



No.:

Customer :

TECHNICAL PROPOSAL

Three-phase induction motor - Squirrel cage rotor



Product line : Three-Phase: W22 Crusher Duty TEFC (IP55)

Catalog Number : 35012ET3GKD586/7-W22

List Price : \$50,250.00

Notes:

Performed by:

Checked:

# DATA SHEET



## Three Phase Induction Motor - Squirrel Cage

|  |  |                             |  |         |          |
|--|--|-----------------------------|--|---------|----------|
| Customer :   |  |                             |  |         |          |
| Product line   | : W22 NEMA Premium Efficiency<br>Three-Phase | Product code :              | 13500653   |         |          |
|  |  | Catalog # :                 | 35012ET3GKD586/7-W22   |         |          |
| Frame  | : 586/7T                                     | Locked rotor time           | : 52s (cold) 29s (hot)   |         |          |
| Output   | : 350 HP (260 kW)                            | Temperature rise            | : 80 K   |         |          |
| Poles  | : 6  | Duty cycle                  | : Cont.(S1)  |         |          |
| Frequency  | : 60 Hz                                      | Ambient temperature         | : -20°C to +40°C   |         |          |
| Rated voltage  | : 460 V                                      | Altitude                    | : 1000 m.a.s.l.  |         |          |
| Rated current  | : 421 A                                      | Protection degree           | : IP55   |         |          |
| L. R. Amperes  | : 2526 A                                     | Cooling method              | : IC411 - TEFC   |         |          |
| LRC  | : 6.0x(Code G)                               | Mounting                    | : F-1  |         |          |
| No load current  | : 170 A                                      | Rotation <sup>1</sup>       | : Both (CW and CCW)  |         |          |
| Rated speed  | : 1190 rpm                                   | Noise level <sup>2</sup>    | : 77.0 dB(A)   |         |          |
| Slip   | : 0.83 %                                     | Starting method             | : Direct On Line   |         |          |
| Rated torque   | : 211 kgfm                                   | Approx. weight <sup>3</sup> | : 1845 kg  |         |          |
| Locked rotor torque  | : 200 %                                      |                             |  |         |          |
| Breakdown torque   | : 210 %                                      |                             |  |         |          |
| Insulation class   | : F  |                             |  |         |          |
| Service factor   | : 1.15                                       |                             |  |         |          |
| Moment of inertia (J)  | : A  |                             |  |         |          |
| Design   |  |                             |  |         |          |
| Output   | 25%  | 50%                         | 75%  | 100%    |          |
| Efficiency (%)   | 95.3   | 95.4                        | 95.8   | 95.8    |          |
| Power Factor   | 0.42   | 0.67                        | 0.77   | 0.81    |          |
| Foundation loads   |  |                             |  |         |          |
| Max. traction : 2105 kgf   |  |                             |  |         |          |
| Max. compression : 3950 kgf  |  |                             |  |         |          |
|  |  | <u>Drive end</u>            | <u>Non drive end</u>   |         |          |
| Bearing type   | :  | NU-322 C3                   | 6319 C3  |         |          |
| Sealing  | :  | Taconite Labyrinth          | Taconite Labyrinth   |         |          |
| Lubrication interval   | :  | 7000 h                      | 13000 h  |         |          |
| Lubricant amount   | :  | 60 g                        | 45 g   |         |          |
| Lubricant type   | :  | Mobil Polyrex EM            |  |         |          |
| Notes  |  |                             |  |         |          |
| This revision replaces and cancel the previous one, which must be eliminated.<br>(1) Looking the motor from the shaft end.<br>(2) Measured at 1m and with tolerance of +3dB(A).<br>(3) Approximate weight subject to changes after manufacturing process.<br>(4) At 100% of full load. |  |                             | These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1. |         |          |
| Rev.   | Changes Summary                              |                             | Performed  | Checked | Date     |
| Performed by   |  |                             |  |         |          |
| Checked by   |  |                             |  | Page    | Revision |
| Date   | 24/04/2018                                   |                             |  | 1 / 7   |          |

# DATA SHEET

## Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_

### Space heater information

Voltage: 200 - 240 V

| Rev.         | Changes Summary | Performed | Checked | Date     |
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| Performed by |                 |           |         |          |
| Checked by   |                 |           | Page    | Revision |
| Date         | 24/04/2018      |           | 2 / 7   |          |

# TORQUE AND CURRENT VS SPEED CURVE



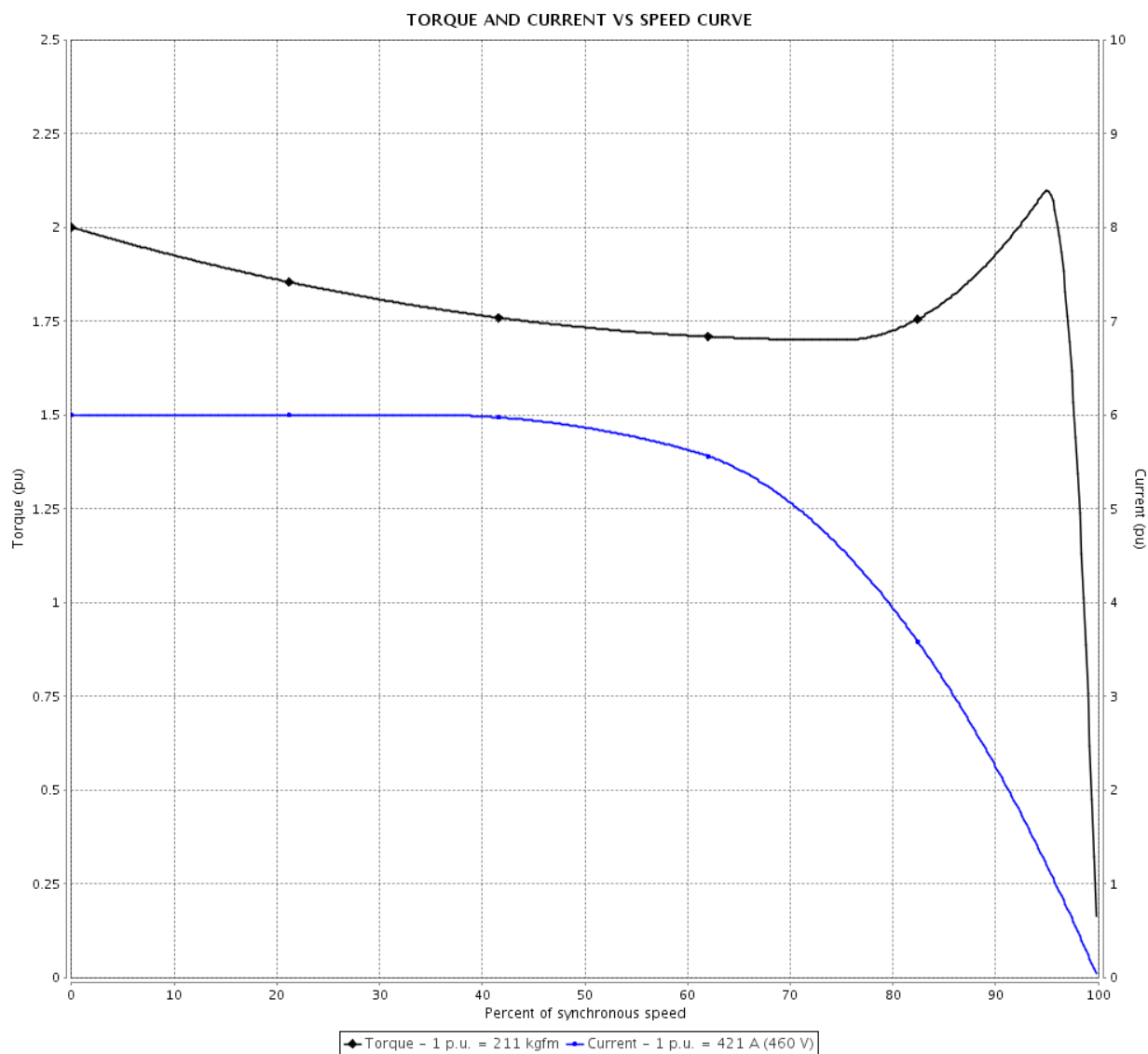
## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 13500653

Catalog # : 35012ET3GKD586/7-W22



Performance : 460 V 60 Hz 6P

|                     |            |                       |             |
|---------------------|------------|-----------------------|-------------|
| Rated current       | : 421 A    | Moment of inertia (J) |             |
| LRC                 | : 6.0      | Duty cycle            | : Cont.(S1) |
| Rated torque        | : 211 kgfm | Insulation class      | : F         |
| Locked rotor torque | : 200 %    | Service factor        | : 1.15      |
| Breakdown torque    | : 210 %    | Temperature rise      | : 80 K      |
| Rated speed         | : 1190 rpm | Design                | : A         |

Locked rotor time : 52s (cold) 29s (hot)

| Rev.         | Changes Summary | Performed | Checked       | Date     |
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| Checked by   |                 |           |               |          |
| Date         | 24/04/2018      |           |               |          |

# LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage

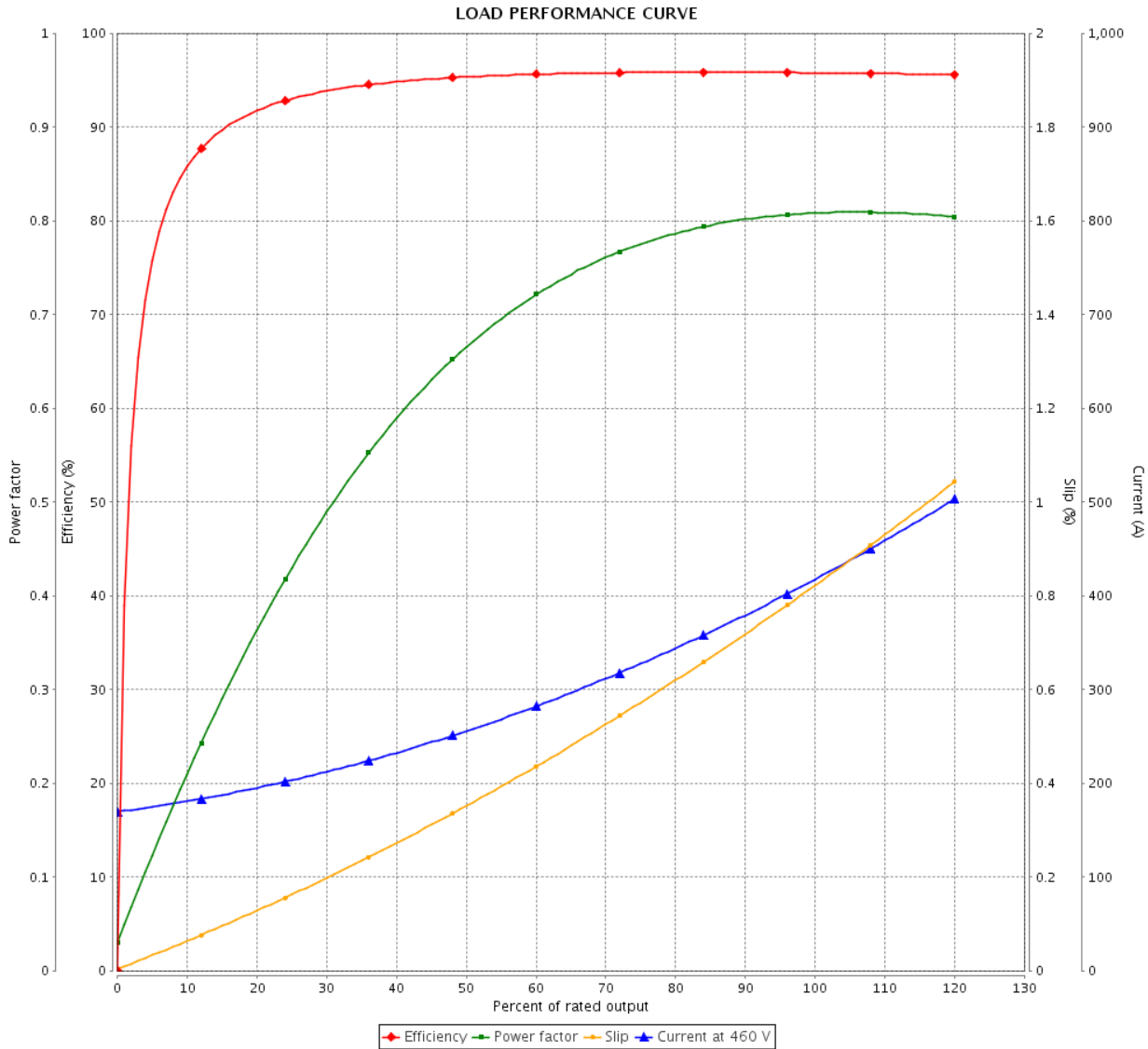


Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 13500653

Catalog # : 35012ET3GKD586/7-W22



Performance : 460 V 60 Hz 6P

Rated current : 421 A  
LRC : 6.0  
Rated torque : 211 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 210 %  
Rated speed : 1190 rpm

Moment of inertia (J)  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : A

| Rev.         | Changes Summary | Performed | Checked | Date     |
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# THERMAL LIMIT CURVE



## Three Phase Induction Motor - Squirrel Cage

Customer :

Product line : W22 NEMA Premium Efficiency Three-Phase      Product code : 13500653  
 Catalog # : 35012ET3GKD586/7-W22

Performance : 460 V 60 Hz 6P

|                             |                         |
|-----------------------------|-------------------------|
| Rated current : 421 A       | Moment of inertia (J)   |
| LRC : 6.0                   | Duty cycle : Cont.(S1)  |
| Rated torque : 211 kgfm     | Insulation class : F    |
| Locked rotor torque : 200 % | Service factor : 1.15   |
| Breakdown torque : 210 %    | Temperature rise : 80 K |
| Rated speed : 1190 rpm      | Design : A              |

Heating constant

Cooling constant

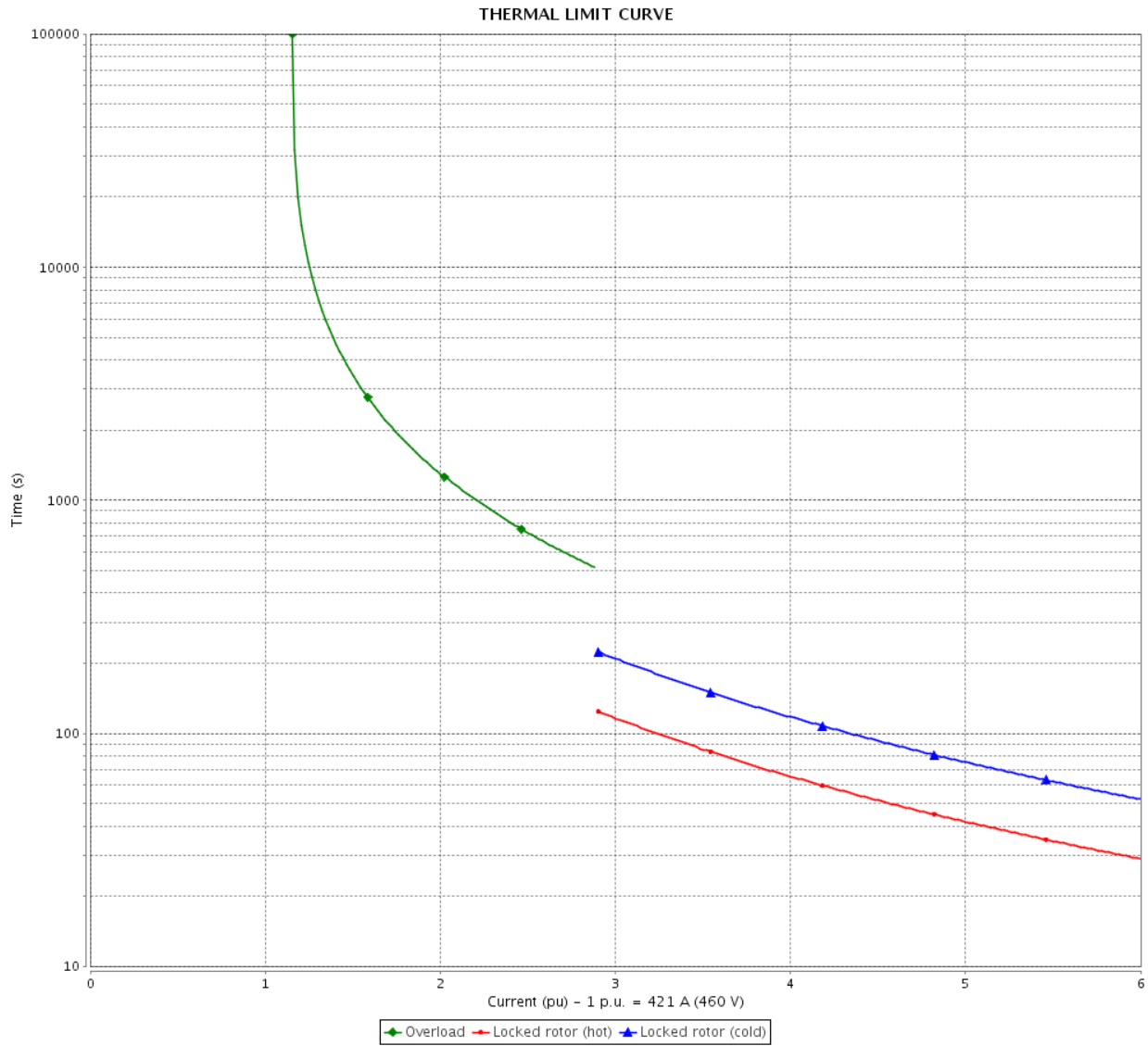
| Rev.         | Changes Summary | Performed | Checked | Date     |
|--------------|-----------------|-----------|---------|----------|
|              |                 |           |         |          |
| Performed by |                 |           | Page    | Revision |
| Checked by   |                 |           |         |          |
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# THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : \_\_\_\_\_



| Rev.         | Changes Summary | Performed     | Checked  | Date |
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# VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

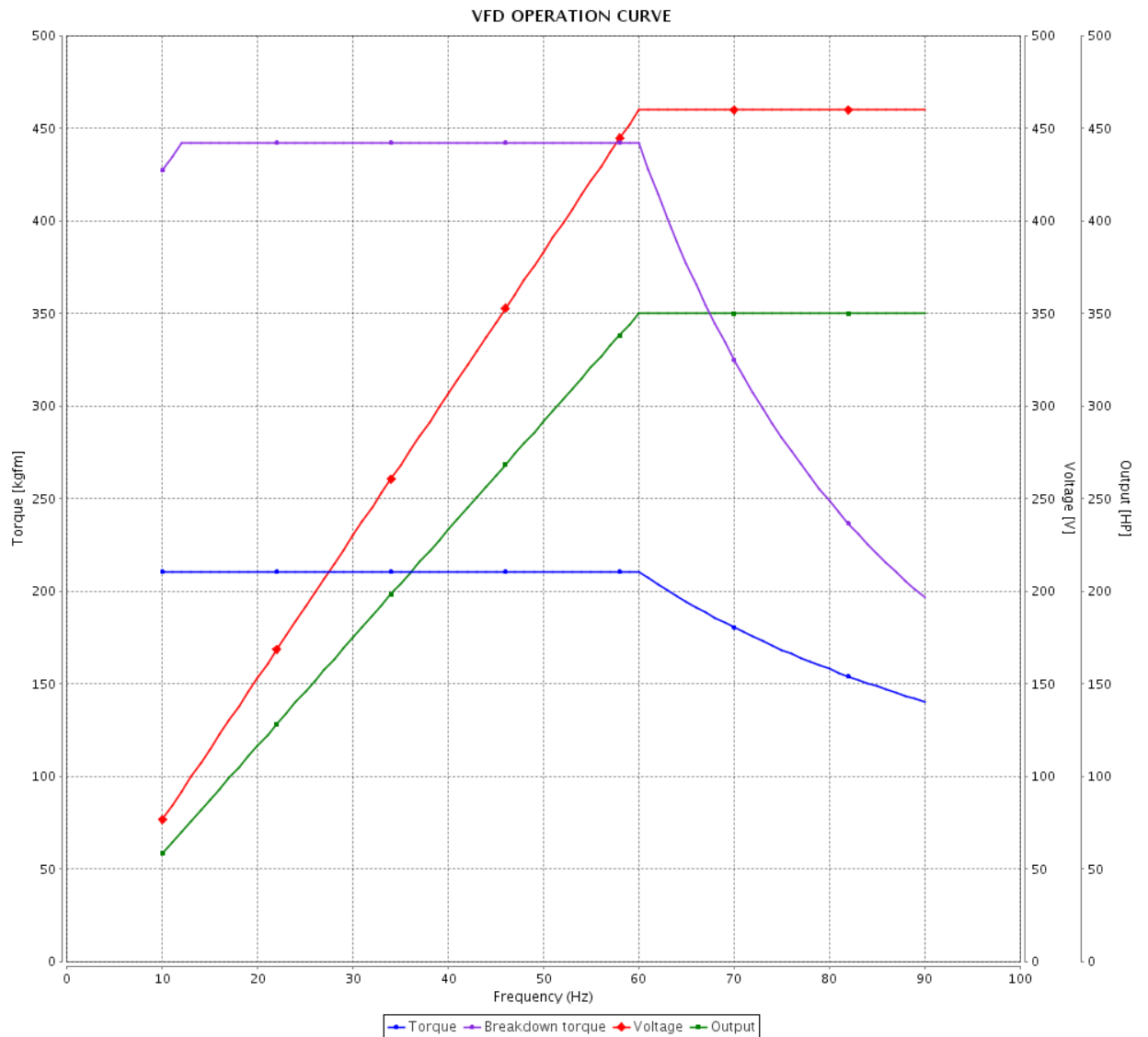


Customer :

Product line : W22 NEMA Premium Efficiency  
Three-Phase

Product code : 13500653

Catalog # : 35012ET3GKD586/7-W22



Performance : 460 V 60 Hz 6P

Rated current : 421 A  
LRC : 6.0  
Rated torque : 211 kgfm  
Locked rotor torque : 200 %  
Breakdown torque : 210 %  
Rated speed : 1190 rpm

Moment of inertia (J)  
Duty cycle : Cont.(S1)  
Insulation class : F  
Service factor : 1.15  
Temperature rise : 80 K  
Design : A

| Rev.         | Changes Summary | Performed | Checked | Date          |
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| Date         | 24/04/2018      |           |         |               |



|                   |   |
|-------------------|---|
| EIXO/SHAFT        |   |
| PADRÃO/STANDARD   | X |
| OPCIONAL/OPTIONAL |   |
| ESPECIAL/SPECIAL  |   |

Dimensões em polegada  
Dimensions in inches

THIS IS AN UPDATED REVISION, THE PREVIOUS ONE MUST BE DISREGARDED.

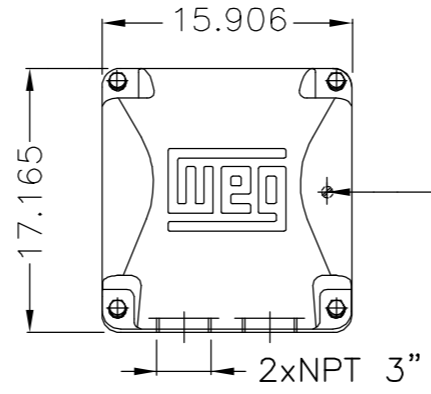
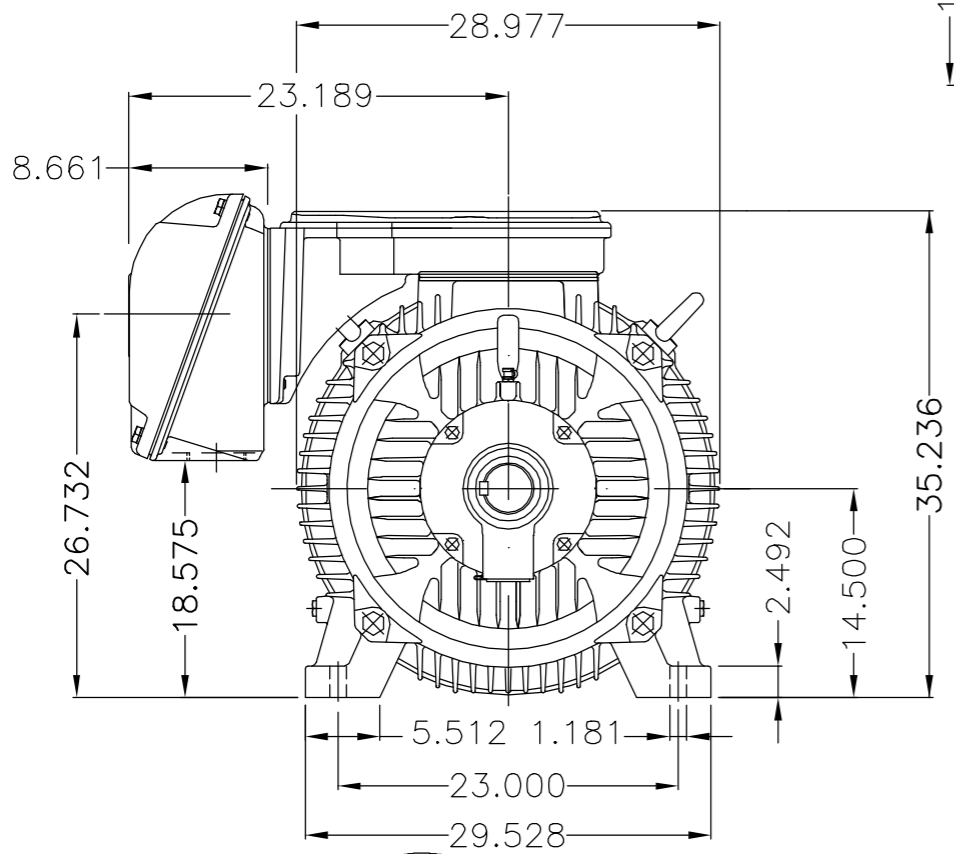
A

B

C

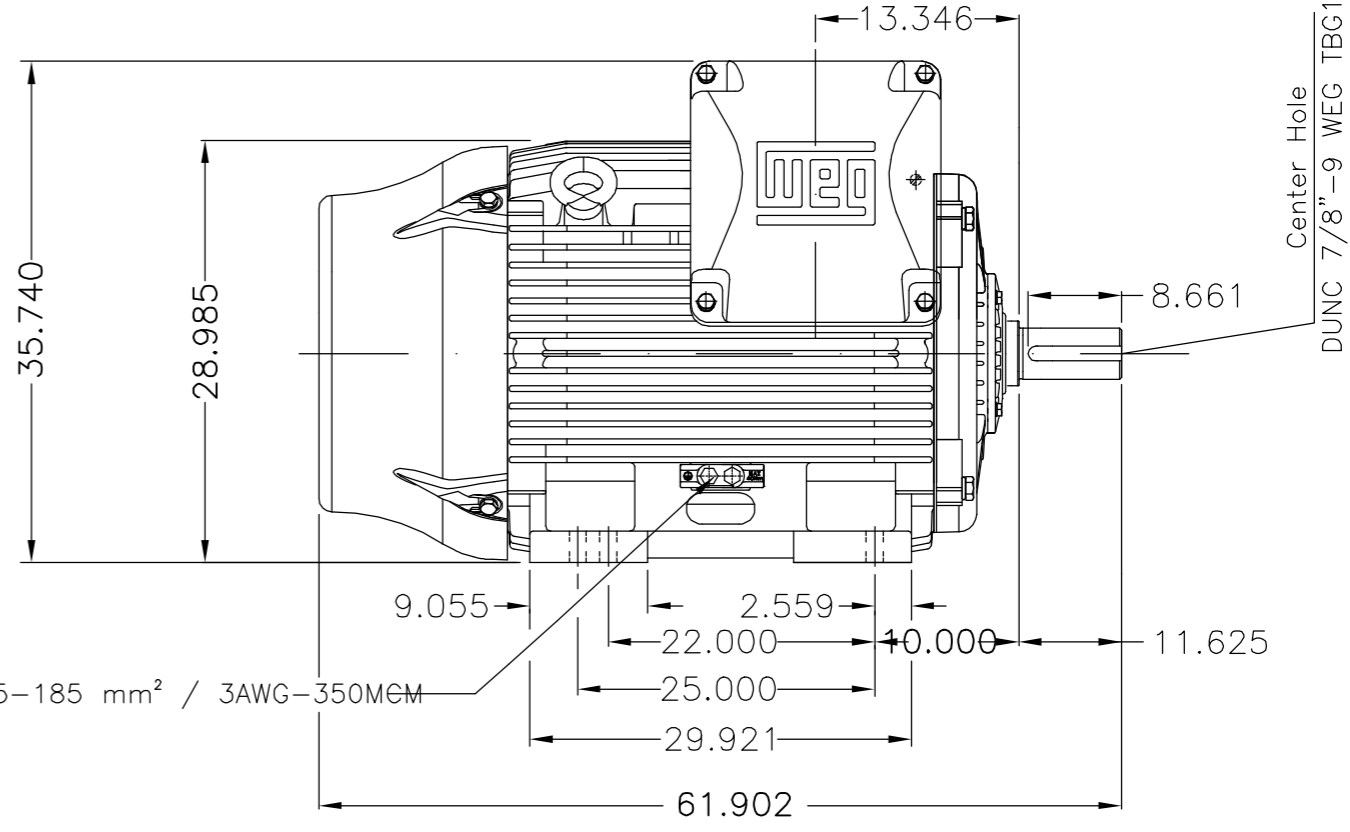
D

E



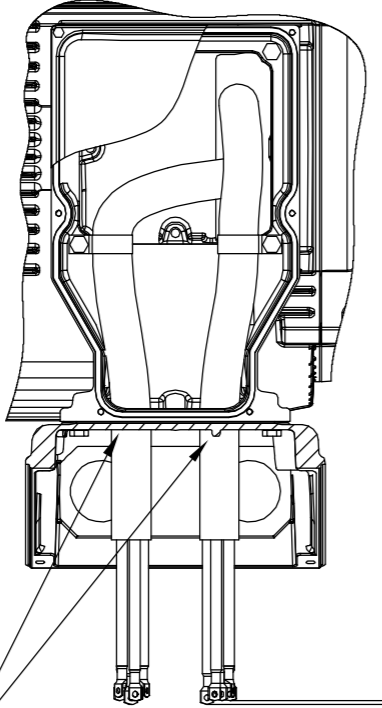
Main terminal box

Grounding for leads 35-120 mm<sup>2</sup> / 1-4/0 AWG

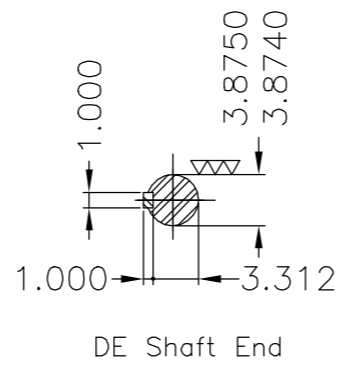


Grounding for leads 25-185 mm<sup>2</sup> / 3AWG-350MEM

Fixar o conduto no suporte com abraçadeiras.  
Fasten the conduit on support with cables ties.



±5.900  
(Desalinhamento máximo permitido)  
(Maximum misalignment allowed)



DE Shaft End

|  |  |  |  |
|--|--|--|--|
| Conduite para cabos no interior do suporte da caixa de ligação |  | Cables conduit inside terminal box support               |  |
| Rolamento dianteiro de rolos / DE roller bearing               |  | Dispositivo de travamento de eixo / Shaft locking device |  |
| Linha do motor: Crusher Duty / Motor purpose: Crusher Duty     |  | Tampa traseira com mancal eletricamente isolado          |  |
| NDE endshield with electrically insulated bearing hub          |  | Cor RAL 5009 / Color RAL 5009                            |  |
| Plano de pintura 203A / Painting plan 203A                     |  | Forma construtiva B3D / Mounting B3R(D)                  |  |
| <b>WEG EQUIPAMENTOS ELÉTRICOS S/A</b>                          |  |  |  |

|   |              |                                     |   |                |                         |         |          |      |     |
|---|--------------|-------------------------------------|---|----------------|-------------------------|---------|----------|------|-----|
| E | 500001331189 | ADIC.NOTA CONDUITE/ADD NOTE CONDUIT | MENSOR  | EANJOS         | 05.07.2017              | 04      |          |      |     |
|   | 500001323616 | ALTERADO CONFORME CDP 414658625     | MENSOR  | JMANENTE       | 20.06.2017              | 03      |          |      |     |
| D | ECM          | LOC                                 | SUMMARY OF MODIFICATIONS                        |                | EXECUTED                | CHECKED | RELEASED | DATE | VER |
| C | EXECUTED     | GABRIELID                           | THREE PHASE W22 MOTOR<br>FRAME 586/7T IP55 TEFC |                | 10004924169<br>000   04 |         |          |      |     |
| B | CHECKED      |                                     |   |                |                         |         |          |      |     |
| A | RELEASED     | JMANENTE                            |   |                |                         |         |          |      |     |
| A | REL DT       | 09.05.2017                          | WMO   | Jaragua do Sul | Product Engineering     | SHEET   | 1 / 1    |      |     |