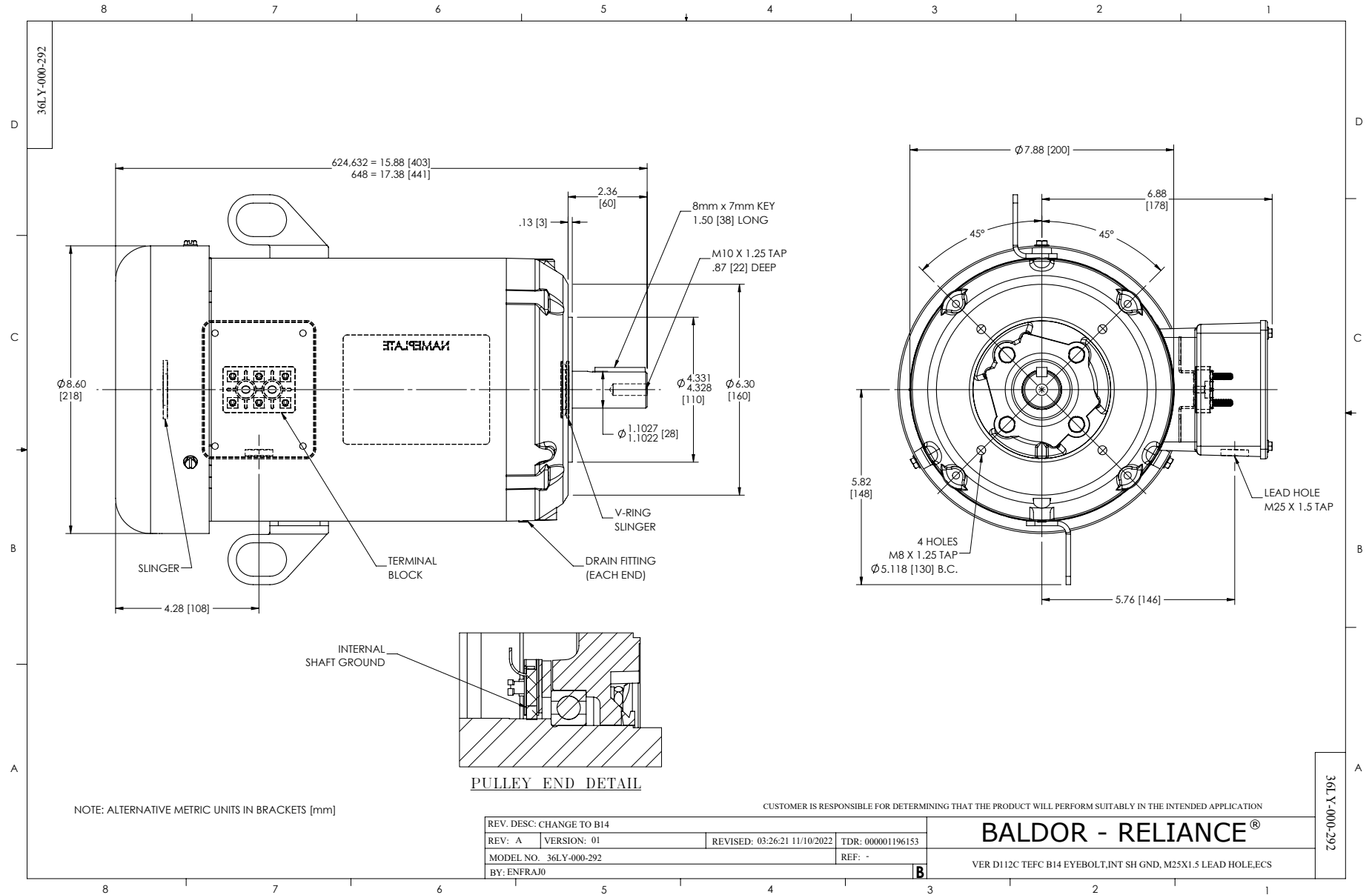
Constant Duty Operating Range



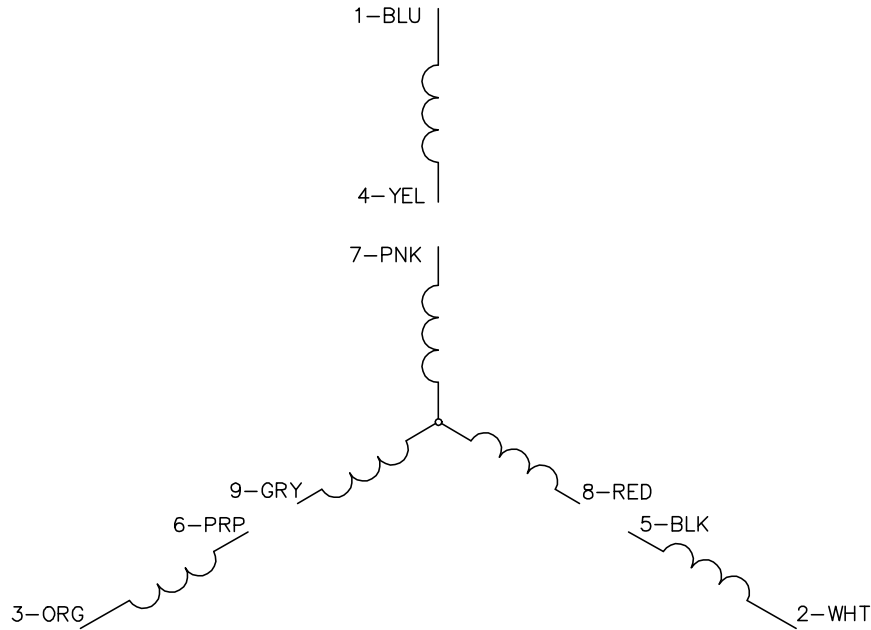
DR By: R & D  
 CK By: USGAHIL  
 APP By:  
 Date: 04/09/2025

**AC MOTOR  
PERFORMANCE  
CURVES**

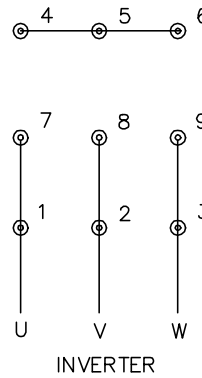
**36WGA0020**  
 36-0000-3634  
 Test - 112234



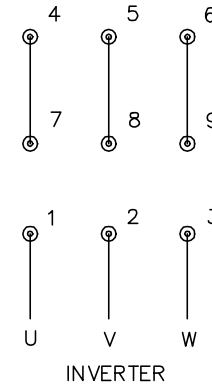
CD0005A25



LOW VOLTAGE  
(2Y)



HIGH VOLTAGE  
(1Y)



NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0005A25

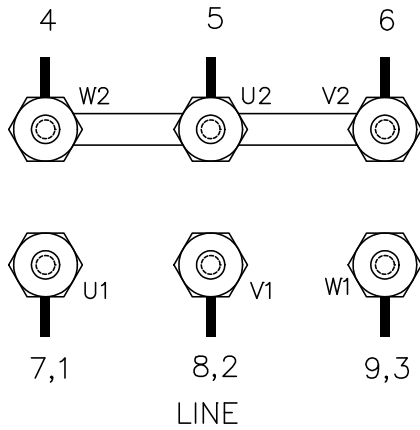
REV. DESC: NEW		
REV. LTR: -	VERSION: 00	TDR: 000001135746
FILE: \AAA\00253\082	REVISED: 01:10:57 03/30/2020	BY: ENMARS0
MTL: -	© □	

**BALDOR - RELIANCE®**

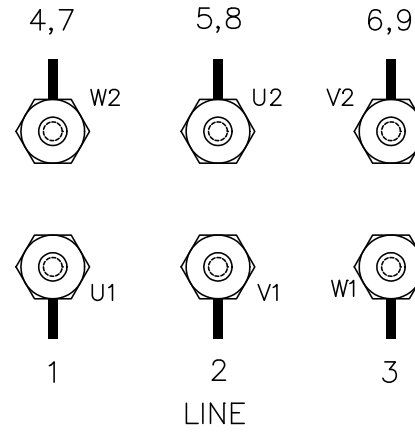
3PH, DV, 9 LEADS, ECS  
SH 1 of 1

SP0032

LOW VOLT CONNECTION



HIGH VOLT CONNECTION



TO REVERSE ROTATION  
INTERCHANGE ANY TWO  
LINE LEADS.

MATL:

REV: A ADD CONN LABEL REF TO DESC

SP0032

SCALE: -

BY: JLP

REVISED: 12/17/96

FILE: AAA00029378

TDR: 0111436

**BALDOR ELECTRIC Co.**

THREE PHASE, DUAL VOLTAGE, TERMINAL BLOCK, CD0005/LC0005C01

SP0032