

HICO 3 PHASE INDUCTION MOTOR	PERFORMANCE DATASHEET	ISSUED	01/15/2026
		MODEL	3HP 4P

NAMEPLATE INFORMATION										
OUTPUT		RPM	VOLTS	Hz	FRAME SIZE	ENCLOSURE TYPE	S.F.	INS. CALSS	RATING	AMB. TEMP.
HP	KW									
3	2.2	1770	230/460	60	182TD	TEFC	1.25	F	CONT.	40°C
TEMP. RISE	NEMA DESIGN	kVA CODE	Class/Division Hazardous Location							
B	B	J	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.					
87.5	89.5	89.9	89.1	78.4	72.3	60.3

CURRENT					
FULL LOAD AMPS	3/4 LOAD AMPS	1/2 LOAD AMPS	NO LOAD AMPS	STARTING CURRENT AMPS	STARTING CURRENT % FLC
8.0/4.0	6.5/3.2	5.2/2.6	4.0/2.0	59.2/29.6	740

* Usable at 208V: 8.6 AMPS (FULL LOAD)

* Usable at 3HP 50Hz 380V 4.7A 1460R.P.M. S.F. 1.0 EFF. 87.3% (IE3)

TORQUE				ALLOWABLE STARTS PER HOUR	
FULL LOAD (lb-ft)	LOCKED ROTOR % FLT	BREAK DOWN % FLT	PULL UP % FLT	COLD	HOT
8.9	215	265	175	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)			
0.421	17	40	68	55	110

BEARING		GREASE	MOUNTING	
DE	ODE		TYPE OF CONSTRUCTION	TERMINAL BOX DESIGN
6207ZZ	6206ZZ	N/A	RIGID MOUNTING	NEMA

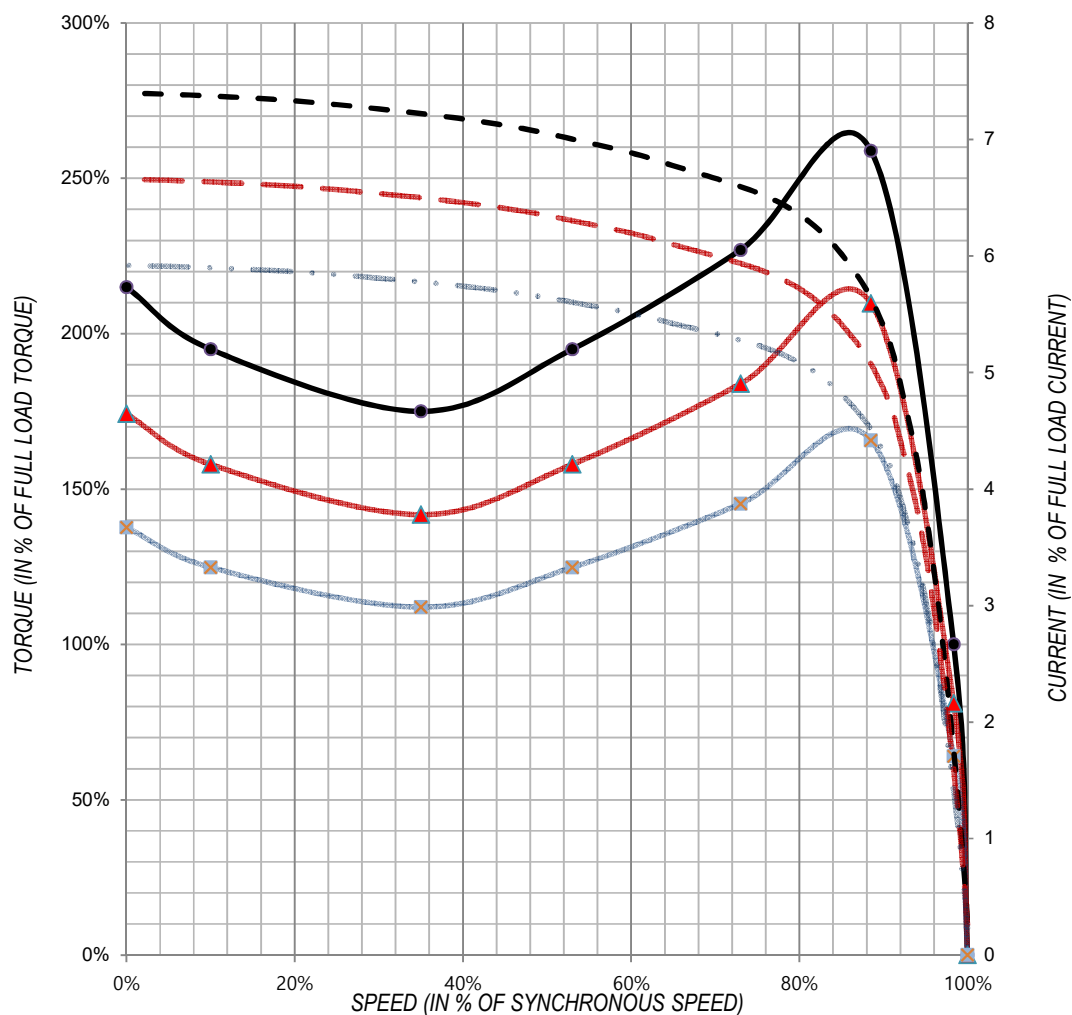
INVERTER DUTY DATA					
TYPE	HZ	HP	RPM	TORQUE(LB-FT)	NOTE
VARIABLE TORQUE	3~60	0.0004~3	90~1800	0.022~8.9	WITH TEMP. RISE CLASS F & S.F. 1.0
CONSTANT TORQUE	6~60	0.3~3	180~1800	8.9	
CONSTANT HP	60~90	3	1800~2700	8.9~5.933	

DRAWING NO.	ES1AS185703	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	3	HP	POLES	4	P
VOLTAGE	230/460	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	8.9	lb-ft	FULL LOAD CURRENT	8/4	A
LOCKED ROTOR TORQUE	215	%	LOCKED-ROTOR CURRENT	740	%
BREAKDOWN TORQUE	265	%	SPEED (at FULL LOAD)	1770	RPM
GD ² of LOAD :	-	lb-ft ²	GD ² of MOTOR	0.421	lb-ft ²

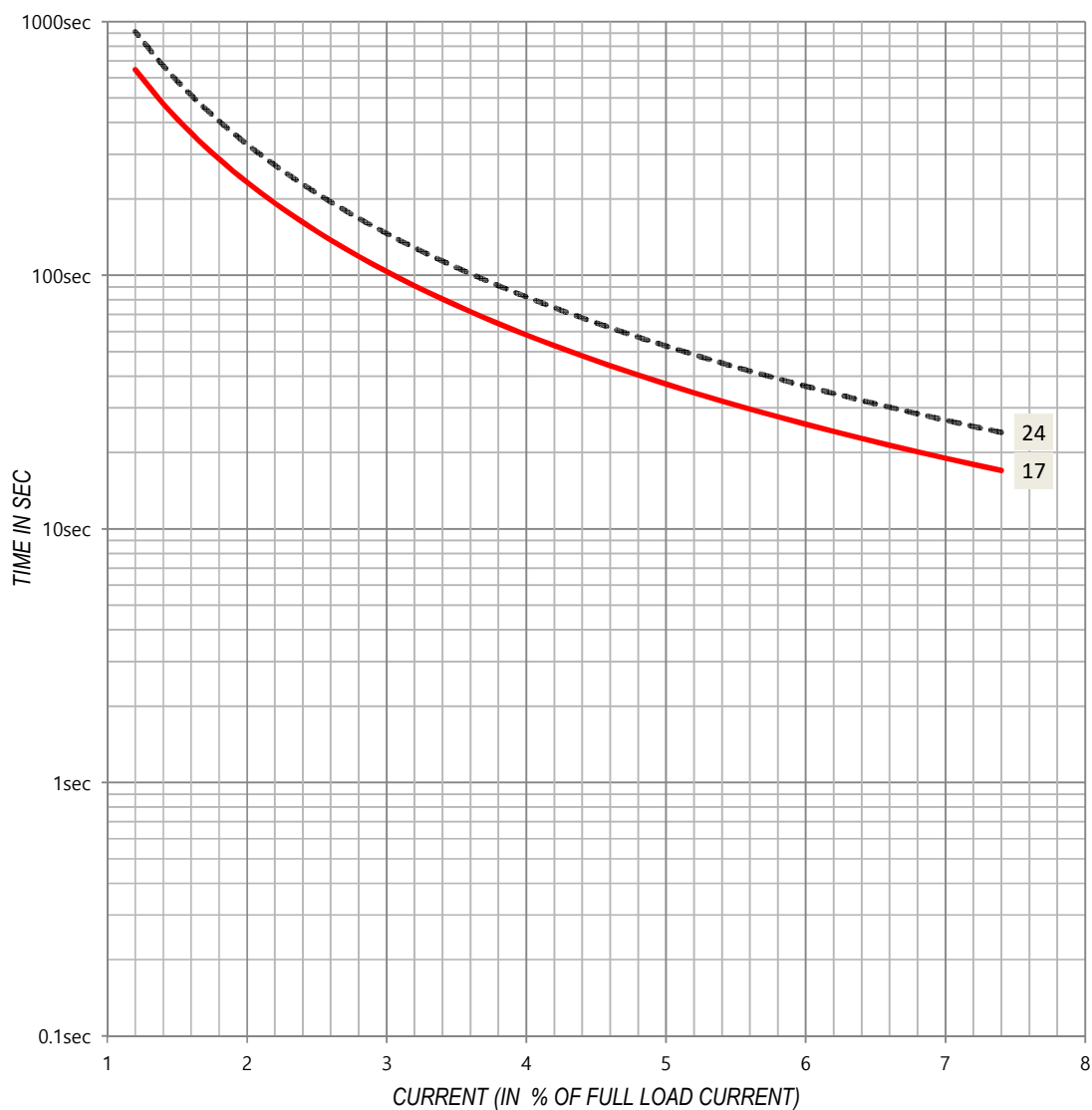


NOTE

	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	3	HP	POLES	4	P
VOLTAGE	230/460	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	8.9	lb-ft	FULL LOAD CURRENT	8/4	A
LOCKED ROTOR TORQUE	215	%	LOCKED-ROTOR CURRENT	740	%
BREAKDOWN TORQUE	265	%	SPEED (at FULL LOAD)	1770	RPM
GD ² of LOAD :	-	lb·ft ²	GD ² of MOTOR	0.421	lb·ft ²

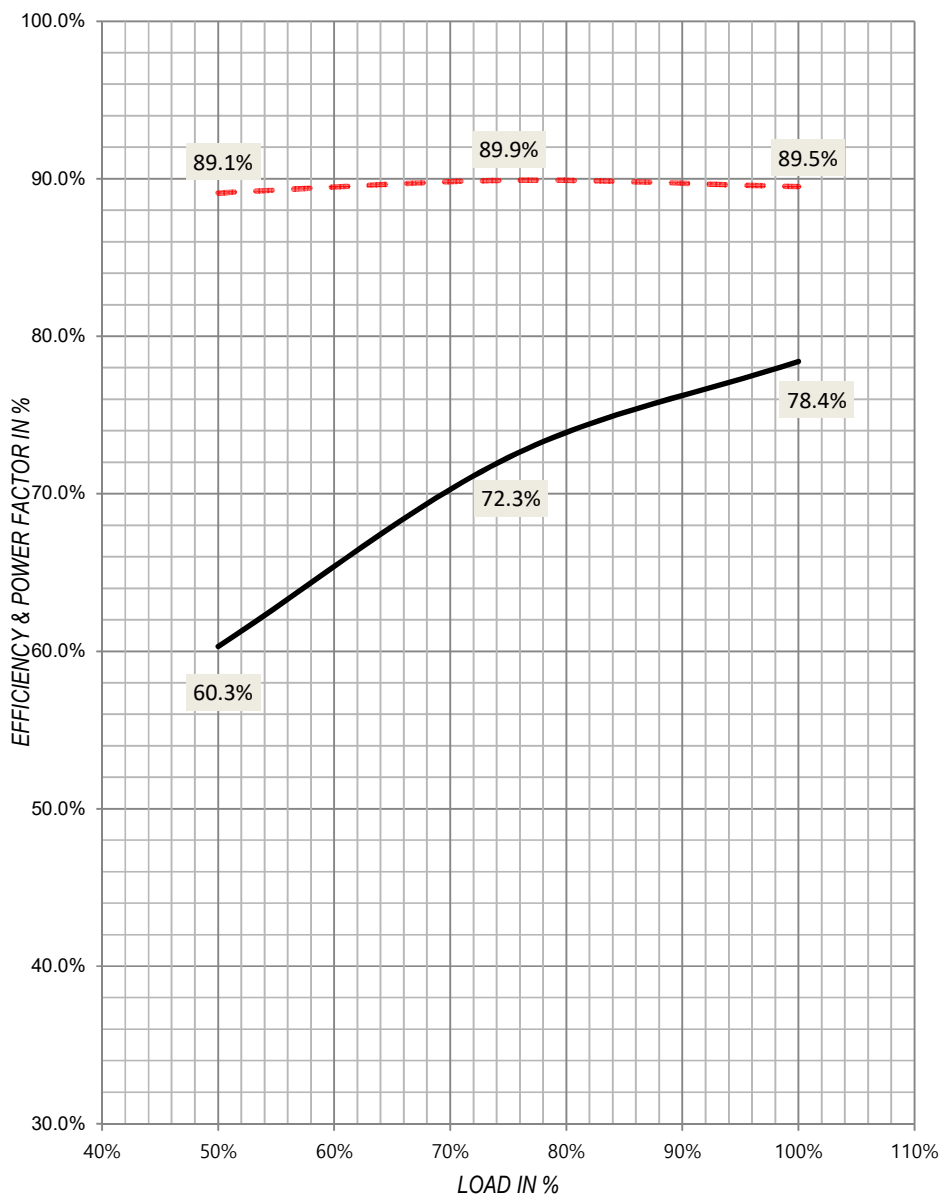


NOTE

- 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	3	HP	POLES	4	P
VOLTAGE	230/460	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	8.9	lb-ft	FULL LOAD CURRENT	8/4	A
LOCKED ROTOR TORQUE	215	%	LOCKED-ROTOR CURRENT	740	%
BREAKDOWN TORQUE	265	%	SPEED (at FULL LOAD)	1770	RPM
GD ² of LOAD :	-	lb·ft ²	GD ² of MOTOR	0.421	lb·ft ²



NOTE

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

HICO

3 PHASE INDUCTION MOTOR

CONNECTION DIAGRAM

ISSUED

12/01/2024

DOUBLE VOLTAGE DELTA CONNECTION		DOUBLE VOLTAGE STAR CONNECTION		SINGLE VOLTAGE STAR-DELTA CONNECTION		DOUBLE VOTAGE - STAR-DELTA CONNECTION			
LOW VOLTAGE	HIGH VOLTAGE	LOW VOLTAGE	HIGH VOLTAGE	STAR CONNECTION	DELTA CONNECTION	LOW VOLTAGE		HIGH VOLTAGE	
						STAR CONN.	DELTA CONN.	STAR CONN.	DELTA CONN.
							WYE-DELTA STARTING		

SINGLE VOLTAGE PART- WINDING CONNECTION		DOUBLE VOLTAGE PART WINDING CONNECTION			DOUBLE VOTAGE - STAR-DELTA AND PART WINDING (ot LOW VOLTAGE) CONNECTION				
PART WINDING CONNECTION	RUN	LOW VOLTAGE		HIGH VOLTAGE	LOW VOLTAGE			HIGH VOLTAGE	
		STARTING	RUN		PART-WINDING STARTING	STAR-DELTA STARTING	RUN	STAR-DELTA STARTING	RUN
PART-WINDING STARTING		LOW VOLTAGE PART-WINDING STARTING HIGH VOLTAGE DIRECT-ON-LINE STARTING			LOW VOLTAGE PART-WINDING/STAR-DELTA STARTING HIGH VOLTAGE DIRECT-ON-LINE STARTING				

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