DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : SC Watt Drive Motor SRL Product line : W22 IE3 Three-Phase Product code: 12863260 Frame Locked rotor time : 100s (cold) 56s (hot) : 355M/L Output : 200 kW (270 HP) Temperature rise : 80 K Poles Duty cycle : S1 : 8 Frequency : 50 Hz Ambient temperature : -20°C to +40°C Rated voltage : 400/690 V Altitude : 1000 m.a.s.l. Protection degree Rated current : 381/221 A : IP55 : 2362/1369 A Cooling method : IC411 - TEFC L. R. Amperes **LRC** : 6.2 Mounting : B3T No load current : 170/98.6 A Rotation¹ : Both (CW and CCW) Rated speed : 745 rpm Noise level² : 70.0 dB(A) Slip : 0.67 % Starting method : Direct On Line Rated torque : 2570 Nm Approx. weight3 : 1997 kg Locked rotor torque : 130 % Breakdown torque : 229 % Insulation class : F Service factor : 1.00 Moment of inertia (J) : 18.9 kgm² Design : N 100% 50% Output 75% Foundation loads Efficiency (%) 94.3 94.8 94.8 Max. traction : 28007 N : 47598 N Power Factor 0.65 0.76 0.80 Max. compression Drive end Non drive end 6322 C3 Bearing type 6319 C3 WSeal WSeal Sealing Lubrication interval 19000 h 20000 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.

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.

(4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in IEC 60034-1.

| Rev. | | Changes Summary | Performed | Checked | Date |
|--------------|------------|-----------------|-----------|---------|----------|
| | | | | | |
| Performed by | | | | | |
| Checked by | | | | Page | Revision |
| Date | 16/03/2021 | | | 1/6 | |

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer : SC Watt Drive Motor SRL

Thermal protection

| ID | Application | Туре | Quantity | Sensing Temperature |
|----|-------------|----------------------|-----------|---------------------|
| 1 | Winding | Thermistor - 2 wires | 1 x Phase | 155 °C |

| Rev. | Changes Summary | | Performed | Checked | Date |
|--------------|-----------------|--|-----------|---------|----------|
| | | | | | |
| Performed by | | | | | |
| Checked by | | | | Page | Revision |
| Date | 16/03/2021 | | | 2/6 | |

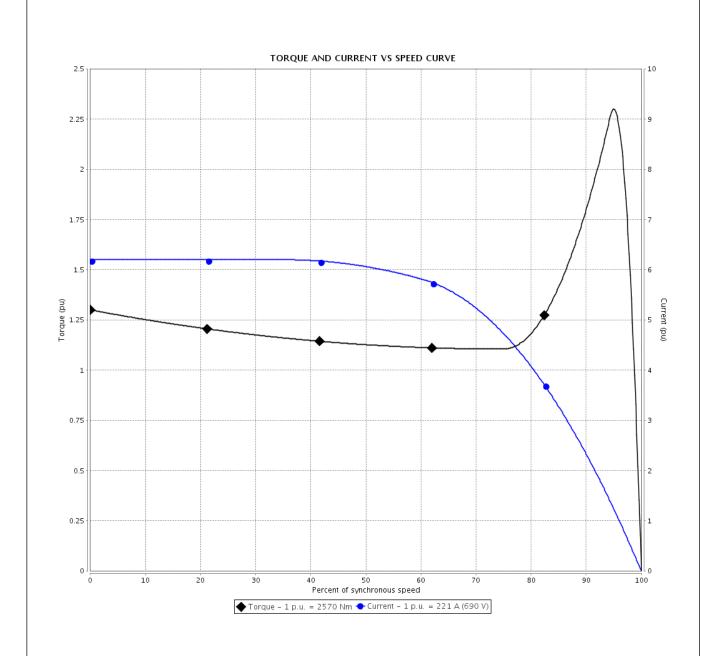
TORQUE AND CURRENT VS SPEED CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : SC Watt Drive Motor SRL

Product line : W22 IE3 Three-Phase Product code : 12863260



| Performance | : 400/690 V 50 Hz 8P | | | |
|---------------------|----------------------|-----------------------|-------------|--|
| Rated current | : 381/221 A | Moment of inertia (J) | : 18.9 kgm² | |
| LRC | : 6.2 | Duty cycle | : S1 | |
| Rated torque | : 2570 Nm | Insulation class | : F | |
| Locked rotor torque | : 130 % | Service factor | : 1.00 | |
| Breakdown torque | : 229 % | Temperature rise | : 80 K | |
| Rated speed | : 745 rpm | Design | : N | |

Locked rotor time : 100s (cold) 56s (hot)

| Rev. | Changes Summary | | Performed | Checked | Date |
|--------------|-----------------|--|-----------|---------|----------|
| | | | | | |
| Performed by | | | | | |
| Checked by | | | | Page | Revision |
| Date | 16/03/2021 | | | 3/6 | |

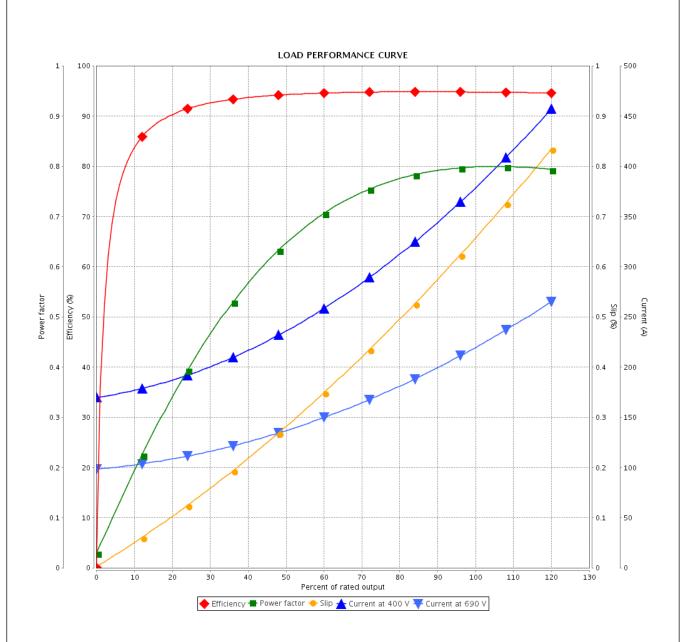
LOAD PERFORMANCE CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : SC Watt Drive Motor SRL

Product line : W22 IE3 Three-Phase Product code : 12863260



| | | 0 | | | | |
|---------------------------|-----|----------------------|-----------------------|------------|-------------|------|
| Performance | | : 400/690 V 50 Hz 8P | | | | |
| Rated current : 381/221 A | | | Moment of inertia (J) | | : 18.9 kgm² | |
| LRC | | : 6.2 | Duty cycle | | : S1 | |
| Rated torque | | : 2570 Nm | Insulation class | | : F | |
| Locked rotor tord | que | : 130 % | Service factor | | : 1.00 | |
| Breakdown torqu | ıe | : 229 % | Temperature rise | | : 80 K | |
| Rated speed : 745 rpm | | Design | | : N | | |
| Rev. | | Changes Summary | 1 | Performed | Checked | Date |
| 1 | I | | | | I | |

| Rev. | | Changes Summary | Performed | Checked | Date |
|--------------|------------|-----------------|-----------|---------|----------|
| | | | | | |
| Performed by | | | | | |
| Checked by | | | | Page | Revision |
| Date | 16/03/2021 | | | 4/6 | |

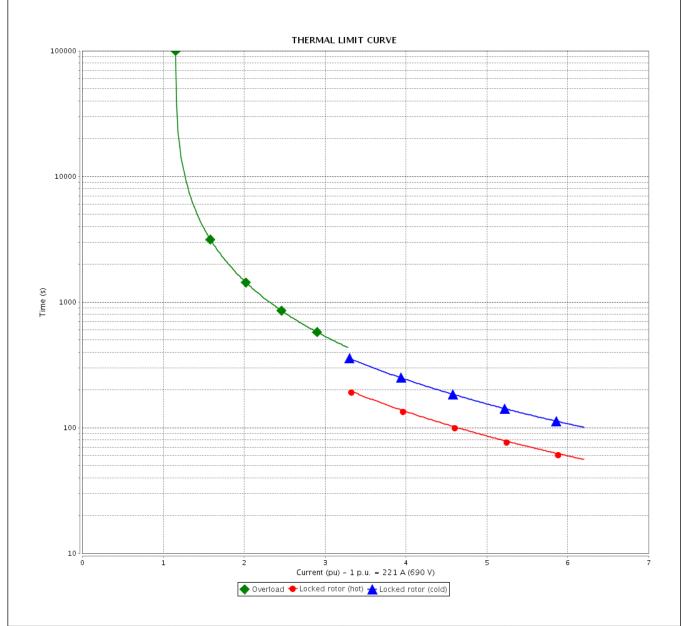
THERMAL LIMIT CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : SC Watt Drive Motor SRL

Product line : W22 IE3 Three-Phase Product code : 12863260



| Performance | : 400/690 V 50 Hz 8P | | | |
|---------------------|----------------------|-----------------------|---------------|------|
| Rated current | : 381/221 A | Moment of inertia (J) | : 18.9 kgm² | |
| LRC | : 6.2 | Duty cycle | : S1 | |
| Rated torque | : 2570 Nm | Insulation class | : F | |
| Locked rotor torque | : 130 % | Service factor | : 1.00 | |
| Breakdown torque | : 229 % | Temperature rise | : 80 K | |
| Rated speed | : 745 rpm | Design | : N | |
| Heating constant | | | | |
| Cooling constant | | | | |
| Davi | Ob O | Danfarmand | Ob a alica al | D-4- |

| Cooling constant | l . | | | | | |
|------------------|---------------------------|--|--|---------|------|----------|
| Rev. | Changes Summary Performed | | | Checked | Date | |
| | | | | | | |
| Performed by | | | | | | |
| Checked by | | | | | Page | Revision |
| Date | 16/03/2021 | | | | 5/6 | |

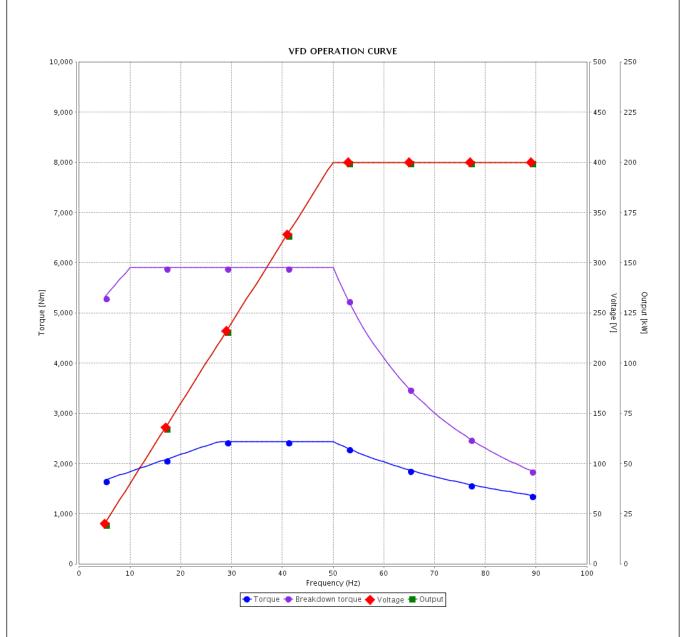
VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage



Customer : SC Watt Drive Motor SRL

Product line : W22 IE3 Three-Phase Product code : 12863260



| Performance | | : 400/690 V 50 Hz 8P | | | | |
|-------------------|--------------------------------------|----------------------|----------------------------|---------|-------------|--|
| Rated current | | : 381/221 A | Moment of inertia (J) | | : 18.9 kgm² | |
| LRC | | : 6.2 | Duty cycle | ; | : S1 | |
| Rated torque | | : 2570 Nm | : 2570 Nm Insulation class | | : F | |
| Locked rotor torq | ted rotor torque : 130 % Service far | | Service factor : 1.00 | | | |
| Breakdown torqu | Breakdown torque : 229 % Temperatu | | ıre rise | : 80 K | | |
| Rated speed | | : 745 rpm | Design | | : N | |
| | | | | | | |
| Rev. | Rev. Changes Summary | | Performed | Checked | Date | |

| • | | · | | | | |
|--------------|-----------------|---|-----------|---------|------|----------|
| Rev. | Changes Summary | | Performed | Checked | Date | |
| Performed by | | | | | | |
| Checked by | | - | | | Page | Revision |
| Date | 16/03/2021 | | | | 6/6 | |

