ABB BALDOR RELIANCE

# Customer information packet

## VSPM2513T

15HP, 1770RPM, 3PH, 60HZ, 254TC, 3958M, OPSB, F
Class - None
Division - Not Applicable

Copyright © All product information within this document is subject to ABB Motors and Mechanical Inc. copyright © protection, unless otherwise noted.
11/19/2026 12:28:16 PM

## Specifications

| | |
|---|---|
| **Enclosure** | OPSB |
| **Frame** | 254TC |
| **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** | 15.000 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 1800 RPM @ 60 HZ |
| **Voltage @ Frequency** | 230.0 V @ 60 HZ |
| | 460.0 V @ 60 HZ |
| **Agency Approvals** | CURUSEEV |
| | NEMA PREMIUM 4 |
| | WEEE |
| **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** | 18.300 A @ 460.0 V |
| | 36.600 A @ 230.0 V |
| **Design Code** | A |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 93.6 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 18.3 a |

## Part Detail

| | |
|---|---|
| **Revision** | B |
| **Type** | AC |
| **Mech. spec.** | 39E764 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 39WGY450 |
| **Layout** | 39LYE764 |
| **Eff. date** | 12-12-2025 |
| **CD Diagram** | CD0180 |
| **Poles** | 04 |
| **Leads** | 9#12 Y |
| **Proprietary** | False |
| **Created date** | 11-16-2023 |

| | |
|---|---|
| **Insulation Class** | F |
| **Inverter Code** | Inverter Duty |
| **KVA Code** | J |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Max Speed** | 2700 rpm |
| **Motor Lead Quantity/Wire Size** | 9 @ 12 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3958M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 23.20 IN |
| **Power Factor** | 82 |
| **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** | 1.625 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | No 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**

| NP4423A01A05L | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAT #** | VSPM2513T | | | | **WGT** | 242 | **LBS** | | | | | |
| **SPEC** | 39E764Y450 | | | | **ENCL** | OPSB | | | | | | |
| **SER #** | | | | | **CC** | 010A | **IP** | 23 | | | | |
| **HP** | 15 | | | **MAG CUR** | 15.2/7.6 | | | | | | | |
| **VOLTS** | 230/460 | | | | | | **NEMA NOM. EFF** | 93.6 | | | | |
| **AMPS** | 36.6/18.3 | | | | | **PF** | 82 | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | | | | |
| **RPM** | 1770 | | | | **MAX RPM** | 2700 | | | | | | |
| **FRAME** | 254TC | **HZ** | 60 | | **CODE** | J | **CLASS** | F | | | | |
| **SER.F.** | 1.15 | **SF AMP** | 42/21 | | | **PH** | 3 | **DES** | A | | | |
| **DE** | 6309 | | **ODE** | 6208 | | | | | | | | |
| **LUBRICATION** | POLYREX EM | | | | | | | | | | | |
| **ID LOGO** | **INVERTER TYPE** | | **VPWM** | | **CHP** | 1.5 | **TO** | 1 | 1.5:1 | | | |
| **ID LOGO** | **WK2** | 2.54 | **CT** | 10 | **TO** | 1 | 10:1 | | | | | |
| **ID LOGO** | **SL HZ** | 1 | **VT** | 20 | **TO** | 1 | 20:1 | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | **QR** | | | | | | |
| **YR** | | | | | | | | | | | | |

**AC Induction Motor Performance Data**
Record # 114780
Typical performance - not guaranteed values

| **Winding:** 39WGY450-R001 | **Type:** 3958M | **Enclosure:** OPSB |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 15 | **Full Load Torque** | 44.37 LB-FT |
| **Volts** | | | 230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 36.6/18.3 | **Breakdown Torque** | 216 LB-FT |
| **R.P.M.** | | | 1770 | **Pull-up Torque** | 102 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 128 LB-FT |
| **NEMA Design Code** | A | **KVA Code** | J | **Starting Current** | 174 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 9.46 A |
| **NEMA Nom. Eff.** | 93.6 | **Power Factor** | 82 | **Line-line Res. @ 25ºC** | 0.41963 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 23°C |
| **S.F. Amps** | | | 42/21 | **Temp. Rise @ S.F. Load** | 30°C |
| | | | | **Locked-rotor Power Factor** | 31.4 |
| | | | | **Rotor inertia** | 2.54 lb-ft² |

**Load Characteristics 460 V, 60 Hz, 15 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 39 | 61 | 73 | 79 | 83 | 85 | 83 |
| **Efficiency** | 88.4 | 92.8 | 93.9 | 94.1 | 93.9 | 93.5 | 93.9 |
| **Speed** | 1795.9 | 1790.9 | 1786.2 | 1781.1 | 1776.1 | 1770.5 | 1776 |
| **Line amperes** | 10.4 | 12.6 | 15.4 | 18.8 | 22.5 | 26.4 | 22.5 |

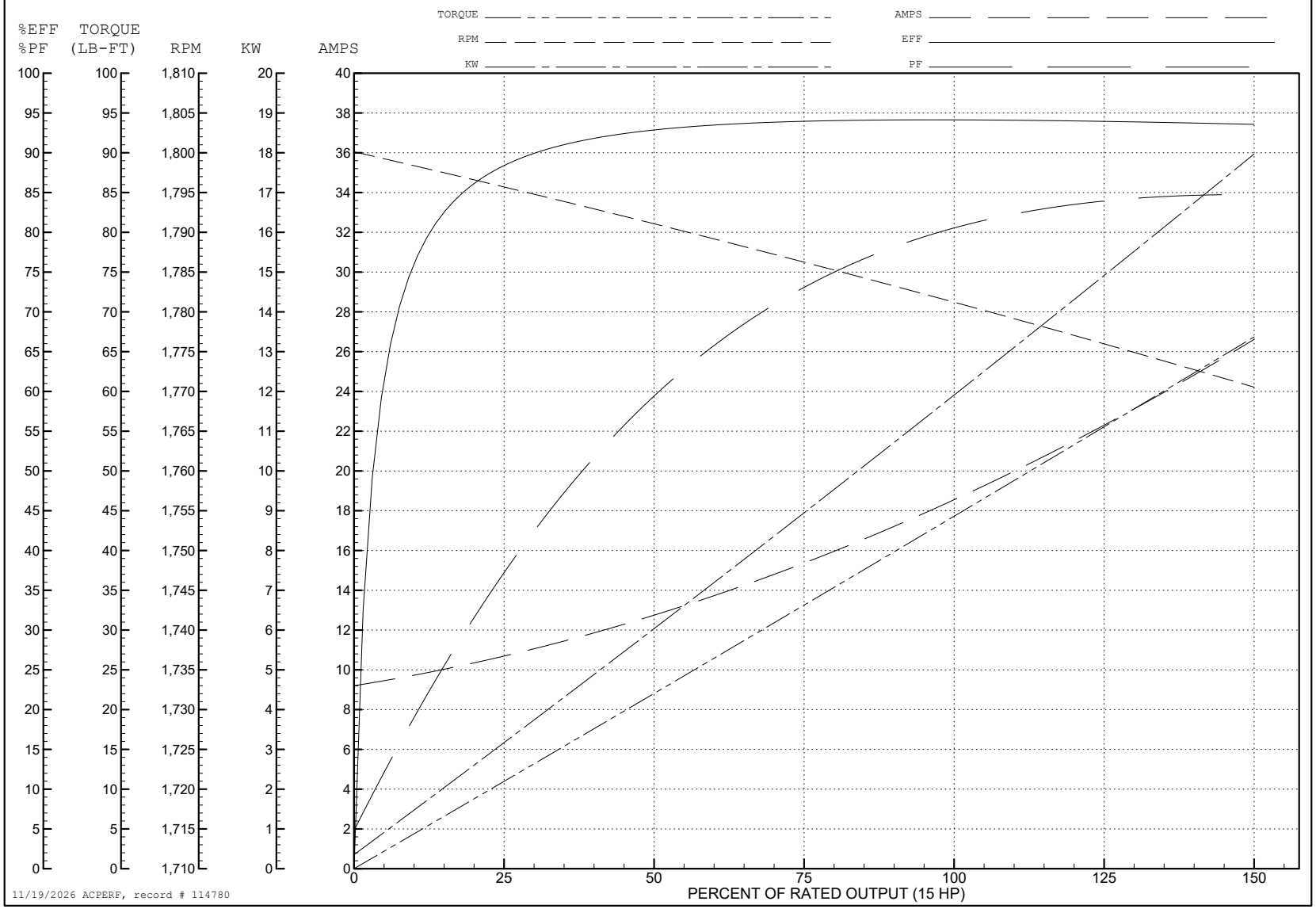
ABB Motors and Mechanical Inc.

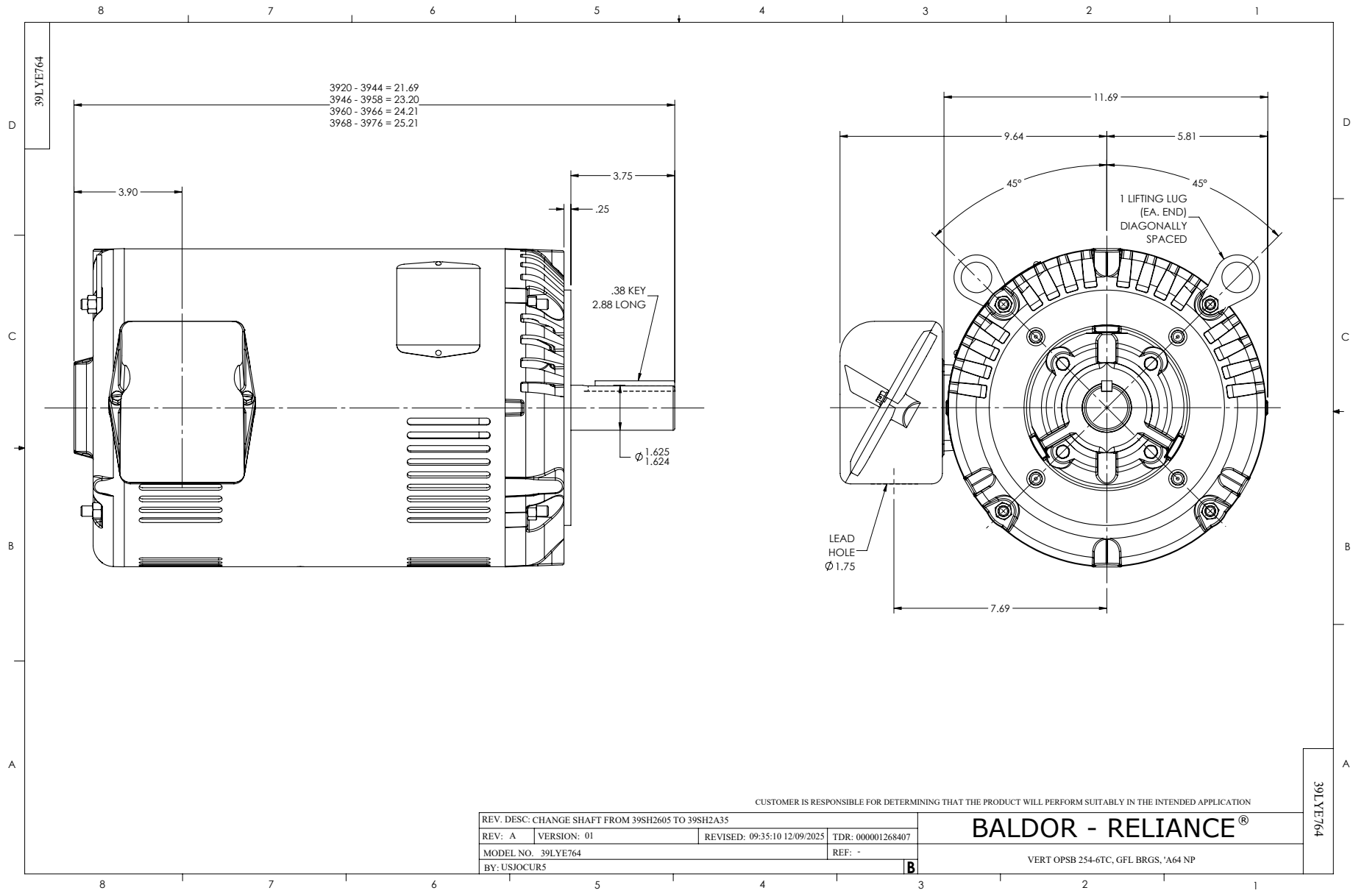
WINDING # 39WGY450

15 HP 3 PH 60 HZ 1770 RPM 460 V 3958M

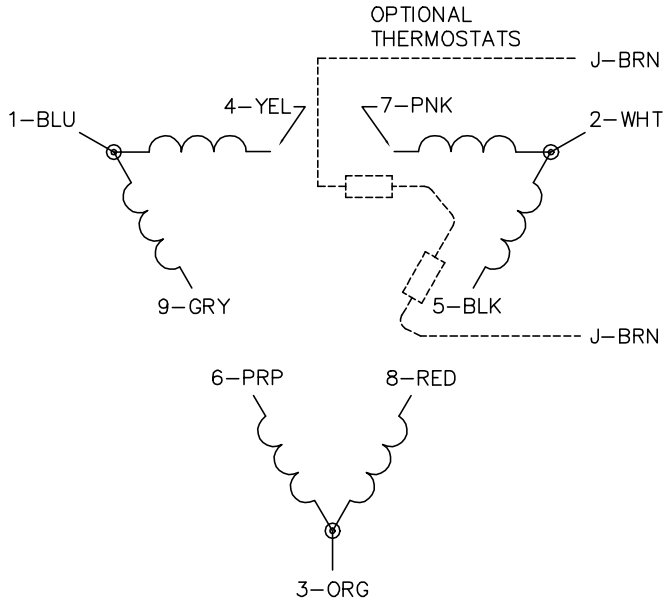
Typical performance - not guaranteed values.

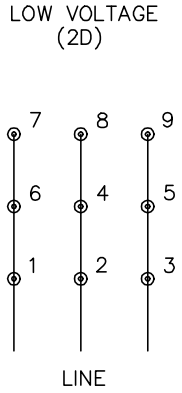
TORQUES(LB-FT): PO=216 PU=102 LR=128 LRA=174

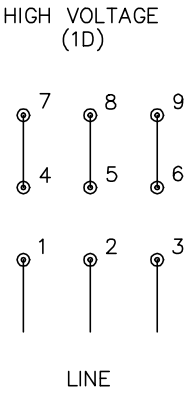



39LYE764
3920 - 3944 = 21.69
3946 - 3958 = 23.20
3960 - 3966 = 24.21
3968 - 3976 = 25.21
3.90
3.75
.25
.38 KEY
2.88 LONG
Ø 1.625
1.624
11.69
9.64
5.81
45°
45°
1 LIFTING LUG
(EA. END)
DIAGONALLY
SPACED
LEAD
HOLE
Ø1.75
7.69
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CHANGE SHAFT FROM 39SH2605 TO 39SH2A35
REV: A
VERSION: 01
REVISED: 09:35:10 12/09/2025
TDR: 000001268407
MODEL NO. 39LYE764
REF: -
BY: USJOCUR5
B
BALDOR - RELIANCE®
VERT OPSB 254-6TC, GFL BRGS, 'A64 NP
39LYE764

CD0180




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: ENBRIR0 |
| MTL: – | | |

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1