

ABB BALDOR RELIANCE III

Customer information packet

EM4110T-BG

40HP, 1775RPM, 3PH, 60HZ, 324T, 1254M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	324T
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	40.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CSA CSA EEV 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	None
Current @ Voltage	48.000 A @ 460.0 V 96.000 A @ 230.0 V 102.000 A @ 208.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	94.1 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	U
Type	AC
Mech. spec.	12G931
Base	
Status	PRD/A
Elec. spec.	12WGY276
Layout	12LYG931
Eff. date	05-05-2026
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	10-08-2013

Heater Indicator	No Heater
High Voltage Full Load Amps	48.0 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1254M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	30.28 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	2.125 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1775 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	NONE (OLD)
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

Winding Thermal 2

None

Nameplate

NP3443LUA												
CAT.NO.	EM4110T-BG			CUST. P/N				ENCL				TEFC
SPEC.	12G931Y276G1	CC	010A	FRAME	324T	SER.NO.						
HP	40		CLASS	H	HZ	60						
R.P.M.	1775		PH.	3	DES.	A						
VOLTS	230/460		CODE		H	ODE BRG		6311	DE BRG	6312		
AMPS	96/48											
RATING	40C AMB-CONT		NEMA NOM. EFF.			94.1	GREASE		POLYREX EM			
P.F.	82	SER.F.	1.15	CT6-60H(10:1)VT3-60H(20:1								
USABLE AT	50HZ 40HP 190/380V 114/57A			SF1.0								
VOLTS	AMPS	MAX. SPACE HEATER TEMP.										

Parts List

Part number	Description	Quantity
SA270538	SA 12G931Y276G1	1.000 ea
RA257172	RA 12G931Y276G1	1.000 ea
09FN3001B03SP	EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO	1.000 ea
10CB3001	CONDUIT BOX CAST W/2.500 LEAD HOLE	1.000 ea
09GS1000	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 ea
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 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
12EP1107A153	FR ENDPLATE, MACH FOR "O" DRAIN	1.000 ea
HA3400A13	STUD, 1/2-13 X 7" WELKER	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
HW4600B41	V-RING SLINGER 2.125 X 2.880 X 0.280	1.000 ea
BP5338A04	SHAFT GRD ASSY, RB3004A26 RETAINER RING	1.000 ea
HW5100A13	W4627-047 WVY WSHR	1.000 ea
10XN3118K40	5/16-18 X 2.25" HEX HD, GRADE 5	2.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 ea
12EP1106A77	PU ENDPLATE, MACH FOR "O" DRAIN	1.000 ea
10XN5013K28	1/2-13 X 1.75 HEX HEAD MACH SCREW,GRAD	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 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
12FH1002SP	FAN COVER, CAST	1.000 ea
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
10CB3500SP	CONDUIT BOX LID, CAST	1.000 ea
10GS1000	GASKET, CONDUIT BOX LID	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW2501H33	KEY, 1/2 SQ X 3.875	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LB1508	LABEL "SHAFT GROUNDING BRUSH" 1.50 X .81	1.000 ea

HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 ea
HA4017A01	1/8 X 4 GREASE EXT (F/S)	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.200 lb
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
MG1050Y01	CELEROL BALDOR GOLD *5 GALLON BUCKET*	0.080 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP3443LUA	SS SUPER-E,CURUS-EEV,NEMA PREM, CC	1.000 ea
12PA1000	PACKAGING GROUP PRINT PK1024A07	1.000 ea

AC Induction Motor Performance Data

Record # 48204

Typical performance - not guaranteed values

Winding: 12WGY276-R010			Type: 1254M		Enclosure: TEFC	
Nameplate Data				460 V, 60 Hz: High Voltage Connection		
Rated Output (HP)		40		Full Load Torque		118 LB-FT
Volts		230/460		Start Configuration		direct on line
Full Load Amps		96/48		Breakdown Torque		386 LB-FT
R.P.M.		1775		Pull-up Torque		193 LB-FT
Hz	60	Phase	3	Locked-rotor Torque		216 LB-FT
NEMA Design Code		A	KVA Code	Starting Current		338 A
Service Factor (S.F.)		1.15		No-load Current		19.9 A
NEMA Nom. Eff.		94.1	Power Factor	Line-line Res. @ 25°C		0.14898 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		54°C
S.F. Amps				Temp. Rise @ S.F. Load		64°C
				Locked-rotor Power Factor		27
				Rotor inertia		7.19 LB-FT2

Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	47	69	78	83	85	85	84
Efficiency	90.1	93.5	94.2	94.2	93.8	93.1	94
Speed	1793.5	1788	1782.5	1776.6	1770.7	1764.1	1773
Line amperes	22.9	29.5	38.4	48.1	59.2	70.8	54.8

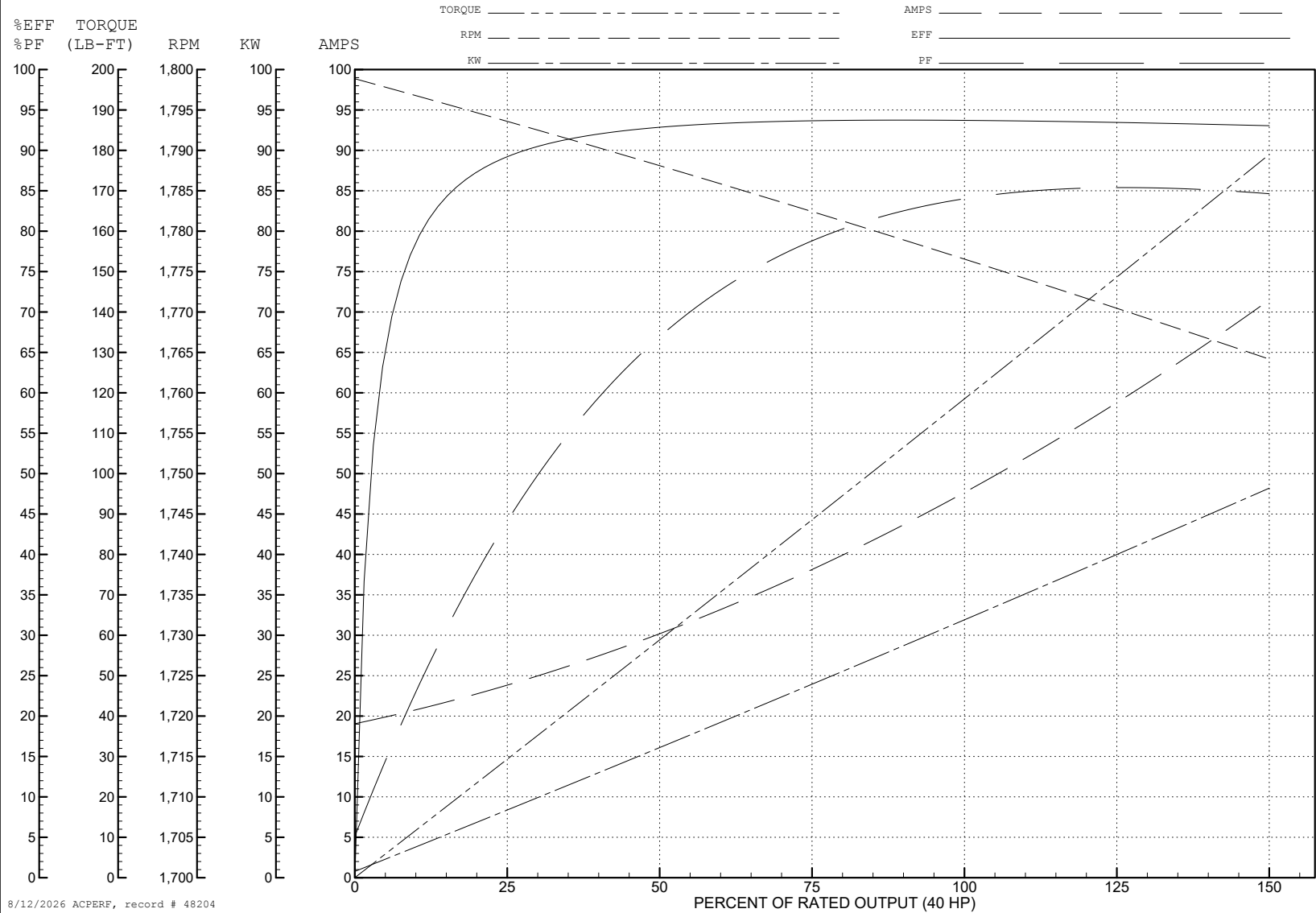
ABB Motors and Mechanical Inc.

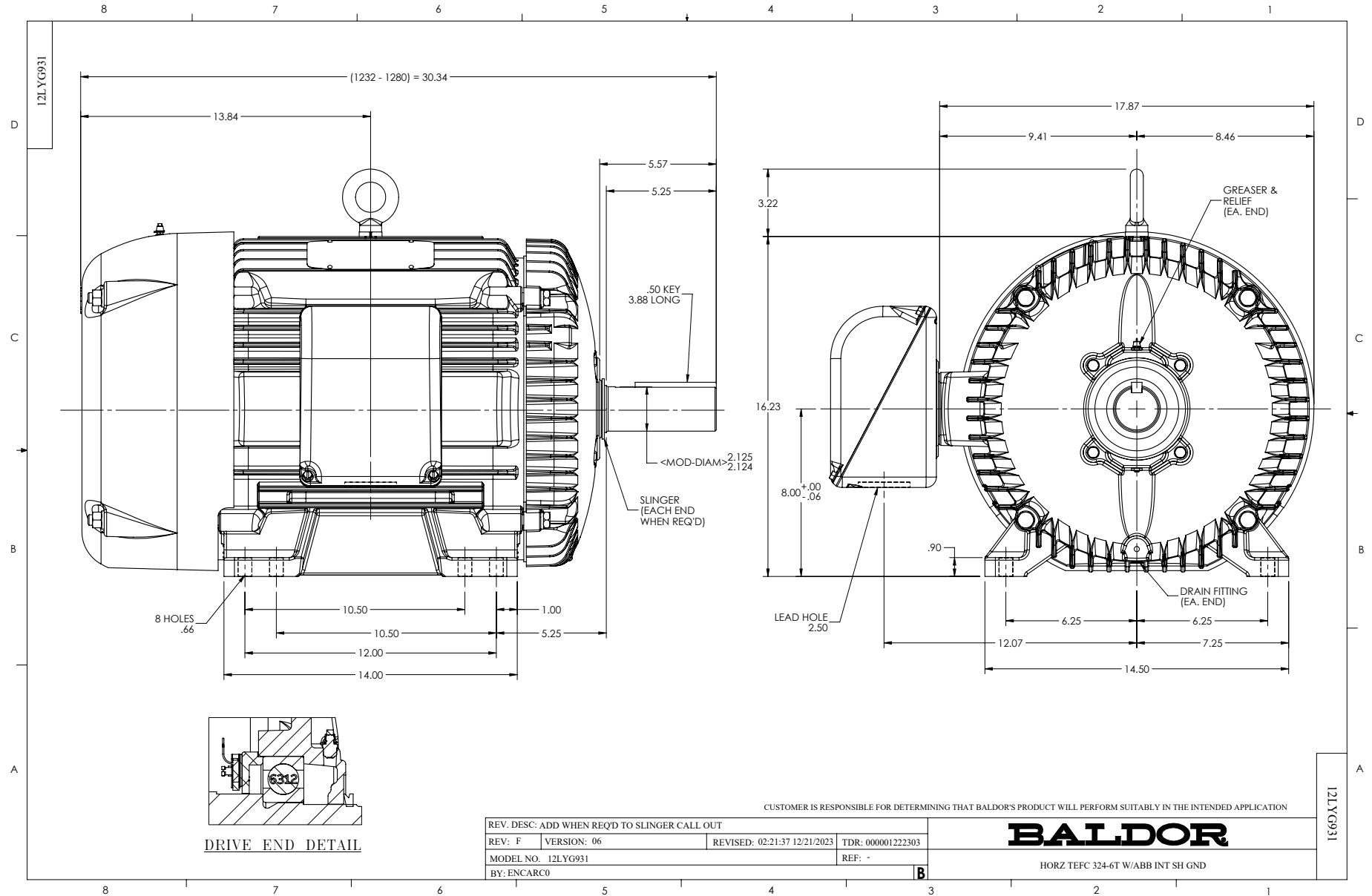
WINDING # 12WGY276

Typical performance - not guaranteed values.

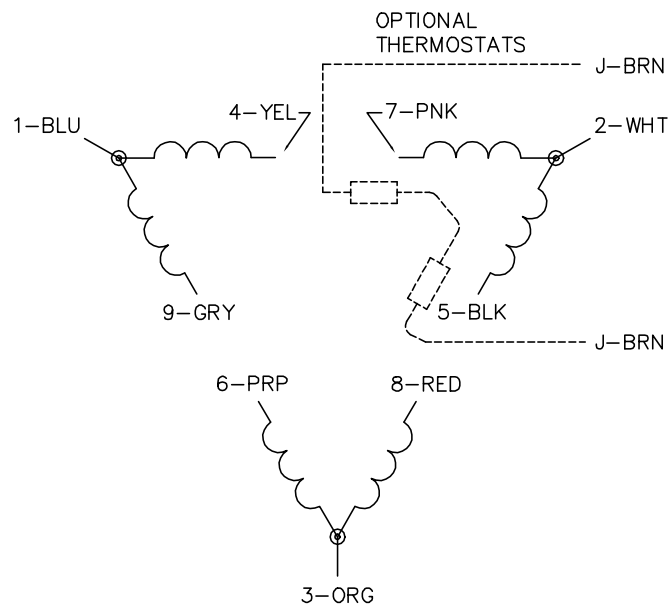
40 HP 3 PH 60 HZ 1775 RPM 460 V 1254M

TORQUES (LB-FT): PO=386 PU=193 LR=216 LRA=338

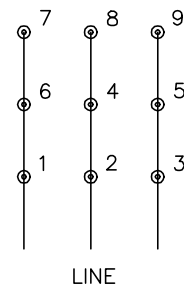




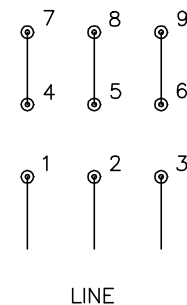
CD0180



LOW VOLTAGE
(2D)



HIGH VOLTAGE
(1D)



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.

CD0180

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: -



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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