



Customer information packet

ECP4106T

20HP, 3540RPM, 3PH, 60HZ, 256T, 0944M, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

Specifications

| | |
|--------------------------------|--|
| Enclosure | TEFC |
| Frame | 256T |
| Frame Material | Iron |
| Frequency | 60.00 Hz |
| Haz Area Class and Group | CL I GP A,B,C,D |
| Haz Area Division | Division II |
| Motor Letter Type | Three Phase |
| Output @ Frequency | 20.000 HP @ 60 HZ |
| Phase | 3 |
| Synchronous Speed @ Frequency | 3600 RPM @ 60 HZ |
| Voltage @ Frequency | 460.0 V @ 60 HZ 230.0 V @ 60 HZ |
| Agency Approvals | CCSA US CSA EEV NEMA PREMIUM NEMA_PREMIUM 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 |
| Constant Torque Speed Range | 6 |
| Current @ Voltage | 48.000 A @ 208.0 V 44.000 A @ 230.0 V 22.000 A @ 460.0 V |
| Design Code | A |
| Drip Cover | No Drip Cover |
| Duty Rating | CONT |
| Efficiency @ 100% Load | 91.7 % |
| Electrically Isolated Bearing | Not Electrically Isolated |

Part detail

| | |
|--------------|------------|
| Revision | AW |
| Type | AC |
| Mech. spec. | 09J371 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 09WGY799 |
| Layout | 09LYJ371 |
| Eff. date | 07-19-2024 |
| CD Diagram | CD0180 |
| Poles | 02 |
| Leads | 9#12 |
| Proprietary | False |
| Created date | 08-29-2010 |

| Enclosure Modification | Severe Duty Features |
|-------------------------------|-----------------------------|
| Feedback Device | NO FEEDBACK |
| Front Face Code | Standard |
| Front Shaft Indicator | None |
| Haz Area Temp Code | T3 |
| Heater Indicator | No Heater |
| High Voltage Full Load Amps | 22.0 a |
| Insulation Class | F |
| Inverter Code | Inverter Duty |
| KVA Code | J |
| Lifting Lugs | Standard Lifting Lugs |
| Locked Bearing Indicator | Locked Bearing |
| Max Speed | 5400 rpm |
| Motor Lead Exit | Ko Box |
| Motor Lead Quantity/Wire Size | 9 @ 12 AWG |
| Motor Lead Termination | Flying Leads |
| Motor Standards | NEMA |
| Motor Type | 0944M |
| Mounting Arrangement | F1 |
| Number of Poles | 2 |
| Overall Length | 24.78 IN |
| Power Factor | 92 |
| 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 | 1.625 IN |
| Shaft Extension Location | Pulley End |
| Shaft Ground Indicator | No Shaft Grounding |
| Shaft Rotation | Reversible |
| Shaft Slinger Indicator | Shaft Slinger |
| Speed | 3540 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

NP3995ABEL

| | | | | | | | | | | | |
|----------------------------------|-------------------------------|-----------|--------------|-------------------------|---------------|------------------------------|--------------------|-----------------------|---------------|----------------------|----------|
| CAT # | ECP4106T | | | SER | | | | CC | 010A | | |
| SPEC | 09J371Y799G1 | | | RATING | 40C AMB-CONT | | | | | | |
| HZ | VOLTS | | AMPS | RPM | HP | CODE | SF | DES | PF | NEMA NOM. EFF | |
| 60 | 230/460 | | 44/22 | 3540 | 20 | J | 1.15 | A | 92 % | 91.7 % | |
| | | | | | | | | | % | % | |
| PH | 3 | CL | F | MAX RPM | 5400 | MAX CORR KVAR | 6.61 | USABLE AT 208V | | N/A | |
| IP55 | FR | 256T | ENCL | TEFC | DE BRG | 6309 | ODE BRG | 6309 | | | |
| GREASE | POLYREX EM | | | MTR WT | 331 | LBS | | | | | |
| USABLE AT | 50HZ 15HP 190/380V 40.8/20.4A | | | | | SF1.0 | | | | | |
| CL I DIV 2 GRPS A,B,C,D | | | | CL I ZONE 2 GRPS | | | IIA,IIB,IIC | | TEMP T | 200 | C |
| 1.0 SF ON PWM INVERTER | | | POWER | INV TEMP CL | | 200 | C | | | | |
| CHP | 60-90 | HZ | 1.5:1 | CT | 6-60 | HZ | 10:1 | VT | 3-60 | HZ | 20:1 |
| SPACE HEATER LEADS H1-H2: | | | | TIE LIKE NUMBERS | | | TOGETHER | | | | |
| V | | A | | W | | MAX SPACE HEATER TEMP | | | | | |

AC Induction Motor Performance Data

Record # 47264

Typical performance - not guaranteed values

| Winding: 09WGY799-R020 | | Type: 0944M | Enclosure: TEFC |
|------------------------|-------------------|--|-------------------------|
| Nameplate Data | | 460 V, 60 Hz: High Voltage Connection | |
| Rated Output (HP) | 20 | Full Load Torque | 29.76 LB-FT |
| Volts | 230/460 | Start Configuration | direct on line |
| Full Load Amps | 44/22 | Breakdown Torque | 121 LB-FT |
| R.P.M. | 3540 | Pull-up Torque | 49.4 LB-FT |
| Hz | 60 Phase | Locked-rotor Torque | 62.2 LB-FT |
| NEMA Design Code | A KVA Code | Starting Current | 183 A |
| Service Factor (S.F.) | 1.15 | No-load Current | 6.12 A |
| NEMA Nom. Eff. | 91.7 Power Factor | Line-line Res. @ 25°C | 0.377 Ω |
| Rating - Duty | 40C AMB-CONT | Temp. Rise @ Rated Load | 62°C |
| S.F. Amps | | Temp. Rise @ S.F. Load | 76°C |
| | | Locked-rotor Power Factor | 27.8 |
| | | Rotor inertia | 1.12 LB-FT ² |

Load Characteristics 460 V, 60 Hz, 20 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|-------|-------|-------|-------|-------|------|
| Power Factor | 63 | 83 | 90 | 92 | 93 | 93 | 93 |
| Efficiency | 88.7 | 92.8 | 93.2 | 93.2 | 92.6 | 91.8 | 92.8 |
| Speed | 3583 | 3567 | 3551 | 3534 | 3516 | 3497 | 3523 |
| Line amperes | 8.14 | 12.12 | 16.69 | 21.89 | 27.18 | 33.06 | 25.1 |

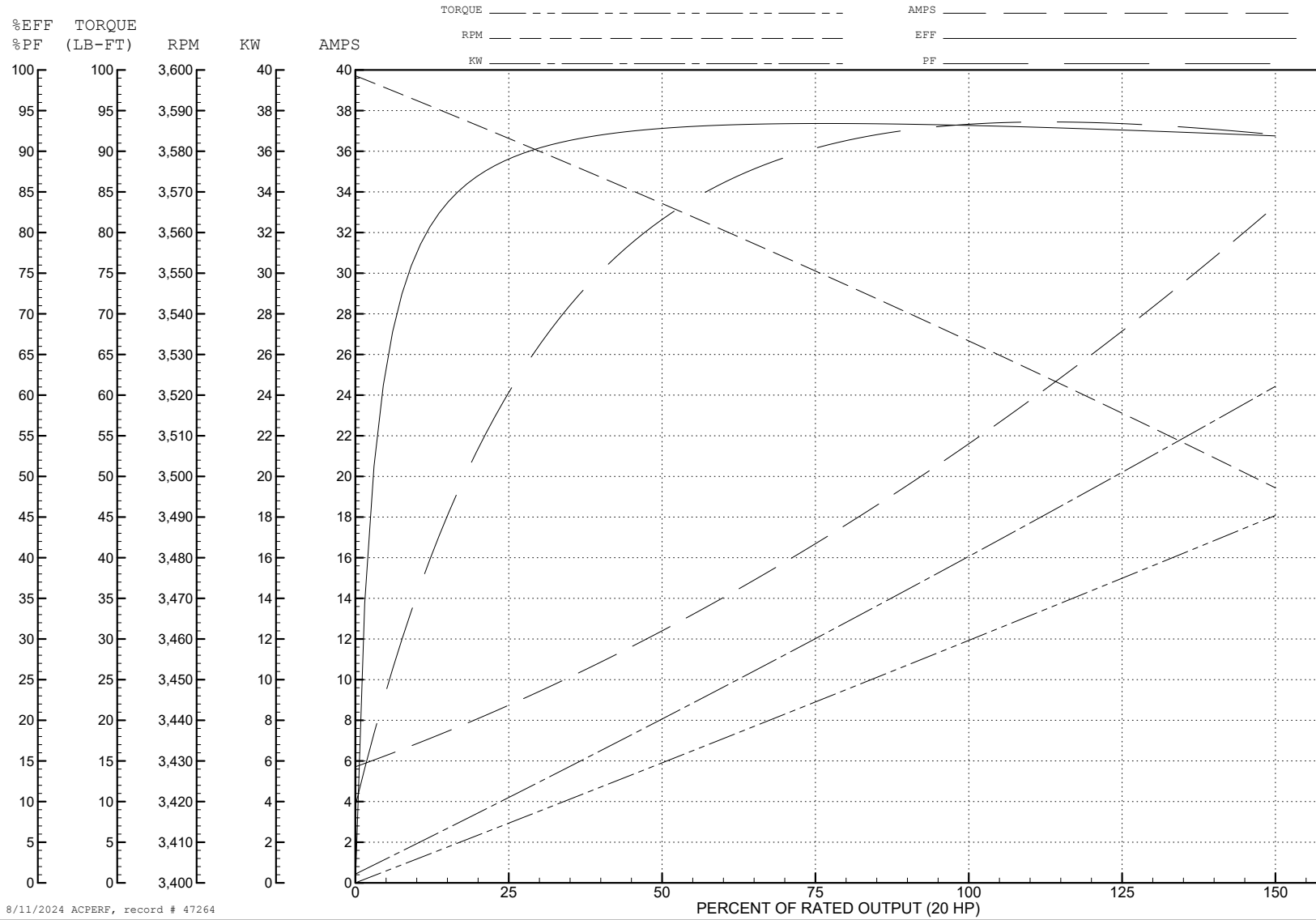
ABB Motors and Mechanical Inc.

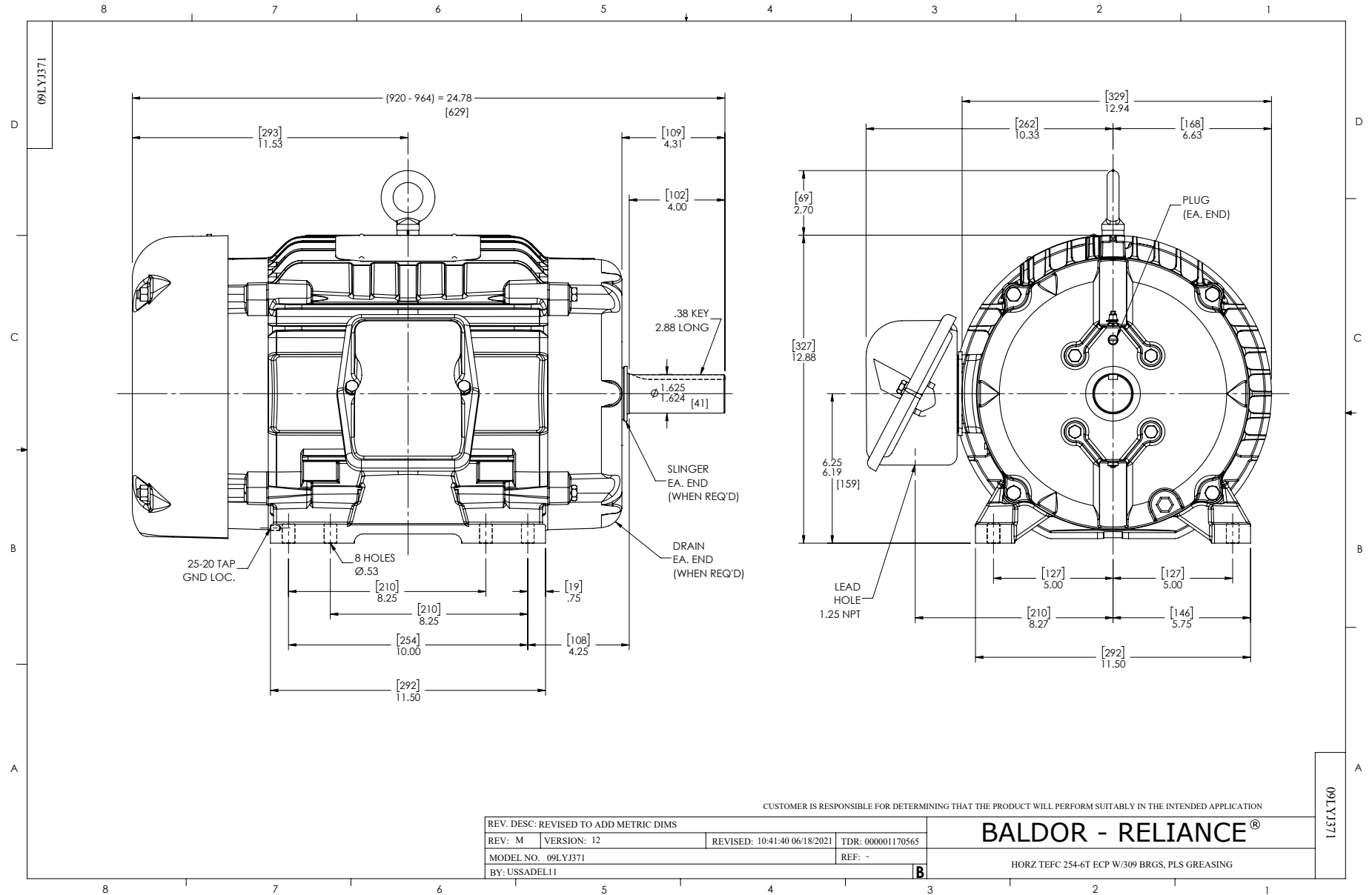
WINDING # 09WGY799

Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 3540 RPM 460 V 0944M

TORQUES (LB-FT): PO=121 PU=49.4 LR=62.2 LRA=183





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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