

HICO 3 PHASE INDUCTION MOTOR	PERFORMANCE DATASHEET	ISSUED	01/15/2026
		MODEL	25HP 6P

NAMEPLATE INFORMATION										
OUTPUT		RPM	VOLTS	Hz	FRAME SIZE	ENCLOSURE TYPE	S.F.	INS. CALSS	RATING	AMB. TEMP.
HP	kW									
25	18.5	1180	575	60	324TC	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.					
91.7	93	93.5	93.3	81.5	78.1	69.5

CURRENT					
FULL LOAD AMPS	3/4 LOAD AMPS	1/2 LOAD AMPS	NO LOAD AMPS	STARTING CURRENT AMPS	STARTING CURRENT % FLC
24.7	19.2	14.4	9.3	155.6	630

TORQUE				ALLOWABLE STARTS PER HOUR	
FULL LOAD (lb-ft)	LOCKED ROTOR % FLT	BREAK DOWN % FLT	PULL UP % FLT	COLD	HOT
111.3	195	243	170	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)			
11.966	324	656	70	55	540

BEARING		GREASE	MOUNTING	
DE	ODE		TYPE OF CONSTRUCTION	TERMINAL BOX DESIGN
6313ZC3	6212ZC3	GREASE(MOBIL Polyrex EM)	RIGID MOUNTING	NEMA

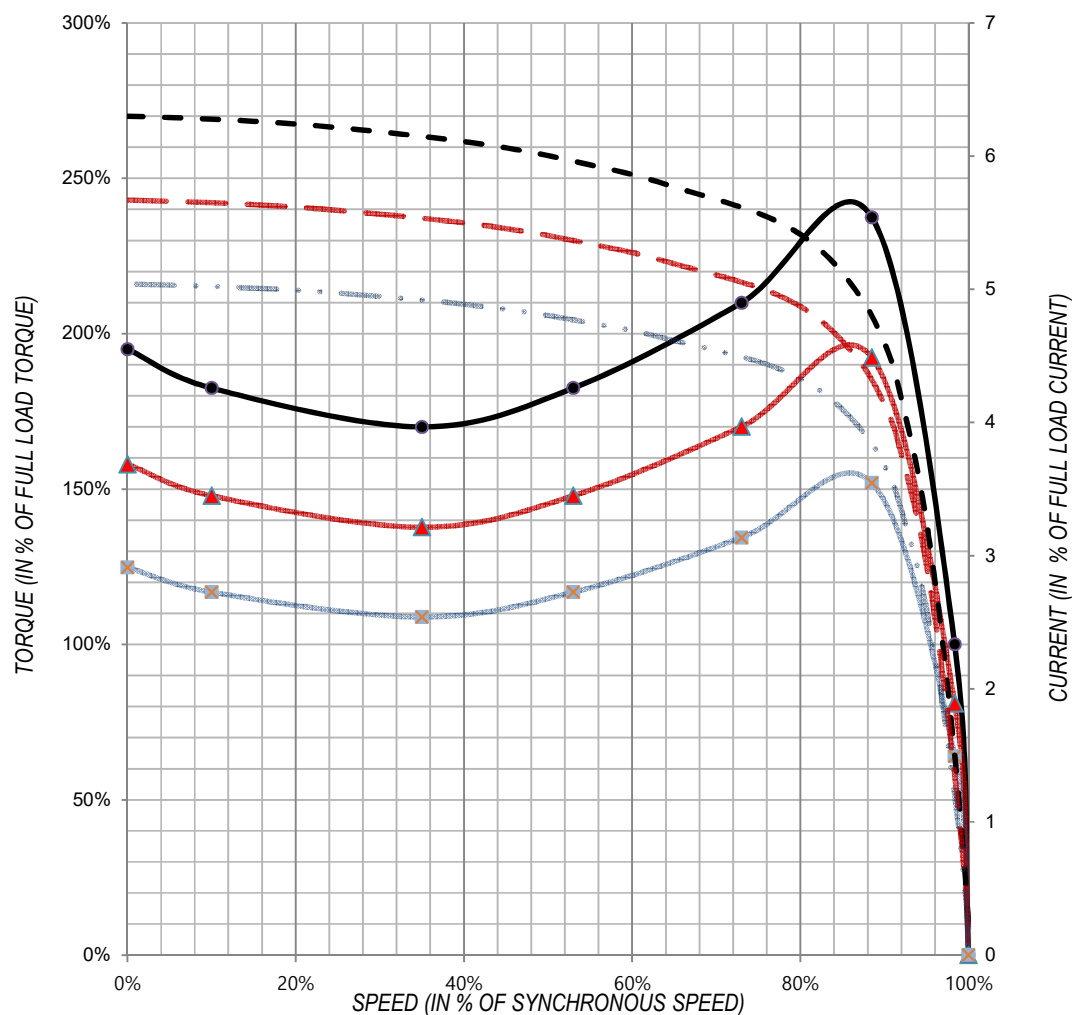
INVERTER DUTY DATA					
TYPE	HZ	HP	RPM	TORQUE(LB-FT)	NOTE
VARIABLE TORQUE	3~60	0.0031~25	60~1200	0.278~111.3	WITH TEMP. RISE CLASS F & S.F. 1.0
CONSTANT TORQUE	6~60	2.5~25	120~1200	111.3	
CONSTANT HP	60~90	25	1200~1800	111.3~74.2	

DRAWING NO.	ES1AS180514	REVISION	0.1
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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	25	HP	POLES	6	P
VOLTAGE	575	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	111.3	lb-ft	FULL LOAD CURRENT	24.7	A
LOCKED ROTOR TORQUE	195	%	LOCKED-ROTOR CURRENT	630	%
BREAKDOWN TORQUE	243	%	SPEED (at FULL LOAD)	1180	RPM
GD ² of LOAD :	-	lb-ft ²	GD ² of MOTOR	11.966	lb-ft ²



NOTE



A : SPEED-TORQUE CURVE AT

100% RATED VOLTAGE



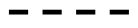
B : SPEED-TORQUE CURVE AT

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

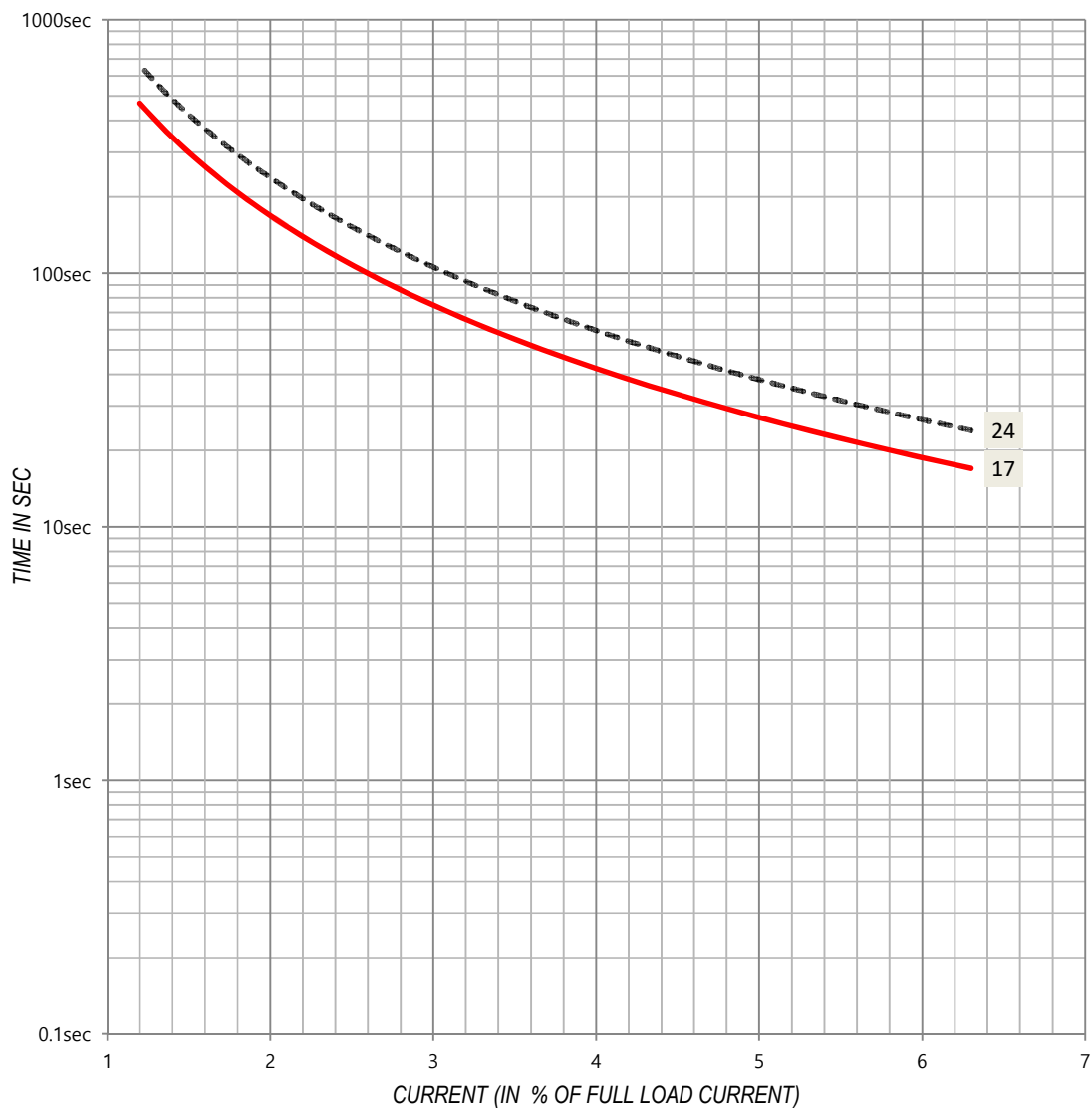


F : SPEED-CURRENT CURVE AT

80% RATED VOLTAGE

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

OUTPUT	25	HP	POLES	6	P
VOLTAGE	575	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	111.3	lb-ft	FULL LOAD CURRENT	24.7	A
LOCKED ROTOR TORQUE	195	%	LOCKED-ROTOR CURRENT	630	%
BREAKDOWN TORQUE	243	%	SPEED (at FULL LOAD)	1180	RPM
GD ² of LOAD :	-	lb-ft ²	GD ² of MOTOR	11.966	lb-ft ²

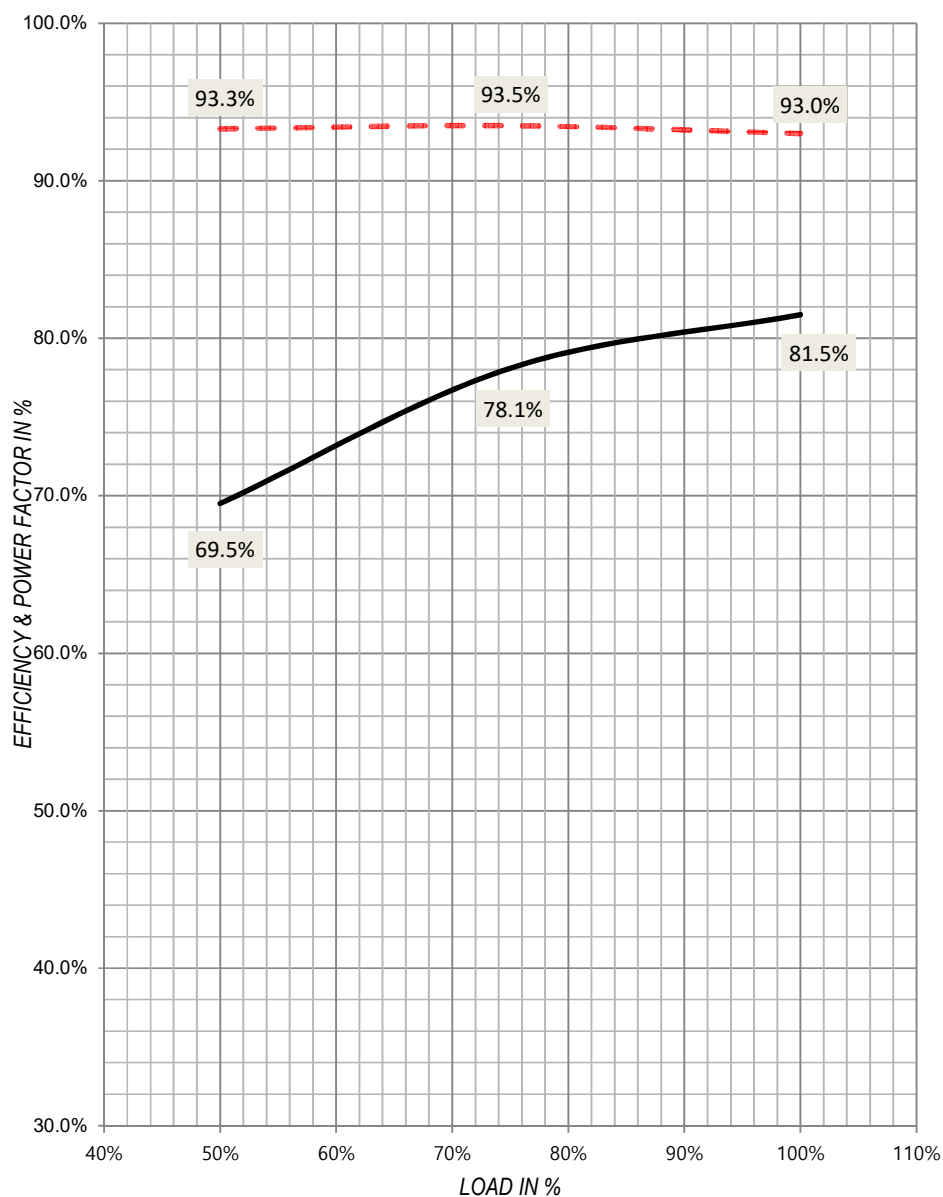


NOTE

- 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	25	HP	POLES	6	P
VOLTAGE	575	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	111.3	lb-ft	FULL LOAD CURRENT	24.7	A
LOCKED ROTOR TORQUE	195	%	LOCKED-ROTOR CURRENT	630	%
BREAKDOWN TORQUE	243	%	SPEED (at FULL LOAD)	1180	RPM
GD ² of LOAD :	-	lb-ft ²	GD ² of MOTOR	11.966	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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