

Product Information Packet

November 8, 2016

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

Model Number:	5KS286SAA105D
Catalog Number:	M9178
Instruction Manual:	GEI-56128
Connection Diagram:	GEM2034E-FIG9
Outline Drawing:	4002B5828PAP5201

Accessory Connection Diagrams

Bearing Thermocouple:	None	Heater:	None
RTD:	None	Thermistor:	None
Thermostat:	None	Winding Thermocouple:	None
Bearing RTD:	None		

Table of Contents

Specification	01
Performance Characteristics	02
Outline Drawing	03
Connection Drawing(s)	04
Spare parts	05



imagination at work

Marks:

MODEL NUMBER:	5KS286SAA105D	Estimated Weight:	510 Lbs
Outline Drawing:	4002B5828PAP5201	Time Rating:	CONT
Connection Diagram:	GEM2034E-FIG9	Enclosure:	TEFC
Instruction Book:	GEI-56128	Encl Construction:	X\$D
Design Code:	28BD0153A	Ambient Max(°C):	40
Type:	KS	Alt Ambient Max(°C):	60
Frame:	286T	Insulation Class:	H
Phases:	3	NEMA Design:	B
Poles:	2	Nominal Efficiency:	92.4 %
Output Power:	30HP 22.2KW	Guaranteed Efficiency:	91.7
RPM:	3545	3/4 Load Efficiency:	93.4
Voltage:	230/460	KVA Code:	G
Hertz:	60	Max KVAR:	4.2
Amps - FL:	65.4/32.7	Power Factor:	93.0
Service Factor:	1.15	Bearing - DE:	6310ZC3
Alt Service Factor:	1.00	Bearing - ODE:	6310ZC3

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

STAMP NP249A5564P051 AS BELOW:
 MODEL:5KS286SAA105D S/N: XXX
 CSA CERTIFIED CSA09.2216219 FOR EX NA IIC 200C GC
 CL 1 ZONE2 AEX NA IIC 200C;CL 1 DIV2 GRP ABCD 200C
 IN -40C <= AMB <= 40C, 1.0 SF ON SINE-WAVE PWR
 SURF TEMP 260C AT 1.15SF ON SINE-WAVE PWR
 OR 200C VT OR 215C CT OR 215C CHP PWM CONTROL
 ALTERNATE RATING FOR PWM CONTROL 1.0SF 40C AMB
 VT 0 - 60 HZ, CT 15-60 HZ, CHP 60-90 HZ.

Additional Information:

2P - T EXTN
 STANDARD FLOOR MOUNT
 C/BOX 137 CU IN-1.50 NPT
 F1 CONDUIT BOX MOUNTING
 OIL RESISTANT SLEEVING ON LEADS

Performance Characteristics

1st Winding 1st Connection

Design: 28BD0153A**Marks:**

LOAD %	125.0	115.0	100.0	75.0	50.0	25.0	0.0
% EFF	91.42	91.93	92.8	93.37	93.43	91.04	0.00
% PF	92.42	92.7	92.9	92.36	89.48	77.1	9.71
AMPS	41.54	37.89	32.57	24.42	16.79	10	5.88

TORQ(FL)#FT 44.4
AMPS(LR) 217.27

TORQ(LR)%FL 283.33
PF AT START 0.43

TORQ(BD)%FL 272.76

This motor is capable of two cold or one hot start with a maximum connected load inertia of 111 Lb-Ft Sq (4.67 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 18 seconds. Safe stall time at 100% voltage is 38 seconds cold, 21 seconds hot. Rotor inertia is 3.25 Lb-Ft Sq (0.14 Kg-meter Sq).

Open Circuit A-C: 1.041

Short Circuit D-C: 0.013

Short Circuit A-C: 0.025

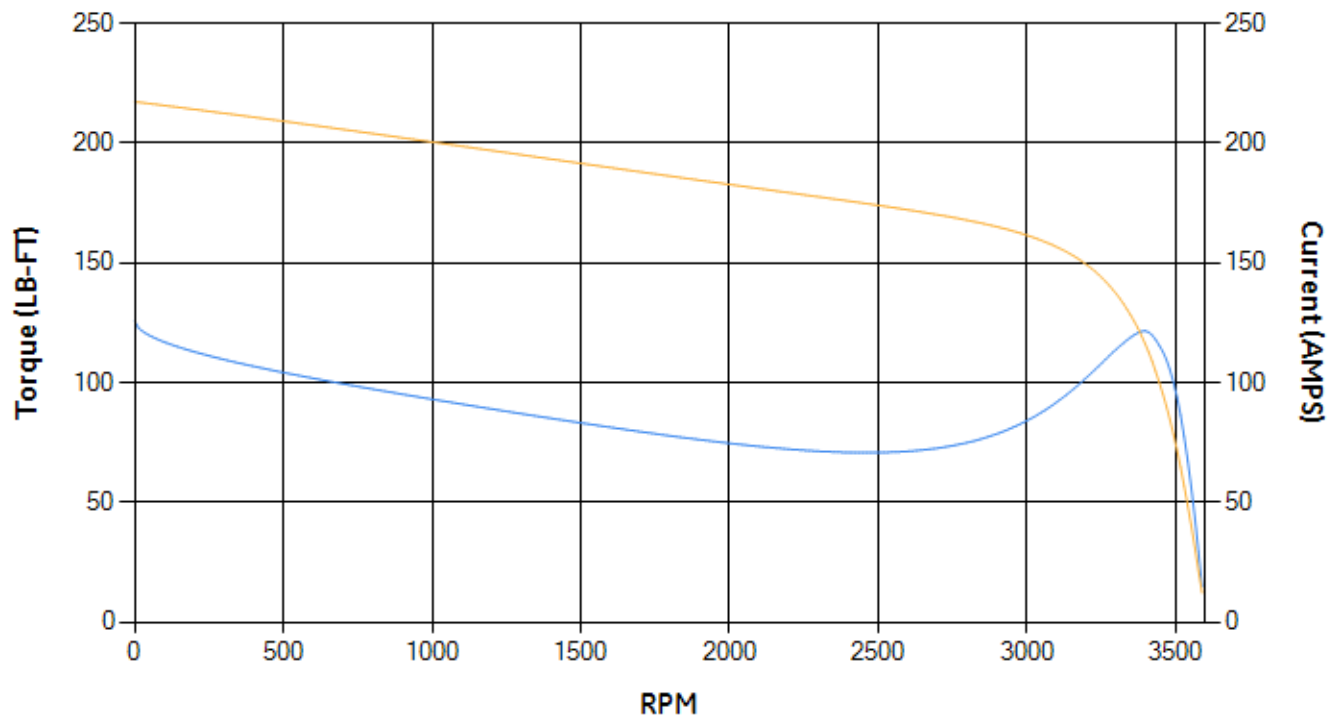
X/R Ratio: 5.017

Stator Slots: 48

Rotor Slots: 38

Speed Torque Current Curve (First Connection, First Speed)

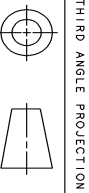
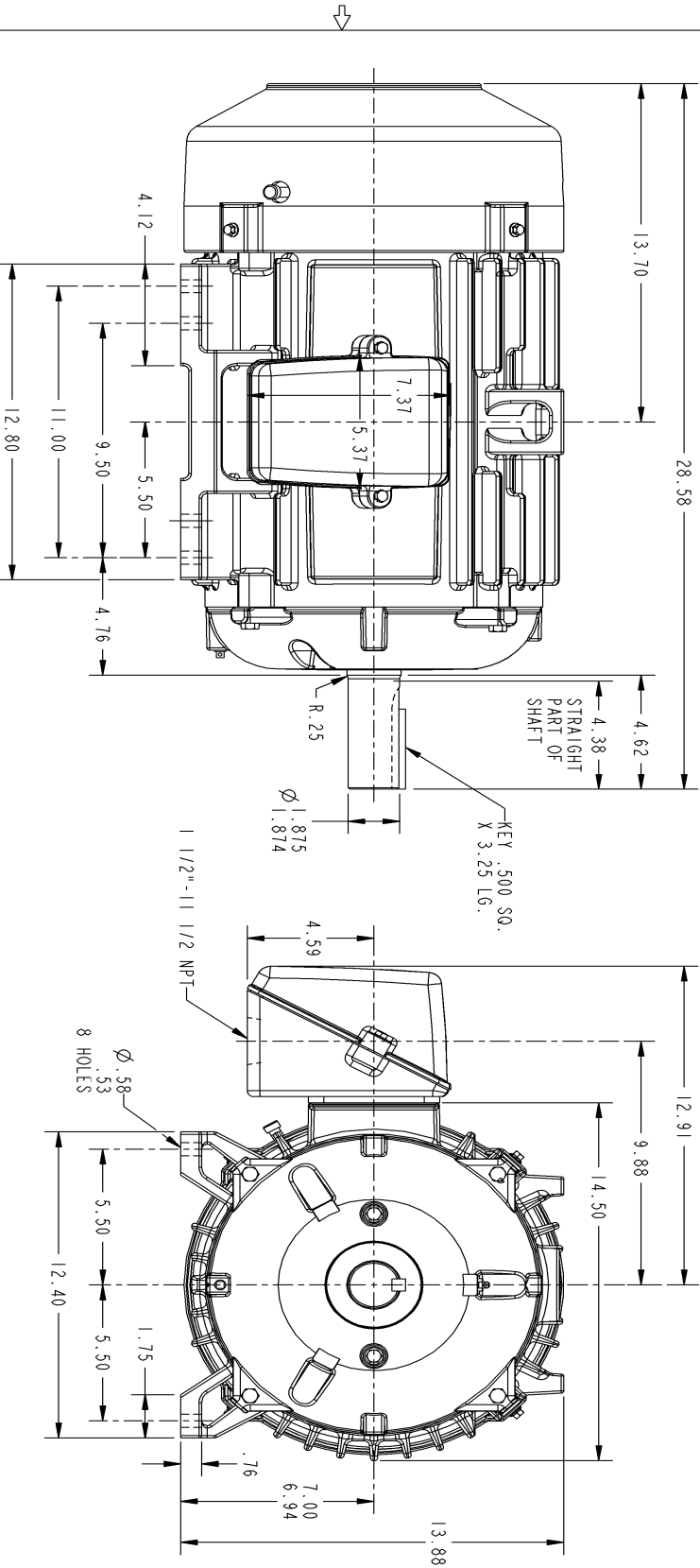
— Torque — Current



NAME: 103016817 OBJECT: 4002B5828PAP5201 DATE: 21-Mar-03 11:33:27

Marks:

NOTE 1: CONDUIT BOX MAY BE ASSEMBLED WITH ENTRANCE UP, DOWN OR TO EITHER SIDE.
NOTE 2: F1 ASSEMBLY AS SHOWN. F2 ASSEMBLY CONDUIT BOX ON OPPOSITE SIDE FROM SHOWN LOCATION.



THIRD ANGLE PROJECTION

SIZE: 4002B5828PAP5201

REV: 0

REVISIONS		
REV.	DESCRIPTION	DATE

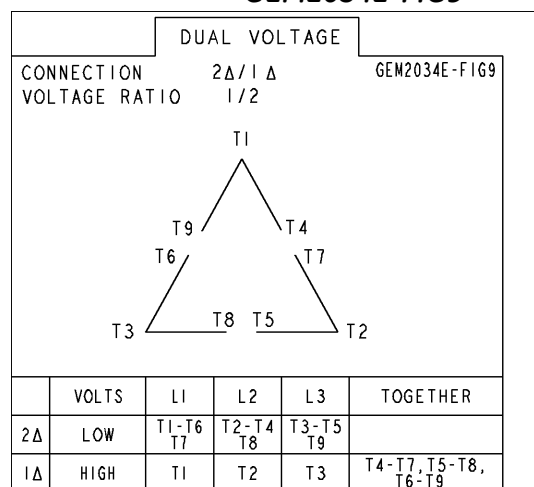
SIGNATURES	DATE	GE Industrial Systems	GENERAL ELECTRIC COMPANY
DESIGNED BY: GARY WARRICK	DEC 13/01		Fort Wayne, Indiana
CHECKED BY: GARY WARRICK	FEB 28/02		
ISSUED BY: GARY WARRICK	MAY 05/02		
APPLIED PRACTICES			

INDUCTION MOTOR OUTLINE
STANDARD CONSTRUCTION
FME: FR280T TEFC XSD ULTRA
4002B5828PAP5201
REV: 0

DISTRIBUTION: PMP-18K15

Marks:

Connection Diagram **GEM2034E-FIG9**



End shield Assembly		
Part Description	DE Side Part#	ODE Side Part#
End Shield	4004D5284PB1	4004D5284SE1
Bearing	235A2608AA01	235A2608AA01
Slinger/Inproseal	149C4399G03	149C4399G03

Fan & Fan Cover Assembly	
Part Description	Part#
Fan	159C6704G02
Fan Cover	4003C5789PA1

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

Mechanical Accessories	
Part Description	Part#
Brake	
Tachometer	

