

ABB BALDOR RELIANCE III

Customer information packet

ECTM4110T

40 AIR OVERHP, 1775RPM, 3PH, 60HZ, 324T, 1254

Class - None

Division - Not Applicable

Specifications

Enclosure	TEAO
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	S
Type	AC
Mech. spec.	12H727
Base	
Status	PRD/A
Elec. spec.	12WGY276
Layout	12LYH727
Eff. date	05-05-2026
CD Diagram	CD0180
Poles	04
Leads	9#8
Proprietary	False
Created date	08-17-2015

Heater Indicator	No Heater
High Voltage Full Load Amps	48.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Vertical 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	28.38 IN
Power Factor	82
Product Family	Super-E Chemical Processing
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	No 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

NP2178									
CAT.NO.	ECTM4110T								
SPEC.	12H727Y276G1								
HP	40 AIR OVER								
VOLTS	230/460								
AMP	96/48								
RPM	1775								
FRAME	324T		HZ	60		PH	3		
SER.F.	1.15		CODE	H	DES	A	CL	F	
NEMA-NOM-EFF	94.1		PF	82					
RATING	40C AMB-CONT								
CC									
DE	6312		ODE	6311					
ENCL	TEAO		SN						
	2050 FPM @ 520CFM								

Parts List

Part number	Description	Quantity
SA306344	SA 12H727Y276G1	1.000 ea
RA293589	RA 12H727Y276G1	1.000 ea
10CB1000A131P	SPL KOBX W/2.00 NPT LD & 2 .125 NPT DRAI	1.000 ea
09GS1010	GASKET, DWG, LEADWIRE SEPERATOR	1.000 ea
10XN3118K16	5/16-18 X 1' GRADE #5, STL, ZINC PLATE	4.000 ea
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 ea
HA4044A00	PLUG,PIPE 1/8 NPT PLASTIC SQUARE HEAD	2.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
10XN2520K08	1/4-20 X .50 GRADE #5, STL, ZINC PLATE	1.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	1.000 ea
12EP1107B02P	FREP TEFC 324-6T; EPOXY PRI	1.000 ea
10XN5013K32	1/2-13 X 2.00" HEX HD GRD 5 (20051)	4.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
HA7204	"L" SHAPE LIFTING LUG FOR 42 FRAME MOTOR	2.000 ea
HW5100A13	W4627-047 WVY WSHER	1.000 ea
12EP1106A91P	PUEP,MACH W/EPOXY, LIP SEAL, LESS GRSRS	1.000 ea
HW4600B37	SEAL 2.250 X 3.000 X .375 SINGLE LIP	1.000 ea
HW4600G55	DOME SLINGER, 7.125 OD X 2.120/2.060 ID	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 2.50" HEX HD, GRADE 5	4.000 ea
10CB1503P	CONDUIT BOX LIPPED, CAST W/EPOXY PRIMER	1.000 ea
14GS1003	GASKET CONDUIT BOX LID, NEOP	1.000 ea
10XN2520K16	1/4-20 X 1" HX HD SCRW GRADE 5, ZINC P	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
HA1005A06	SLINGER, OD 3.62, ID 2.15	1.000 ea
HW2501H33	KEY, 1/2 SQ X 3.875	1.000 ea
MJ5001A27	32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL	0.031 qt
MJ5001A14	DYNAPRO SEALANT, CP MTR VC#2508050 (603	0.030 ea
MJ5002A01	SILICON RUBBER SEALANT, 732CL 10.3 OZ TU	0.025 ea
LB1002N	LABEL,MARINE DUTY (ON ROLLS)	1.000 ea

LB1182	WARNING LABEL FOR MOTORS WITH EYENUTS	2.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	3.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.200 lb
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	3.000 ea
MG1025G05	WILKOFAS, 789.227, MED. GRAY CHAR. MET.	0.080 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP2178	SS CP SUPER-E UL CC	1.000 ea
12PA1000	PACKAGING GROUP PRINT PK1024A07	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

AC Induction Motor Performance Data

Record # 35502

Typical performance - not guaranteed values

Winding: 12WGY276-R003			Type: 1254M		Enclosure: TEAO		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		40 AIR OVER	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	H	Starting Current		338 A
Service Factor (S.F.)		1.15		No-load Current		19.9 A	
NEMA Nom. Eff.		94.1	Power Factor	82	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	82	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

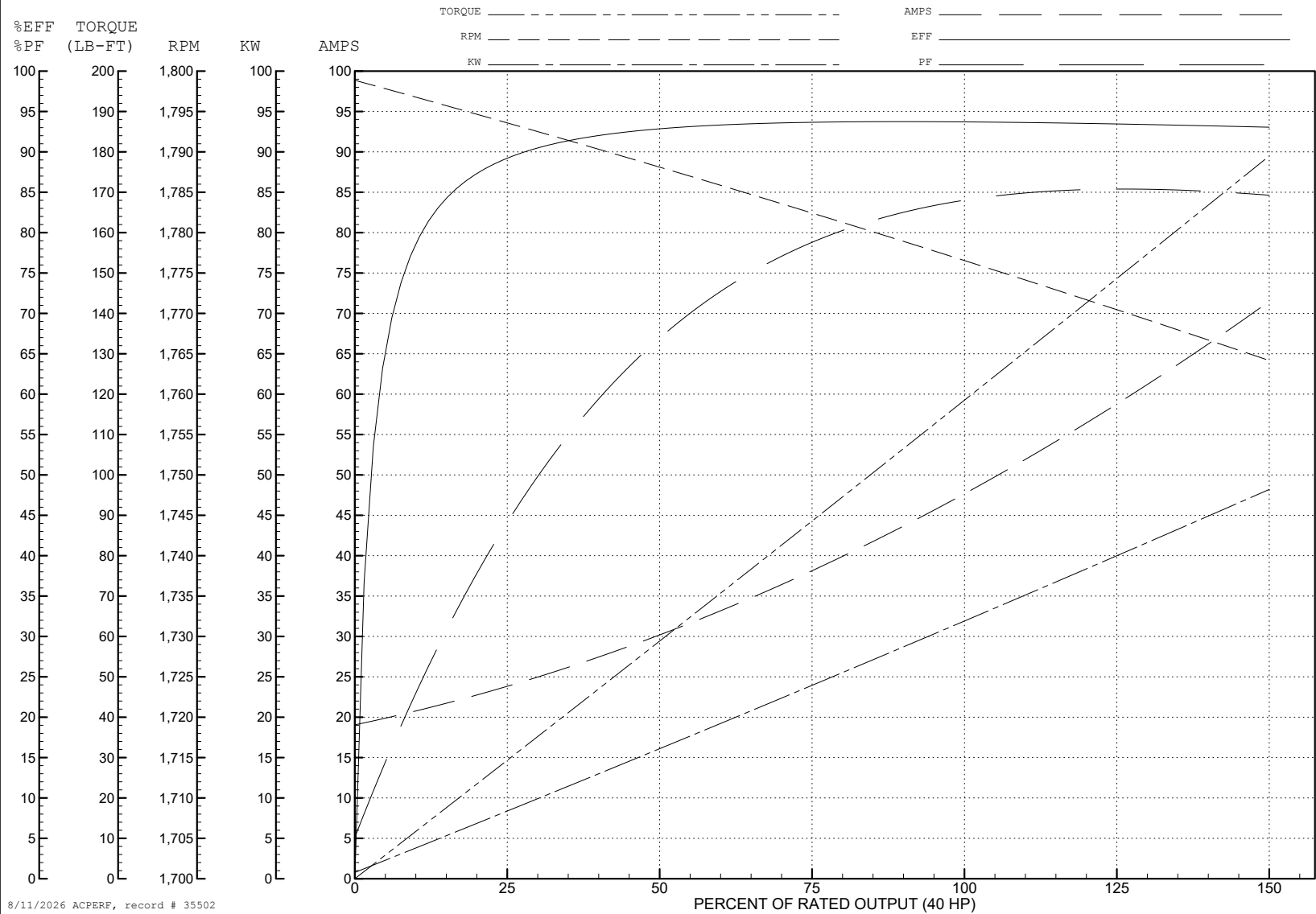
ABB Motors and Mechanical Inc.

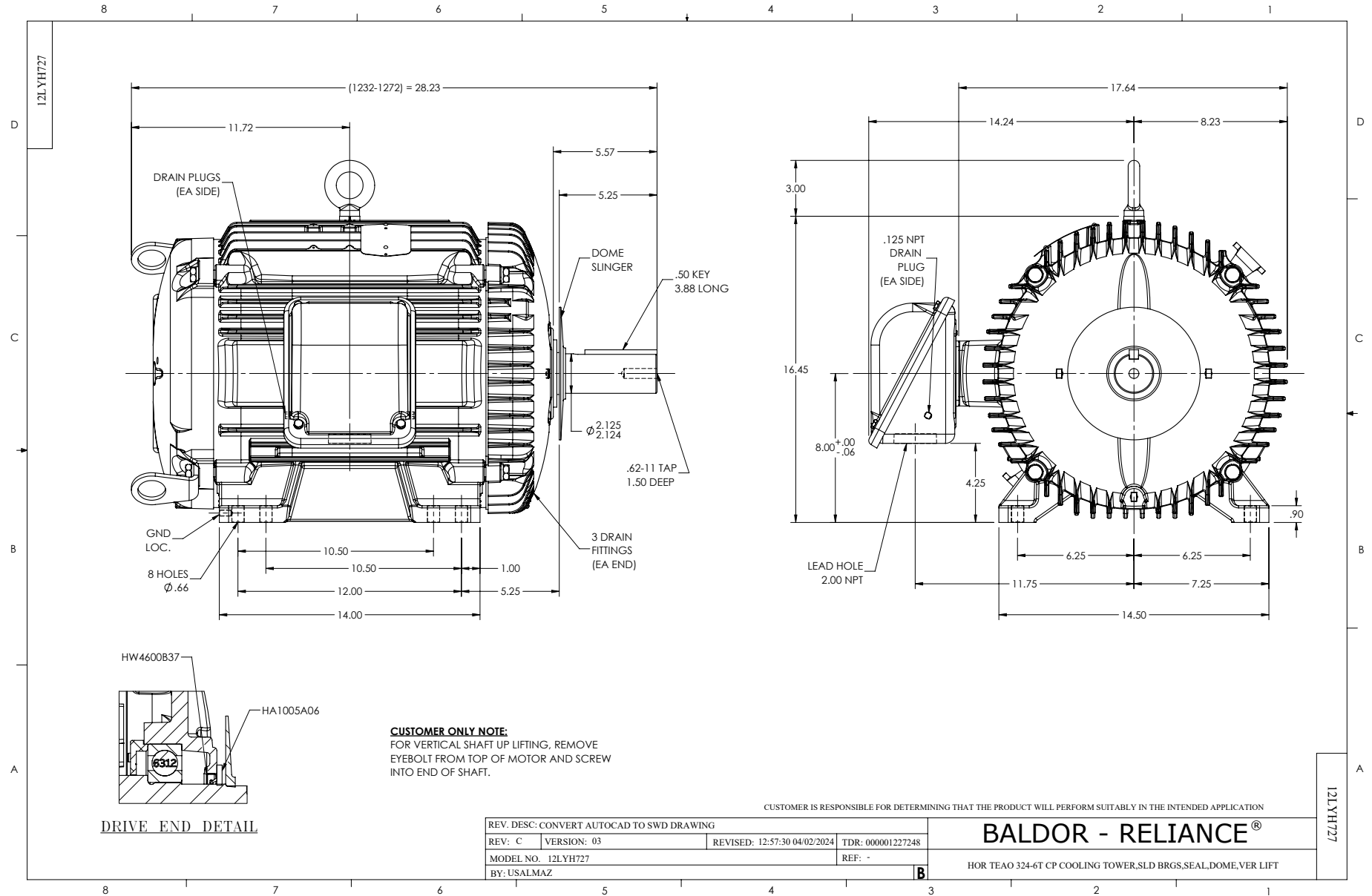
WINDING # 12WGY276

Typical performance - not guaranteed values.

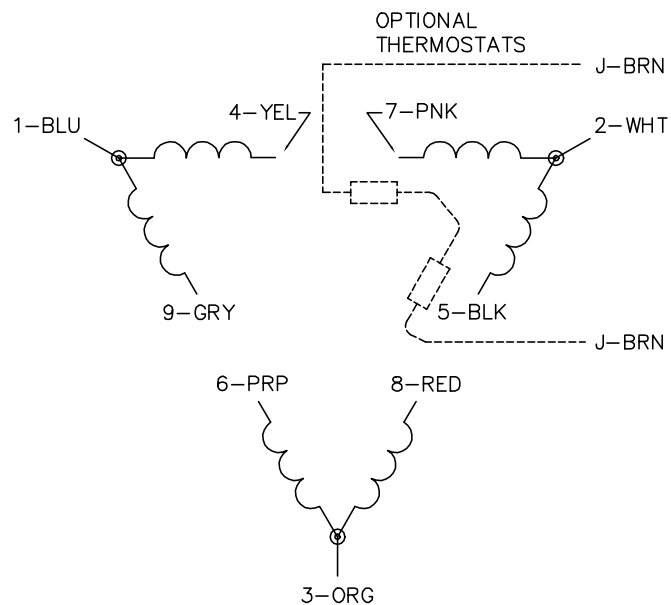
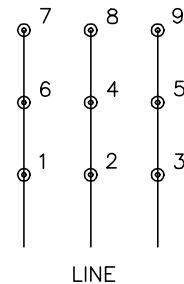
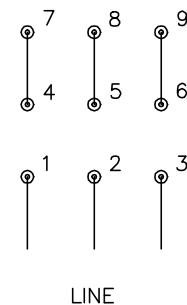
40 HP 3 PH 60 HZ 1775 RPM 460 V 1254M

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

SH 1 of 1