

BALDOR • RELIANCE

Customer information packet

FDEM4104T

30HP, 1760RPM, 3PH, 60HZ, 286T, 1056M, TEFC, F1

Class - None

Division - Not Applicable

Specifications

| | |
|--------------------------------|--|
| Enclosure | TEFC |
| Frame | 286T |
| 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 | 30.000 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 |
| Auxillary Box | No Auxillary Box |
| Auxillary Box Lead Termination | None |
| Base Indicator | Rigid |
| Bearing Grease Type | Polyrex EM (-20F +300F) |
| Blower | None |
| Current @ Voltage | 76.000 A @ 230.0 V 78.000 A @ 208.0 V 38.000 A @ 460.0 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 Face Code | Standard |
| Front Shaft Indicator | None |

Part detail

| | |
|--------------|------------|
| Revision | N |
| Type | AC |
| Mech. spec. | 10J526 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 10WGY538 |
| Layout | 10LYJ526 |
| Eff. date | 08-01-2023 |
| CD Diagram | CD0180 |
| Poles | 04 |
| Leads | 9#8 |
| Proprietary | False |
| Created date | 12-13-2013 |

| | |
|-------------------------------|-----------------------|
| Heater Indicator | No Heater |
| High Voltage Full Load Amps | 38.0 a |
| Insulation Class | F |
| Inverter Code | Inverter Ready |
| KVA Code | J |
| 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 | 1056M |
| Mounting Arrangement | F1 |
| Number of Poles | 4 |
| Overall Length | 27.76 IN |
| Power Factor | 80 |
| Product Family | General Purpose |
| Pulley End Bearing Type | Sealed Bearing |
| Pulley Face Code | Standard |
| Pulley Shaft Indicator | Standard |
| Rodent Screen | None |
| Service Factor | 1.15 |
| Shaft Diameter | 1.875 IN |
| Shaft Extension Location | Pulley End |
| Shaft Ground Indicator | No Shaft Grounding |
| Shaft Rotation | Reversible |
| Shaft Slinger Indicator | Shaft Slinger |
| Speed | 1760 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

| NP3126L | | | | | | | | | |
|---------------------|---------------|-------------|-----------------------|------------|---|-----------|-----|--|--|
| CAT.NO. | FDEM4104T | | | | | | | | |
| SPEC. | 10J526Y538G1 | | | | | | | | |
| HP | 30 | | | | | | | | |
| VOLTS | 230/460 | | | | | | | | |
| AMP | 76/38 | | | | | | | | |
| RPM | 1760 | | | | | | | | |
| FRAME | 286T | | HZ | 60 | | PH | 3 | | |
| SER.F. | 1.15 | CODE | J | DES | A | CL | F | | |
| NEMA-NOM-EFF | 93.6 | PF | 80 | | | | | | |
| RATING | 40C AMB-CONT | | | | | | | | |
| CC | 010A | | USABLE AT 208V | | | | N/A | | |
| DE | 6311 | | ODE | 6309 | | | | | |
| ENCL | TEFC | SN | | | | | | | |
| | SFA 84.8/42.4 | | | | | | | | |

Parts list

| Part number | Description | Quantity |
|--------------|--|----------|
| SA273883 | SA 10J526Y538G1 | 1.000 ea |
| RA260474 | RA 10J526Y538G1 | 1.000 ea |
| 10CB3000SP | KOBX, CAST W/2.00 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 |
| 10EP1106A55 | FREP MACH W/O GREASERS, W/"O" DRAINS | 1.000 ea |
| 10XN3816K32 | BOLT, 3/8-16X2 HH YZ(5) | 4.000 ea |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |
| HW5100A11 | W3917-042 WVY WSHR (WB) | 1.000 ea |
| 10XN3118K40 | 5/16-18 X 2.50" HEX HD, GRADE 5 | 4.000 ea |
| HW1001A31 | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 ea |
| 10EP1105A112 | PUEP MACH W/LIP SEAL,"O" DRAIN,W/O GRSR | 1.000 ea |
| 10XN3816K28 | 3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5 | 4.000 ea |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |
| HW4600A53 | SEAL 2.00 X 3.00 X 0.313 SINGLE LIP | 1.000 ea |
| HW4600B40 | V-RING SLINGER 2.000 X 2.680 X .28 VITON | 1.000 ea |
| 10FH4000 | 310 FAN HOUSING STAMPED | 1.000 ea |
| 51XF2520A08 | SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L | 4.000 ea |
| 10CB3500SP | CONDUIT BOX LID, CAST | 1.000 ea |
| 10GS1000SP | GASKET, CONDUIT BOX LID | 1.000 ea |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 4.000 ea |
| HW2501H28 | KEY, 1/2 SQ X 3.250 | 1.000 ea |
| MN416A01 | TAG-INSTAL-MAINT no wire (2500bx)4/22 | 1.000 ea |
| HA4066A01 | PUSH IN T-DRAIN FITTING (BLACK) | 1.000 ea |
| MJ1000A02 | GREASE, POLYREX EM EXXON | 0.130 lb |
| HA4066A01 | PUSH IN T-DRAIN FITTING (BLACK) | 1.000 ea |
| 09FN3001C02 | EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO | 1.000 ea |
| HW2500A25 | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 ea |

| | | |
|-------------|--|----------|
| MG1025C02 | WILKOFAST SG, 787.105, TAN | 0.050 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 |
| NP3126L | ALUM FARM DUTY SUPER-E UL CSA-EEV PREM | 1.000 ea |
| 10PA1000 | PACKAGING GROUP COMBINED PRINT PK1023A06 | 1.000 ea |

AC Induction Motor Performance Data

Record # 32189

Typical performance - not guaranteed values

| Winding: 10WGY538-R004 | | Type: 1056M | Enclosure: TEFC | |
|------------------------|-------------------|---------------------------|--|--|
| Nameplate Data | | | 460 V, 60 Hz: High Voltage Connection | |
| Rated Output (HP) | 30 | Full Load Torque | 88.7 LB-FT | |
| Volts | 230/460 | Start Configuration | direct on line | |
| Full Load Amps | 76/38 | Breakdown Torque | 330 LB-FT | |
| R.P.M. | 1760 | Pull-up Torque | 142 LB-FT | |
| Hz | 60 Phase | Locked-rotor Torque | 178 LB-FT | |
| NEMA Design Code | A KVA Code | Starting Current | 270 A | |
| Service Factor (S.F.) | 1.15 | No-load Current | 17.9 A | |
| NEMA Nom. Eff. | 93.6 Power Factor | Line-line Res. @ 25°C | 0.19377 Ω | |
| Rating - Duty | 40C AMB-CONT | Temp. Rise @ Rated Load | 64°C | |
| S.F. Amps | | Temp. Rise @ S.F. Load | 76°C | |
| | | Locked-rotor Power Factor | 30.9 | |
| | | Rotor inertia | 4.47 LB-FT ² | |

Load Characteristics 460 V, 60 Hz, 30 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor | 41 | 63 | 73 | 80 | 82 | 85 | 81 |
| Efficiency | 87.6 | 92.3 | 93.5 | 93.7 | 93.4 | 92.9 | 93.5 |
| Speed | 1792.2 | 1787.6 | 1782.4 | 1776.5 | 1770.3 | 1762.1 | 1773 |
| Line amperes | 19.8 | 24.3 | 30.7 | 37.6 | 45.6 | 55.2 | 42.4 |

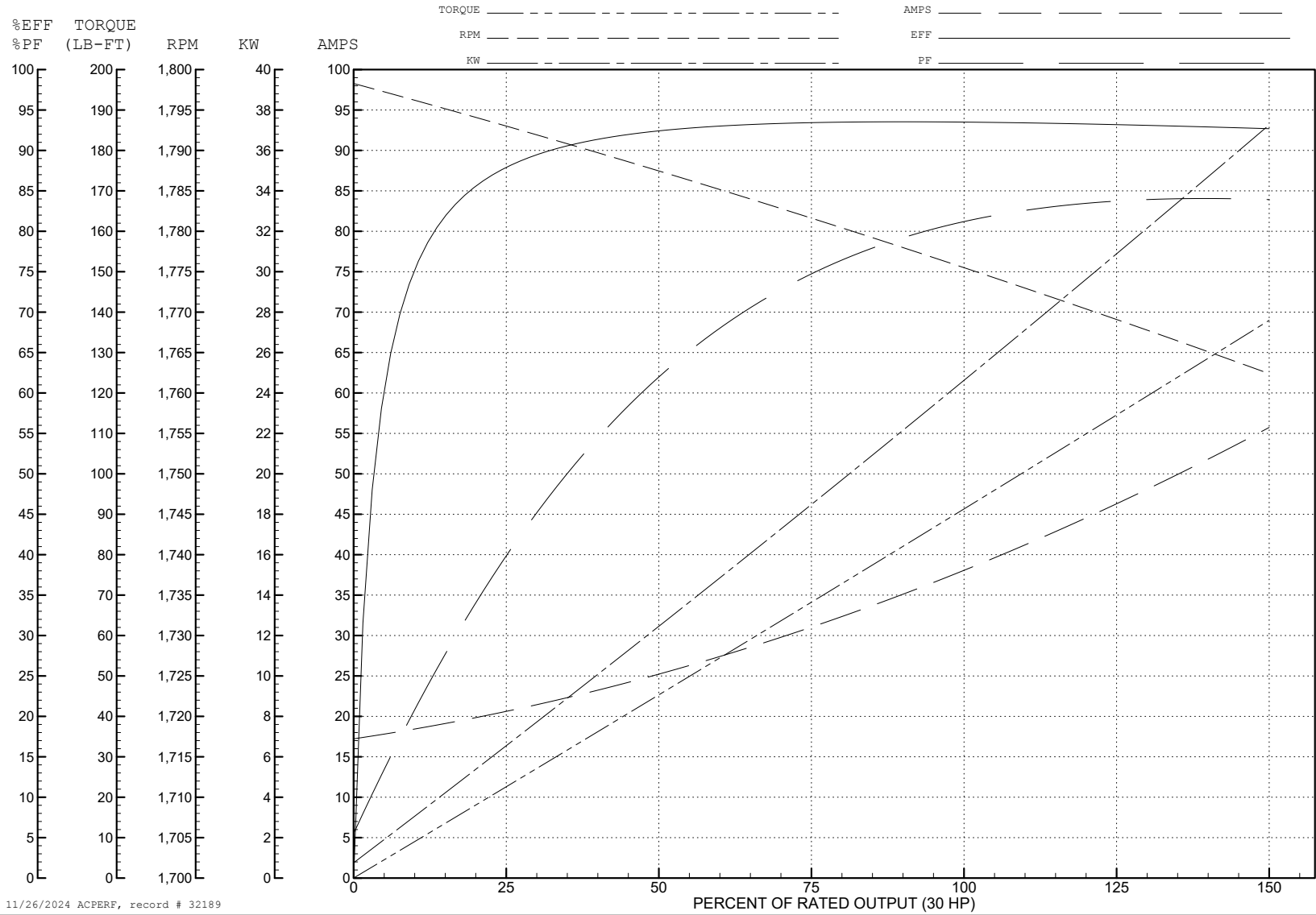
ABB Motors and Mechanical Inc.

WINDING # 10WGY538

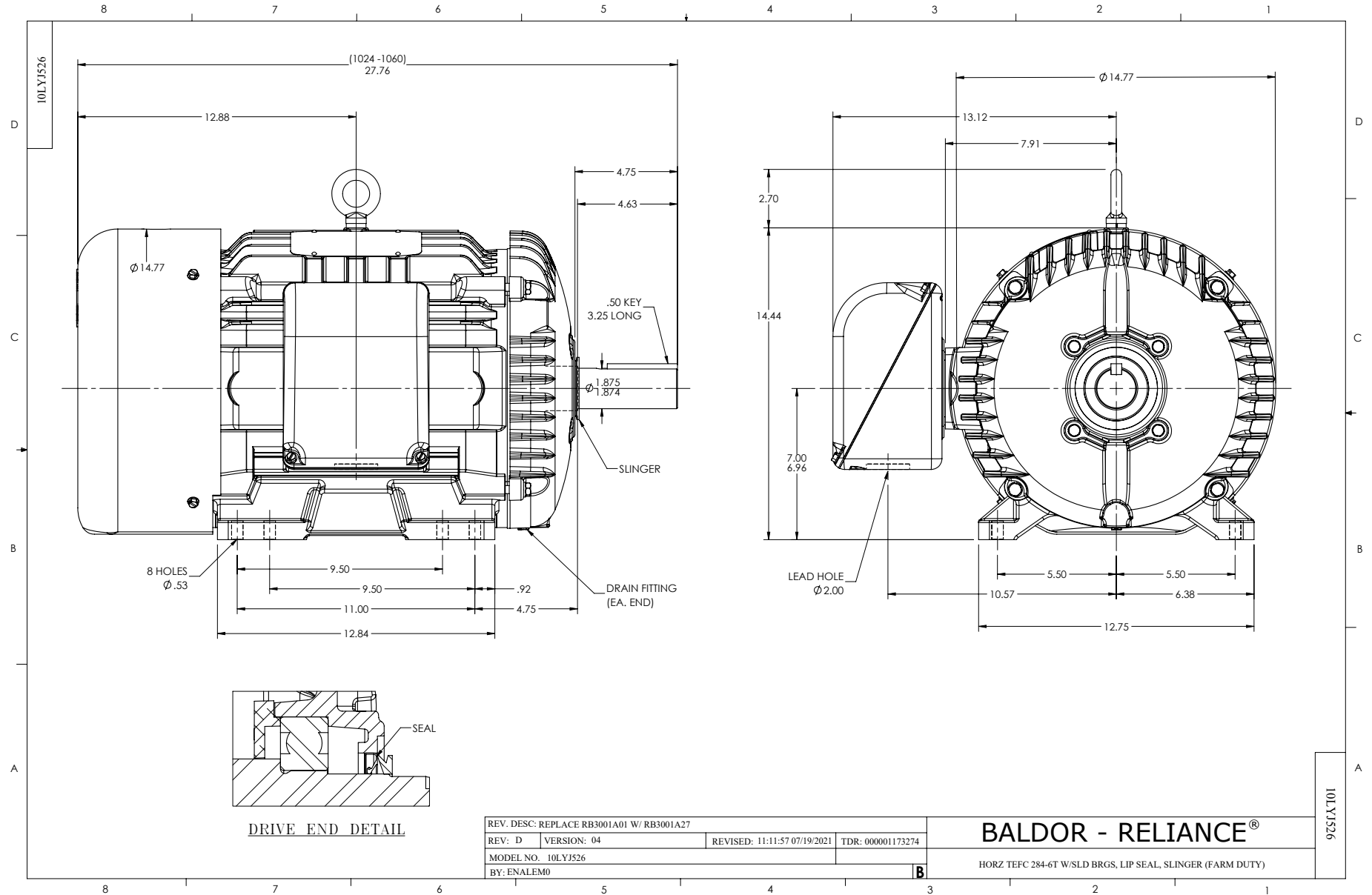
Typical performance - not guaranteed values.

30 HP 3 PH 60 HZ 1760 RPM 460 V 1056M

TORQUES (LB-FT): PO=330 PU=142 LR=178 LRA=270



11/26/2024 ACPERF, record # 32189



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

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| 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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