DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer

Product line : Standard Efficiency Three-Phase Product code: 14796938

> Catalog #: .2536ES3E56-S

Cooling method : IC411 - TEFC Frame : 56 Insulation class : F Mounting : F-1

Duty cycle : Cont.(S1) Rotation¹ : Both (CW and CCW)

Ambient temperature : -20°C to +40°C Starting method : Direct On Line

Approx. weight³ : 17.8 lb Altitude : 1000 m.a.s.l. Protection degree : IP55 Moment of inertia (J) : 0.0389 sq.ft.lb 0.25 Output [HP] 0.25 0.25 Poles 2 2 2 50 Frequency [Hz] 60 50 Rated voltage [V] 208-230/460 190-220/380 415 Rated current [A] 1.01-0.914/0.457 0.938-0.810/0.469 0.441 L. R. Amperes [A] 6.46-5.85/2.92 5.07-4.37/2.53 2.78 LRC [A] 6.4x(Code L) 5.4x(Code H) 6.3x(Code J) No load current [A] 0.431-0.500/0.250 0.420-0.363/0.210 0.234 Rated speed [RPM] 3475 2860 2885 Slip [%] 3.47 4.67 3.83 Rated torque [ft.lb] 0.378 0.459 0.455 Locked rotor torque [%] 250 190 240 Breakdown torque [%] 300 250 310 Service factor 1.15 1.15 Temperature rise 80 K 80 K 80 K Locked rotor time 108s (cold) 60s (hot) 133s (cold) 74s (hot) 111s (cold) 62s (hot) Noise level² 68.0 dB(A) 65.0 dB(A) 65.0 dB(A) 25% 42.6 52.9 51.5 50% 55.3 54.3 46.0 Efficiency (%) 75% 52.5 62.0 61.7 57.5 100% 64.8 65.3 25% 0.48 0.52 0.46 0.79 0.73 50% 0.75 Power Factor 75% 0.82 0.86 0.82 100% 0.86 0.90 0.87

> Drive end Non drive end Foundation loads

Bearing type 6203 ZZ 6202 ZZ Max. traction : 5 lb Sealing V'Ring Without Max. compression : 22 lb

Bearing Seal

Lubrication interval Lubricant amount Mobil Polyrex EM Lubricant type

Notes

USABLE @208V SF 1.00

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 NEMA MG-1.

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TORQUE AND CURRENT VS SPEED CURVE

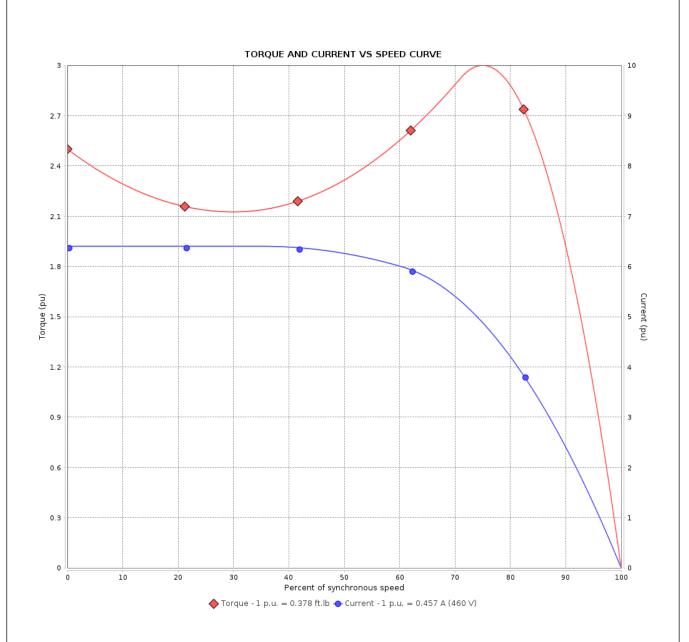
Three Phase Induction Motor - Squirrel Cage



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Customer	

Product line : Standard Efficiency Three-Phase

Product code : Catalog # : 14796938 .2536ES3E56-S



Performance : 208-230/460 V 60 Hz 2P

Rated current : 1.01-0.914/0.457 A

LRC : 6.4 Rated torque : 0.378 ft.lb

Locked rotor torque

Breakdown torque

Rated speed

: 250 %

: 300 % : 3475 rpm Moment of inertia (J)
Duty cycle

: 0.0389 sq.ft.lb : Cont.(S1)

Insulation class : F Service factor :

Temperature rise : 80 K

Locked rotor time : 108s (cold) 60s (hot)

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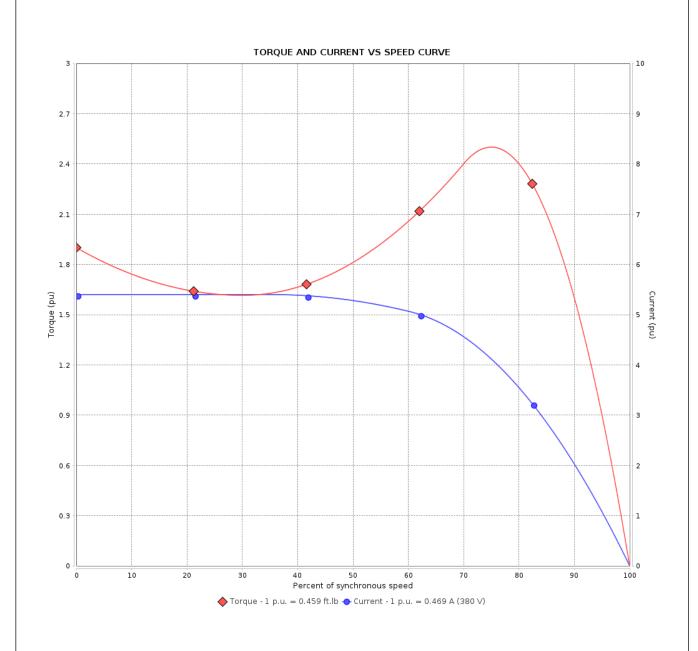
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Performance : 190-220/380 V 50 Hz 2P Rated current : 0.938-0.810/0.469 A Moment of inertia (J) : 0.0389 sq.ft.lb **LRC** : 5.4 Duty cycle : Cont.(S1) : 0.459 ft.lb Insulation class : F Rated torque Service factor Locked rotor torque : 190 % : 1.15 Breakdown torque : 250 % Temperature rise : 80 K Rated speed : 2860 rpm

Locked rotor time : 133s (cold) 74s (hot)

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TORQUE AND CURRENT VS SPEED CURVE

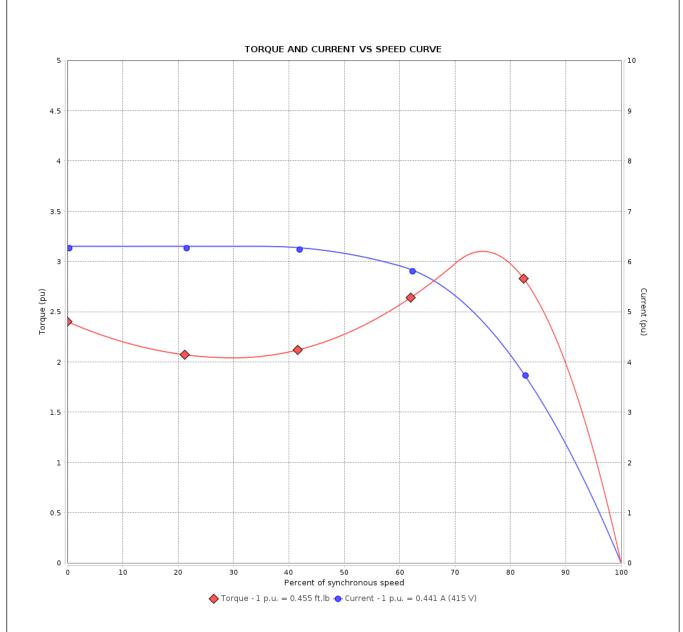
Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Standard Efficiency Three-Phase Product code : 14796938

Catalog # : .2536ES3E56-S



Performance : 415 V 50 Hz 2P Rated current : 0.441 A Moment of inertia (J) : 0.0389 sq.ft.lb **LRC** : 6.3 Duty cycle : Cont.(S1) : F Rated torque : 0.455 ft.lb Insulation class : 240 % Service factor Locked rotor torque : 1.15

Locked rotor time : 111s (cold) 62s (hot)

: 310 %

: 2885 rpm

Breakdown torque

Rated speed

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Temperature rise

: 80 K

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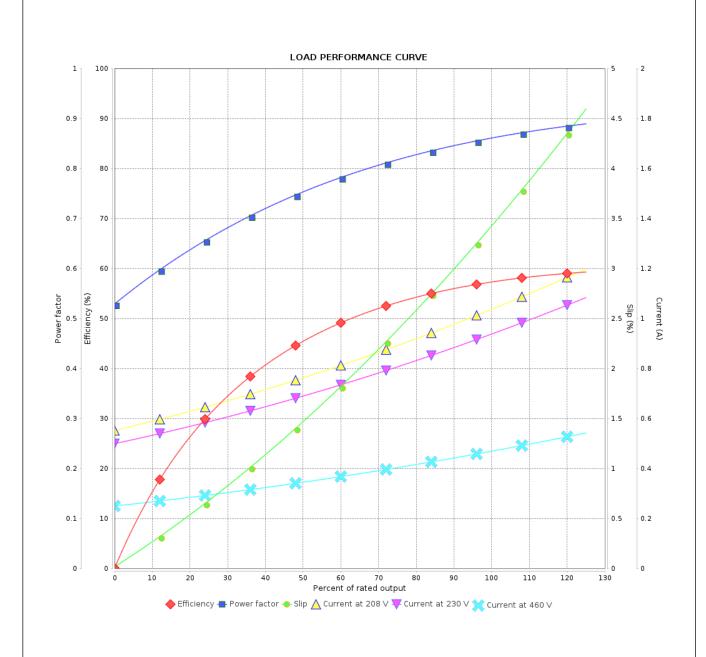
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Performance	: 208-230/460 V 60 Hz 2P				
Rated current LRC Rated torque Locked rotor torque Breakdown torque Rated speed	: 1.01-0.914/0.457 A : 6.4 : 0.378 ft.lb : 250 % : 300 % : 3475 rpm	Moment of inertia (J) Duty cycle Insulation class Service factor Temperature rise		: 0.0389 sq.ft : Cont.(S1) : F : : 80 K	.lb
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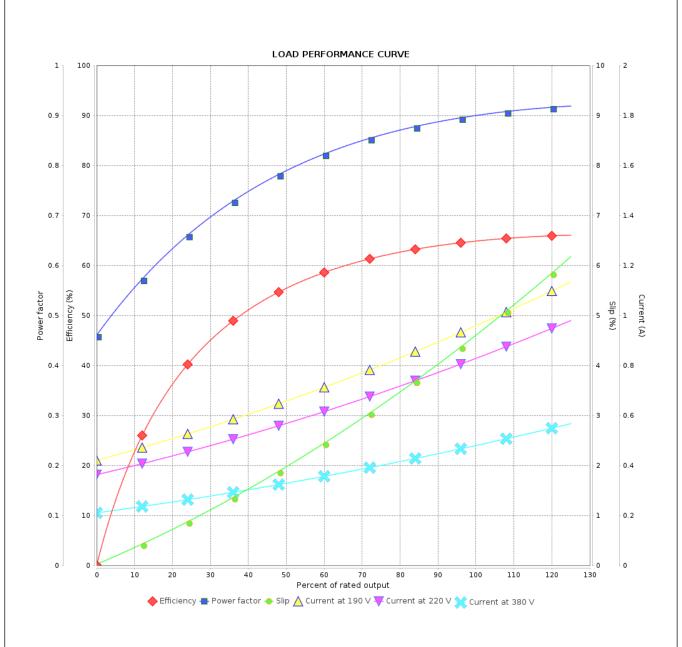
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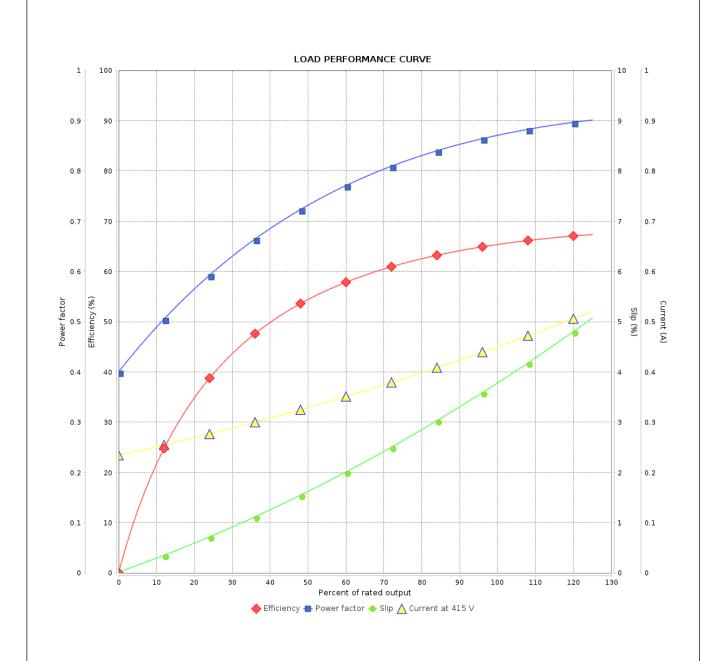
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THERMAL LIMIT CURVE

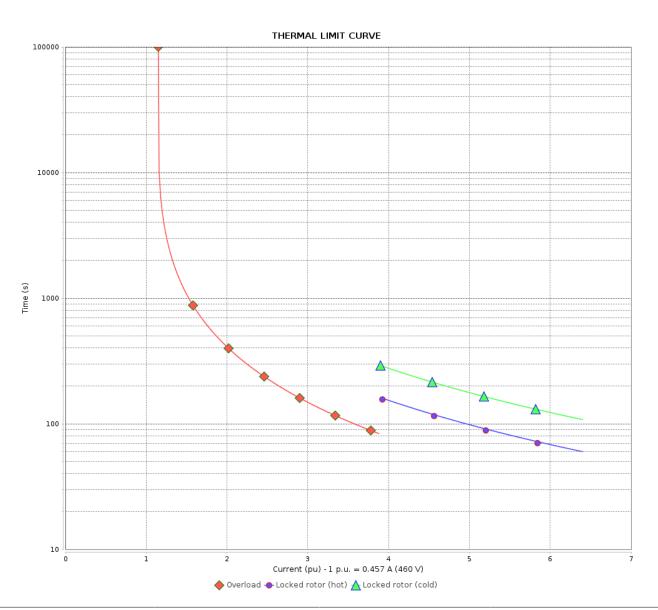
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Heating constant Cooling constant

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THERMAL LIMIT CURVE

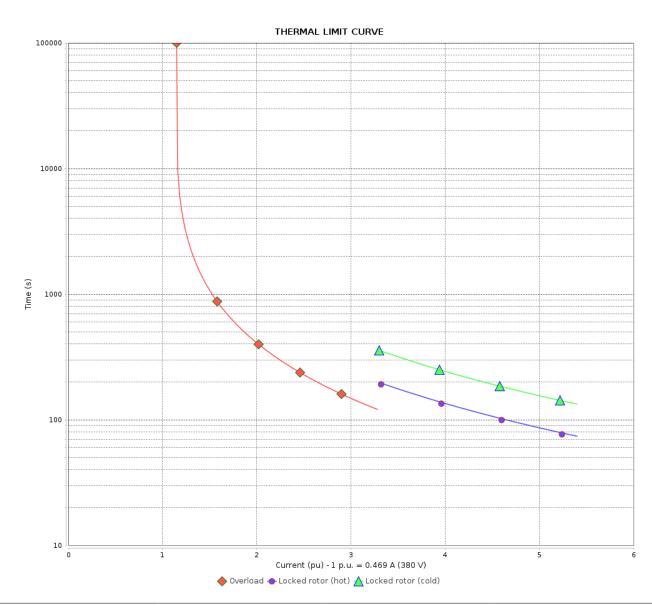
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Cooling constant

Cooling constant	<u> </u>				
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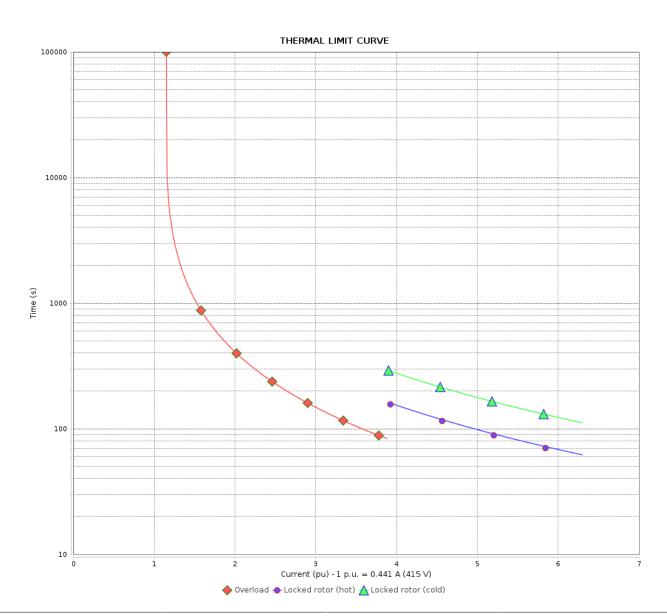


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 Cooling constant

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VFD OPERATION CURVE

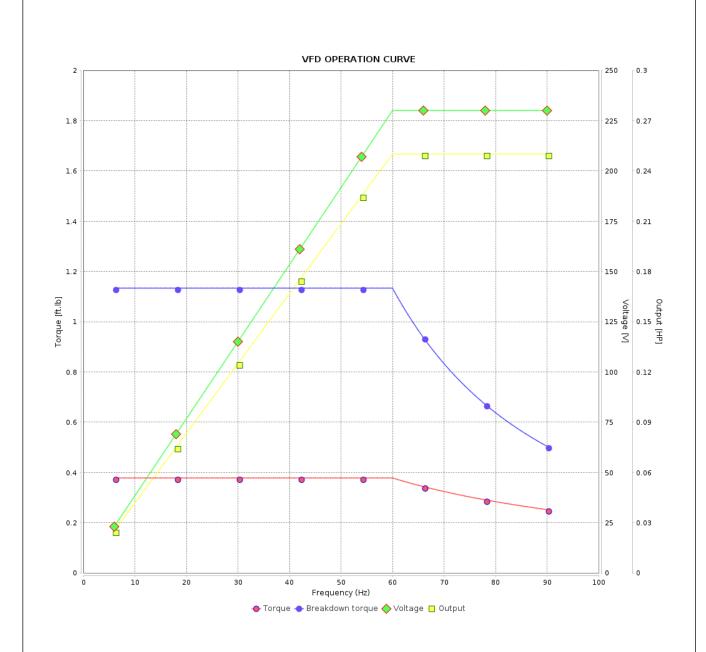
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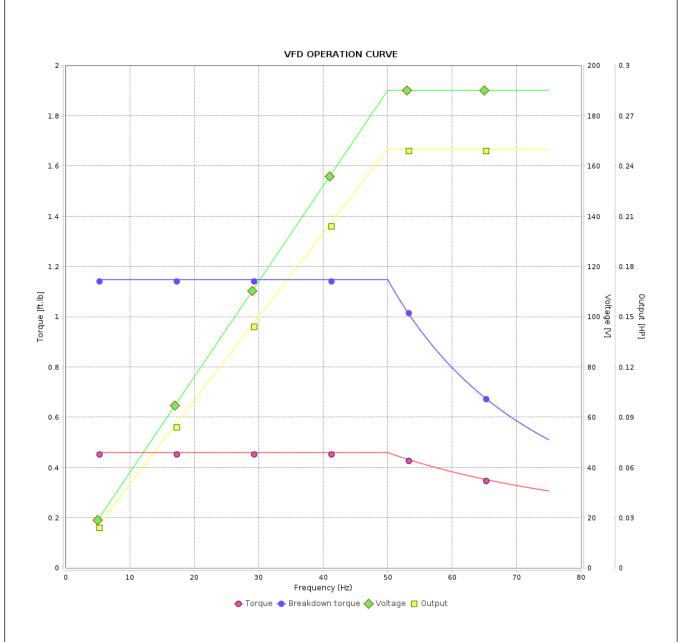
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Rated torque : 0.459 ft.lb Insulation class : F
Locked rotor torque : 190 % Service factor : 1.15
Breakdown torque : 250 % Temperature rise : 80 K

Rated speed : 2860 rpm

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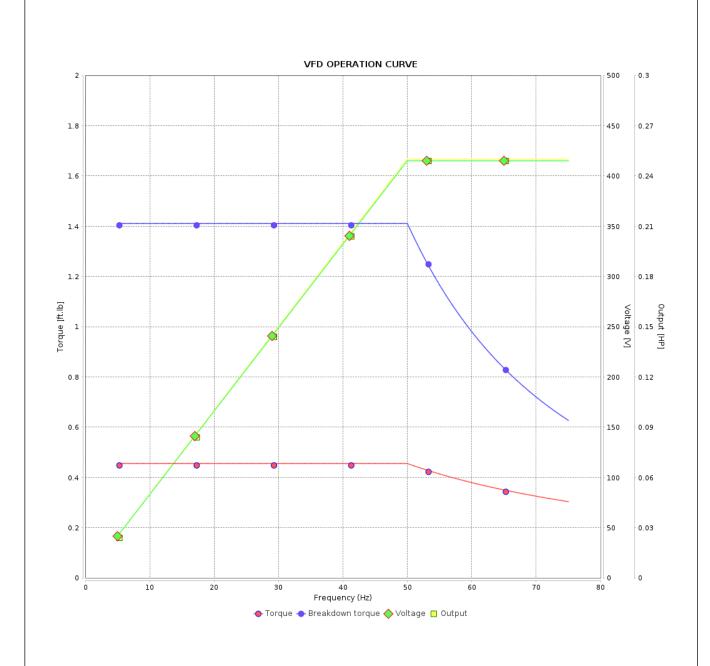
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