

HICO 3 PHASE INDUCTION MOTOR	PERFORMANCE DATASHEET	ISSUED	01/15/2026
		MODEL	125HP 2P

NAMEPLATE INFORMATION										
OUTPUT		RPM	VOLTS	Hz	FRAME SIZE	ENCLOSURE TYPE	S.F.	INS. CALSS	RATING	AMB. TEMP.
HP	kW									
125	90	3570	230/460	60	444TSD	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.					
94.1	95	95	94.3	89	87.9	83.4

CURRENT					
FULL LOAD AMPS	3/4 LOAD AMPS	1/2 LOAD AMPS	NO LOAD AMPS	STARTING CURRENT AMPS	STARTING CURRENT % FLC
276.9/138.4	210.2/105.1	148.8/74.4	71.4/35.7	1938.3/968.8	700

* Usable at 125HP 50Hz 380V 169A 2965R.P.M. S.F. 1.0 EFF. 94.3% (IE2)

TORQUE				ALLOWABLE STARTS PER HOUR	
FULL LOAD (lb-ft)	LOCKED ROTOR % FLT	BREAK DOWN % FLT	PULL UP % FLT	COLD	HOT
184	120	200	100	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)			
22.995	113	153	82	55	1566

BEARING		GREASE	MOUNTING	
DE	ODE		TYPE OF CONSTRUCTION	TERMINAL BOX DESIGN
6313C3	6313C3	GREASE(MOBIL Polyrex EM)	RIGID MOUNTING	NEMA

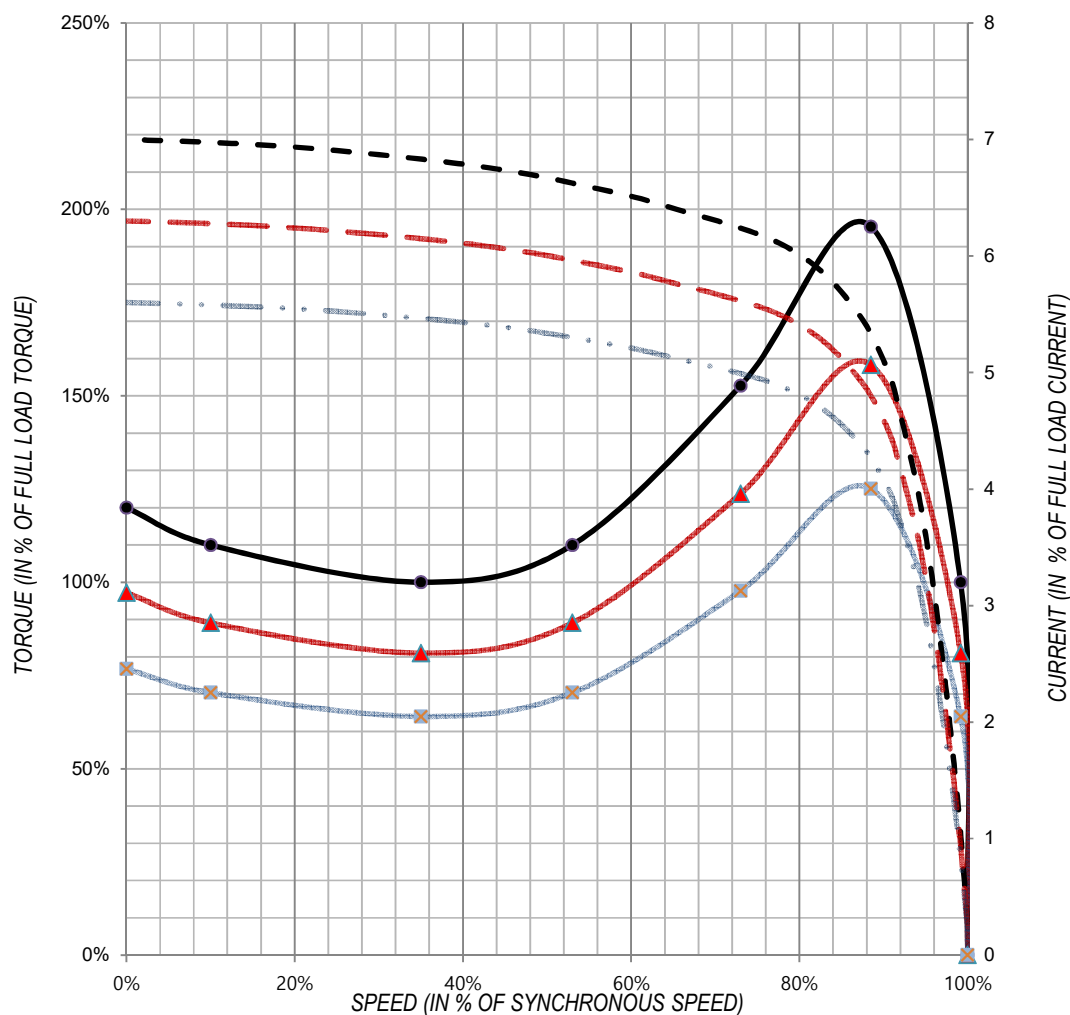
INVERTER DUTY DATA					
TYPE	HZ	HP	RPM	TORQUE(LB-FT)	NOTE
VARIABLE TORQUE	3~60	0.0156~125	180~3600	0.46~184	WITH TEMP. RISE CLASS F & S.F. 1.0
CONSTANT TORQUE	6~60	12.5~125	360~3600	184	
CONSTANT HP	60~90	125	3600~5400	184~122.667	

DRAWING NO.	ES1AS185725	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	125	HP	POLES	2	P
VOLTAGE	230/460	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	184.0	lb-ft	FULL LOAD CURRENT	76.9/138.4	A
LOCKED ROTOR TORQUE	120	%	LOCKED-ROTOR CURRENT	700	%
BREAKDOWN TORQUE	200	%	SPEED (at FULL LOAD)	3570	RPM
GD ² of LOAD :	-	lb-ft ²	GD ² of MOTOR	22.995	lb-ft ²

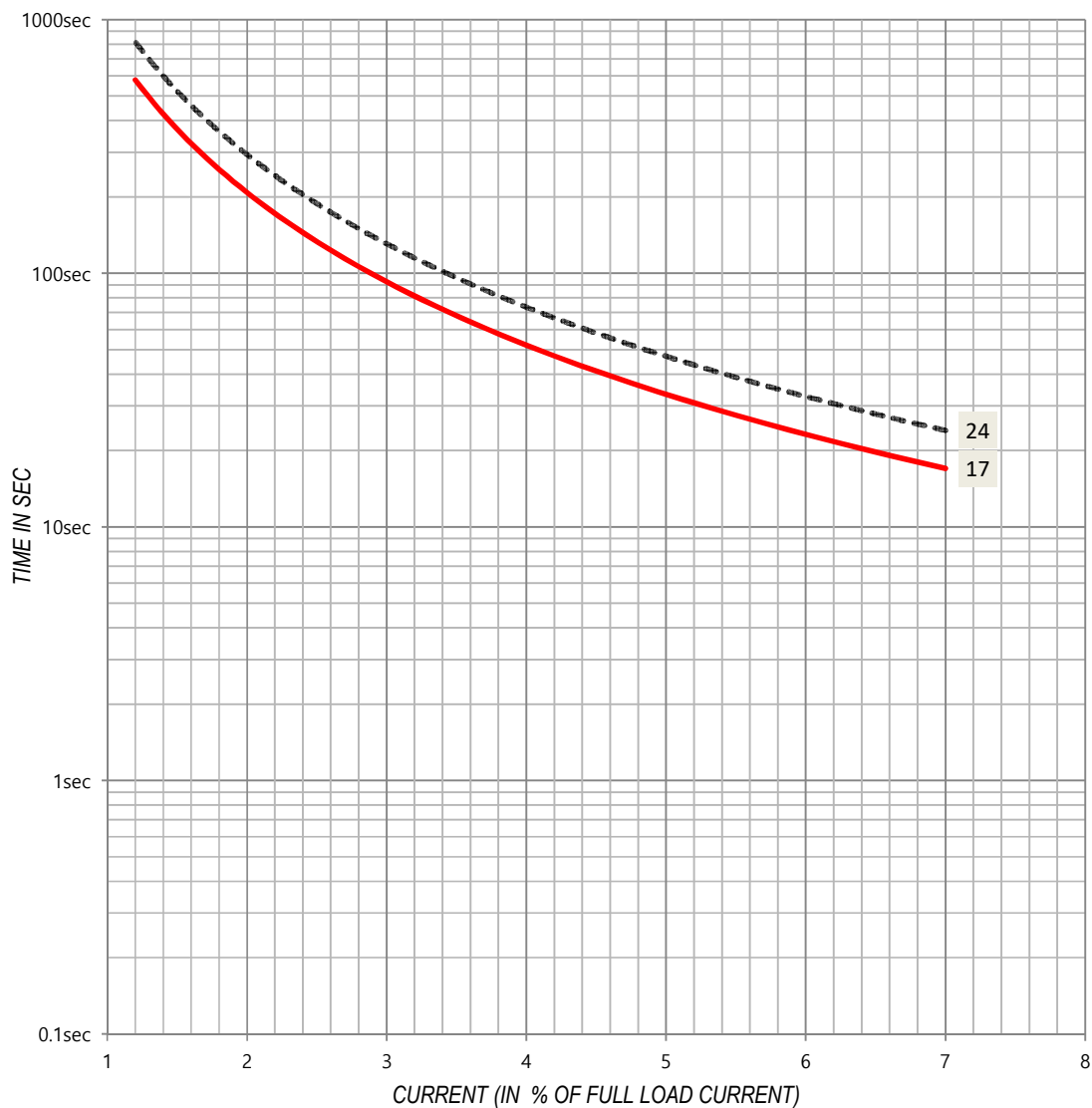


NOTE

—●—	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

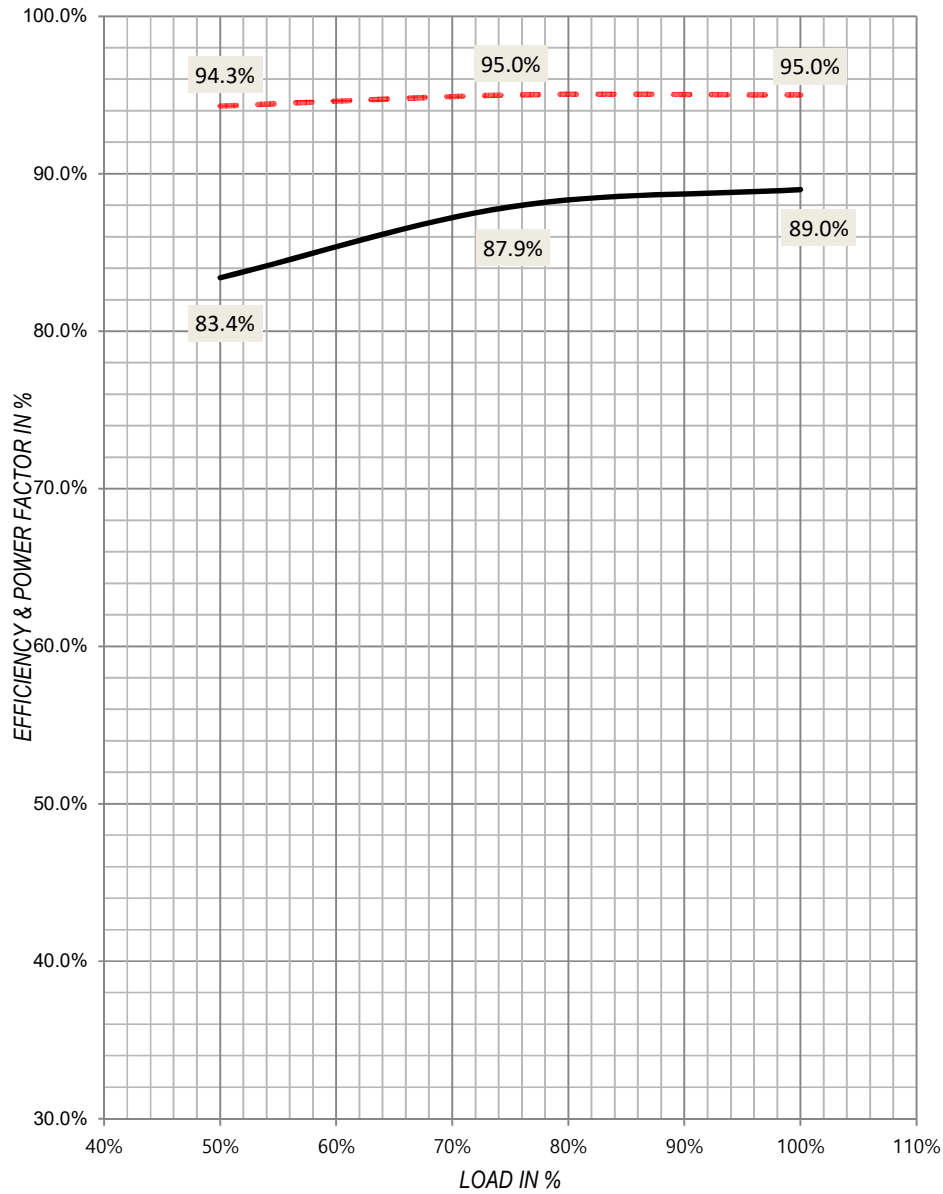
OUTPUT	125	HP	POLES	2	P
VOLTAGE	230/460	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	184.0	lb-ft	FULL LOAD CURRENT	176.9/138.4	A
LOCKED ROTOR TORQUE	120	%	LOCKED-ROTOR CURRENT	700	%
BREAKDOWN TORQUE	200	%	SPEED (at FULL LOAD)	3570	RPM
GD ² of LOAD :	-	lb·ft ²	GD ² of MOTOR	22.995	lb·ft ²



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	125	HP	POLES	2	P
VOLTAGE	230/460	V	FREQUENCY	60	Hz
FULL LOAD TORQUE	184.0	lb-ft	FULL LOAD CURRENT	176.9/138.4	A
LOCKED ROTOR TORQUE	120	%	LOCKED-ROTOR CURRENT	700	%
BREAKDOWN TORQUE	200	%	SPEED (at FULL LOAD)	3570	RPM
GD ² of LOAD :	-	lb-ft ²	GD ² of MOTOR	22.995	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.	STAR CONN.	DELTA CONN.	STAR CONN.	DELTA CONN.	STAR CONN.	DELTA CONN.
DIRECT-ON-LINE STARTING		DIRECT-ON-LINE STARTING		WYE-DELTA STARTING		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			LOW VOLTAGE PART-WINDING/STAR-DELTA STARTING				
		HIGH VOLTAGE DIRECT-ON-LINE STARTING			HIGH VOLTAGE DIRECT-ON-LINE STARTING				

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