ABB BALDOR RELIANCE

Customer information packet

CEM3559T-5

3HP, 3450RPM, 3PH, 60HZ, 145TC, 3532M, TEFC, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	143TC
Frame Material	Steel
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	3.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	NEMA PREMIUM CURUSEEV
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	2.900 A @ 575.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	86.5 %
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	2.9 a
Insulation Class	F
Inverter Code	Inverter Ready

Part Detail

Revision	R
Type	AC
Mech. spec.	35TT856
Base	
Status	PRD/A
Elec. spec.	35WGM839
Layout	35LYTT856
Eff. date	04-30-2024
CD Diagram	CD0006
Poles	02
Leads	3#18
Proprietary	False
Created date	08-03-2010

KVA Code	L
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	3 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3532M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	14.17 IN
Power Factor	92
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	0.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	3450 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

NP3441L									
CAT.NO.	CEM3559T-5								
SPEC.	35TT856M839G1								
HP	3								
VOLTS	575								
AMP	2.9								
RPM	3450								
FRAME	143TC	**HZ**	60				**PH**	3	
SER.F.	1.15	**CODE**	L	**DES**	B	**CL**	F		
NEMA-NOM-EFF	86.5	**PF**	92						
RATING	40C AMB-CONT								
CC	010A								
DE	6205	**ODE**	6203						
ENCL	TEFC	**SN**							
VPWM INVERTER READY									
CT6-60H(10:1)VT3-60H(20:1									

Parts List

Part number	Description	Quantity
SA201302	SA 35TT856M839G1	1.000 ea
RA188603	RA 35TT856M839G1	1.000 ea
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
NS2512A01	INSULATOR, CONDUIT BOX X	1.000 ea
35CB3009	35 CB W/1.09 DIA. LEAD HOLE @ 6:	1.000 ea
36GS1000SP	GASKET-CONDUIT BOX, .06 THICK #SV-330 LE	1.000 ea
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
35EP3122A00	MASTER ODE,203 BRG,.683SH,#26 DRN,GRSR,F	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP3307D00	MASTER DE,205 BRG,.998SH,#26 DRN,GRSR	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
51XN1032A20	10-32 X 1 1/4 HX WS SL SR	2.000 ea
35FH4005A84SP	IEC FH W/GRSR, NO DIMPLES PRIMED	1.000 ea
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 ea
35CB4521	35 LIPPED CB LID (GALV & PHOSPH)	1.000 ea
35GS1030	35 GS FOR CB LID - LEXIDE	1.000 ea
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.017 ga
HA3100A18	THRUBOLT 10-32 X 9.250	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0006	CONNECTION LABEL	1.000 ea
NP3441L	ALUM SUPER-E VPWM INVERTER READY UL EEV	1.000 ea
36PA1000	PKG GRP, PRINT PK1016A08	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
FE-0000001	ZRTG FE ASSEMBLY	1.000 ea

PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

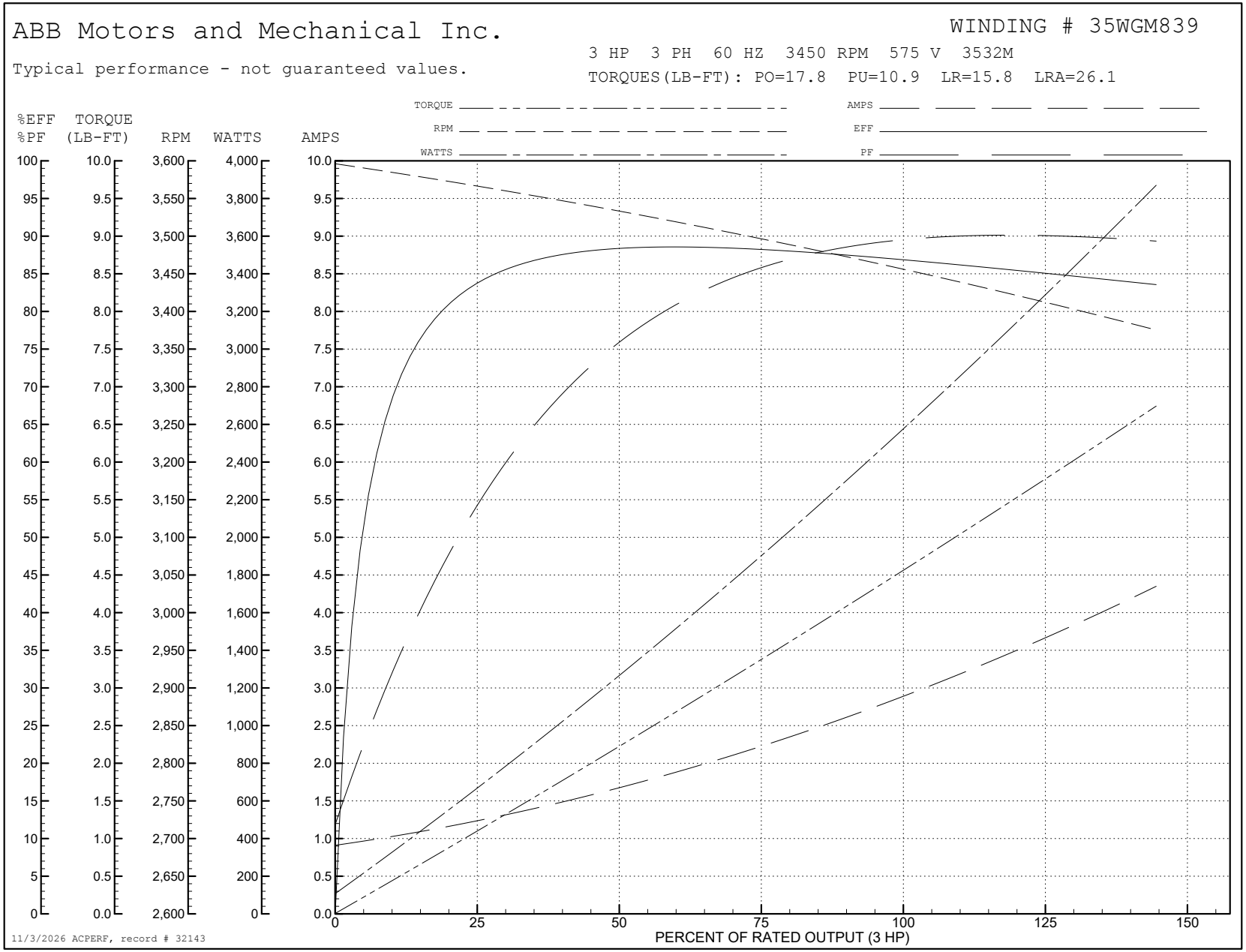
AC Induction Motor Performance Data
Record # 32143
Typical performance - not guaranteed values

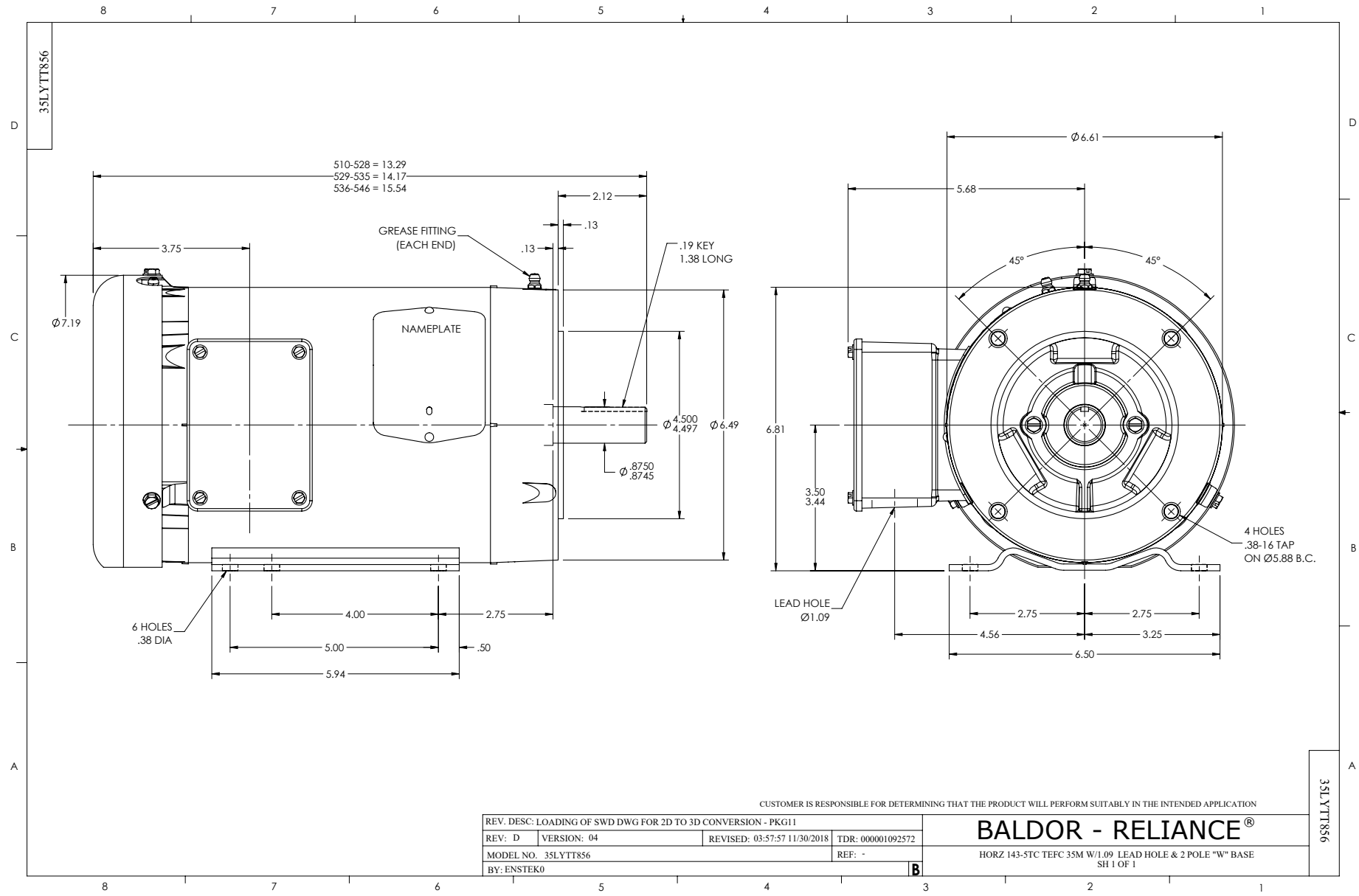
Winding: 35WGM839-R001	**Type:** 3532M	**Enclosure:** TEFC

Nameplate Data				**575 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			3	**Full Load Torque**	4.5 LB-FT
Volts			575	**Start Configuration**	direct on line
Full Load Amps			2.9	**Breakdown Torque**	17.8 LB-FT
R.P.M.			3450	**Pull-up Torque**	10.9 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	15.8 LB-FT
NEMA Design Code	B	**KVA Code**	L	**Starting Current**	26.1 A
Service Factor (S.F.)			1.15	**No-load Current**	0.948 A
NEMA Nom. Eff.	86.5	**Power Factor**	92	**Line-line Res. @ 25ºC**	7.47 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	61°C
S.F. Amps				**Temp. Rise @ S.F. Load**	74°C
				Locked-rotor Power Factor	47
				Rotor inertia	0.0885 LB-FT2

Load Characteristics 575 V, 60 Hz, 3 HP

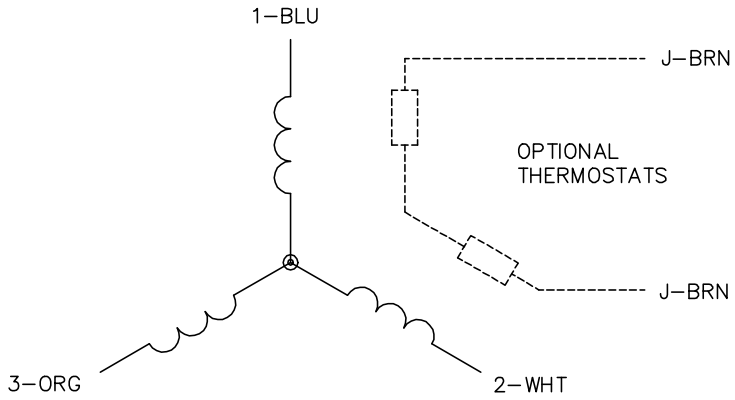
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	58	77	86	88	89	90	89
Efficiency	83.8	87.9	88.1	87.2	85.5	83.4	86.2
Speed	3562	3531	3497	3461	3419	3373	3436
Line amperes	1.19	1.67	2.23	2.88	3.6	4.32	3.31

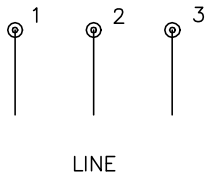

ABB Motors and Mechanical Inc.
WINDING # 35WGM839
Typical performance - not guaranteed values.
3 HP 3 PH 60 HZ 3450 RPM 575 V 3532M
TORQUES(LB-FT): PO=17.8 PU=10.9 LR=15.8 LRA=26.1
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (3 HP)
11/3/2026 ACPERF, record # 32143


35LYTT856
510-528 = 13.29
529-535 = 14.17
536-546 = 15.54
2.12
.13
.13
GREASE FITTING
(EACH END)
.19 KEY
1.38 LONG
3.75
Ø7.19
NAMEPLATE
Ø 4.500
4.497
Ø6.49
Ø .8750
.8745
6 HOLES
.38 DIA
4.00
2.75
5.00
.50
5.94
Ø6.61
5.68
45°
45°
6.81
3.50
3.44
4 HOLES
.38-16 TAP
ON Ø5.88 B.C.
LEAD HOLE
Ø1.09
2.75
2.75
4.56
3.25
6.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOADING OF SWD DWG FOR 2D TO 3D CONVERSION - PKG11
REV: D
VERSION: 04
REVISED: 03:57:57 11/30/2018
TDR: 000001092572
MODEL NO. 35LYTT856
REF: -
BY: ENSTEK0
B
BALDOR - RELIANCE®
HORZ 143-5TC TEFC 35M W/1.09 LEAD HOLE & 2 POLE "W" BASE
SH 1 OF 1
35LYTT856

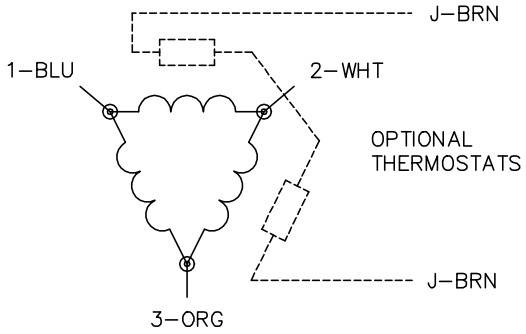
CD0006

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			BALDOR - RELIANCE®
REV. LTR: E	VERSION: 01	TDR: 000001099922	
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIR0	3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED
MTL: –			SH 1 of 1