



Customer information packet

IDVSM2334T-5

20HP, 1770RPM, 3PH, 60HZ, 256TC, 0960M, TENV, F

Class - None

Division - Not Applicable

Specifications

| | |
|--------------------------------|---------------------------|
| Enclosure | TENV |
| Frame | 256TC |
| 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 | 20.000 HP @ 60 HZ |
| Phase | 3 |
| Synchronous Speed @ Frequency | 1800 RPM @ 60 HZ |
| Voltage @ Frequency | 575.0 V @ 60 HZ |
| Agency Approvals | CSA UR |
| 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 |
| Current @ Voltage | 19.200 A @ 575.0 V |
| Design Code | A |
| Drip Cover | No Drip Cover |
| Duty Rating | CONT |
| Efficiency @ 100% Load | 93.0 % |
| Electrically Isolated Bearing | Not Electrically Isolated |
| Feedback Device | NO FEEDBACK |
| Front Shaft Indicator | None |
| Heater Indicator | No Heater |
| High Voltage Full Load Amps | 19.2 a |
| Insulation Class | F |
| Inverter Code | Inverter Duty |
| KVA Code | J |


Part detail

| | |
|--------------|------------|
| Revision | F |
| Type | AC |
| Mech. spec. | 09K146 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 09WGT507 |
| Layout | 09LYK146 |
| Eff. date | 11-13-2023 |
| CD Diagram | CD0006 |
| Poles | 04 |
| Leads | 3#10 |
| Proprietary | False |
| Created date | 11-11-2020 |

| Lifting Lugs | Standard Lifting Lugs |
|-------------------------------|----------------------------|
| Locked Bearing Indicator | Locked Bearing |
| Max Speed | 2700 rpm |
| Motor Lead Quantity/Wire Size | 3 @ 10 AWG |
| Motor Lead Termination | Flying Leads |
| Motor Standards | NEMA |
| Motor Type | 0960M |
| Mounting Arrangement | F1 |
| Number of Poles | 4 |
| Overall Length | 26.84 IN |
| Power Factor | 83 |
| Product Family | General Purpose |
| Pulley End Bearing Type | Ball |
| Pulley Face Code | C-Face |
| Pulley Shaft Indicator | Standard |
| Rodent Screen | None |
| Service Factor | 1.00 |
| Shaft Diameter | 1.625 IN |
| Shaft Ground Indicator | No Shaft Grounding |
| Shaft Rotation | Reversible |
| Shaft Slinger Indicator | Shaft Slinger |
| Speed | 1770 rpm |
| Speed Code | Single Speed |
| Starting Method | Direct on line |
| Thermal Device - Bearing | None |
| Thermal Device - Winding | Normally Closed Thermostat |
| Vibration Sensor Indicator | No Vibration Sensor |
| Winding Thermal 1 | None |
| Winding Thermal 2 | None |

Nameplate

| NP3302L | | | |
|---------------------|----------------|----------------|------------------|
| CAT NO | IDVSM2334T-5 | | |
| SPEC. | 09K146T507G1 | | |
| FRAME | 256TC | HP | 20 TE |
| VOLTS | 575 | | |
| MAG CUR | 8.3 | FLA | 19.2 |
| RPM | 1770 | RPM MAX | 2700 |
| HZ | 60 | PH | 3 CLASS F |
| SER.F. | 1.00 | SL HZ | 0.83 |
| NEMA-NOM-EFF | 93 | WK2 | 2.62 |
| RATING | 40C AMB-CONT | | |
| DE BRG | 6309 | ODE BRG | 6208 |
| CC | 010A SN | | |
| | 1.5:1 CHP PWM | | |

|  BALDOR • RELIANCE INVERTER DRIVE MOTOR | | | |
|---|-----------|-----------------|--------------------|
| CAT. NO. | | | |
| SPEC. | | | |
| FRAME | | H.P. | |
| VOLTS | | | |
| B A S E | MAG. CUR. | | |
| | R.P.M. | R.P.M. MAX | F.L. AMPS |
| | HZ. | PH. | CLASS |
| SER. F. | | | SL HZ |
| NEMA NOM. EFF. | | WK ² | LB FT ² |
| RATING | | | |
| BEARINGS | DE | | ODE |
| CC | SN | | |
| BALDOR ELECTRIC CO. FT. SMITH, AR. MFG. IN U.S.A. NP3302L | | | |

| | | | | | | | |
|------------|-------|--------------|-------|---|-------|-----|--------|
| NP VOLTS | 575 | MAX SAFE RPM | 2700 | WVE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C) | | | |
| NP AMPS | 19.2 | Base Volt | 575 | R1 | 0.264 | X1 | 1.370 |
| HP | 20 HP | NL AMPS | 8.28 | R2 | 0.249 | X2 | 1.820 |
| BASE SPEED | 1772 | Slips(HZ) | 0.93 | | | XMI | 47.200 |
| PHASE/HZ | 3/60 | Wk2 (lb-ft²) | 2.650 | | | | |

Rated Full Load Data

| | RPM | HP | Torque | Volts | Freq-Hz | Amps |
|------------|------|------|--------|-------|---------|------|
| Base Speed | 1772 | 20.0 | 59.3 | 575 | 60 | 19.2 |
| Max Speed | 2657 | 20.0 | 39.6 | 575 | 90 | 18.5 |
| Min Speed | 0 | 0.0 | 59.3 | 22.51 | 0.93 | 19.2 |

Load Performance at Base Speed

| | RPM | HP | Torque | Volts | Freq-Hz | Amps |
|-----------|------|------|--------|-------|---------|------|
| No Load | 1799 | 0.0 | 0.0 | 575 | 60 | 8.3 |
| 1/4 | 1793 | 5.0 | 14.7 | 575 | 60 | 9.4 |
| 1/2 | 1786 | 10.0 | 29.5 | 575 | 60 | 12.0 |
| 3/4 | 1779 | 15.0 | 44.3 | 575 | 60 | 15.3 |
| Full Load | 1772 | 20.0 | 59.3 | 575 | 60 | 19.2 |
| O/L | 1741 | 40.1 | 121.0 | 575 | 60 | 39.1 |

Blower Data

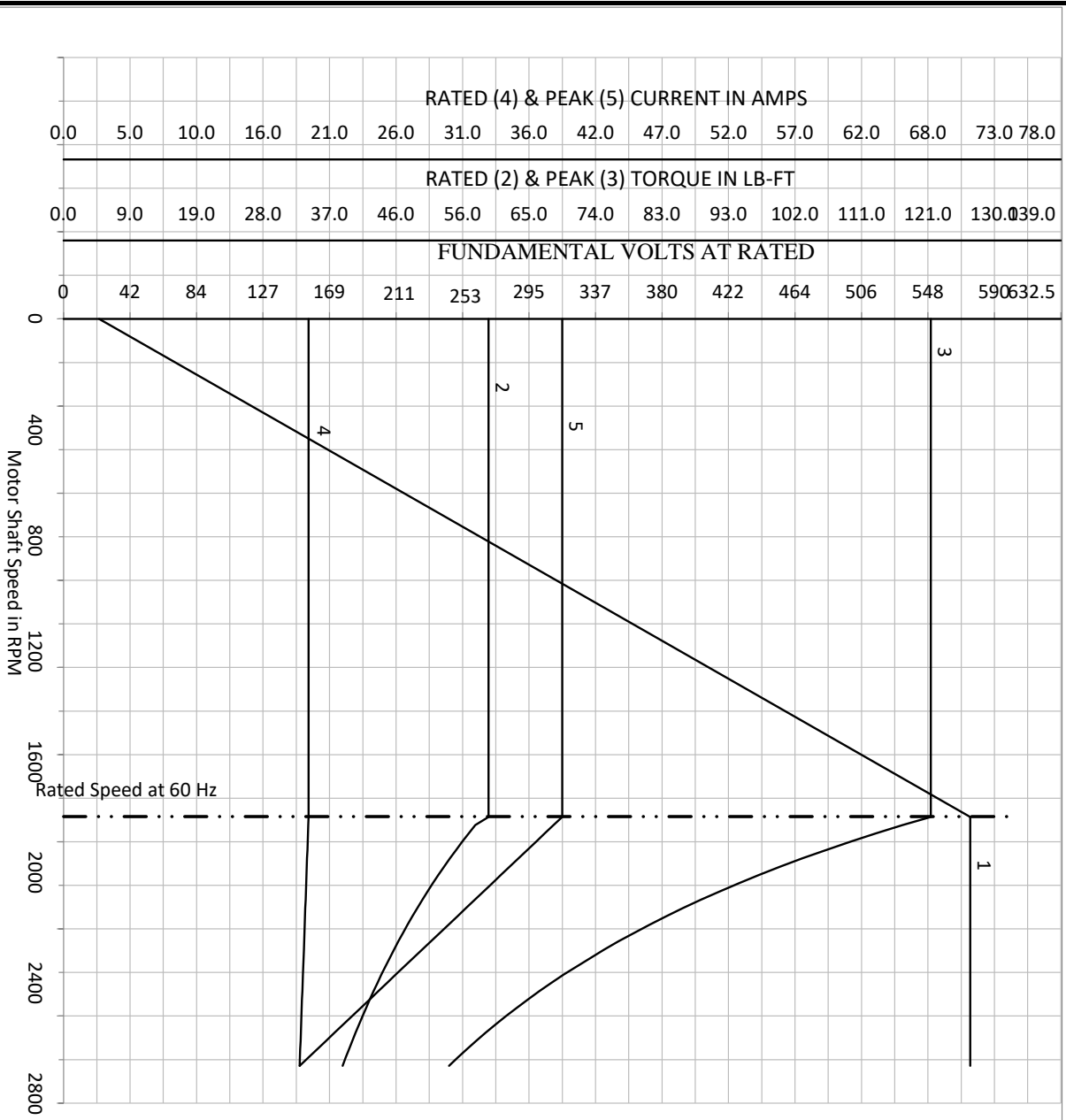
| Volts | Ph/Hz | FL Amps | LR Amps | Frame | CFM |
|-------|-------|---------|---------|-------|-----|
| | | | | | |

Remarks: Calculated Data
Vector PWM Inverter Duty

| | | | |
|--------------------------|------------------------|--------------------|-----------------|
| BALDOR • RELIANCE | DR BY <u>USBRRANI</u> | A-C MOTOR | 09WGT507 |
| | CK BY | | |
| | APP BY <u>USBRRANI</u> | PERFORMANCE | CURVES |
| | DATE <u>11/19/2020</u> | | |
| | | | Record: 85523 |

| | | | | | | | |
|------------|-------|---------------|-------|--|-------|----|--------|
| NP VOLTS | 575 | MAX SAFE RPM | 2700 | WVE CONN EQ. CKT OHMS PER PHASE (BASE RATING, 200) | | | |
| NP AMPS | 19.2 | Base Volt | 575 | R1 | 0.264 | X1 | 1.370 |
| HP | 20 HP | NL AMPS | 8.28 | R2 | 0.249 | X2 | 1.820 |
| BASE SPEED | 1772 | Slips(Hz) | 0.93 | | | XM | 47.200 |
| PHASE/HZ | 3/60 | W/K2 (lb-ft²) | 2.650 | | | | |

Vector PWM Inverter Duty
Variable Speed AC Motor Curves



Calculated Data
Data Valid For Nameplate Speed Range only

BALDOR • RELIANCE

DR BY USBRRANI
 CK BY _____
 APP BY USBRRANI
 DATE 11/19/2020

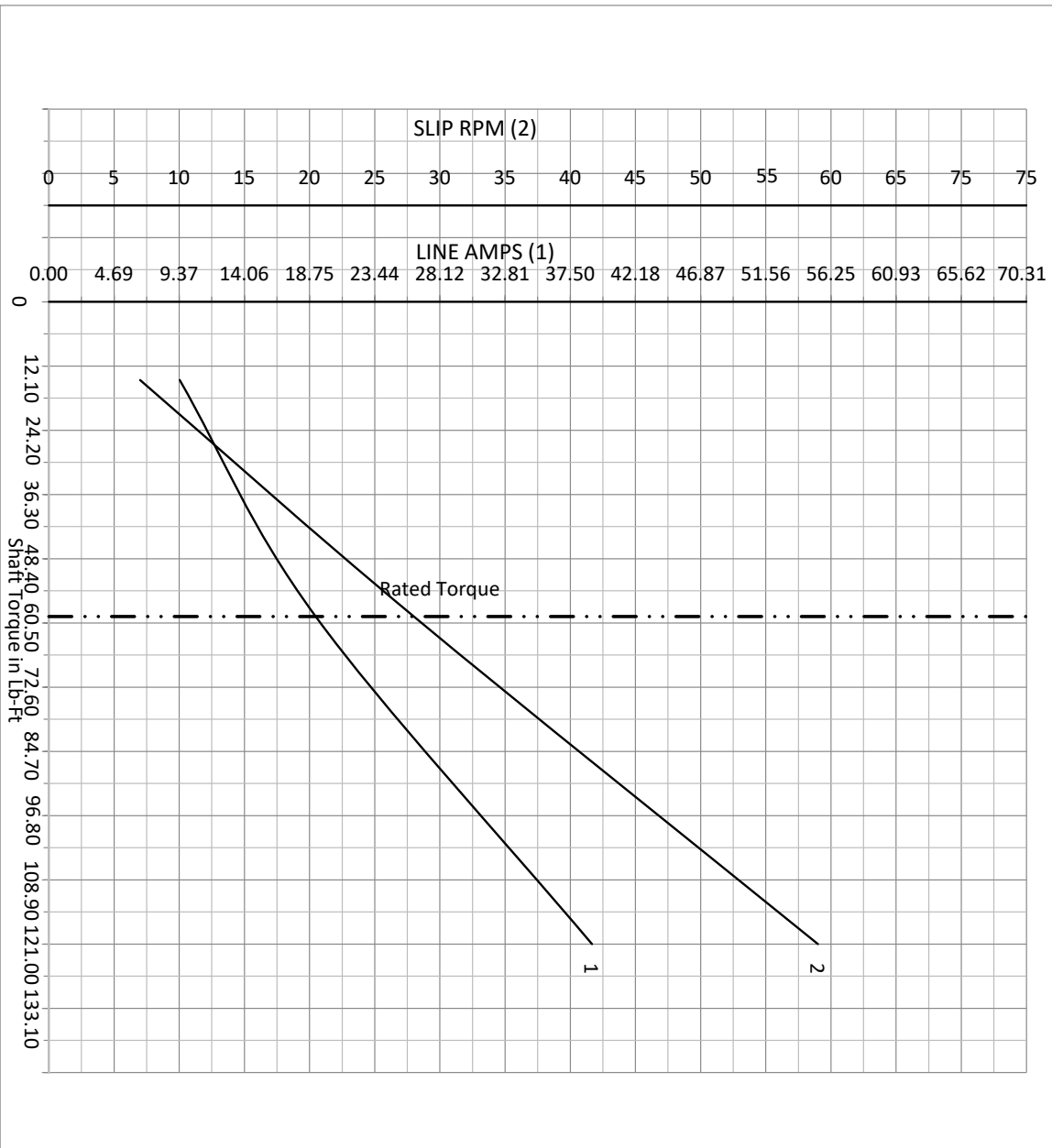
A-C MOTOR PERFORMANCE CURVES

09WGT507

Record: 85523

| | | | | | | | |
|------------|-------|---------------------------|-------|---|-------|----|--------|
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| PHASE/HZ | 3/60 | Wk2 (lb-ft ²) | 2.650 | | | | |

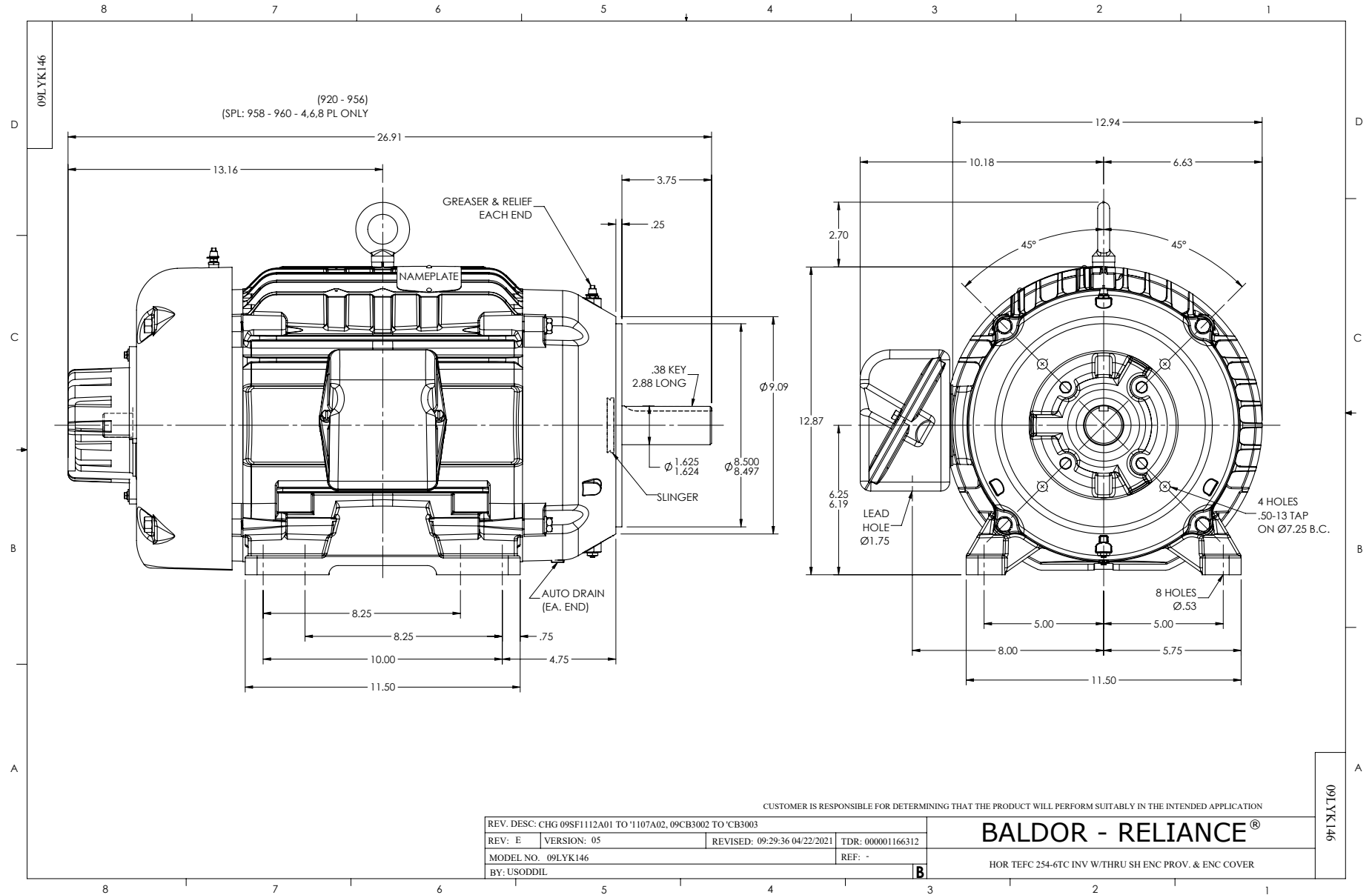
Vector PWM Inverter Duty
Variable Speed AC Motor Curves



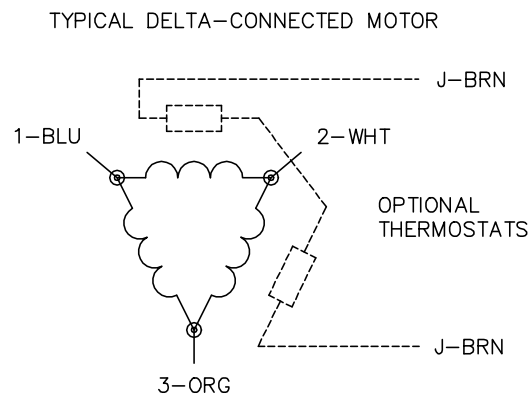
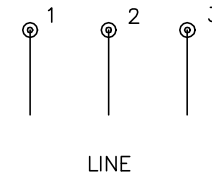
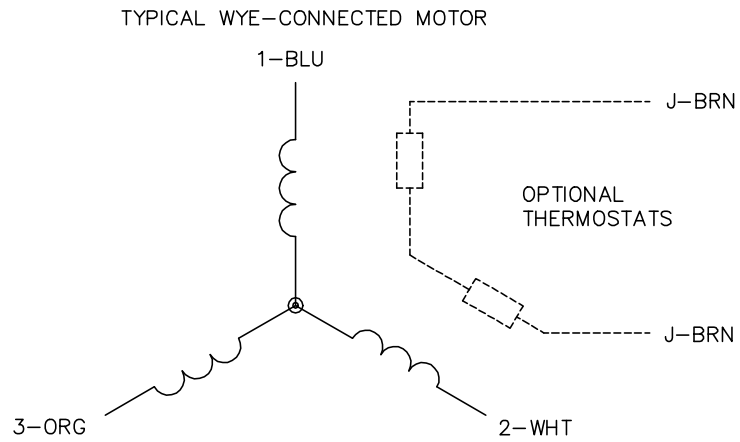
Calculated Data

Data Valid For Nameplate Speed Range only

| | | | |
|---------------------------------|--------|------------|--|
| <p>BALDOR • RELIANCE</p> | DR BY | USBRRANI | <p>A-C MOTOR PERFORMANCE CURVES</p> <p>09WGT507</p> <p>Record: 85523</p> |
| | CK BY | USBRRANI | |
| | APP BY | USBRRANI | |
| | DATE | 11/19/2020 | |



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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