

DATA SHEET

Three Phase Induction Motor - Squirrel Cage



Customer :

Product line : Rolled Steel Standard Efficiency Three-Phase Product code : 14785609
Catalog # : .5012ES3E56CFL-S

Frame	: 56C	Locked rotor time	: 39s (cold) 22s (hot)
Output	: 0.5 HP (0.37 kW)	Temperature rise	: 80 K
Poles	: 6	Duty cycle	: Cont.(S1)
Frequency	: 60 Hz	Ambient temperature	: -20°C to +40°C
Rated voltage	: 208-230/460 V	Altitude	: 1000 m.a.s.l.
Rated current	: 2.19-1.98/0.992 A	Protection degree	: IP55
L. R. Amperes	: 11.8-10.7/5.36 A	Cooling method	: IC411 - TEFC
LRC	: 5.4x(Code K)	Mounting	: F-1
No load current	: 1.33-1.54/0.772 A	Rotation ¹	: Both (CW and CCW)
Rated speed	: 1160 rpm	Noise level ²	: 50.0 dB(A)
Slip	: 3.33 %	Starting method	: Direct On Line
Rated torque	: 2.26 ft.lb	Approx. weight ³	: 26.3 lb
Locked rotor torque	: 210 %		
Breakdown torque	: 300 %		
Insulation class	: F		
Service factor	: 1.15		
Moment of inertia (J)	: 0.1065 sq.ft.lb		

Output	25%	50%	75%	100%	Foundation loads	
Efficiency (%)	62.0	64.0	70.0	72.0	Max. traction	: 57 lb
Power Factor	0.24	0.44	0.56	0.65	Max. compression	: 83 lb

		Drive end	Non drive end
Bearing type	:	6203 ZZ	6202 ZZ
Sealing	:	V'Ring	Without Bearing Seal
Lubrication interval	:	-	-
Lubricant amount	:	-	-
Lubricant type	:	Mobil Polyrex EM	

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.

Rev.	Changes Summary	Performed	Checked	Date
Performed by		Page 1 / 2 Revision		
Checked by				
Date	03/09/2025			

VFD OPERATION CURVE

Three Phase Induction Motor - Squirrel Cage

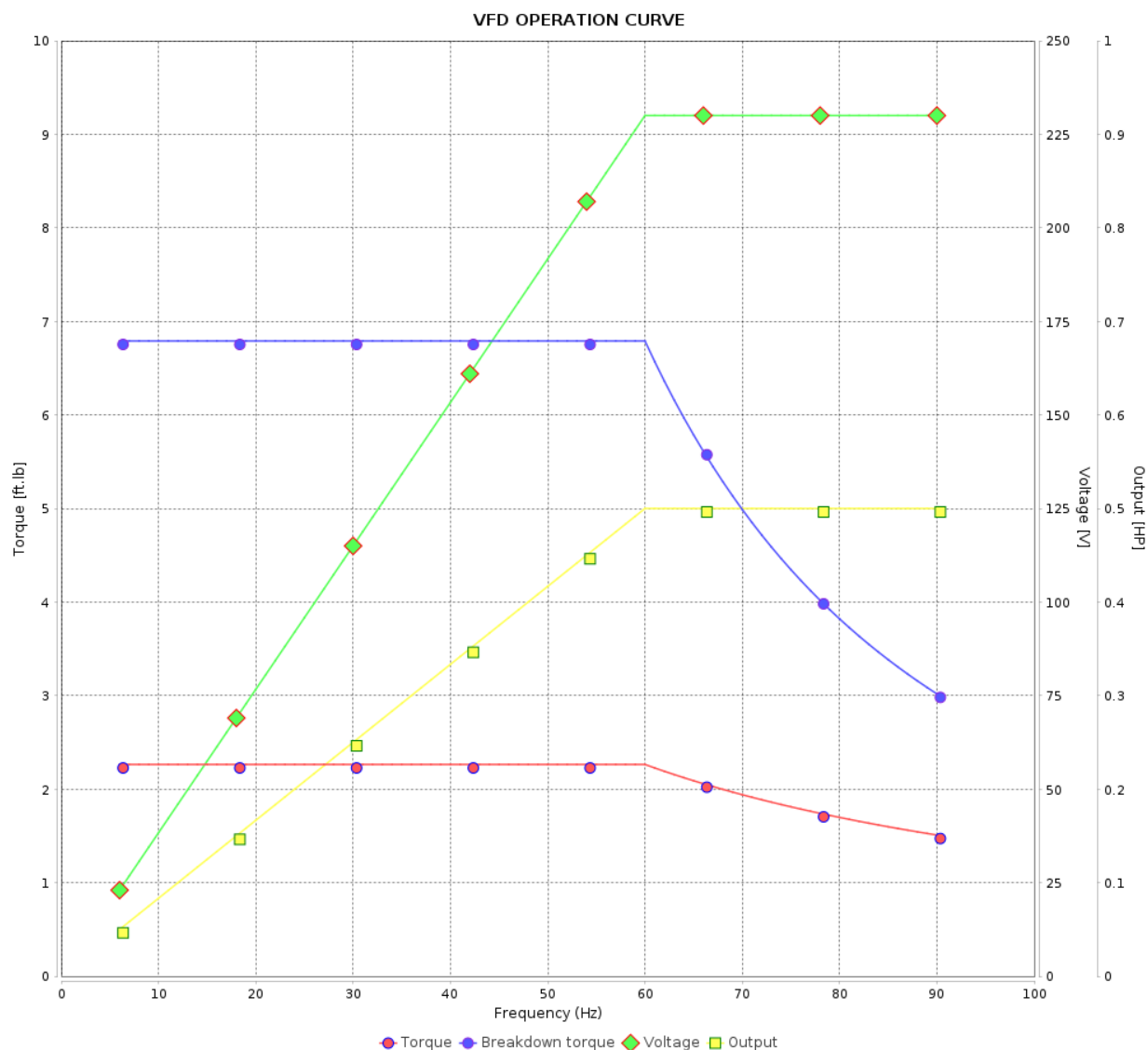


Customer :

Product line : Rolled Steel Standard Efficiency
Three-Phase

Product code : 14785609

Catalog # : .5012ES3E56CFL-S



Performance : 208-230/460 V 60 Hz 6P

Rated current : 2.19-1.98/0.992 A
LRC : 5.4
Rated torque : 2.26 ft.lb
Locked rotor torque : 210 %
Breakdown torque : 300 %
Rated speed : 1160 rpm

Moment of inertia (J) : 0.1065 sq.ft.lb
Duty cycle : Cont.(S1)
Insulation class : F
Service factor :
Temperature rise : 80 K

Rev.	Changes Summary		Performed	Checked	Date
Performed by				Page 2 / 2	Revision
Checked by					
Date	03/09/2025				



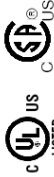
MADE IN BRAZIL

MAT: 14785609

W01.TE0IC0X0X

MODEL .5012ES3E56CFL-S

07JUL2025 B/N: 3769563



For 60Hz: Class I, Zone 2, IIC

Class I, Div.2, Gr. A,B,C,D - T3

Div 2 Inverter Duty (SF1.00)

CT 2:1/VT 1000:1

PH 3	Hz 60	HP 0.50
FR 56C		kW 0.37
DUTY CONT.		V 230/460
ALT 1000 m.a.s.l		A 1.98/0.992
INS CL F DT 80K	IP55	SFA 2.28/1.14
AMB 40°C	DES -	SF 1.15
ENCL TEFC	CODE K	PF 0.65
USABLE @208V 2.19A SF 1.00		RPM 1160
		NEMA
		NOM. EFF 72.0%

ALTERNATE RATING: 0.50HP	50Hz	190-220/380-415V	SF1.15
2.14-2.02/1.07-1.07A	945RPM	EFF 69.8%	(IE2) IEC 60034-1

For safe area-inverter duty motor For 60Hz use on VPWM 1000:1 VT, 10:1 CT

DE 6203-ZZ	ODE 6202-ZZ	MOBIL POLYREX EM
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T1-BLU T2-WHT
T3-ORG T4-YEL
T5-BLK T6-GRY
T7-PNK T8-RED
T9-RED BRK

INTERCHANGE ANY TWO LINE WIRES TO REVERSE THE ROTATION

WARNING: Motor must be grounded in accordance with local and national electrical codes to prevent serious electrical shocks. Disconnect power source before servicing unit.



AVERTISSEMENT: Le moteur doit être mis à la terre

conformément aux codes électriques locaux et nationaux afin d'éviter tout choc électrique grave. Déconnectez l'alimentation avant l'entretien de la machine.

