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# Customer information packet

## ECS101M0H3DB4

3HP, 1800RPM, 3PH, 60HZ, 145TC, 3532B, TEFC, F1

Class - None

Division - Not Applicable

## Specifications

|                                |                                        |
|--------------------------------|----------------------------------------|
| Enclosure                      | TEFC                                   |
| Frame                          | 145TC                                  |
| Frame Material                 | Steel                                  |
| Frequency                      | 60.00 Hz                               |
| Haz Area Class and Group       | None                                   |
| Haz Area Division              | Not Applicable                         |
| Motor Letter Type              | Brushless Wound Field PM Rotor         |
| Output @ Frequency             | 3.000 HP @ 60 HZ                       |
| Phase                          | 3                                      |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ                       |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ     |
| Agency Approvals               | WEEE<br>CULUS                          |
| 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                                   |
| Constant Torque Speed Range    | 6                                      |
| Current @ Voltage              | 3.500 A @ 460.0 V<br>7.000 A @ 230.0 V |
| Design Code                    | -                                      |
| Drip Cover                     | No Drip Cover                          |
| Duty Rating                    | CONT                                   |
| Efficiency @ 100% Load         | 93.0 %                                 |
| Electrically Isolated Bearing  | Not Electrically Isolated              |
| Feedback Device                | NO FEEDBACK                            |
| Heater Indicator               | No Heater                              |
| High Voltage Full Load Amps    | 3.5 a                                  |
| Insulation Class               | F                                      |

## Part detail

|              |            |
|--------------|------------|
| Revision     | E          |
| Type         | AC         |
| Mech. spec.  | 35E5263    |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGG984   |
| Layout       | 35LYE5263  |
| Eff. date    | 06-16-2025 |
| CD Diagram   | CD0005A25  |
| Poles        | 04         |
| Leads        | 9#16 Y     |
| Proprietary  | False      |
| Created date | 03-15-2024 |

| Inverter Code                 | Inverter Duty       |
|-------------------------------|---------------------|
| KVA Code                      | -                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing      |
| Motor Lead Quantity/Wire Size | 9 @ 116 AWG         |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3532B               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 4                   |
| Overall Length                | 14.17 IN            |
| Power Factor                  | 97                  |
| Product Family                | General Purpose     |
| Pulley Face Code              | C-Face              |
| Rodent Screen                 | None                |
| RoHS Status                   | Y                   |
| Service Factor                | 1.15                |
| Shaft Diameter                | 0.875 IN            |
| Shaft Ground Indicator        | Shaft Grounding     |
| Shaft Rotation                | Reversible          |
| Speed                         | 1800 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                |

# BALDOR • RELIANCE

## EC-Titanium™

|             |               |      |                             |         |              |     |           |       |    |      |       |  |    |  |
|-------------|---------------|------|-----------------------------|---------|--------------|-----|-----------|-------|----|------|-------|--|----|--|
| CAT. NO.    | ECS101M0H3DB4 |      |                             |         |              |     |           |       |    |      |       |  |    |  |
| SPEC.       | 35E5263G984   |      |                             |         |              |     |           |       | YR | ***  |       |  |    |  |
| FRAME       | 145TC         |      |                             |         | ENCL.        |     | TEFC      |       | IP | 54   |       |  |    |  |
| HP          | 3             |      | RATING                      |         | 40C AMB-CONT |     |           |       |    |      |       |  |    |  |
| NOM. EFF.   | 91.0          |      |                             | PF      |              | 97  |           | SF    |    | 1.50 |       |  |    |  |
| VOLTS       | 230/460       |      |                             |         | FLA          |     | 7.0/3.5   |       |    |      |       |  |    |  |
| RPM         | 1800          |      |                             | RPM MAX |              |     | 4000      |       |    |      |       |  |    |  |
| HZ          | 60            |      |                             | PH.     |              | 3   |           | CLASS |    | F    |       |  |    |  |
| BEMF (V)    | 133/267       |      |                             |         | Rs (Ω)       |     | 6.72/1.68 |       |    |      |       |  |    |  |
| Ld (mH)     | 57.9/14.5     |      |                             |         | Lq (mH)      |     | 218/54.5  |       |    |      |       |  |    |  |
| INV TYP     | VPWM          |      | CHP                         |         | 60           |     | TO 133    |       | HZ |      |       |  |    |  |
|             | CT            | 6    |                             |         | TO 60        |     | HZ        |       | VT | 6    | TO 60 |  | HZ |  |
| MATCHED INV |               |      | ACS380-04XX-06A9-1 / 04A0-4 |         |              |     |           |       |    |      |       |  |    |  |
| BEARING     | DE            | 6205 |                             |         |              | ODE |           | 6203  |    |      |       |  |    |  |
| SERIAL#     | ***           |      |                             |         |              |     |           |       |    |      |       |  |    |  |



ELECTRONICALLY PROTECTED MOTOR  
FOR INDUSTRIAL USE

ABB MOTORS AND MECHANICAL INC.  
5711 R.S. BOREHAM JR. ST., FORT SMITH, AR. MFG IN U.S.A.

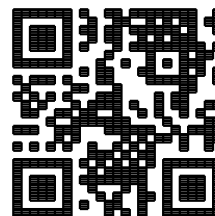
FERRITE ASSISTED  
SYNCHRONOUS RELUCTANCE MOTOR  
FOR INVERTER USE ONLY



PERMANENT MAGNET MOTOR. WHEN SHAFT IS  
ROTATED, VOLTAGE WILL BE GENERATED AT  
THE MOTOR TERMINALS.

MOTEUR À AIMANT PERMANENT. LORSQUE  
L'ARBRE TOURNE, UNE TENSION SERA  
GÉNÉRÉE AUX BORNES DU MOTEUR.

BALDOR-RELIANCE  
SHAFT GROUNDING BRUSH INSTALLED



|          |      |          |              |            |           |           |        |
|----------|------|----------|--------------|------------|-----------|-----------|--------|
| Volts    | 460  | Max RPM  | 4000         | Conn Diag. | CD0006B03 | Leads     | 3      |
| Amps     | 3.5  | Max Amps |              | Cs Diagram | CS1126    | BEMF      | 267    |
| HP       | 3    | VFD#     | ECIN4A4P1    |            |           | LD        | 57.9   |
| RPM      | 1800 | S.F.     | 1.00         |            |           | LQ        | 218    |
| Phase/Hz | 3/60 | Rating   | 40C AMB-CONT |            |           | Rs        | 6.6786 |
|          |      |          |              |            |           | Meas. L-L |        |

60034-2-3 Motor Performance at Standardized Operating Points

|    | RPM  | % Speed | LB-FT | % Torque | HP  | Efficiency | Loss (% FL) | Watts Loss (W) |
|----|------|---------|-------|----------|-----|------------|-------------|----------------|
| P1 | 1615 | 90%     | 8.8   | 100%     | 2.7 | 91.0       | 8.80%       | 199            |
| P2 | 897  | 50%     | 8.8   | 100%     | 1.5 | 86.7       | 7.59%       | 172            |
| P3 | 446  | 25%     | 8.8   | 100%     | 0.7 | 79.1       | 6.48%       | 147            |
| P4 | 1617 | 90%     | 4.4   | 50%      | 1.3 | 91.4       | 4.22%       | 95             |
| P5 | 896  | 50%     | 4.4   | 50%      | 0.7 | 88.5       | 3.22%       | 73             |
| P6 | 895  | 50%     | 2.2   | 25%      | 0.4 | 87.6       | 1.74%       | 39             |
| P7 | 444  | 25%     | 2.2   | 25%      | 0.2 | 82.2       | 1.32%       | 30             |

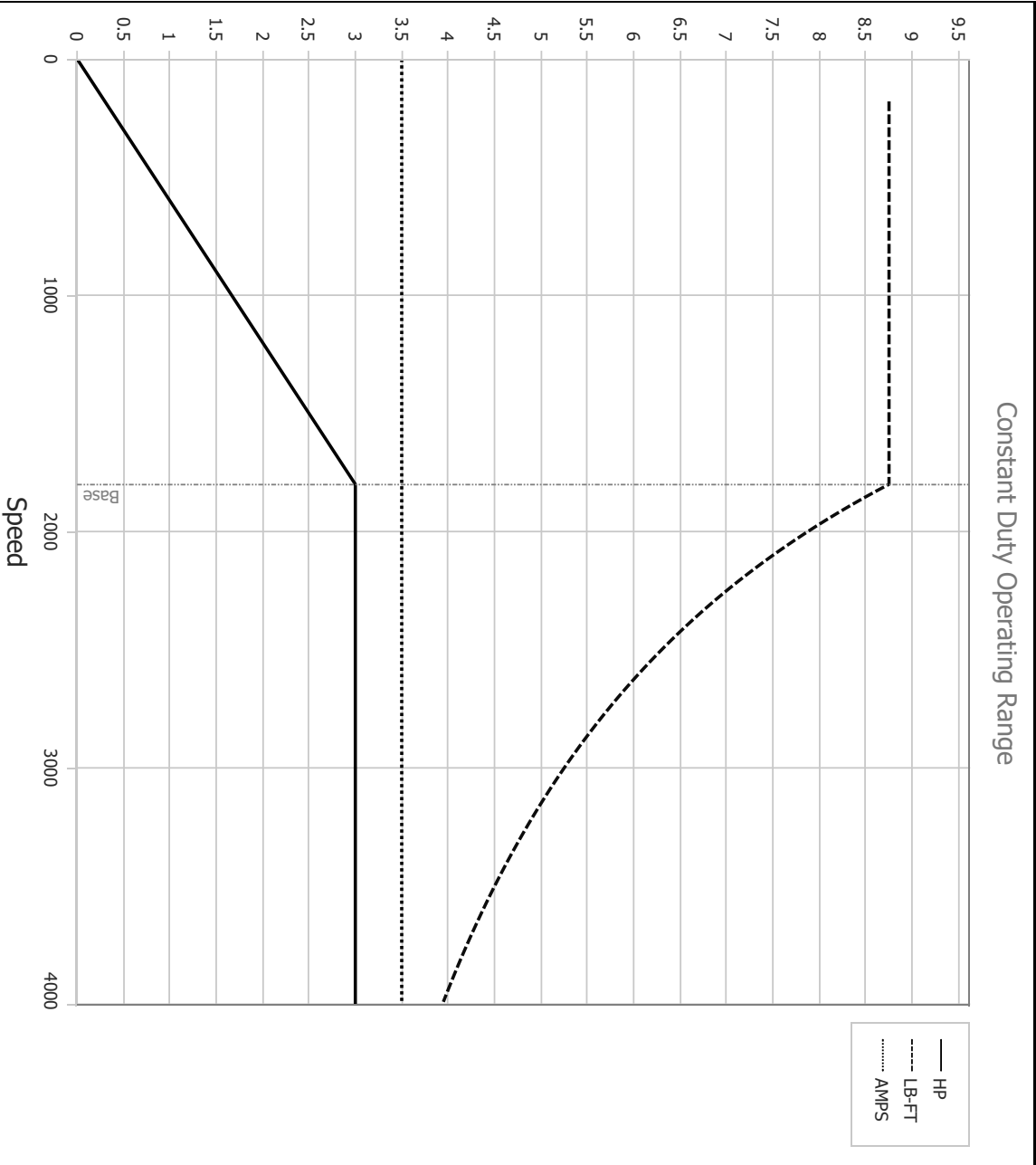
61800-9-2 PDS Performance at Reference Operating Points

|    | RPM  | % Speed | LB-FT | % Torque | HP  | System Efficiency | Loss (% FL) | Watts Loss (W) |
|----|------|---------|-------|----------|-----|-------------------|-------------|----------------|
| P1 | 1800 | 100%    | 8.8   | 100%     | 3.0 | 88.5              | 12.88%      | 292            |
| P2 | 897  | 50%     | 8.8   | 100%     | 1.5 | 82.9              | 10.19%      | 231            |
| P3 | 296  | 17%     | 8.8   | 100%     | 0.5 | 65.5              | 8.56%       | 194            |
| P4 | 1798 | 100%    | 4.4   | 50%      | 1.5 | 88.2              | 6.59%       | 149            |
| P5 | 896  | 50%     | 4.4   | 50%      | 0.7 | 83.4              | 4.91%       | 111            |
| P6 | 295  | 17%     | 4.4   | 50%      | 0.2 | 66.3              | 4.11%       | 93             |
| P7 | 895  | 50%     | 2.2   | 25%      | 0.4 | 80.3              | 3.01%       | 68             |
| P8 | 294  | 17%     | 2.2   | 25%      | 0.1 | 62.1              | 2.46%       | 56             |

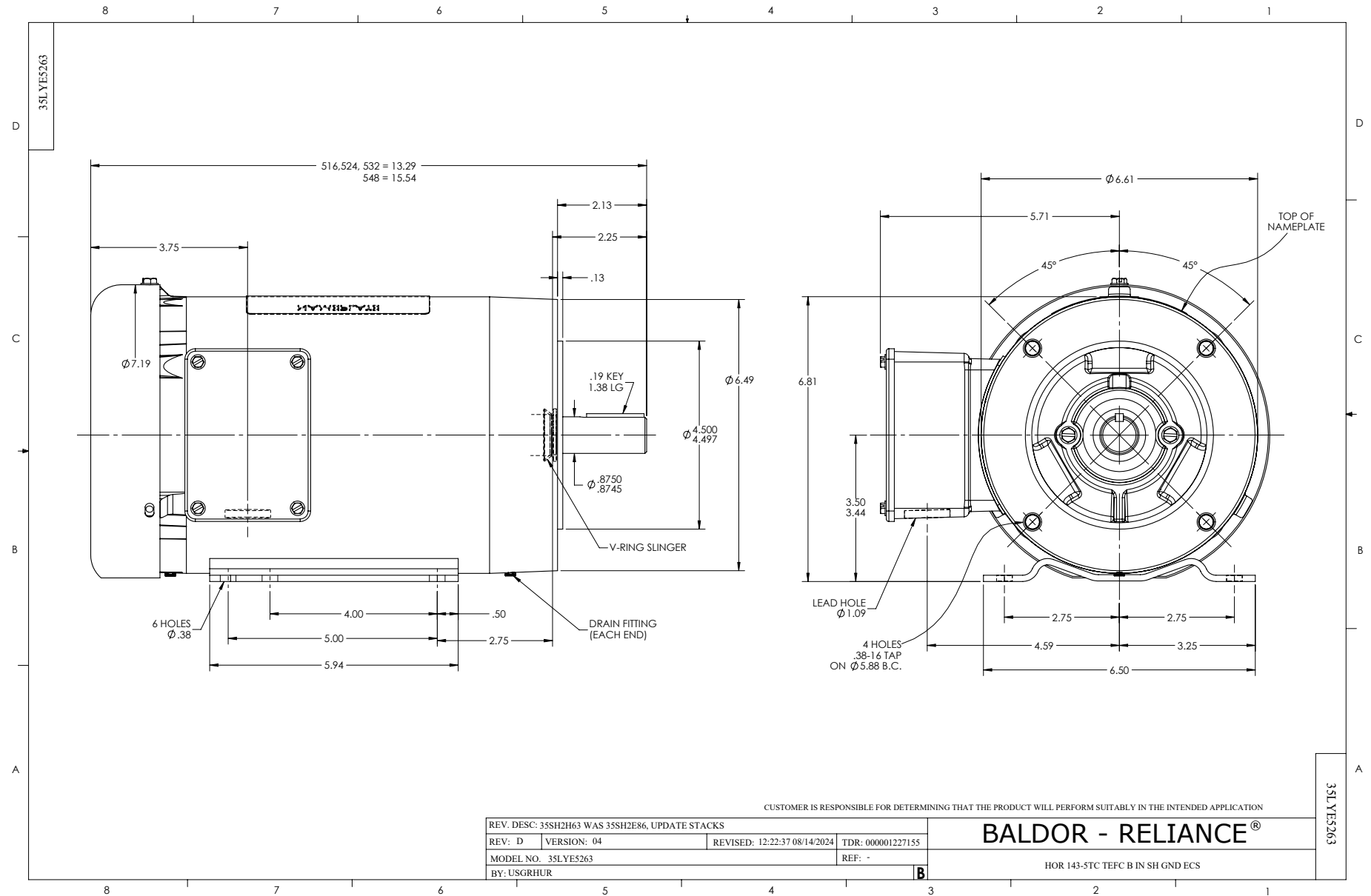
Points not taken in certified order.

|                          |                                                                                                        |                                    |                                                 |
|--------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------|
| <b>BALDOR • RELIANCE</b> | DR By: <u>R &amp; D</u><br>CK By: <u>USTOSAN</u><br>APP By: <u>USJAROB1</u><br>Date: <u>06/27/2024</u> | <b>AC MOTOR PERFORMANCE CURVES</b> | <b>35WGG943</b><br>35E5209G943<br>Test - 110858 |
|--------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------|

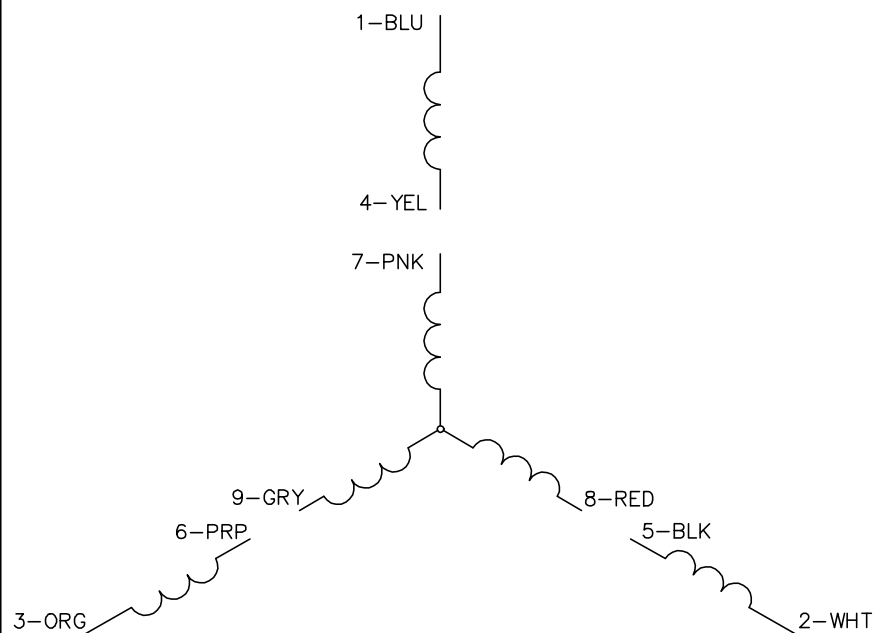
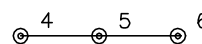
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|                          |                                                                                                        |                                            |                                                 |
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|--------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------|



CD0005A25

LOW VOLTAGE  
(2Y)

U V W

INVERTER

HIGH VOLTAGE  
(1Y)

U V W

INVERTER

## NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
3. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: NEW

REV. LTR: -

VERSION: 00

TDR: 000001135746

FILE: \AAA\00253\082

REVISED: 01:10:57 03/30/2020

BY: ENMARSO

MTL: -



BALDOR - RELIANCE®

3PH, DV, 9 LEADS, ECS

SH 1 of 1

CD0005A25