

# ABB BALDOR RELIANCE III

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## Customer information packet

### XM14242T-5

2HP, 1765RPM, 3PH, 60HZ, 145T, 3528M, XPFC, F1

Class - CLI GP D; CLII GP F,G

Division - Division I

**Specifications**

|                                |                           |
|--------------------------------|---------------------------|
| Enclosure                      | XPFC                      |
| Frame                          | 145T                      |
| Frame Material                 | Steel                     |
| Frequency                      | 60.00 Hz                  |
| Haz Area Class and Group       | CLI GP D; CLII GP F,G     |
| Haz Area Division              | Division I                |
| Motor Letter Type              | Three Phase               |
| Output @ Frequency             | 2.000 HP @ 60 HZ          |
| Phase                          | 3                         |
| Synchronous Speed @ Frequency  | 1800 RPM @ 60 HZ          |
| Voltage @ Frequency            | 575.0 V @ 60 HZ           |
| Agency Approvals               | CSA EEV<br>UL             |
| 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    | 1.5                       |
| Current @ Voltage              | 2.150 A @ 575.0 V         |
| Design Code                    | B                         |
| Drip Cover                     | No Drip Cover             |
| Duty Rating                    | CONT                      |
| Efficiency @ 100% Load         | 86.5 %                    |
| Electrically Isolated Bearing  | Not Electrically Isolated |
| Feedback Device                | NO FEEDBACK               |
| Front Shaft Indicator          | None                      |
| Haz Area Temp Code             | T3C                       |
| Heater Indicator               | No Heater                 |
| High Voltage Full Load Amps    | 2.2 a                     |
| Insulation Class               | F                         |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | A          |
| Type         | AC         |
| Mech. spec.  | 35Q558     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGZ823   |
| Layout       | 35LYQ558   |
| Eff. date    | 08-14-2023 |
| CD Diagram   | CD0006     |
| Poles        | 04         |
| Leads        | 3#18       |
| Proprietary  | False      |
| Created date | 03-11-2022 |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Inverter Code</b>                 | Not Inverter               |
| <b>KVA Code</b>                      | L                          |
| <b>Lifting Lugs</b>                  | No Lifting Lugs            |
| <b>Locked Bearing Indicator</b>      | No Locked Bearing          |
| <b>Max Speed</b>                     | 2700 rpm                   |
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 18 AWG                 |
| <b>Motor Lead Termination</b>        | Flying Leads               |
| <b>Motor Standards</b>               | NEMA                       |
| <b>Motor Type</b>                    | X3528M                     |
| <b>Mounting Arrangement</b>          | F1                         |
| <b>Number of Poles</b>               | 4                          |
| <b>Overall Length</b>                | 15.21 IN                   |
| <b>Power Factor</b>                  | 81                         |
| <b>Product Family</b>                | Hazardous Location Motor   |
| <b>Pulley End Bearing Type</b>       | Ball                       |
| <b>Pulley Face Code</b>              | Standard                   |
| <b>Pulley Shaft Indicator</b>        | Standard                   |
| <b>Rodent Screen</b>                 | None                       |
| <b>Service Factor</b>                | 1.00                       |
| <b>Shaft Diameter</b>                | 0.875 IN                   |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding         |
| <b>Shaft Rotation</b>                | Reversible                 |
| <b>Shaft Slinger Indicator</b>       | No Slinger                 |
| <b>Speed</b>                         | 1765 rpm                   |
| <b>Speed Code</b>                    | Single Speed               |
| <b>Starting Method</b>               | Direct on line             |
| <b>Thermal Device - Bearing</b>      | None                       |
| <b>Thermal Device - Winding</b>      | Normally Closed Thermostat |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor        |
| <b>Winding Thermal 1</b>             | None                       |
| <b>Winding Thermal 2</b>             | None                       |

**Nameplate**

| NP0887XPSLEV |                             |        |   |              |         |                  |       |         |          |    |  |
|--------------|-----------------------------|--------|---|--------------|---------|------------------|-------|---------|----------|----|--|
| NO.          |                             |        |   |              |         | CC               | 010A  |         |          |    |  |
| S/N          |                             |        |   |              |         | TEMP CODE        | T3C   |         |          |    |  |
| SPEC.        | 35Q558Z823G1                |        |   |              |         | INV.TYPE         | PWM   |         |          |    |  |
| CAT.NO.      | XM14242T-5                  |        |   |              |         | C HP FR          | 60    | C HP TO | 90       |    |  |
| HP           | 2                           |        |   |              |         | CT HZ FROM       | 1.5   |         | CT HZ TO | 60 |  |
| VOLTS        | 575                         |        |   |              |         | VT HZ FROM       | 1.5   |         | VT HZ TO | 60 |  |
| AMPS         | 2.15                        |        |   |              | MAG CUR | 1.15             |       |         |          |    |  |
| RPM          | 1765                        |        |   |              | MX RPM  | 2700             |       |         |          |    |  |
| HZ           | 60                          | PH     | 3 | CL           | F       | NOM.EFF.         | 86.5  |         |          |    |  |
| SER.F.       | 1.00                        | DES    | B | SL HZ        | 1.17    | WK2              | 0.202 |         |          |    |  |
| FRAME        | 145T                        | RATING |   | 40C AMB-CONT |         |                  |       |         |          |    |  |
|              | 55C AMB AT 1.00 SF SINEWAVE |        |   |              |         |                  |       |         |          |    |  |
|              | NEMA MG-1 PART 5, IP54      |        |   |              |         | 1.15 SF SINEWAVE |       |         |          |    |  |

**AC Induction Motor Performance Data**

Record # 88444

Preliminary Data Sheet

| Winding: 35WGZ823-R001 |    |       | Type: 3528M                           |                     | Enclosure: TEFC         |             |         |
|------------------------|----|-------|---------------------------------------|---------------------|-------------------------|-------------|---------|
| Nameplate Data         |    |       | 575 V, 60 Hz:<br>Single Voltage Motor |                     |                         |             |         |
| Rated Output (HP)      |    | 2     | Full Load Torque                      |                     | 5.95 LB-FT              |             |         |
| Volts                  |    | 575   | Start Configuration                   |                     | direct on line          |             |         |
| Full Load Amps         |    | 2.15  | Breakdown Torque                      |                     | 22.1 LB-FT              |             |         |
| R.P.M.                 |    | 1765  | Pull-up Torque                        |                     | 13.1 LB-FT              |             |         |
| Hz                     | 60 | Phase | 3                                     | Locked-rotor Torque |                         | 15.85 LB-FT |         |
| NEMA Design Code       |    | B     | KVA Code                              | K                   | Starting Current        |             | 18.31 A |
| Service Factor (S.F.)  |    | 1.15  | No-load Current                       |                     | 1.15 A                  |             |         |
| NEMA Nom. Eff.         |    | 86.5  | Power Factor                          | 81                  | Line-line Res. @ 25°C   |             | 15.5 Ω  |
| Rating - Duty          |    | 40C   | AMB-CONT                              |                     | Temp. Rise @ Rated Load |             | 81°C    |
| S.F. Amps              |    | 2.45  | Temp. Rise @ S.F. Load                |                     | 98°C                    |             |         |
|                        |    |       | Locked-rotor Power Factor             |                     | 57                      |             |         |
|                        |    |       | Rotor inertia                         |                     | 0.202 lb-ft²            |             |         |

**Load Characteristics 575 V, 60 Hz, 2 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 39   | 60   | 73   | 80   | 84   | 86   | 82   |
| Efficiency      | 80.1 | 86.2 | 87.3 | 86.9 | 85.6 | 83.9 | 86.1 |
| Speed           | 1791 | 1783 | 1773 | 1765 | 1755 | 1742 | 1759 |
| Line amperes    | 1.23 | 1.45 | 1.76 | 2.15 | 2.62 | 3.1  | 2.43 |

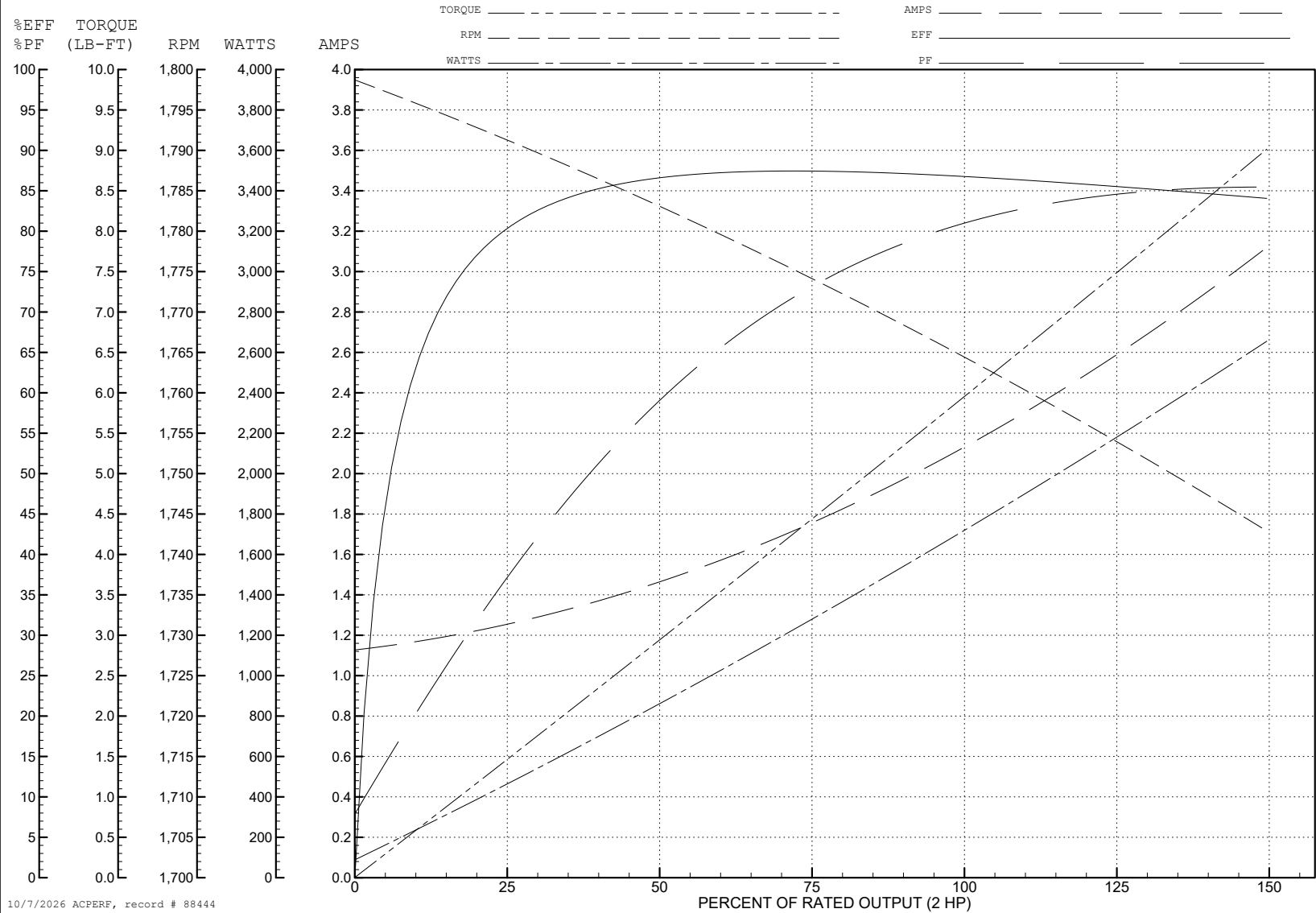
ABB Motors and Mechanical Inc.

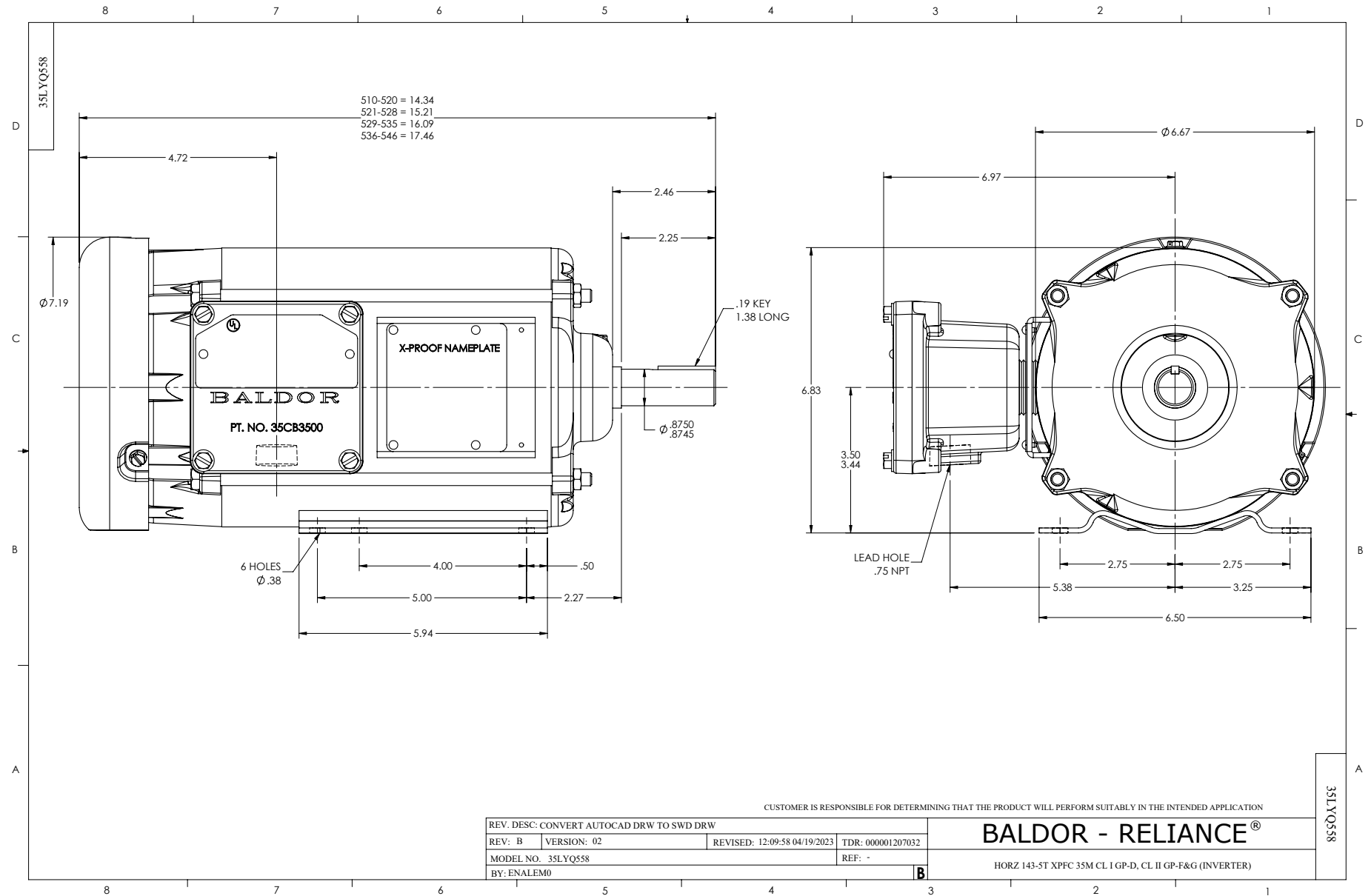
WINDING # 35WGZ823

Typical performance - not guaranteed values.

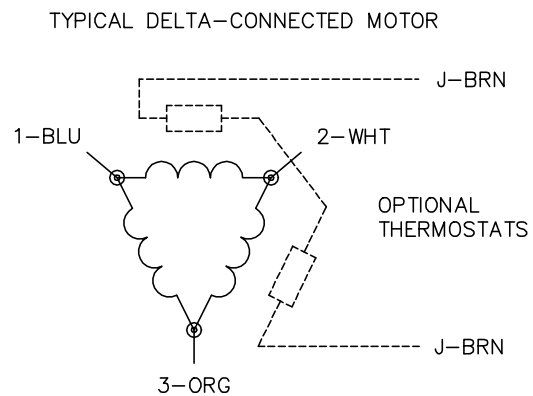
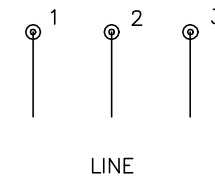
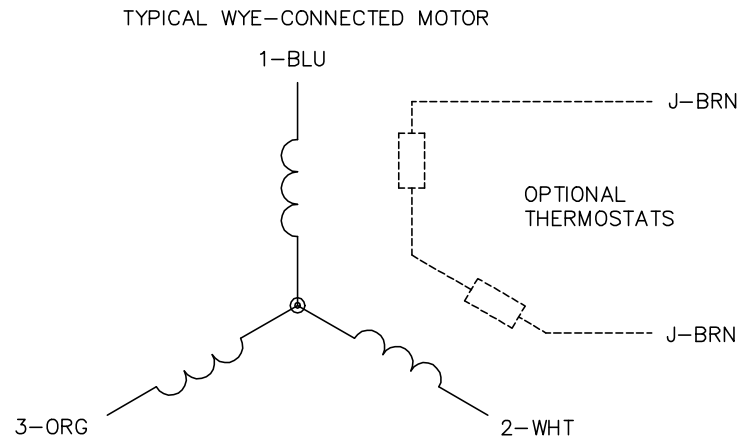
2 HP 3 PH 60 HZ 1765 RPM 575 V 3528M

TORQUES (LB-FT): PO=22.1 PU=13.1 LR=15.85 LRA=18.31





CD0006


**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: ENBRIRO

MTL: -


**BALDOR - RELIANCE®**

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

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