



GE INDUSTRIAL MOTORS
a **WOLONG** company

Product Technical Information

September 9, 2022

Data shown is for the current revision model #. Ensure your nameplate model # matches.

Model Number:	5KE284DAE6021
Catalog Number:	VF120
Instruction Manual:	GEK-95353
Connection Diagram:	GEM2034E-FIG9
Outline Drawing:	4002B5828NSP5212

Accessory Connection Diagrams

Bearing Thermocouple:	None	Heater:	3027JE-1C
RTD:	None	Thermistor:	None
Thermostat:	None	Winding Thermocouple:	None
Bearing RTD:	None		

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Marks:

MODEL NUMBER:	5KE284DAE6021
Outline Drawing:	4002B5828NSP5212
Connection Diagram:	GEM2034E-FIG9
Instruction Book:	GEK-95353
Design Code:	28BD1217A
Type:	KE
Frame:	L284TP12
Phases:	3
Poles:	4
Output Power:	25HP 18.5KW
RPM:	1775
Voltage:	200-230/460
Hertz:	60
Amps - FL:	67.1-58.4/29.2
Service Factor:	1.15
Alt Service Factor:	--

Estimated Weight:	420 Lbs
Time Rating:	CONT
Enclosure:	WPI
Encl Construction:	OPEN
Ambient Max(°C):	40
Alt Ambient Max(°C):	--
Insulation Class:	H
NEMA Design:	B
Nominal Efficiency:	91.7 %
Guaranteed Efficiency:	90.2 %
3/4 Load Efficiency:	--
KVA Code:	G
Max KVAR:	5.8
Power Factor:	87.5
Bearing - DE:	7310
Bearing - ODE:	6210-2ZC3

Enclosure is Weather Protected One

Stamped Nameplate Notes:

NEMA ENCL WPI AND CSA ENCL DP
 ROT CCW FACING ODE LEAD/PH SEQUENCE 1-2-3/1-2-3
 HTR LDS HE1-HE2 115V 60W
 INVERTER DUTY PER NEMA MG1 PART 31
 ALTERNATE RATING FOR PWM CONTROL:
 1.0 SF VAR TORQUE RANGE 5-60 HZ
 SUITABLE FOR 20 HP, 190/380 V, 50 HZ
 56.4/ 28.2 AMPS



Additional Information:

4P - TP EXTN
C/BOX 137 CU IN-1.50 NPT
AUX LEADS EXIT WITH MOTOR LEADS
RCF 5000 CPM, STATIC DEFLECTION .0014 INCHES &
CENTER OF GRAVITY 12.00 INCHES
HOLLOW SHAFT HIGH THRUST
NON REV CPLG W/BX=1.18" KW=0.25"
OIL RESISTANT SLEEVING ON LEADS
BEARING LIFE 8760 HOURS AT 2959 LB THRUST
FIRE PUMP MOTOR
ESTIMATED SOUND PRESSURE < 80 DBA@ 1 METER



Performance Characteristics

1st Winding 1st Connection

Design: 28BD1217A

Marks:

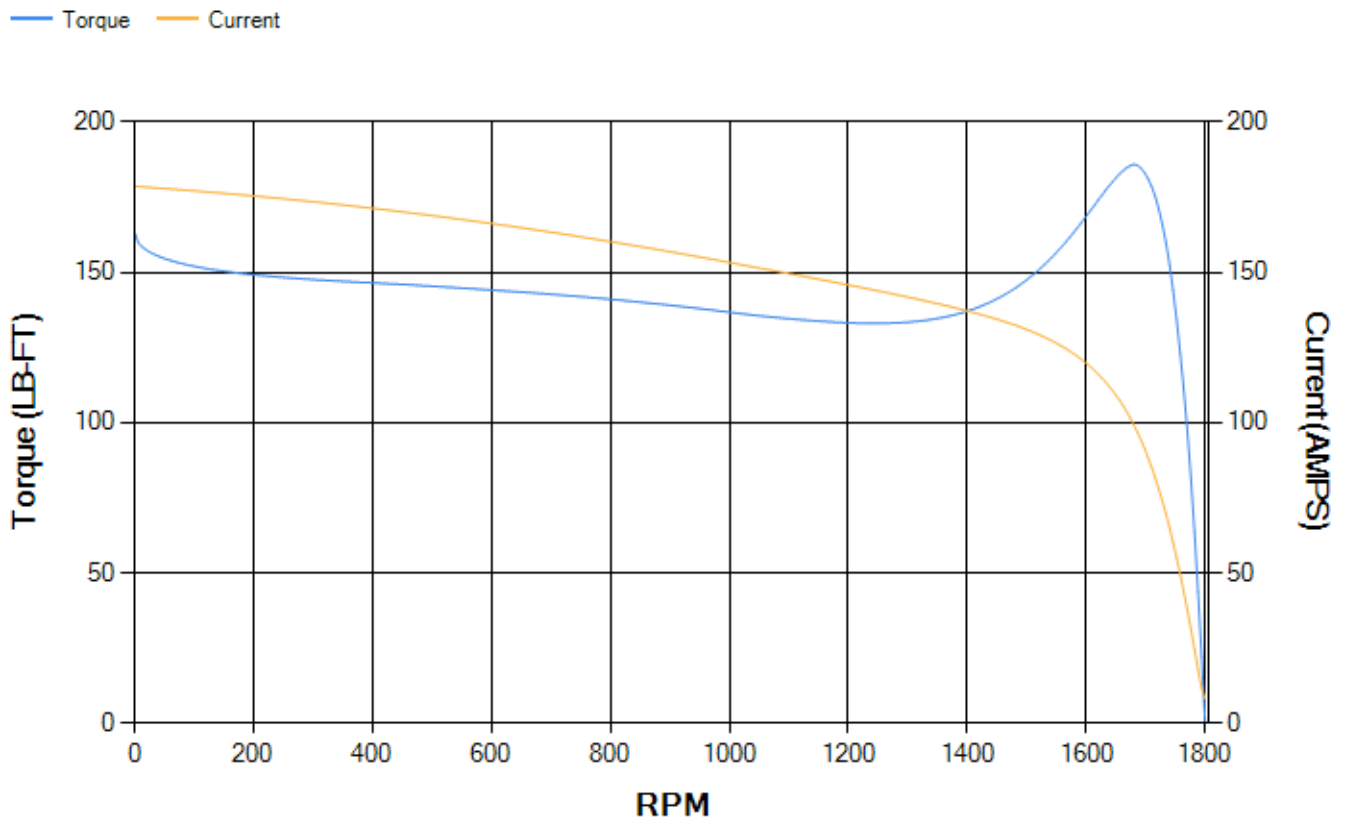
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	91.05	91.67	92.67	93.45	93.74	91.83	0.00
% PF	87.44	87.61	87.43	85.48	79.18	59.67	5.08
AMPS	36.74	33.51	28.86	21.97	15.76	10.67	8.11

TORQ(FL)#FT	74	TORQ(LR)%FL	220.63	TORQ(BD)%FL	250.26
AMPS(LR)	178.64	PF AT START	0.49		

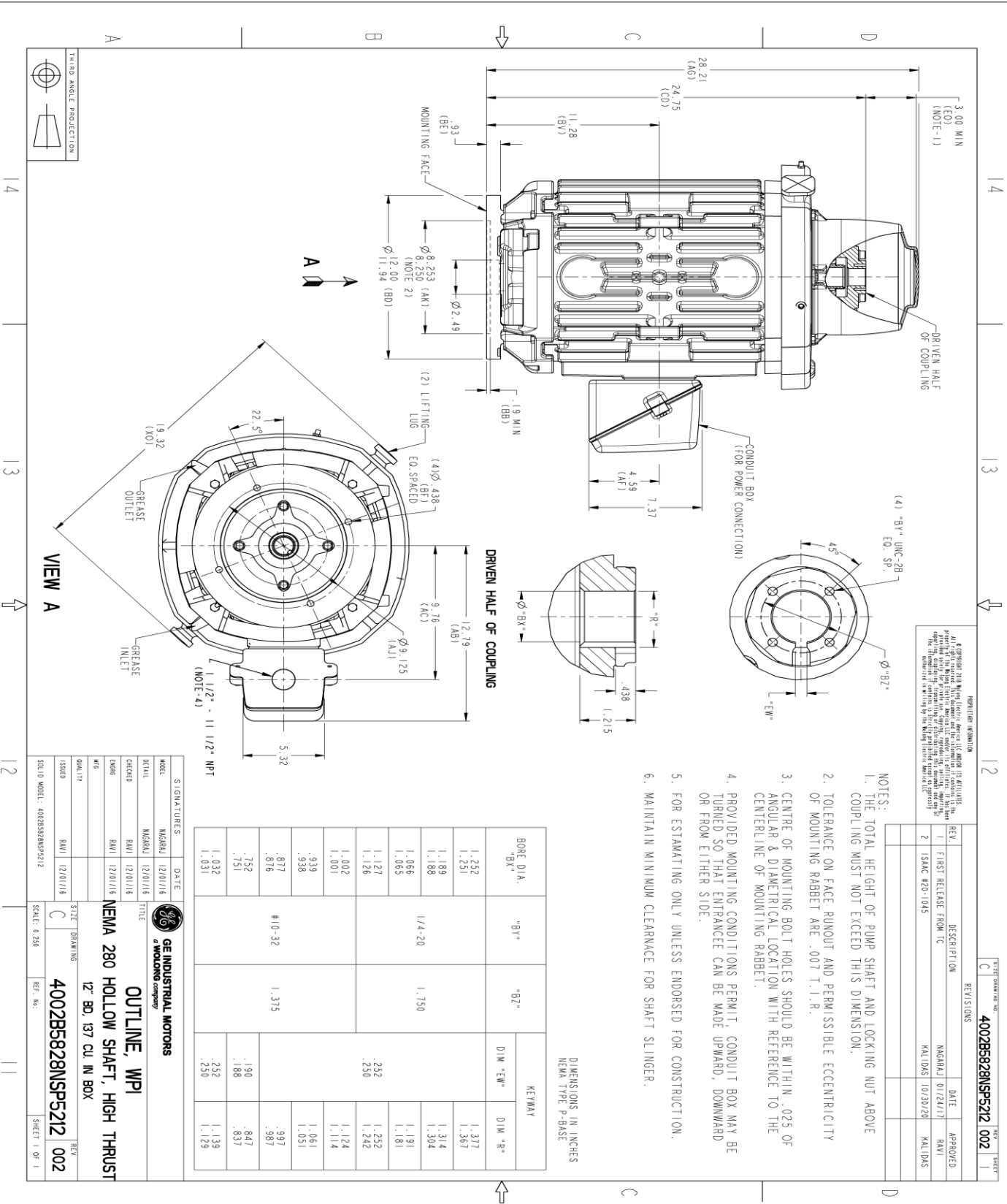
This motor is capable of two cold or one hot start with a maximum connected load inertia of 805 Lb-Ft Sq (33.89 Kg-meter Sq) at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 39 seconds. Safe stall time at 100% voltage is 70 seconds cold, 56 seconds hot. Rotor inertia is 3.87 Lb-Ft Sq (0.16 Kg-meter Sq).

Open Circuit A-C:	0.663	Short Circuit D-C:	0.011
Short Circuit A-C:	0.023	X/R Ratio:	4.196
Stator Slots:	48	Rotor Slots:	40

Speed Torque Current Curve (First Connection, First Speed)



Marks:



REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
1	FIRST RELEASE FROM TC	MGRARJ 01/24/17	RAVI
2	ISAC #20-1045	KALIDAS 10/30/20	KALIDAS

- NOTES:
1. THE TOTAL HEIGHT OF PUMP SHAFT AND LOCKING NUT ABOVE COUPLING MUST NOT EXCEED THIS DIMENSION.
 2. TOLERANCE ON FACE RUNOUT AND PERMISSIBLE ECCENTRICITY OF MOUNTING RABBIT ARE .007 T.I.R.
 3. CENTRE OF MOUNTING BOLT HOLES SHOULD BE WITHIN .025 OF ANGULAR & DIAMETRICAL LOCATION WITH REFERENCE TO THE CENTERLINE OF MOUNTING RABBIT.
 4. PROVIDED MOUNTING CONDITIONS PERMIT, CONDUIT BOX MAY BE TURNED SO THAT ENTRANCE CAN BE MADE UPWARD, DOWNWARD OR FROM EITHER SIDE.
 5. FOR ESTIMATING ONLY UNLESS ENDORSED FOR CONSTRUCTION.
 6. MAINTAIN MINIMUM CLEARANCE FOR SHAFT SLINGER.

DIMENSIONS IN INCHES
NEMA TYPE P-BASE

BONE DIA.	"BY"	"BZ"	KEYWAY	
			DIM "EW"	DIM "R"
1.252				1.317
1.231				1.367
1.188				1.314
1.188				1.304
1.066	1/4-20	1.750		1.191
1.065				1.181
1.127			.252	1.252
1.126			.250	1.242
1.002				1.124
1.001				1.061
.938				1.051
.877	#10-32	1.315		.997
.876				.987
.752			.190	.847
.751			.188	.837
1.032			.252	1.139
1.031			.250	1.129

GE INDUSTRIAL MOTORS
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OUTLINE, WPI
NEMA 280 HOLLOW SHAFT, HIGH THRUST
1"2 BD, 137 CU IN BOX

SCALE: 0.250

4002B5828NSP5212

REV: 002

SHEET 1 OF 1

SIGNATURES

MODEL	DATE
MGRARJ 12/01/16	
RAVI 12/01/16	
RAVI 12/01/16	
RAVI 12/01/16	
RAVI 12/01/16	
RAVI 12/01/16	



Marks:

Connection Diagram
GEM2034E-FIG9



Heater Connection
3027JE-1C



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	128D6235AB1	128D6228PA1
Bearing	235A2508ET01	235A2508AK01
Slinger/Inproseal	235A2300FL2	

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	
Fan Cover	

Conduit & Accessories Box Assembly	
Part Description	Part#
Conduit Box	4002B5728PA-G01

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

