

BALDOR® • RELIANCE 

Product Information Packet

ZDM4102T

20HP, 1180RPM, 3PH, 60HZ, 286T, 1054M, TEBC, F1

Part Detail							
Revision:	A	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	10WGY730	CD Diagram:	CD0180	Mfg Plant:	
Mech. Spec:	10F206	Layout:	10LYF206	Poles:	06	Created Date:	08-11-2017
Base:	RG	Eff. Date:	09-13-2017	Leads:	9#10		

Specs			
Catalog Number:	ZDM4102T	Insulation Class:	H
Enclosure:	TEBC	Inverter Code:	Inverter Duty
Frame:	286T	KVA Code:	H
Frame Material:	Iron	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	20.000 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	1200 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 10 AWG
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	230.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	1054M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	CSA	Power Factor:	77
	UR	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	Standard
Base Indicator:	Rigid	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	230/460V 3-Phase EXT	Shaft Extension Location:	Pulley End
Current @ Voltage:	27.000 A @ 460.0 V	Shaft Ground Indicator:	No Shaft Grounding

	54.000 A @ 230.0 V	Shaft Rotation:	Reversible
	56.000 A @ 208.0 V	Shaft Slinger Indicator:	Shaft Slinger
Design Code:	A	Speed Code:	Single Speed
Drip Cover:	No Drip Cover	Motor Standards:	NEMA
Duty Rating:	CONT	Starting Method:	Direct on line
Electrically Isolated Bearing:	Not Electrically Isolated	Thermal Device - Bearing:	NONE (OLD)
Feedback Device:	ENCODER	Thermal Device - Winding:	Normally Closed Thermostat
Front Face Code:	Encoder/Feedback Device	Vibration Sensor Indicator:	No Vibration Sensor
Front Shaft Indicator:	None	Winding Thermal 1:	None
Heater Indicator:	No Heater	Winding Thermal 2:	None

Nameplate NP1168L	
CAT NO	ZDM4102T
SPEC.	10F206Y730Z1
FRAME	286T HP 20 TE
VOLTS	230/460
MAG CUR	26.2/13.1 FLA 54/27
RPM	1180 RPM MAX 1800
HZ	60 PH 3 CLASS H
SER.F.	1.00 DES A SL HZ 1
NEMA-NOM-EFF	91.7 WK2 6.61
BLWR V	PH HZ A
RATING	40C AMB-CONT
DE BRG	6311 ODE BRG 6309
CC	010A SER.NO

Parts List		
Part Number	Description	Quantity
SA343152	SA 10F206Y730Z1	1.000 EA
RA331597	RA 10F206Y730Z1	1.000 EA
10CB3000SP	STD KO BOX MODEL 310,312,314 MTRS W/2.00	1.000 EA
12GS1000SP	GASKET	1.000 EA
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	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
10EP1104A57	FR. E.P. TEBC W/THRU SHAFT ENCODER DESIG	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
10XN3816K32	BOLT, 3/8-16X2 HH YZ(5)	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA
HA1005A26	SLINGER, OD 3.00, ID 1.75, 309 BRG	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
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 EA
10XN2520K32	1/4-20 X 2.00 HX HD SCRW GRADE 5, ZINC P	2.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 EA
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA
10EP1105A01	PU ENDPLATE, MACH	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 EA
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 EA

Parts List (continued)		
Part Number	Description	Quantity
HA1005A04	SLINGER, OD 3.620, ID 1.98,	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	6.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	6.000 EA
10FH4006	310 VECTOR DR FAN HSG DUAL MTG (F1/F2	1.000 EA
HA6354A01	MTG. BRACKET 310 FRAME FAN HOUSING	4.000 EA
10XN3118K08	5/16-18 X .50 GRADE #5, STL, ZINC PLATE	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA
WD4101A09	STIMPSON D3560, .875 DIA. HOLE PLUG	1.000 EA
10CB3500SP	CONDUIT BOX LID, CAST	1.000 EA
10GS1000SP	GASKET, CONDUIT BOX LID	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 EA
HW2501H28	KEY, 1/2 SQ X 3.250	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
LB1009N	LABEL,ROTATION DIRECTION (ON ROLLS)	1.000 EA
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 EA
HA4017A01	1/8 X 4 GREASE EXT (F/S)	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 (USe 4824-15A)	0.130 LB
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
EF5002	VENTURI/GRILLE KIT FOR 310/312 TEBC MOTO	1.000 EA
33CB3002	CONDUIT BOX, CAST	1.000 EA

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34CB4500SP	CONDUIT BOX LID, STAMPED	1.000 EA
34GS1001	GASKET, STD CONDUIT BOX LID (LEXIDE)	1.000 EA
51XT0832A07	8-32 X .44 TYPE 23 HEX WASHER SLOTTED	4.000 EA
RM1022A02	GROMMET .875 ID 1.00 OD .12 WALL,VENDOR#	1.000 EA
51XN0832A12	8-32 HEX SLOT WSHR HD MACH SC GRADE 2, Z	2.000 EA
HW1001A08	WASHER, #8 SPLT LK, ZN	4.000 EA
XY0832A02	8-32 HEX NUT	2.000 EA
WD4101A08	STIMPSON #D3557,1.188 DIA. HOLE PLUG	1.000 EA
MG1000G27	MED CHARCOAL METALLIC GREY 400-0096	0.125 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
ENC02BC-B2	ENCDR KIT TEBC W/OEHS35A09 W/BLIND SHAFT	1.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0181	CONNECTION LABEL	1.000 EA
NP1168L	ALUM VEC UL CSA CC	1.000 EA
10PA1010	PACKAGING GROUP, PRINT PK1151A06	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 5/18	1.000 EA

AC Induction Motor Performance Data

Record # 66239 - Typical performance - not guaranteed values

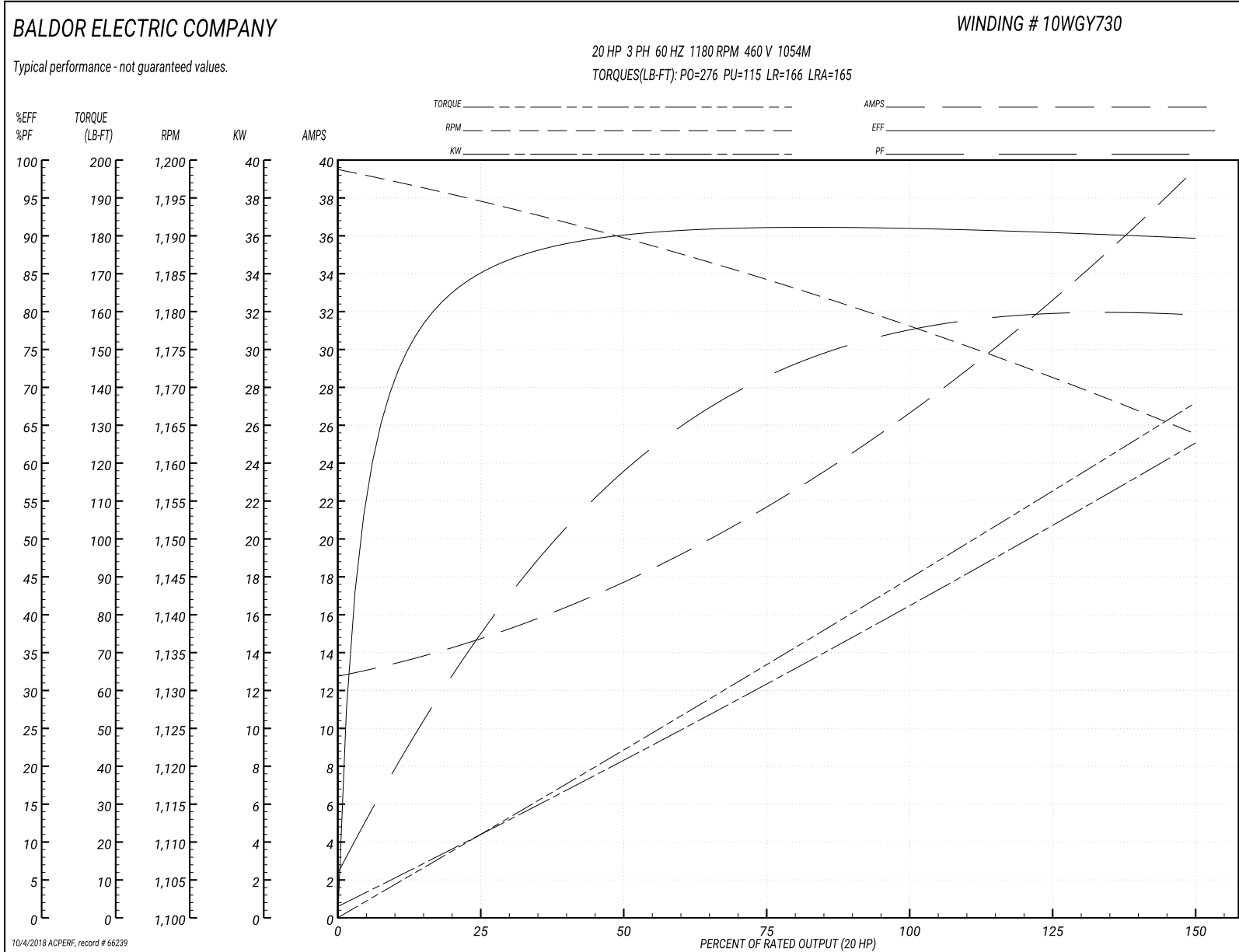
Winding: 10WGY730-R028	Type: 1054M	Enclosure: TEBC
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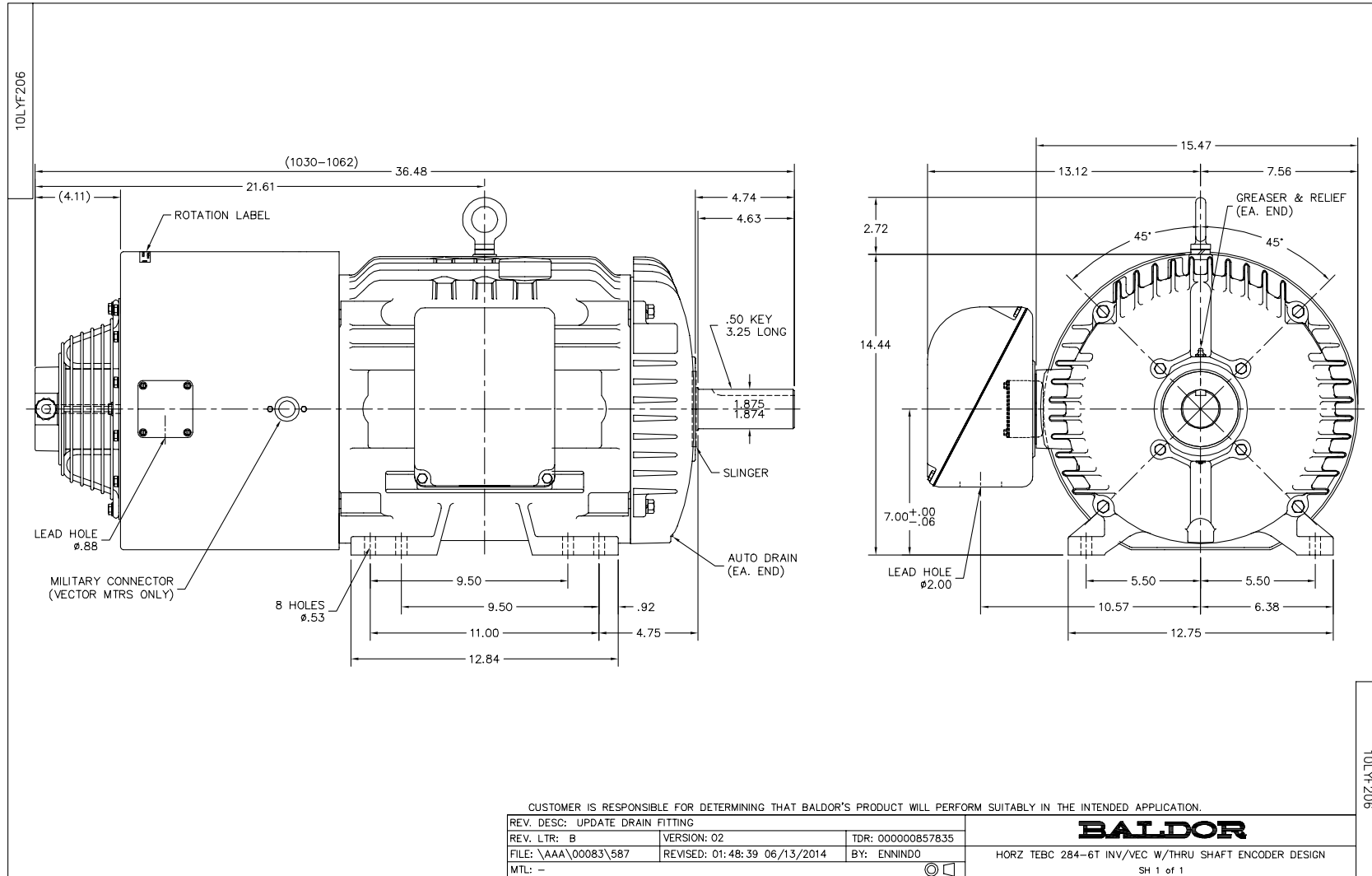
Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	20			Full Load Torque	90.1 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	54/27			Breakdown Torque	276 LB-FT
R.P.M.	1180			Pull-up Torque	115 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	166 LB-FT
NEMA Design Code	A	KVA Code	H	Starting Current	165 A
Service Factor (S.F.)	1			No-load Current	13.1 A
NEMA Nom. Eff.	91.7	Power Factor	77	Line-line Res. @ 25°C	0.425 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	65°C
				Locked-rotor Power Factor	31.8
				Rotor inertia	6.61 LB-FT ²

Load Characteristics 460 V, 60 Hz, 20 HP

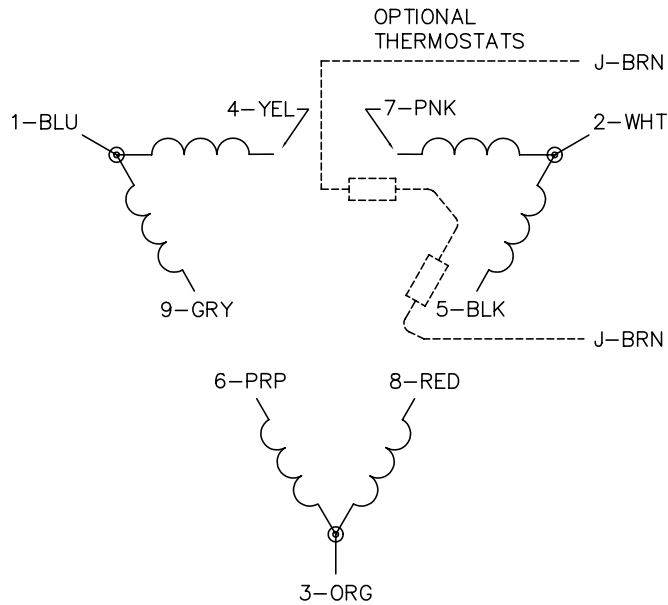
% of Rated Load	25	50	75	100	125	150
Power Factor	39	60	71	77	79	80
Efficiency	86.6	91.1	91.9	91.7	90.9	89.8
Speed	1194.6	1189.5	1184.1	1178.3	1171.4	1163.8
Line amperes	14.3	17.5	21.9	26.9	32.7	39.3

Performance Graph at 460V, 60Hz, 20.0HP Typical performance - Not guaranteed values

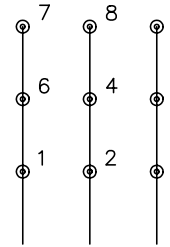




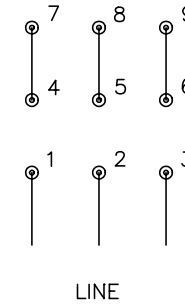
CD0180



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.

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			
REV. LTR: C	BY: JLP	REVISED: 01/21/99 2:28	TDR: 0171435
0810D0		FILE: AAA00005148	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS, DELTA CONNECTION

CD0180

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