



**GE INDUSTRIAL MOTORS**  
a **WOLONG** company

# Product Technical Information

November 25, 2020

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

<b>Model Number:</b>	<b>5KS286DAE7028A</b>
<b>Catalog Number:</b>	<b>V4021</b>
<b>Instruction Manual:</b>	GEK-95353
<b>Connection Diagram:</b>	GEM2034E-FIG3
<b>Outline Drawing:</b>	4002B5828NSP5212

## Accessory Connection Diagrams

<b>Bearing Thermocouple:</b>	None	<b>Heater:</b>	3027JE-1C
<b>RTD:</b>	None	<b>Thermistor:</b>	None
<b>Thermostat:</b>	None	<b>Winding Thermocouple:</b>	None
<b>Bearing RTD:</b>	None		

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Marks:

<b>MODEL NUMBER:</b>	<b>5KS286DAE7028A</b>
<b>Outline Drawing:</b>	4002B5828NSP5212
<b>Connection Diagram:</b>	GEM2034E-FIG3
<b>Instruction Book:</b>	GEK-95353
<b>Design Code:</b>	28BD3092A
<b>Type:</b>	KS
<b>Frame:</b>	L286TP12
<b>Phases:</b>	3
<b>Poles:</b>	6
<b>Output Power:</b>	20HP 14.8KW
<b>RPM:</b>	1180
<b>Voltage:</b>	230/460
<b>Hertz:</b>	60
<b>Amps - FL:</b>	51.6/25.8
<b>Service Factor:</b>	1.15
<b>Alt Service Factor:</b>	--

<b>Estimated Weight:</b>	470 Lbs
<b>Time Rating:</b>	CONT
<b>Enclosure:</b>	WPI
<b>Encl Construction:</b>	OPEN
<b>Ambient Max(°C):</b>	40
<b>Alt Ambient Max(°C):</b>	--
<b>Insulation Class:</b>	H
<b>NEMA Design:</b>	B
<b>Nominal Efficiency:</b>	92.4 %
<b>Guaranteed Efficiency:</b>	91.0 %
<b>3/4 Load Efficiency:</b>	--
<b>KVA Code:</b>	G
<b>Max KVAR:</b>	8.1
<b>Power Factor:</b>	78.5
<b>Bearing - DE:</b>	7310
<b>Bearing - ODE:</b>	6210-2ZC3

Enclosure is Weather Protected One

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**Stamped Nameplate Notes:**

PREMIUM EFFICIENT MOTOR  
 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 7.5-60 HZ  
 SUITABLE FOR 15HP, 190/380V,  
 50 HZ WITH 47.2/23.6AMPS AND 985 RPM AT 1.0 SF



**Additional Information:**

6P - 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=1.00" KW=0.25"  
OIL RESISTANT SLEEVING ON LEADS  
BEARING LIFE 8760 HOURS AT 3379 LB THRUST



**Performance Characteristics**

1st Winding 1st Connection

**Design: 28BD3092A**

**Marks:**

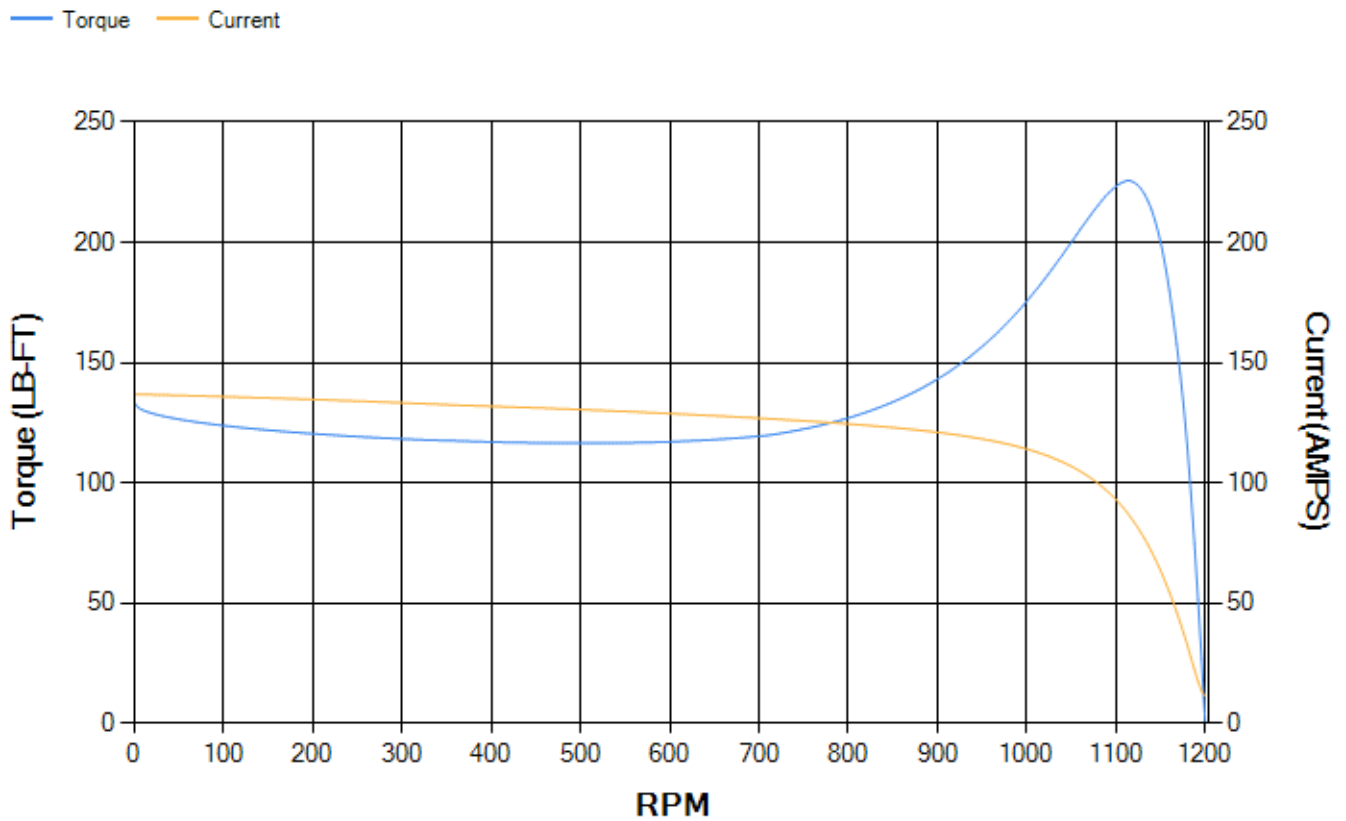
LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	91.11	91.62	92.46	92.92	92.73	89.7	0.00
% PF	80.72	80.18	78.7	73.64	62.79	40.76	3.94
AMPS	31.81	29.3	25.75	20.52	16.07	12.8	11.34

<b>TORQ(FL)#FT</b>	88.83	<b>TORQ(LR)%FL</b>	149.94	<b>TORQ(BD)%FL</b>	253.34
<b>AMPS(LR)</b>	136.83	<b>PF AT START</b>	0.36		

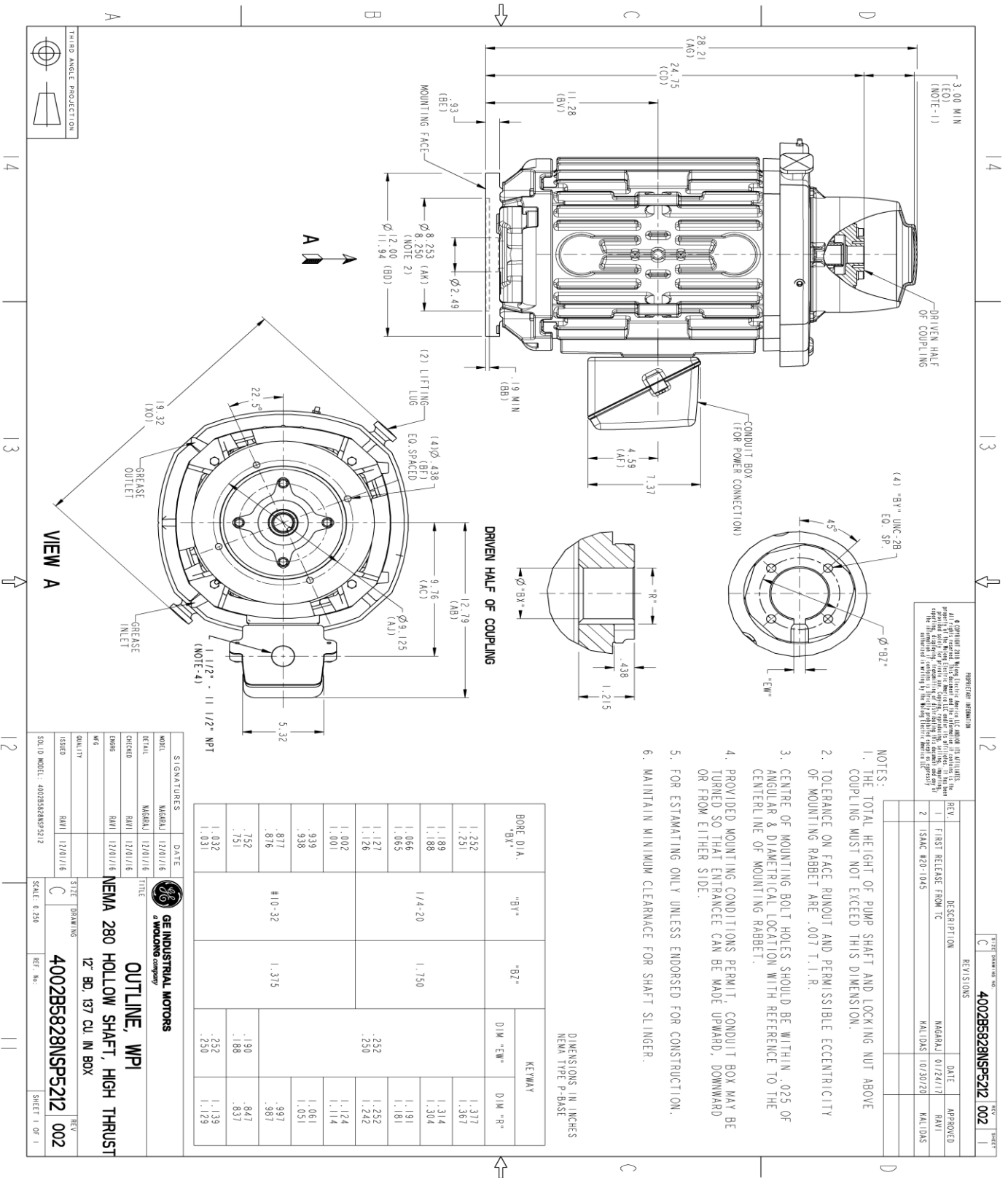
This motor is capable of two cold or one hot start with a maximum connected load inertia of 1124 Lb-Ft Sq (47.32 Kg-meter Sq)at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 41 seconds. Safe stall time at 100% voltage is 91 seconds cold, 63 seconds hot. Rotor inertia is 6.1 Lb-Ft Sq (0.26 Kg-meter Sq).

<b>Open Circuit A-C:</b>	0.386	<b>Short Circuit D-C:</b>	0.014
<b>Short Circuit A-C:</b>	0.028	<b>X/R Ratio:</b>	5.206
<b>Stator Slots:</b>	54	<b>Rotor Slots:</b>	42

**Speed Torque Current Curve (First Connection, First Speed)**



Marks:



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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.

BONE DIA.	"B1"	"B2"	KEYWAY	
"BX"			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

SIGNATURES	DATE	TITLE
MGRAL	12/01/16	REGULATORY
CHKD	12/01/16	DESIGN
DRWG	12/01/16	DESIGN
WRT		DESIGN
QUALITY		DESIGN
ISSUED	12/01/16	DESIGN
SOLD MODEL: 4002B5828NSP5212		

**GE INDUSTRIAL MOTORS**  
 a WOLSKEL company

**OUTLINE, WPI**  
 NEMA 280 HOLLOW SHAFT, HIGH THRUST  
 12" BD, 137 CU IN BOX

4002B5828NSP5212  
 SCALE: 0.250

REV: 002  
 SHEET 1 OF 1



A B C D

1 2 3 4

14

14

13

13

12

12

11

11

VIEW A

DRIVEN HALF OF COUPLING

DRIVEN HALF OF COUPLING

CONDUIT BOX (FOR POWER CONNECTION)

DIMENSIONS IN INCHES  
 NEMA TYPE P-BASE

Marks:

**Connection Diagram**  
**GEM2034E-FIG3**



**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	

