

BALDOR® • **RELIANCE**

Product Information Packet

IDVSM3770T

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 0738M, TEFC

Part Detail							
Revision:	J	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	07WGX790	CD Diagram:	CD0005	Mfg Plant:	
Mech. Spec:	07M288	Layout:	07LYM288	Poles:	04	Created Date:	09-05-2012
Base:	RG	Eff. Date:	04-05-2017	Leads:	9#14		

Specs			
Catalog Number:	IDVSM3770T	Insulation Class:	F
Enclosure:	TEFC	Inverter Code:	Inverter Duty
Frame:	213TC	KVA Code:	J
Frame Material:	Iron	Lifting Lugs:	Standard Lifting Lugs
Output @ Frequency:	7.500 HP @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 14 AWG
Voltage @ Frequency:	230.0 V @ 60 HZ	Motor Lead Exit:	Ko Box
	460.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	0738M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	UR	Power Factor:	81
	CSA	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	C-Face
Base Indicator:	Rigid	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End
Current @ Voltage:	19.000 A @ 230.0 V	Shaft Ground Indicator:	No Shaft Grounding

	9.500 A @ 460.0 V	Shaft Rotation:	Reversible
Design Code:	A	Shaft Slinger Indicator:	No Slinger
Drip Cover:	No Drip Cover	Speed Code:	Single Speed
Duty Rating:	CONT	Motor Standards:	NEMA
Electrically Isolated Bearing:	Not Electrically Isolated	Starting Method:	Direct on line
Feedback Device:	NO FEEDBACK	Thermal Device - Bearing:	None
Front Face Code:	Encoder/Feedback Device	Thermal Device - Winding:	Normally Closed Thermostat
Front Shaft Indicator:	No Key Or Flat	Vibration Sensor Indicator:	No Vibration Sensor
Heater Indicator:	No Heater	Winding Thermal 1:	None
		Winding Thermal 2:	None

Nameplate NP3301L	
CAT NO	IDVSM3770T
SPEC.	07M288X790G1
FRAME	213TC HP 7.5 TE
VOLTS	230/460
MAG CUR	8.6/4.3 FLA 19/9.5
RPM	1770 RPM MAX 4000
HZ	60 PH 3 CLASS F
SER.F.	1.00 SL HZ 1
NEMA-NOM-EFF	91.7 WK2 0.934
RATING	40C AMB-CONT
DE BRG	6307 ODE BRG 6206
CC	010A SN
	1.5:1 CHP PWM

Parts List		
Part Number	Description	Quantity
SA250809	SA 07M288X790G1	1.000 EA
RA237657	RA 07M288X790G1	1.000 EA
37FN3002C01	EXFN, PLASTIC, 6.00 OD, 1.155 ID	1.000 EA
HW3201A05	3/8-16 EYEBOLT	1.000 EA
09CB3002SP	CB W/1.38 LEAD HOLE FOR 37, 39, 307 & 30	1.000 EA
09GS1000SP	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 EA
WD1000B17	T&B CX35TN TERMINAL	1.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
HW3001B01	BRASS CUP WASHER, FOR #8 SCREW	1.000 EA
07EP1901A36	FRONT 206 BRG,GRSR,REL,#18 DRAIN	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HW5100A06	W2420-025 WVY WSHR (WB)	1.000 EA
37PE1300A10	PUEP ASSEMBLY FOR ROUTING	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
10XN2520A30	HEX HD CAP SCREW-STD THD-.25 X 20 THD PE	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
XY3118A12	5/16-18 HEX NUT DIRECTIONAL SERRATION	4.000 EA
07FH1002A24	C-FACE FH W/ 206 BRG. GRSR, REL & STD DR	1.000 EA
WD4100A02	DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL	1.000 EA
10XN3118A52	5/16-18 X 3-1/4 HEX HEAD CAP SCR,GR.5,Z/	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA

Parts List (continued)		
Part Number	Description	Quantity
HA1103A13	#4 X 4 SCREEN FOR FAN CVR 07FH1002 (MR21	1.000 EA
13XT0832A07	8-32X7/16 TYP 23 PAN HD SLT DX	4.000 EA
HA6059A05	ADAPTER FOR 8.50" RABBET TO 4.50" RABBET	1.000 EA
84XN5013J16S	1/2-13 X 1 LOW HEAD HEX SOC HD, GRADE 8	4.000 EA
HW1001A50	LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I	4.000 EA
HA6881	BEI HS35 THRU SHAFT ENCODER PROTECTIVE C	1.000 EA
10XN3816A10	3/8-16 X 5/8 HEX HD CAP SCREW	3.000 EA
09CB3501SP	CONDUIT BOX LID FOR 09CB3001 & 09CB3002	1.000 EA
09GS1013SP	09 GS FOR 09CB3501 LID - LEXIDE	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 EA
HW2501F21	KEY, 5/16 SQ X 2.375	1.000 EA
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	0.050 LB
HA3104A32	THRUBOLT- 5/16-18 X12.750	4.000 EA
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 EA
MG1025N19	MUNSELL 8.5BG 3.57/2.0, GLOSS 30, B/G,	0.036 GA
LB1119N	WARNING LABEL	1.000 EA
LC0145B01	CONNECTION LABEL	1.000 EA
NP3301L	SS INV UL CSA CC (W/OUT DESIGN FIELD)	1.000 EA
07PA1011	PKG GRP, 07 CAST IRON PK1181	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1100/bx) 11/14	1.000 EA

REL. S.O.	IDVSM3770T	VOLTS	460	ENCLOSURE	TEFC	WYE CONNECTION	CHMS PER PHASE
FRAME	213TC	AMPS	9.5	MAX SAFE RPM	4000	(AT BASE RATING, 25°C)	
HP	7.5	DUTY	CONT	In (AMPS)	4.3	R1	0.7550 X1 2.5800
BASE SPEED	1770	S.F.	1.0	P.F. @NL/FL	5/81	R2	0.4560 X2 1.9300
PHASE/HZ	3/60	AMB ⁰ C/INSUL	40/F	WK ² (lb-ft ²)	0.86		XMI 56.0000

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1769	7.5	22.30	460	60	9.44
Max Speed	2653	7.5	14.82	460	90	8.80
Min Speed	0	0.0	22.13	27.10	1.03	9.44

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1799	0.0	0.00	460	60	4.30
1/4	1792	1.8	5.40	460	60	4.68
1/2	1784	3.7	11.00	460	60	5.93
3/4	1777	5.6	16.50	460	60	7.53
Full Load	1769	7.5	22.30	460	60	9.44
O/L	1714	17.9	54.90	460	60	23.00

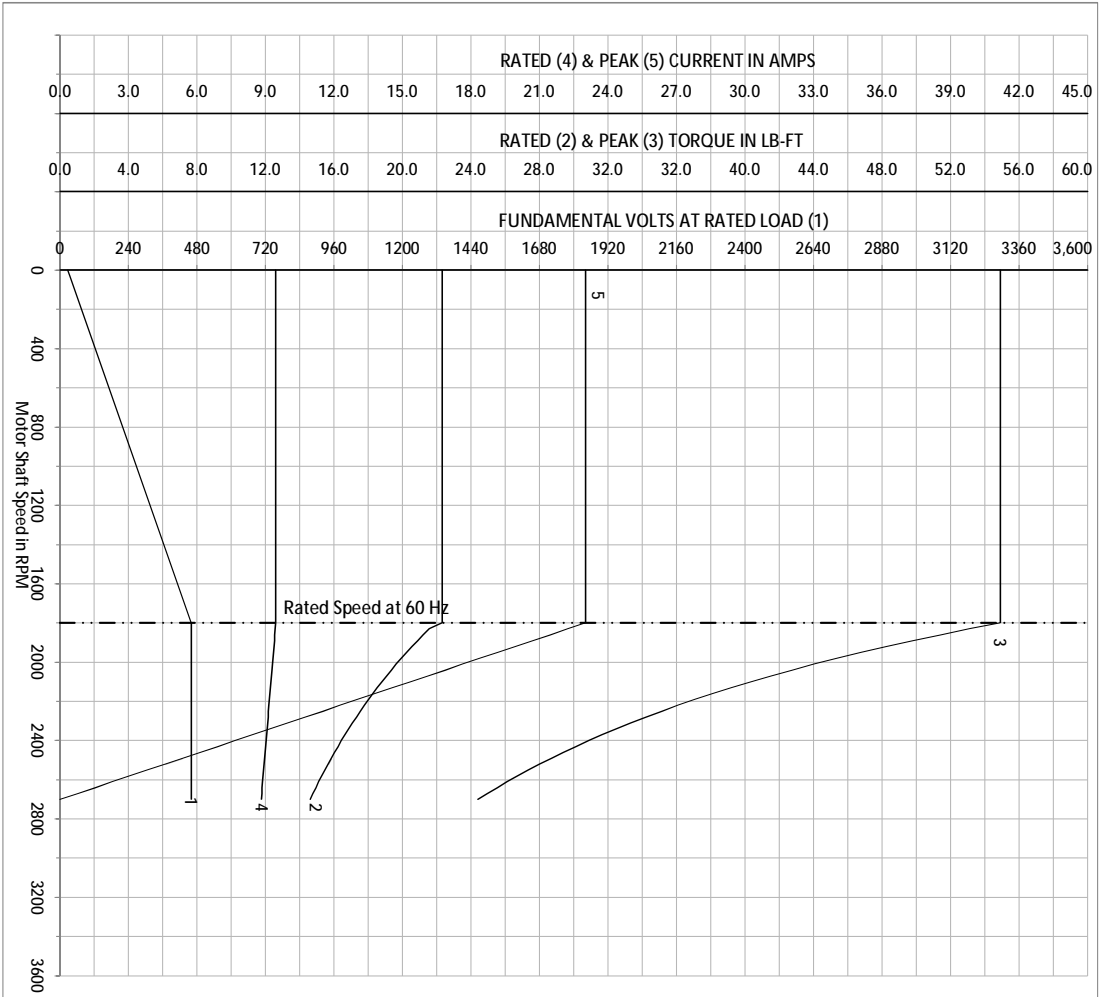
Blower Data	Volts	Ph/Hz	FL Amps	LR Amps	Frame	CFM

Remarks: Calculated Data
Vector PWM Inverter Duty

 <small>A MEMBER OF THE ABB GROUP</small>	<small>DR BY</small> Michael Williams <small>CK BY</small> Michael Williams <small>APP BY</small> Michael Williams <small>DATE</small> 8/27/2012	A-C MOTOR PERFORMANCE CURVES	07M156X790Z1
	<small>ISSUE DATE</small> 8/27/2012		

REL. S.O.	IDVSM3770T	VOLTS	460	ENCLOSURE	TEFC	WYE/CONN/EO/CKT/OHMS/PER/PHASE
FRAME	213TC	AMPS	9.5	MAX SAFE RPM	4000	(AT BASE RATING, 25°C)
HP	7.5	DUTY	CONT	In (AMPS)	4.3	R1 0.7550 X1 2.5800
BASE SPEED	1770	S.F.	1.00	P.F. @NL/FL	5/81	R2 0.4560 X2 1.9300
PHASE/HZ	3/60	AMB ⁰ C/INSUL.	40/F	Wk ² (lb-ft ²)	0.86	XM 56.0000

Vector PWM Inverter Duty
Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

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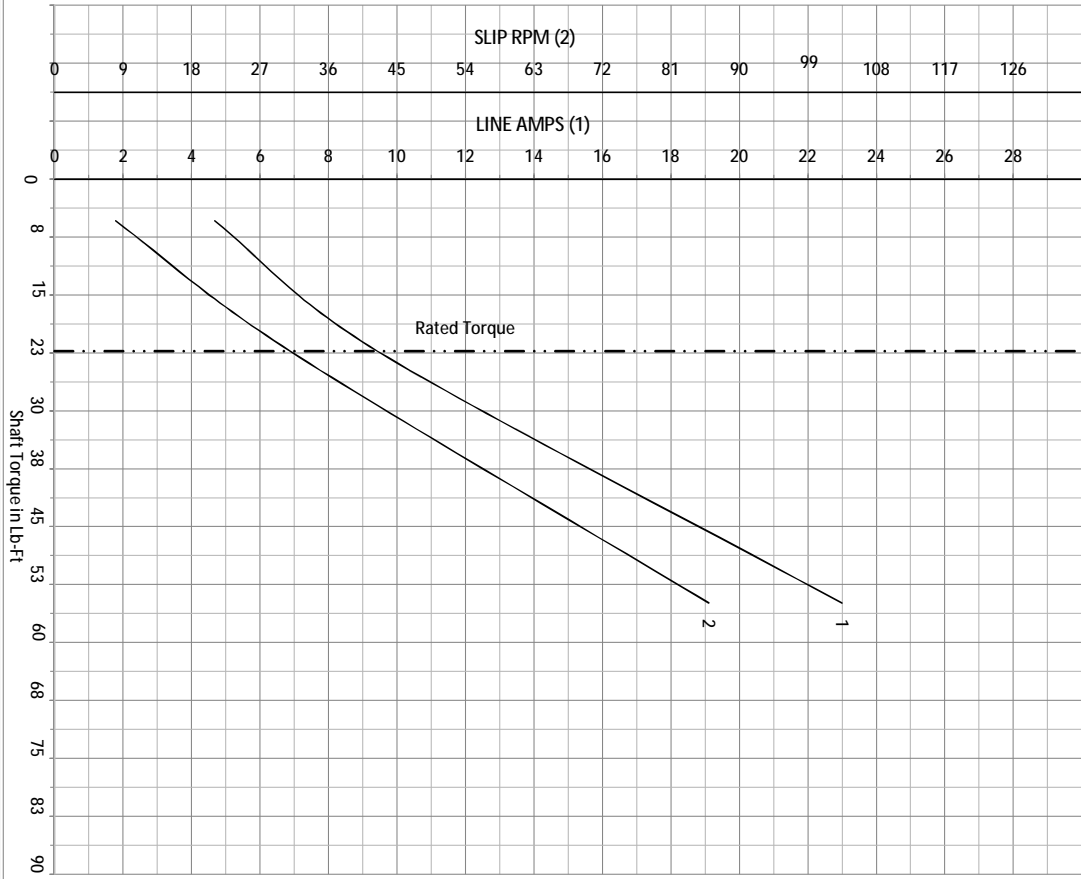
DR BY: Michael Williamson
CK BY: Michael Williamson
APP BY: Michael Williamson
DATE: 8/27/2012

A-C MOTOR PERFORMANCE CURVES

07M156X790Z1
SH 1 of 2
ISSUE DATE: 8/27/2012

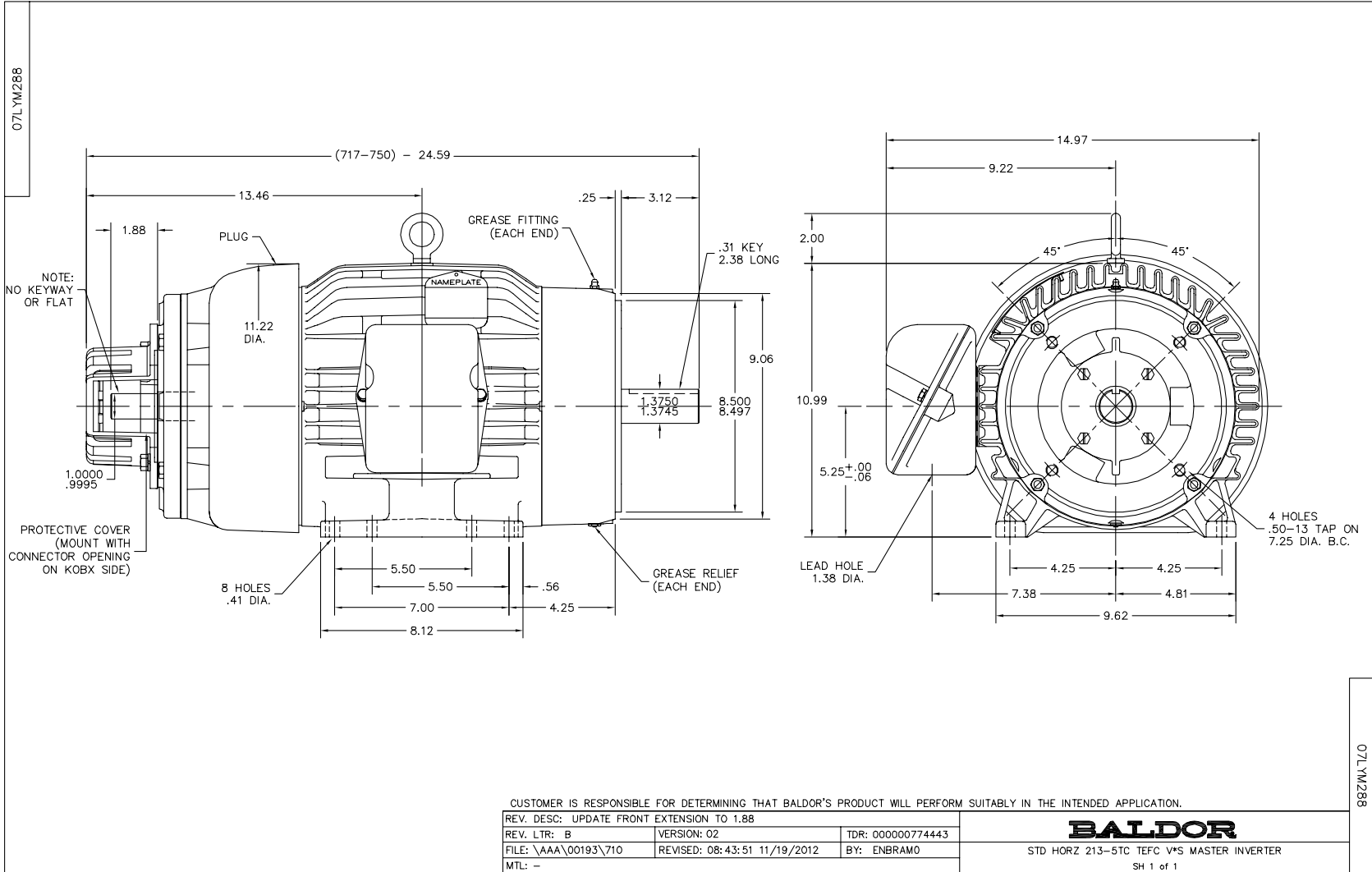
REL. S.O.	IDVSM3770T	VOLTS	460	ENCLOSURE	TEFC	WFE CONN. EQ. CKT OHMS PER PHASE
FRAME	213TC	AMPS	9.5	MAX SAFE RPM	4000	(AT BASE RATING, 25°C)
HP	7.5	DUTY	CONT	In (AMPS)	4.3	R1 0.7550 X1 2.5800
BASE SPEED	1770	S.F.	1.00	P.F. @NL/FL	5/81	R2 0.4560 X2 1.9300
PHASE/HZ	3/60	AMB ⁶ /INSUL.	40/F	WK ² (Lb-Ft ²)	0.86	XM 56.0000

Vector PWM Inverter Duty
Variable Speed AC Motor Curves



Calculated Data
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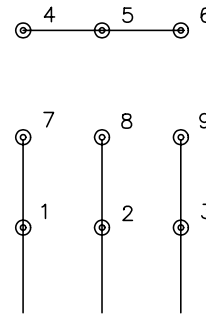
<p>BALDOR A MEMBER OF THE ABB GROUP</p>	<p>DR BY Michael Williams CK BY Michael Williams APP BY Michael Williams DATE 8/27/2012</p>	<p>A-C MOTOR PERFORMANCE CURVES</p>	<p>07M156X790Z1 SH 1 of 2 ISSUE DATE 8/27/2012</p>
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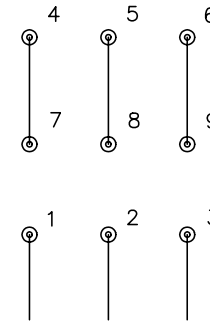


LOW VOLTAGE
(2Y)



LINE

HIGH VOLTAGE
(1Y)



LINE

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
90000		FILE: AAA00005140	MDL: -
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BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005