

HICO 3 PHASE INDUCTION MOTOR	PERFORMANCE DATASHEET	ISSUED	01/15/2026
		MODEL	40HP 6P

NAMEPLATE INFORMATION										
OUTPUT		RPM	VOLTS	Hz	FRAME SIZE	ENCLOSURE TYPE	S.F.	INS. CALSS	RATING	AMB. TEMP.
HP	KW									
40	30	1185	230/460	60	364TD	TEFC	1.25	F	CONT.	40°C
TEMP. RISE	NEMA DESIGN	kVA CODE	Class/Division Hazardous Location							
B	B	G	Class I, Division 2, Group B, C & D							

TYPICAL PERFORMANCE DATA						
EFFICIENCY (%)				POWER FACTOR (%)		
FULL LOAD		3/4 LOAD	1/2 LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD
MIN.	NOM.					
93.0	94.1	94.4	94.1	80.1	77.9	71.2

CURRENT					
FULL LOAD AMPS	3/4 LOAD AMPS	1/2 LOAD AMPS	NO LOAD AMPS	STARTING CURRENT AMPS	STARTING CURRENT % FLC
99.4/49.7	76.4/38.2	55.9/27.9	30.8/15.4	626.2/313.1	630

* Usable at 208V: 109.9 AMPS (FULL LOAD)

* Usable at 40HP 50Hz 380V 60.8A 980R.P.M. S.F. 1.0 EFF. 92.3% (IE2)

TORQUE				ALLOWABLE STARTS PER HOUR	
FULL LOAD (lb-ft)	LOCKED ROTOR % FLT	BREAK DOWN % FLT	PULL UP % FLT	COLD	HOT
177.4	185	235	152	2	1

MECHANICAL DATA					
INERTIA			SOUND PRESSURE LEVEL @ 3 ft (dB(A))	PROTECTION GRADE	WEIGHT (Lbs)
ROTOR WR ² (lb-ft ²)	NEMA LOAD WK ² (lb-ft ²)	MAX ALLOWABLE WK ² (lb-ft ²)			
21.980	503	764	71	55	754

BEARING		GREASE	MOUNTING	
DE	ODE		TYPE OF CONSTRUCTION	TERMINAL BOX DESIGN
6314C3	6312C3	GREASE(MOBIL Polyrex EM)	RIGID MOUNTING	NEMA

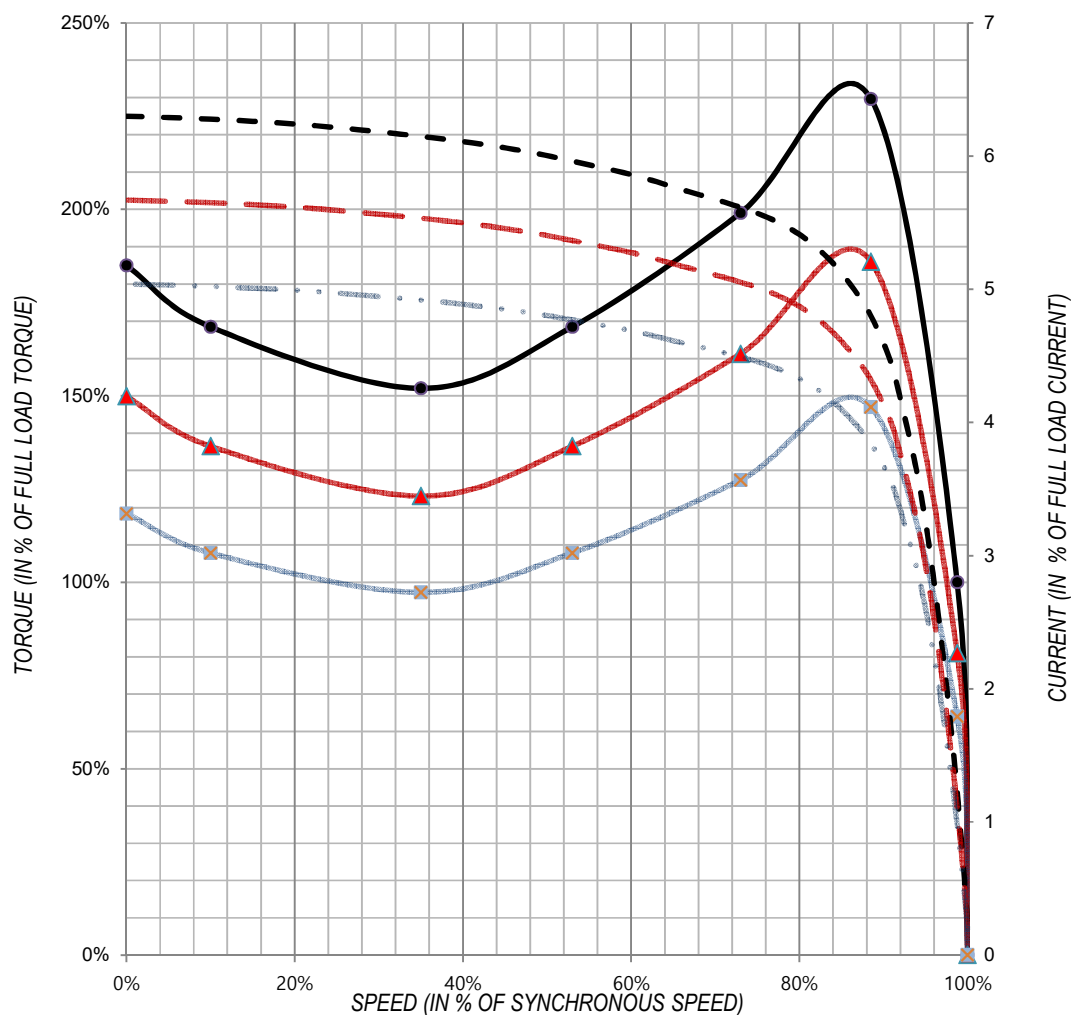
INVERTER DUTY DATA					
TYPE	HZ	HP	RPM	TORQUE(LB-FT)	NOTE
VARIABLE TORQUE	3~60	0.005~40	60~1200	0.444~177.4	WITH TEMP. RISE CLASS F & S.F. 1.0
CONSTANT TORQUE	6~60	4~40	120~1200	177.4	
CONSTANT HP	60~90	40	1200~1800	177.4~118.267	

DRAWING NO.	ES1AS185718	REVISION	2.1
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ALL DATA ABOVE ARE SUBJECTED TO CHANGE WITHOUT NOTICE.

HICO 3 PHASE INDUCTION MOTOR	SPEED - TORQUE & CURRENT CURVE				Curve No.
					1ST

OUTPUT	40	HP	POLES	6	P
VOLTAGE	230/460	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	177.4	lb-ft	FULL LOAD CURRENT	99.4/49.7	A
LOCKED ROTOR TORQUE	185	%	LOCKED-ROTOR CURRENT	630	%
BREAKDOWN TORQUE	235	%	SPEED (at FULL LOAD)	1185	RPM
GD ² of LOAD :	-	lb-ft ²	GD ² of MOTOR	21.98	lb-ft ²

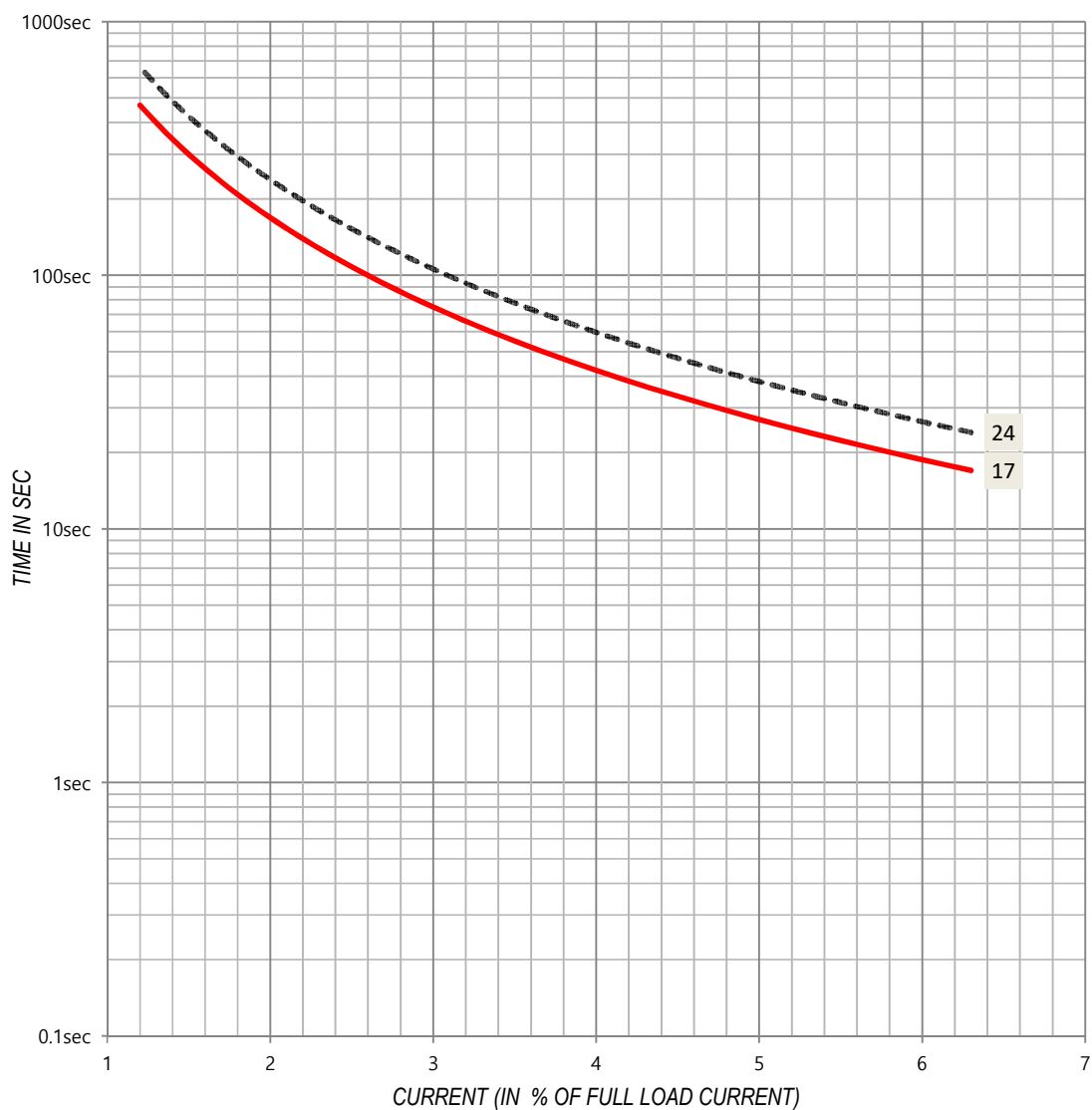


NOTE

	A : SPEED-TORQUE CURVE AT	100% RATED VOLTAGE
	B : SPEED-TORQUE CURVE AT	90% RATED VOLTAGE
	C : SPEED-TORQUE CURVE AT	80% RATED VOLTAGE
	D : SPEED-CURRENT CURVE AT	100% RATED VOLTAGE
	E : SPEED-CURRENT CURVE AT	90% RATED VOLTAGE
	F : SPEED-CURRENT CURVE AT	80% RATED VOLTAGE

HICO 3 PHASE INDUCTION MOTOR	THERMAL LIMIT & TIME - CURRENT CURVE				Curve No.
					1TL

OUTPUT	40	HP	POLES	6	P
VOLTAGE	230/460	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	177.4	lb-ft	FULL LOAD CURRENT	99.4/49.7	A
LOCKED ROTOR TORQUE	185	%	LOCKED-ROTOR CURRENT	630	%
BREAKDOWN TORQUE	235	%	SPEED (at FULL LOAD)	1185	RPM
GD ² of LOAD :	-	lb-ft ²	GD ² of MOTOR	21.98	lb-ft ²

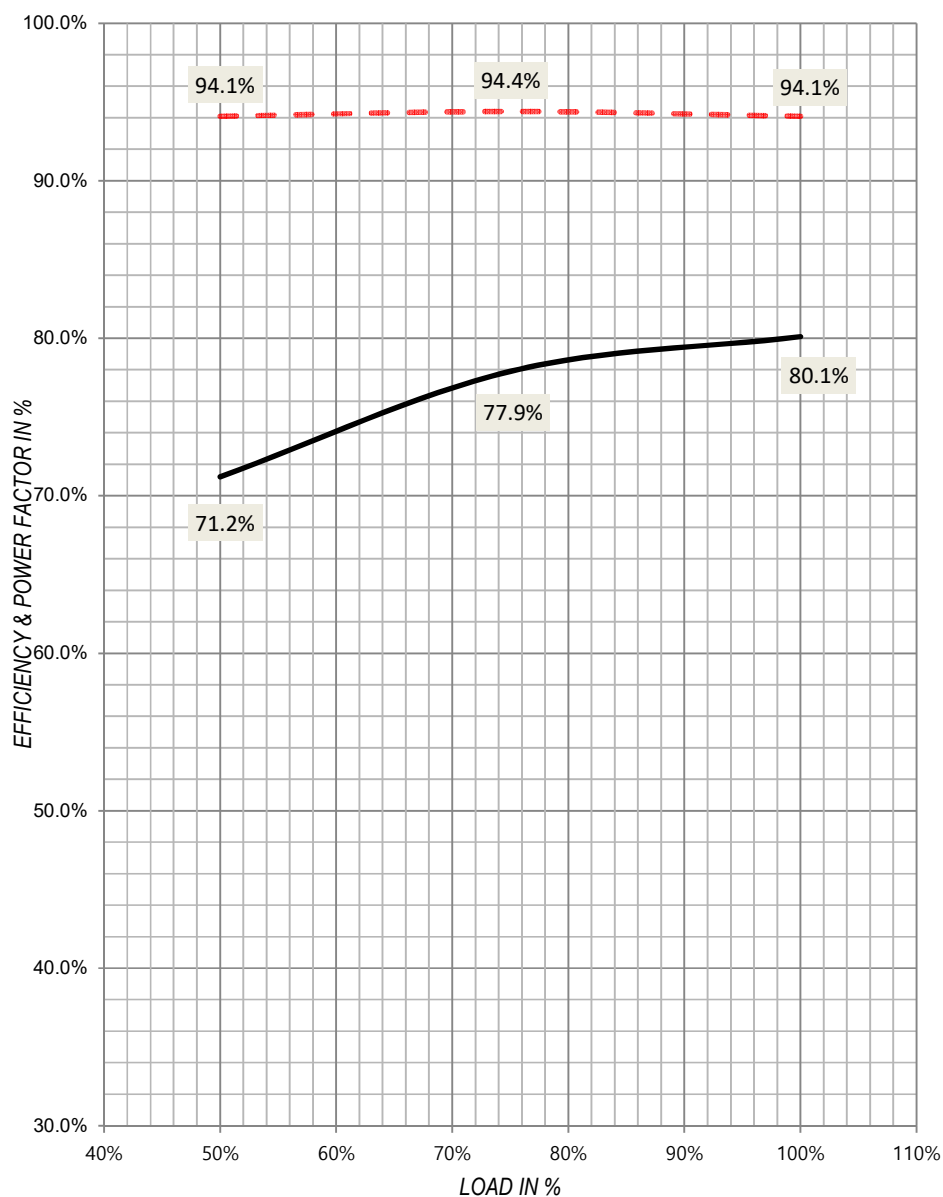


NOTE

- A : THERMAL LIMIT CURVE AT HOT CONDITION
- B : THERMAL LIMIT CURVE AT COLD CONDITION
- - - C : ※TIME-CURRENT CURVES(C,D,E) NEED BELOW DATA TO BE DRAWN
- ⋈ D : * LOAD GD2 AT MOTOR SHAFT
- ⋈ E : * SPEED-TORQUE CURVE OF LOAD

HICO 3 PHASE INDUCTION MOTOR	LOAD - POWER FACTOR & EFFICIENCY CURVE				Curve No.
					1PE

OUTPUT	40	HP	POLES	6	P
VOLTAGE	230/460	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	177.4	lb-ft	FULL LOAD CURRENT	99.4/49.7	A
LOCKED ROTOR TORQUE	185	%	LOCKED-ROTOR CURRENT	630	%
BREAKDOWN TORQUE	235	%	SPEED (at FULL LOAD)	1185	RPM
GD ² of LOAD :	-	lb-ft ²	GD ² of MOTOR	21.98	lb-ft ²



NOTE

— A : LOAD - POWER FACTOR CURVE
- - - B : LOAD - EFFICIENCY CURVE

HICO

3 PHASE INDUCTION MOTOR

CONNECTION DIAGRAM

ISSUED

12/01/2024



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