ABB BALDOR RELIANCE

Customer information packet

VEJMM2334T-5

20HP, 1770RPM, 3PH, 60HZ, 256JM, 0960M, TEFC, F
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	256JM
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	20.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	575.0 V @ 60 HZ
Agency Approvals	UR
	CSA
	CSA EEV
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	No Mounting
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	19.200 A @ 575.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
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	19.2 a
Insulation Class	F

Part Detail

Revision	Q
Type	AC
Mech. spec.	09E178
Base	
Status	PRD/A
Elec. spec.	09WGT507
Layout	09LYE178
Eff. date	04-16-2024
CD Diagram	CD0006
Poles	04
Leads	3#10
Proprietary	False
Created date	11-17-2017

Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	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	0960M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	25.28 IN
Power Factor	83
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.750 IN
Shaft Extension Location	Pulley End
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	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP3441L								
CAT.NO.	VEJMM2334T-5							
SPEC.	09E178T507G1							
HP	20							
VOLTS	575							
AMP	19.2							
RPM	1770							
FRAME	256JM	**HZ**	60		**PH**	3		
SER.F.	1.15	**CODE**	J	**DES**	A	**CL**	F	
NEMA-NOM-EFF	93	**PF**	83					
RATING	40C AMB-CONT							
CC	010A							
DE	6309	**ODE**	6208					
ENCL	TEFC	**SN**						
VPWM INVERTER READY								
CT6-60H(10:1)VT3-60H(20:1								
	SFA 21.7							

Parts List

Part number	Description	Quantity
SA347955	SA 09E178T507G1	1.000 ea
RA336514	RA 09E178T507G1	1.000 ea
09FN3001D01SP	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
HW1002A63	WASHER, 5/8 HI-COLLAR SPRLCKWASHER	1.000 ea
09CB3003	CB W/1.75" DIA LD HL - 37, 39, 307 & 309	1.000 ea
09GS1000	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 ea
09EP1100A14	FREP ASSM, (FOR INTRL ROUTING PURPOSE)	1.000 ea
HA3400A33	STUD- 3/8-16 X 4.96 HEX	4.000 ea
XY3816A12	3/8-16 FINISHED NUT W/SERRATIONS	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
HW5100A08	W3118-035 WVY WSHR (WB)	1.000 ea
10XN2520K28	1/4-20 X 1.75" HX HD SCRWGRADE 5, ZINC P	2.000 ea
09EP1300A13	ENDPLATE, MACH	1.000 ea
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW4600B67	V-RING SLINGER 1.770 X 2.170 X .28 VITON	1.000 ea
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
09FH4000SP	309 FH - BLACK PRIMER	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
09CB3501SP	CONDUIT BOX LID FOR 09CB3001 & 09CB3002	1.000 ea
09GS1013SP	GS FOR 09CB3501, 12CB1500 & 12CB1503 LID	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
HW2501E22	KEY, 1/4 SQ X 2.500	1.000 ea
PK6014	STEEL STRAP FOR 309-312 BASELESS MOTORS	4.000 ea
19XW3118A08	.31-18 X .50 HEX WASHER HEAD TAPTITE II	4.000 ea
HW4500A05	1669B ALEM/UNIV860 GR FTG X	1.000 ea

HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.080 lb
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.050 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 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
40PA1017	PACKAGING GROUP, 09 VERT LARGE FLANGE	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

AC Induction Motor Performance Data
Record # 67979
Typical performance - not guaranteed values

Winding: 09WGT507-R001	**Type:** 0960M	**Enclosure:** TEFC

Nameplate Data				**575 V, 60 Hz: Single Voltage Motor**	
Rated Output (HP)			20	**Full Load Torque**	59.29 LB-FT
Volts			575	**Start Configuration**	direct on line
Full Load Amps			19.2	**Breakdown Torque**	231 LB-FT
R.P.M.			1770	**Pull-up Torque**	126 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	140 LB-FT
NEMA Design Code	A	**KVA Code**	J	**Starting Current**	158 A
Service Factor (S.F.)			1.15	**No-load Current**	8.28 A
NEMA Nom. Eff.	93	**Power Factor**	83	**Line-line Res. @ 25ºC**	0.499 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	58°C
S.F. Amps				**Temp. Rise @ S.F. Load**	69°C
				Locked-rotor Power Factor	26.5
				Rotor inertia	2.65 lb-ft²

Load Characteristics 575 V, 60 Hz, 20 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	45	67	78	83	86	87	85
Efficiency	89.2	93	93.7	93.5	93.1	92.4	93.3
Speed	1793	1786	1779	1772	1764	1755	1767
Line amperes	9.41	11.99	15.34	19.19	23.44	27.92	21.7

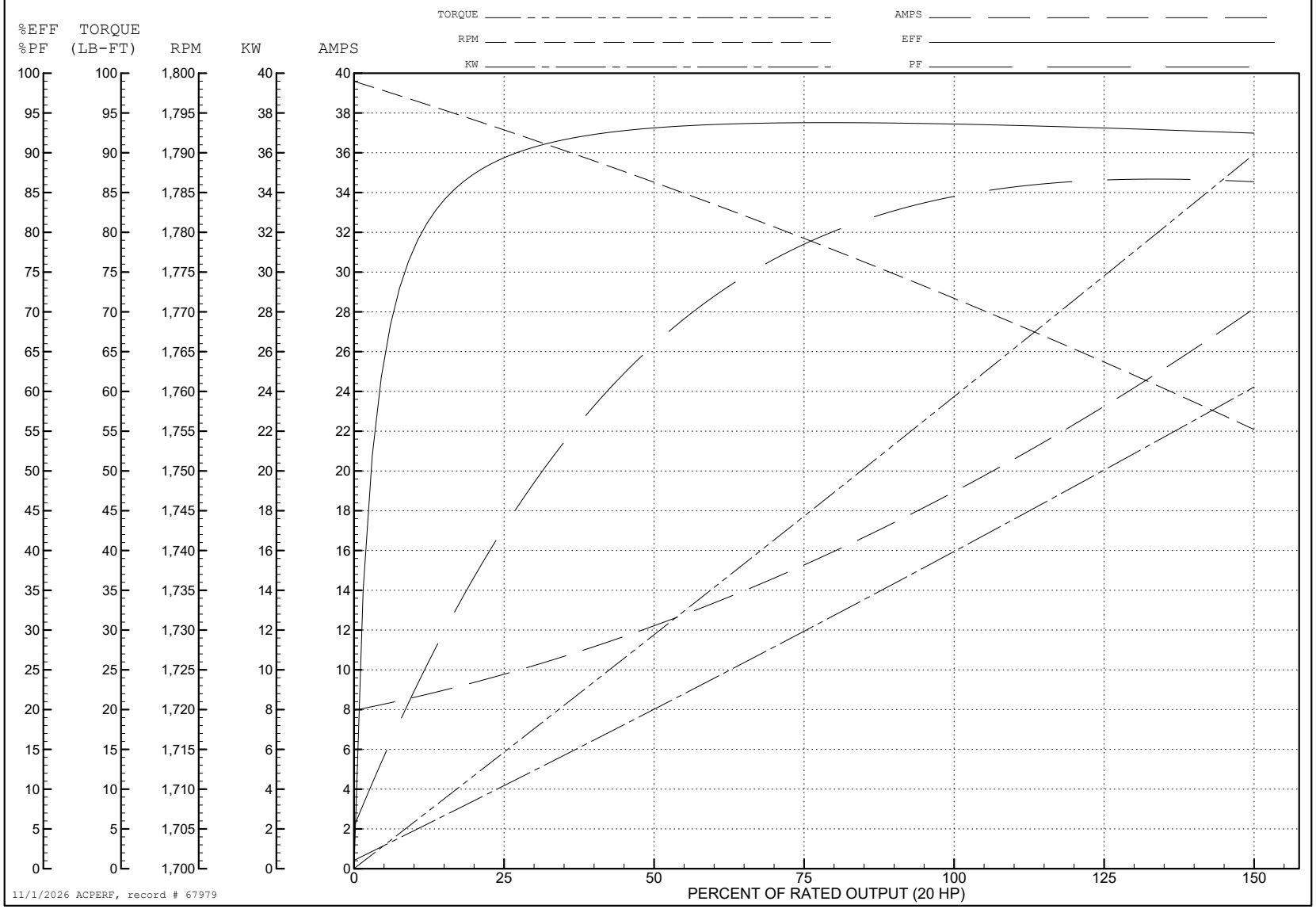
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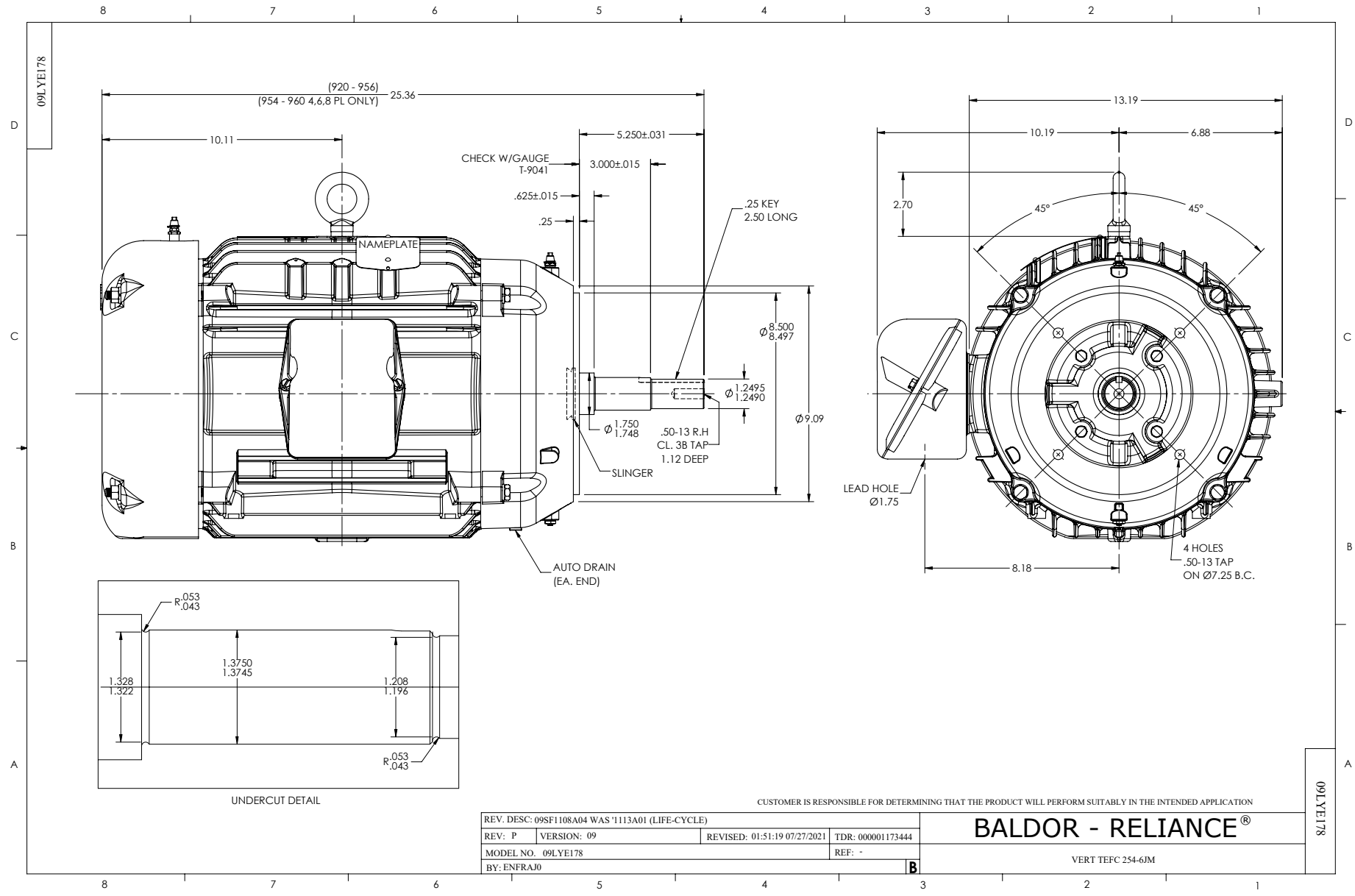
WINDING # 09WGT507

20 HP 3 PH 60 HZ 1770 RPM 575 V 0960M

Typical performance - not guaranteed values.

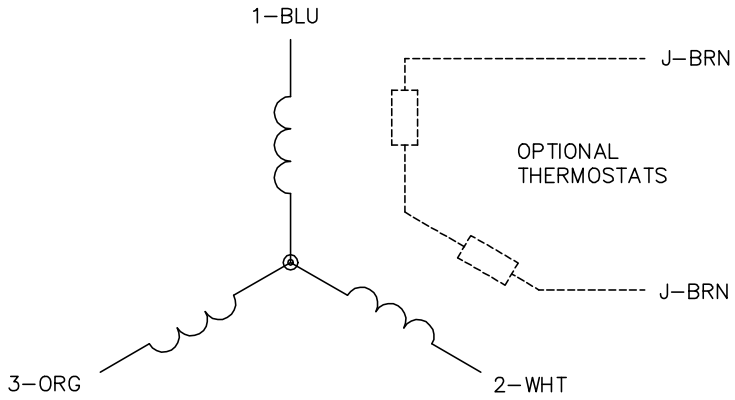
TORQUES(LB-FT): PO=231 PU=126 LR=140 LRA=158

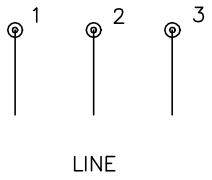



09LYE178
(920 - 956)
(954 - 960 4,6,8 PL ONLY)
25.36
10.11
5.250±.031
CHECK W/GAUGE T-9041
3.000±.015
.625±.015
.25
.25 KEY
2.50 LONG
NAMEPLATE
Ø8.500
8.497
Ø1.2495
1.2490
Ø9.09
Ø1.750
1.748
.50-13 R.H
CL. 3B TAP
1.12 DEEP
SLINGER
AUTO DRAIN
(EA. END)
13.19
10.19
6.88
2.70
45°
45°
LEAD HOLE
Ø1.75
8.18
4 HOLES
.50-13 TAP
ON Ø7.25 B.C.
R.053
.043
1.3750
1.3745
1.328
1.322
1.208
1.196
R.053
.043
UNDERCUT DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: 09SF1108A04 WAS '1113A01 (LIFE-CYCLE)
REV: P
VERSION: 09
REVISED: 01:51:19 07/27/2021
TDR: 000001173444
MODEL NO. 09LYE178
REF: -
BY: ENFRAJ0
B
BALDOR - RELIANCE®
VERT TEFC 254-6JM
09LYE178

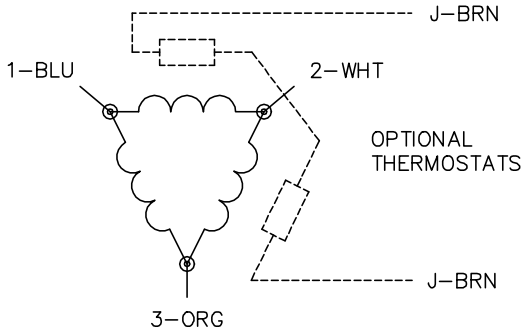
CD0006

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: –		

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

SH 1 of 1