ABB BALDOR RELIANCE

Customer information packet

EM2531T-5BG

25HP, 1770RPM, 3PH, 60HZ, 284T, 4050M, OPSB, F1

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Specifications

Enclosure	OPSB
Frame	284T
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	25.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	CSA EEV
	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	24.500 A @ 575.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.6 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	24.5 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	G

Part Detail

Revision	R
Type	AC
Mech. spec.	40E332
Base	
Status	PRD/A
Elec. spec.	40WGX795
Layout	40LYE332
Eff. date	02-12-2024
CD Diagram	CD0006
Poles	04
Leads	3#10
Proprietary	False
Created date	09-23-2014

Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4050M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	25.06 IN
Power Factor	82
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP2138L												
CAT.NO.	EM2531T-5BG		**P/N**			**ENCLOSURE**	OPSB					
SPEC.	40E332X795G1	**CC**	010A	**FRAME**	284T	**S/N**						
HP	25		**CLASS**	H	**HZ**	60						
RPM	1770		**PH**	3	**DES**	A						
VOLT	575				**KVA-CODE**	G	**ODE BRG**	6309	**DE BRG**	6311		
AMP	24.5											
RATING	40C AMB-CONT			**GREASE**	POLYREX EM							
NEMA-NOM-EFF	93.6	**PF**	82	**SER.F.**	1.15							
HTR-VOLTS		**HTR-AMPS**										

Parts List

Part number	Description	Quantity
SA287425	SA 40E332X795G1	1.000 ea
RA273638	RA 40E332X795G1	1.000 ea
HA6361A01	LIFTING LUG FOR 37, 39 & 40 FRAME ZINC	2.000 ea
HA6017	CAST ADAPTER, 40,42 KOBX	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	2.000 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	2.000 ea
10CB3000SP	KOBX, CAST W/2.00 LEAD HOLE	1.000 ea
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	4.000 ea
40EP3200A02	STD FREP OPEN 309 BRG	1.000 ea
HW5100A11	W3917-042 WVY WSHR (WB)	1.000 ea
40EP3200B01	STD PUEP OPEN 311 LOCKED BRG W/AIR DEFLE	1.000 ea
10XN3118K40	5/16-18 X 2.25" HEX HD, GRADE 5	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	8.000 ea
10CB3500	CONDUIT BOX LID, CAST	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
LB1508	LABEL "SHAFT GROUNDING BRUSH" 1.50 X .81	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.070 ga
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A20	1/8NPT SL PIPE PLUG	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 ea
40AD2002A01	LEXAN BAFFLE 40 FR OPEN	1.000 ea

HA3154A04	THRUBOLT STUD 3/8-16 X 18.750	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0006	CONNECTION LABEL	1.000 ea
NP2138L	ALUM SUPER-E UL PREM CC (300	1.000 ea
40PA1000	PACKAGING GROUP	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
PE-0000013	ZRTG PE ASSEMBLY	1.000 ea
FE-0000022	ZRTG FE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data
Record # 50225
Typical performance - not guaranteed values

Winding: 40WGX795-R002	**Type:** 4050M	**Enclosure:** OPSB

Nameplate Data				**575 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			25	**Full Load Torque**	74 LB-FT
Volts			575	**Start Configuration**	direct on line
Full Load Amps			24.5	**Breakdown Torque**	220 LB-FT
R.P.M.			1770	**Pull-up Torque**	94.1 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	128 LB-FT
NEMA Design Code	B	**KVA Code**	G	**Starting Current**	155 A
Service Factor (S.F.)			1.15	**No-load Current**	10.6 A
NEMA Nom. Eff.	93.6	**Power Factor**	82	**Line-line Res. @ 25ºC**	0.508 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	28°C
S.F. Amps				**Temp. Rise @ S.F. Load**	35°C
				Locked-rotor Power Factor	34
				Rotor inertia	3.96 LB-FT2

Load Characteristics 575 V, 60 Hz, 25 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	44	67	77	82	83	83	82
Efficiency	89.6	93	93.8	93.6	93.1	92.3	93.3
Speed	1793	1787	1780	1773	1765	1755	1768
Line amperes	11.8	15.1	19.4	24.5	29.9	36	27.7

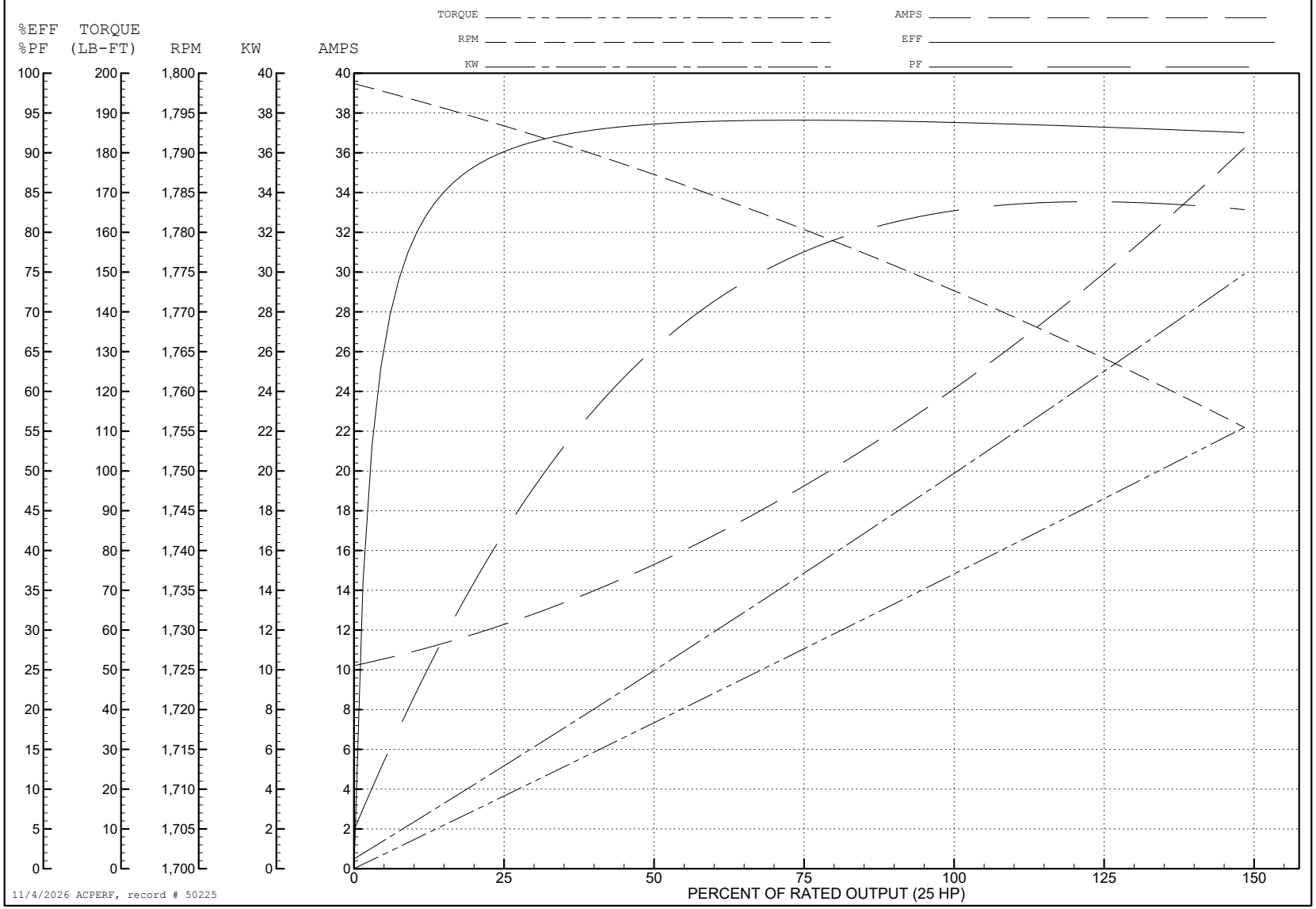
ABB Motors and Mechanical Inc.

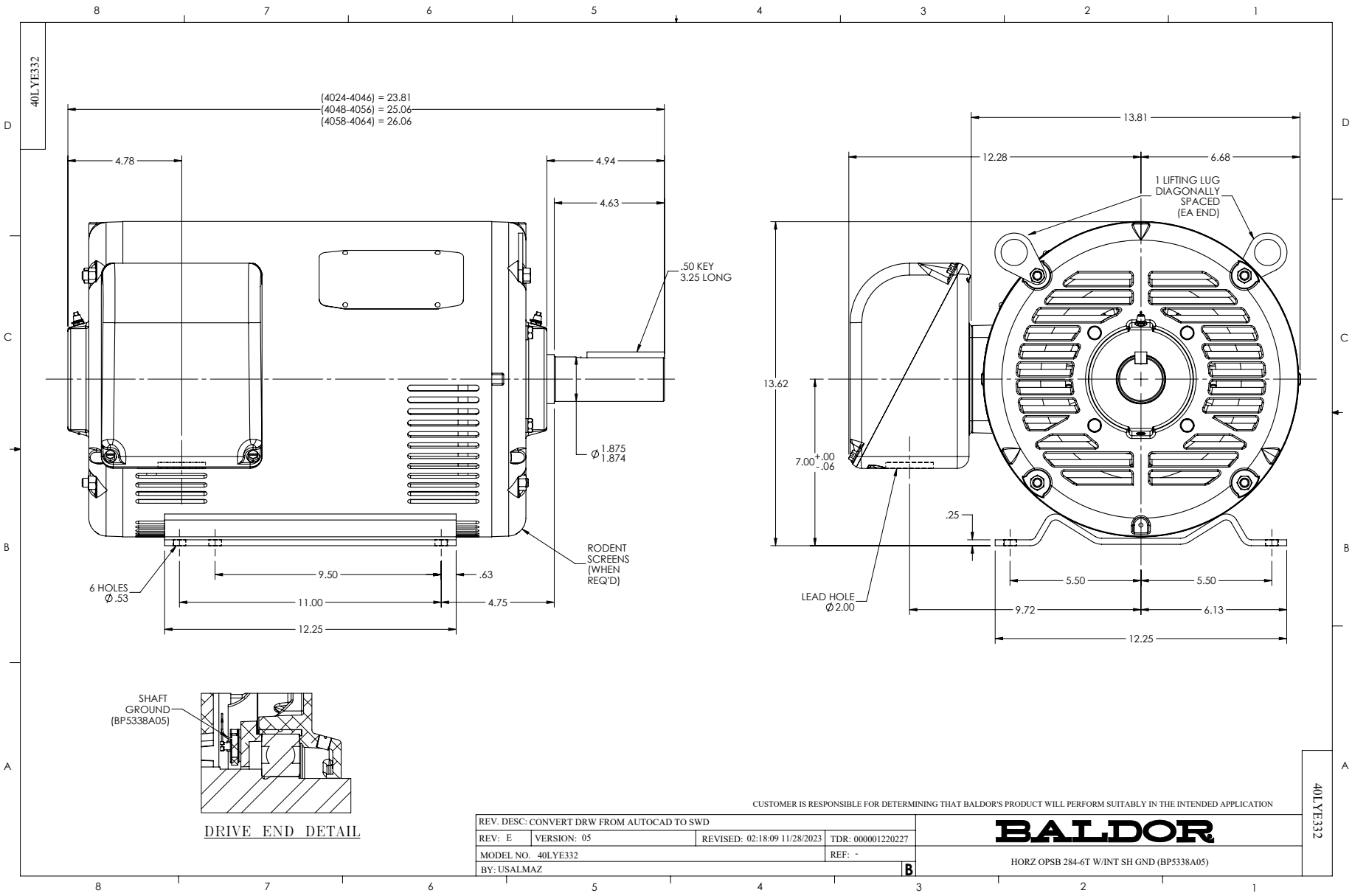
WINDING # 40WGX795

25 HP 3 PH 60 HZ 1770 RPM 575 V 4050M

Typical performance - not guaranteed values.

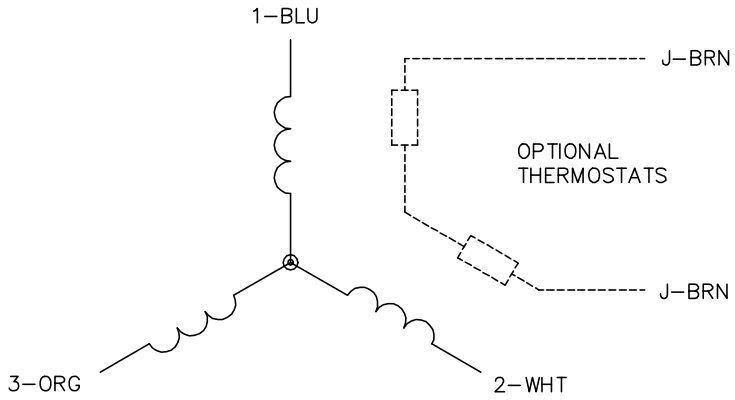
TORQUES(LB-FT): PO=220 PU=94.1 LR=128 LRA=155

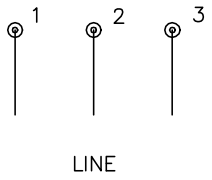



40LYE332
(4024-4046) = 23.81
(4048-4056) = 25.06
(4058-4064) = 26.06
4.78
4.94
4.63
.50 KEY
3.25 LONG
Ø 1.875
1.874
6 HOLES
Ø .53
9.50
.63
11.00
4.75
12.25
RODENT
SCREENS
(WHEN
REQ'D)
13.81
12.28
6.68
1 LIFTING LUG
DIAGONALLY
SPACED
(EA END)
13.62
7.00 +.00 -.06
.25
LEAD HOLE
Ø 2.00
5.50
5.50
9.72
6.13
12.25
SHAFT
GROUND
(BP5338A05)
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT DRW FROM AUTOCAD TO SWD
REV: E
VERSION: 05
REVISED: 02:18:09 11/28/2023
TDR: 000001220227
MODEL NO. 40LYE332
REF: -
BY: USALMAZ
B
BALDOR
HORZ OPSB 284-6T W/INT SH GND (BP5338A05)
40LYE332

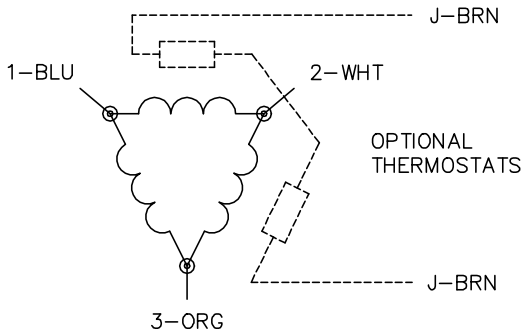
CD0006

TYPICAL WYE–CONNECTED MOTOR





TYPICAL DELTA–CONNECTED MOTOR



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1