ABB BALDOR RELIANCE

Customer information packet

IDM3581T-5

1HP, 1770RPM, 3PH, 60HZ, 143TC, 0520M, TEBC, F1
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEBC
Frame	143TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	1.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	CSA
	UR
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	BLOWER
Current @ Voltage	1.200 A @ 575.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	85.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	1.2 a
Insulation Class	H
Inverter Code	Inverter Duty
KVA Code	M

Part Detail

Revision	D
Type	AC
Mech. spec.	05E535
Base	
Status	PRD/A
Elec. spec.	05WGX567
Layout	05LYE535
Eff. date	09-30-2025
CD Diagram	CD0006
Poles	04
Leads	3#18
Proprietary	False
Created date	03-11-2022

Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	6000 rpm
Motor Lead Quantity/Wire Size	3 @ 18 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0520M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	19.02 IN
Power Factor	72
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.00
Shaft Diameter	0.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP4009L									
CAT.NO.	IDM3581T-5								
SPEC.	05E535X567G1								
FRAME	143TC		**H.P.**	1 TE					
VOLTS	575								
MAG. CUR.	0.77			**F.L. AMPS**	1.2				
R.P.M.	1770			**R.P.M. MAX**	6000				
HZ.	60	**PH.**	3	**CLASS**	H				
SER.F.	1.00	**DES.**	B	**SL HZ**	1				
NEMA NOM. EFF.	85.5	**WK2**	0.144						
BLOWER		**V**		**PH**		**HZ**		**AMPS**	
RATING	40C AMB-CONT								
DE	6205	**ODE**	6203						
CC	010A	**SN**							
	1000:1 CT/VT								

Parts List

Part number	Description	Quantity
SA408964	SA 05E535X567G1	1.000 ea
RA400511	RA 05E535X567G1	1.000 ea
34FN3002B01	EXTERNAL FAN, PLASTIC, .637/.639 HUB W/	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
HW3201A05	3/8-16 EYEBOLT	1.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
10XN2520A06	1/4 20X3/8 HX HD CAP	2.000 ea
06CB3000	BALDOR CONDUIT BOX CAST	1.000 ea
06GS1000	GASKET,CONDUIT BOX	1.000 ea
51XW2520A12	SCREW, HEX SER SLT HD, ZN, 1/4-20 X .75	2.000 ea
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 ea
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 ea
35EP1100B21	FRONT TEBC 203 BRG W/ GREASER & THRU-SHA	1.000 ea
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 ea
HW5100A03	WAVY WASHER (W1543-017)	1.000 ea
35EP1329A01	PU EP ENCL 143-5TC 205 BRG W/GRSR & STD	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
HA3100A28	THRUBOLT 10-32 X 8.187	4.000 ea
10XN2520A08	1/4-20X1/2 HEX HEAD CAP	1.000 ea
HA3218A04	MALE-FEMALE STANDOFF .25-.20 .38 HEX	3.000 ea
10XN2520A04	1/4-20 X 1/4 HEX HD MACH SCREW	3.000 ea
HW1003A25	WASHER, 1/4 EX TH LK, ZN X	3.000 ea
06CB3500	BALDOR CONDUIT BOX LID	1.000 ea
06GS1001	BALDOR CONDUIT BOX GASKET	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
HA1005A05SP	SLINGER, OD 1.50, ID .659, 203 BRG	1.000 ea
HW2501D13	KEY, 3/16 SQ X 1.375	1.000 ea
HA7000A01	KEY RETAINER 7/8" DIA SHAFT	1.000 ea
MJ5004A05	#242-21 LOCTITE GENERAL PURPOSE MED. STR	0.005 ea
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea

LB1009N	LABEL,ROTATION DIRECTION (ON ROLLS)	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.050 lb
05FH5001A03	BLOWER KIT,05FH4002,EF0008,35CB3002	1.000 ea
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.022 ga
LC0035B01	1PH, SV, FIX, 2 LEAD	1.000 ea
LC0006	CONNECTION LABEL	1.000 ea
NP4009L	SS INV UL CSA-EEV CC NEMA PREM	1.000 ea
G7PA1000	PKG GRP, PRINT PK1034A07	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
PE-0000001	ZRTG PE ASSEMBLY	1.000 ea

AC Induction Motor Performance Data
Record # 89184
Typical performance - not guaranteed values

Winding: 05WGX567-R002	**Type:** 0520M	**Enclosure:** TEBC

Nameplate Data				**575 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			1	**Full Load Torque**	2.96 LB-FT
Volts			575	**Start Configuration**	direct on line
Full Load Amps			1.2	**Breakdown Torque**	11.89 LB-FT
R.P.M.			1770	**Pull-up Torque**	7.42 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	9.63 LB-FT
NEMA Design Code	B	**KVA Code**	M	**Starting Current**	10.72 A
Service Factor (S.F.)			1	**No-load Current**	0.768 A
NEMA Nom. Eff.	85.5	**Power Factor**	72	**Line-line Res. @ 25ºC**	32.1 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	31°C
				Locked-rotor Power Factor	62.9842
				Rotor inertia	0.144 lb-ft²

Load Characteristics 575 V, 60 Hz, 1 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**
Power Factor	33	51	64	72	78	82
Efficiency	72.5	82.2	85.1	85.4	85.1	84
Speed	1792	1784	1776	1768	1758	1748
Line amperes	0.803	0.9	1.04	1.21	1.41	1.63

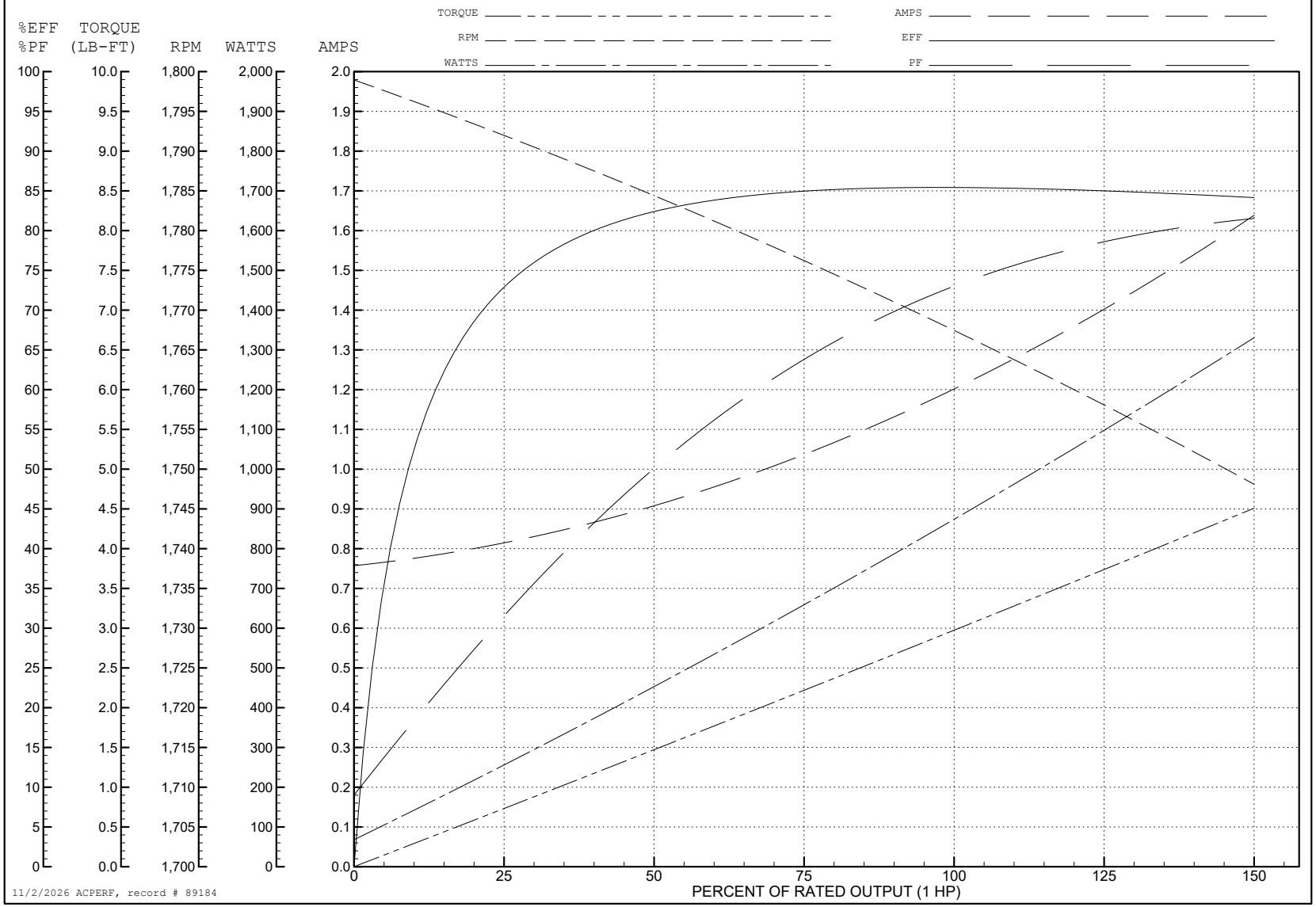
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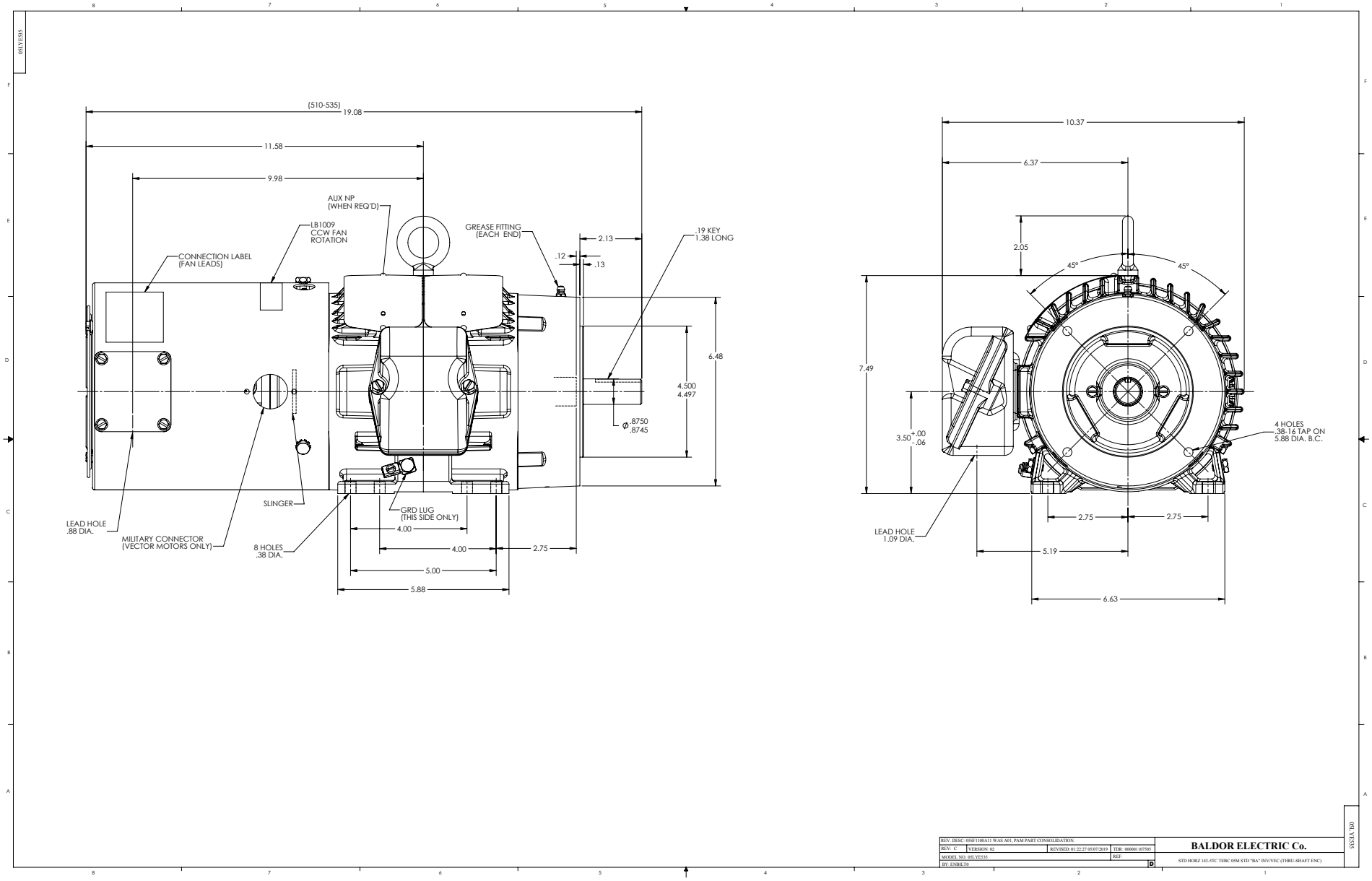
WINDING # 05WGX567

1 HP 3 PH 60 HZ 1770 RPM 575 V 0520M

Typical performance - not guaranteed values.

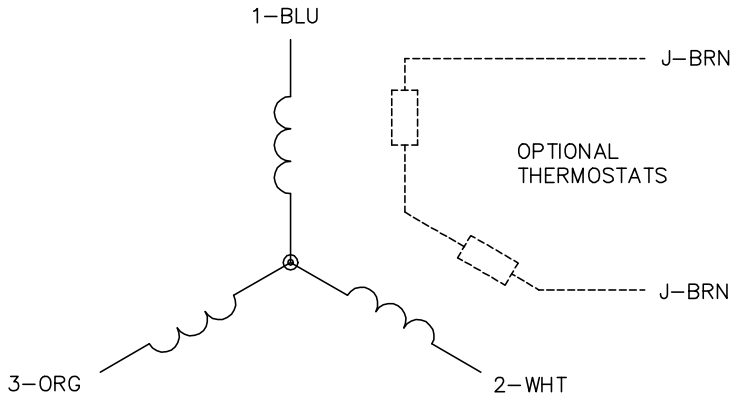
TORQUES(LB-FT): PO=11.89 PU=7.42 LR=9.63 LRA=10.72

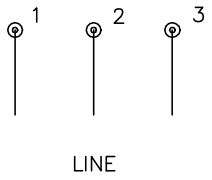



05LYE535
(510-535)
19.08
11.58
9.98
AUX NP
(WHEN REQ'D)
LB1009
CCW FAN
ROTATION
GREASE FITTING
(EACH END)
2.13
.19 KEY
1.38 LONG
.12
.13
CONNECTION LABEL
(FAN LEADS)
6.48
4.500
4.497
Ø .8750
.8745
SLINGER
GRD LUG
(THIS SIDE ONLY)
LEAD HOLE
.88 DIA.
MILITARY CONNECTOR
(VECTOR MOTORS ONLY)
8 HOLES
.38 DIA.
4.00
4.00
2.75
5.00
5.88
10.37
6.37
2.05
45°
45°
7.49
3.50 +.00 -.06
4 HOLES
.38-16 TAP ON
5.88 DIA. B.C.
2.75
2.75
LEAD HOLE
1.09 DIA.
5.19
6.63
REV DESC 05SF1100A13 WAS A01, PAM PART CONSOLIDATION
REV: C VERSION: 02 REVISED: 01.22.27 05/07/2019 TDR: 0000001107505
MODEL NO. 05LYE535 REF:
BY: ENBLTH
BALDOR ELECTRIC Co.
STD HORZ 143-5TC TEBC 05M STD "BA" INV/VEC (THRU-SHAFT ENC)
05LYE535

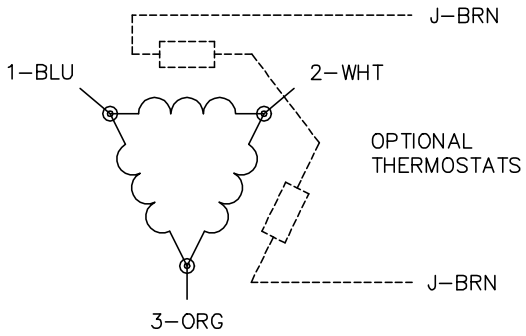
CD0006

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