

## Leece-Neville Alternator

12 Volt, 185 Amps

24 Volt, 100, 150 & 175 Amps

The 8SC series is ideally suited for applications with extra heavy electrical loads and high charge at idle. These alternators have integral charging systems for heavy belt loads and extremely high electrical loads on large diesel or gasoline engines.

### Features & Benefits

- Simplified wiring - insulated three wire system
- Built-in "Load Dump" protected regulator with solid state circuitry and external adjustment
- Varnished stator
- 7/8" heavy-duty shaft
- SAE double lug mount with adjustable steel bushing and steel insert
- Heavy-duty 5/16" output stud for superior electrical connections
- Special AC terminal for connection of tachometers and other instruments. Also "R" terminal for indicator lamp hook-up
- Long life copper graphite brushes enclosed in a dirt resistant chamber to extend brush life.
- The dynamically balanced rotor and shaft assembly utilizes a 25 mm ball bearing at the drive end and a 20 mm roller bearing. Both have grease reservoirs and protective seals to provide long life and smooth operations.
- Internal and external capacitors to suppress radio frequency interference
- 12 volt units have a trash screen for protection against foreign particles

## 8SC Series

24 Volt, 100, 150 & 175 Amps



## 8SC Series

12 Volt, 185 Amps with trash screen

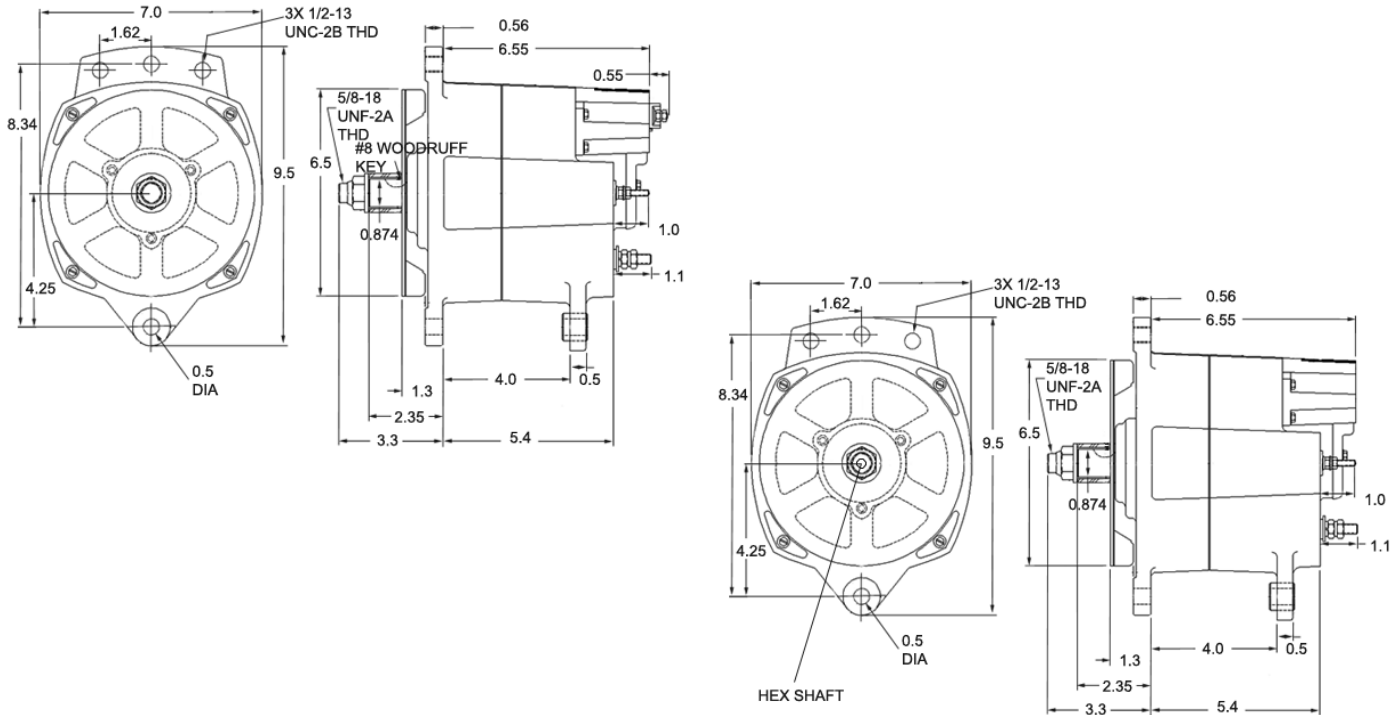


### Applications

- Off-Highway
- Agriculture
- Emergency Vehicles
- Heavy Duty Trucks
- Transit Buses

## Dimensions

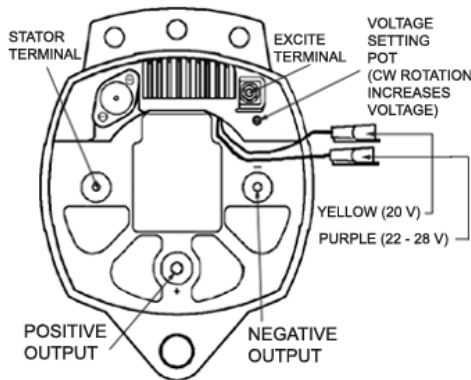
(dimensions in inches)



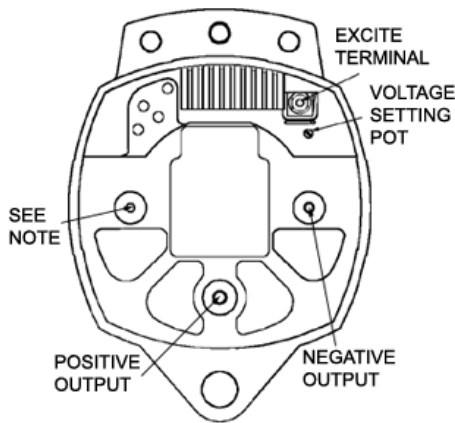
## Specifications

		12 VOLT		24 VOLT		
Dual Foot	Model No.	8SC2020Z	8SC2023Z	8SC3014U	8SC3015U	8SC3019U
J-180 Mount	Sales No.	110-563	110-565	110-298	110-302	110-316
Output, Stabilized:						
5000 RPM		185	185	100	100	100
2500 RPM		153	153	78	84	84
Temperature Range		-40 C to 93 C	-40 C to 93 C	-40 C to 93 C	-40 C to 93 C	-40 C to 93 C
Rotation Direction		Bi- Directional	Bi- Directional	Bi- Directional	Bi- Directional	Bi- Directional
Max. Speed RPM		8000	8000	8000	8000	8000
Excitation Type		Self	Self	Ignition	Ignition	Ignition
Lamp Circuit		-	.25 Amps	-	-	-
Ground		Isolated	Isolated	Isolated	Isolated	Isolated
Regulator Set Point Voltage		14.2	14.0	28.0	28.0	28.0
Voltage Adjustment		-	-	+/-1.0v	+/-1.0v	+/-1.0v
Regulator Part #		8RL2104	8RL2105	8RL3022	8RL3021	8RL3021
Weight (lbs/Kg)		27.75/12.6	27.75/12.6	27.75/12.6	27.75/12.6	27.75/12.6
Terminal Size: B+		5/16"-24	5/16"-24	M8-1.25	5/16"-24	5/16"-24
B-		1/4"-28	1/4"-28	M6-1.25	1/4"-28	1/4"-28
AC		10-24	10-24	10-24	10-24	10-24
"l" Lamp		-	10-24	-	-	-
Ignition		-	-	M5-.8	10-24	10-24
<b>Notes:</b>			<b>Lamp Driver</b>			

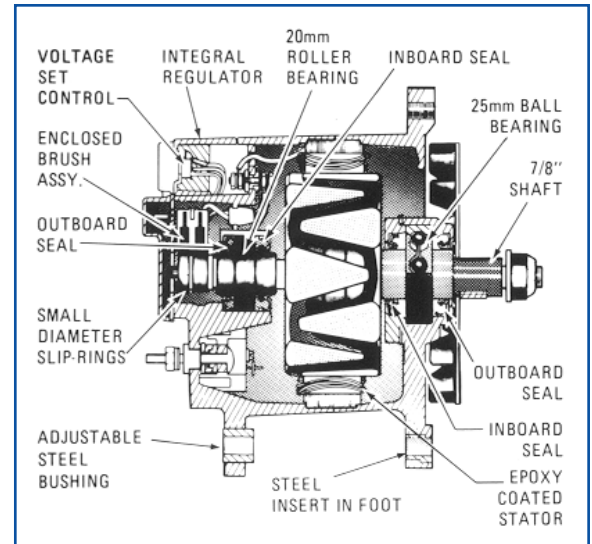
## Wire Diagrams



8SC3017VA,  
8SC3018VA &  
8SC3110V



8SC2020Z, 8SC2023Z,  
8SC3014U, 8SC3009ZA,  
8SC3068V & 8SC3029Z



Note:

8SC2020Z & 8SC2023Z = Stator Terminal

8SC3029Z, 8SC3068V &  
8SC3009ZA = Indicator Light Terminal

8SC3014U = D+ Terminal

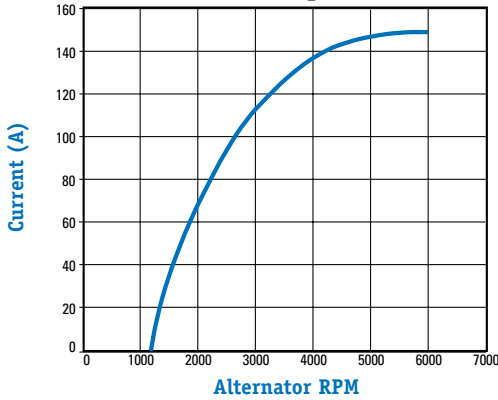
8SC3029ZA = Has Stator Lead

## Specifications

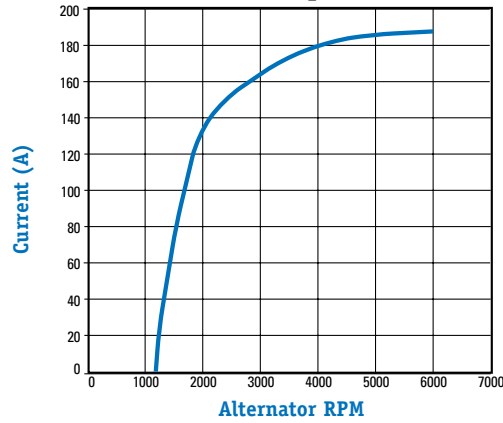
		24 VOLT					
Dual Foot	Model No.	8SC3017VA	8SC3018VA	8SC3068V	8SC3110V	8SC3009ZA	8SC3029Z
J-180 Mount	Sales No.	110-575	110-579	110-431	110-568	110-258	110-569
Output, Stabilized:							
5000 RPM		150	150	150	150	175	175
2500 RPM		98	98	97	120	54	80
Temperature Range		-40 C to 93 C	-40 C to 93 C	-40 C to 93 C	-40 C to 93 C	-40 C to 93 C	-40 C to 93 C
Rotation Direction		Bi- Directional	Bi- Directional	Bi- Directional	Bi- Directional	Bi- Directional	Bi- Directional
Max. Speed RPM		8000	8000	8000	8000	8000	8000
Excitation Type		Ignition	Ignition	Ignition	Ignition	Ignition	Ignition
Lamp Circuit		-	-	-	-	-	-
Ground		Isolated	Isolated	Isolated	Isolated	Isolated	Isolated
Regulator Set Point Voltage		28.0	28.0	28.0	28.0	28.0	28.0
Voltage Adjustment		+1.0v	+1.0v	+1.0v	+1.0v	+1.0v	+1.0v
Regulator Part #		8RL3013	8RL3013	8RL3021	8RL3013	8RL3021	8RL3021
Weight (lbs/Kg)		27.75/12.6	27.75/12.6	27.75/12.6	27.75/12.6	27.75/12.6	27.75/12.6
Terminal Size:	B+	5/16"-24	5/16"-24	5/16"-24	5/16"-24	5/16"-24	5/16"-24
	B-	1/4"-28	1/4"-28	1/4"-28	1/4"-28	1/4"-28	1/4"-28
	AC	10-24	10-24	10-24	10-24	10-24	10-24
	"I" Lamp	-	-	-	-	-	-
	Ignition	10-24	10-24	10-24	10-24	10-24	10-24
Notes:		Remote Sense Batteryless	Remote Sense Batteryless		Remote Sense Batteryless		

**Product Performance** Stabilized Performance @ 25°

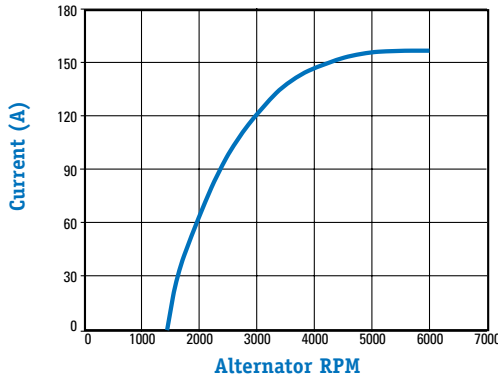
**24 Volt, 150 Amps** 8SC3017VA & 8SC3018VA



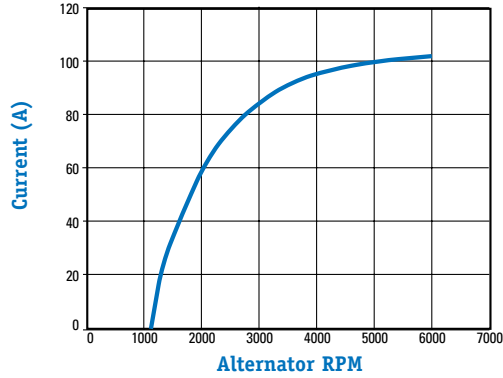
**12 Volt, 185 Amps** 8SC2020Z & 8SC2023Z



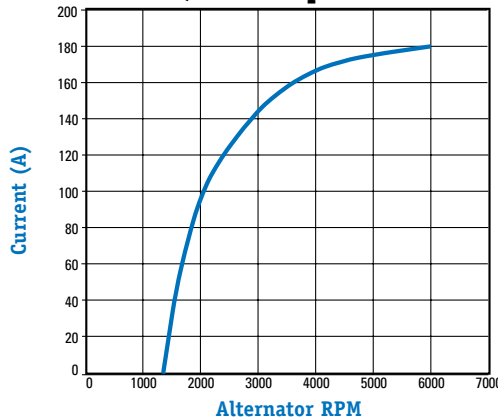
**24 Volt, 150 Amps** 8SC3068V



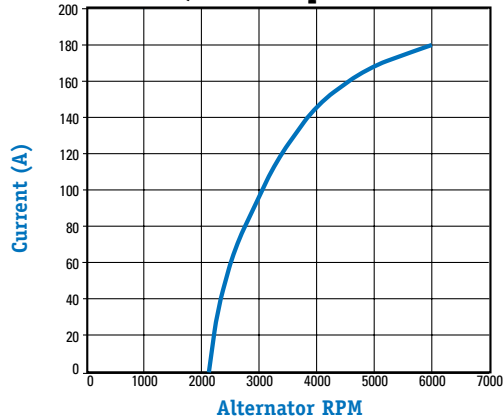
**24 Volt, 100 Amps** 8SC3014U



**24 Volt, 150 Amps** 8SC3110V



**24 Volt, 175 Amps** 8SC3009Z



# 8SC3009ZA

## Performance Curve

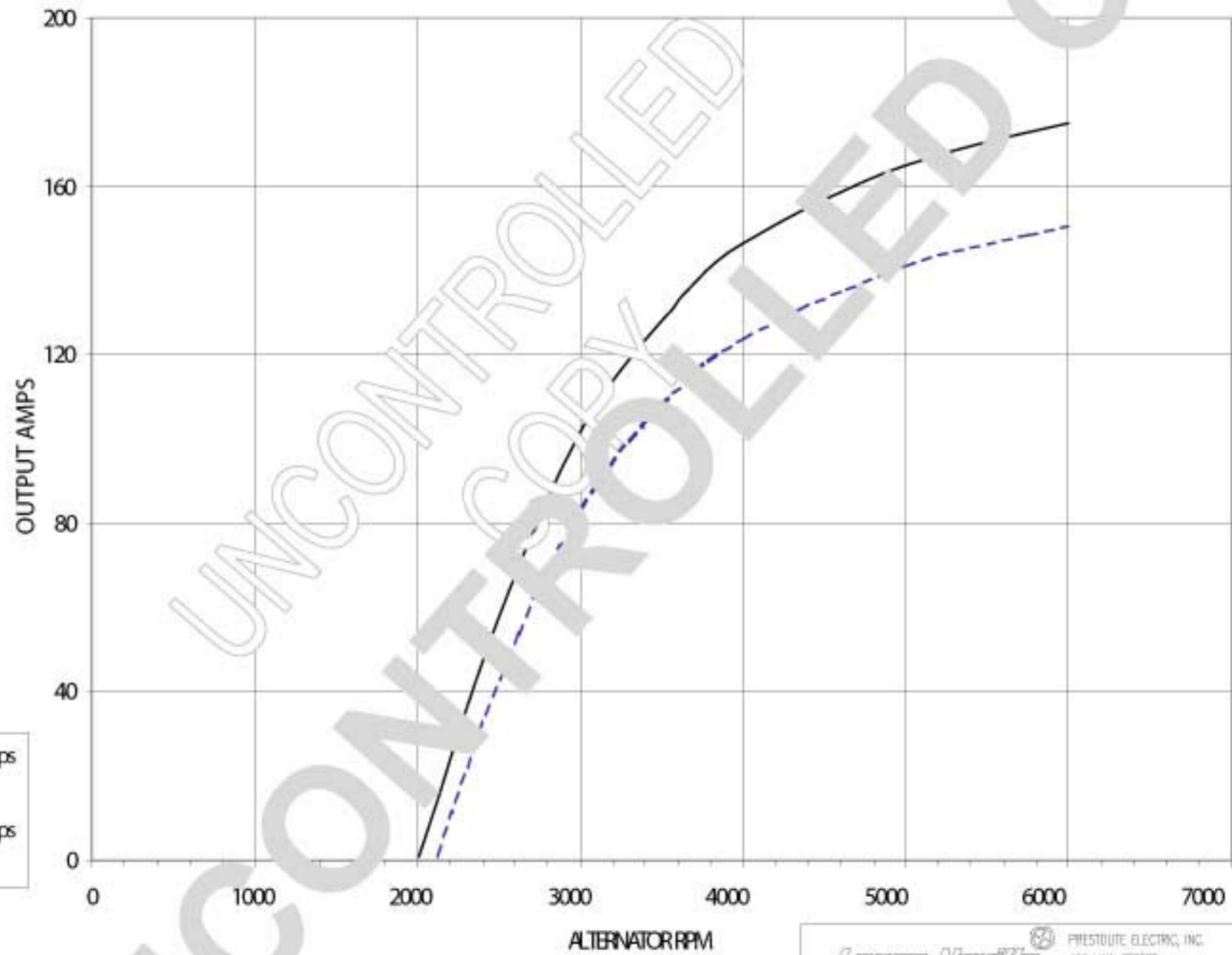
DRAWING NO. C-3551-1 SH. 1

Leece-Neville Heavy Duty Systems Output Curves

ALTERNATOR OUTPUT  
STABILIZED PERFORMANCE  
PER S.A.E. J56.

INITIAL MODEL:  
8SC3009ZA

NOMINAL RATING:  
VOLTS 24  
AMPS 175



— Output Amps  
@24C  
- - - Output Amps  
@93C

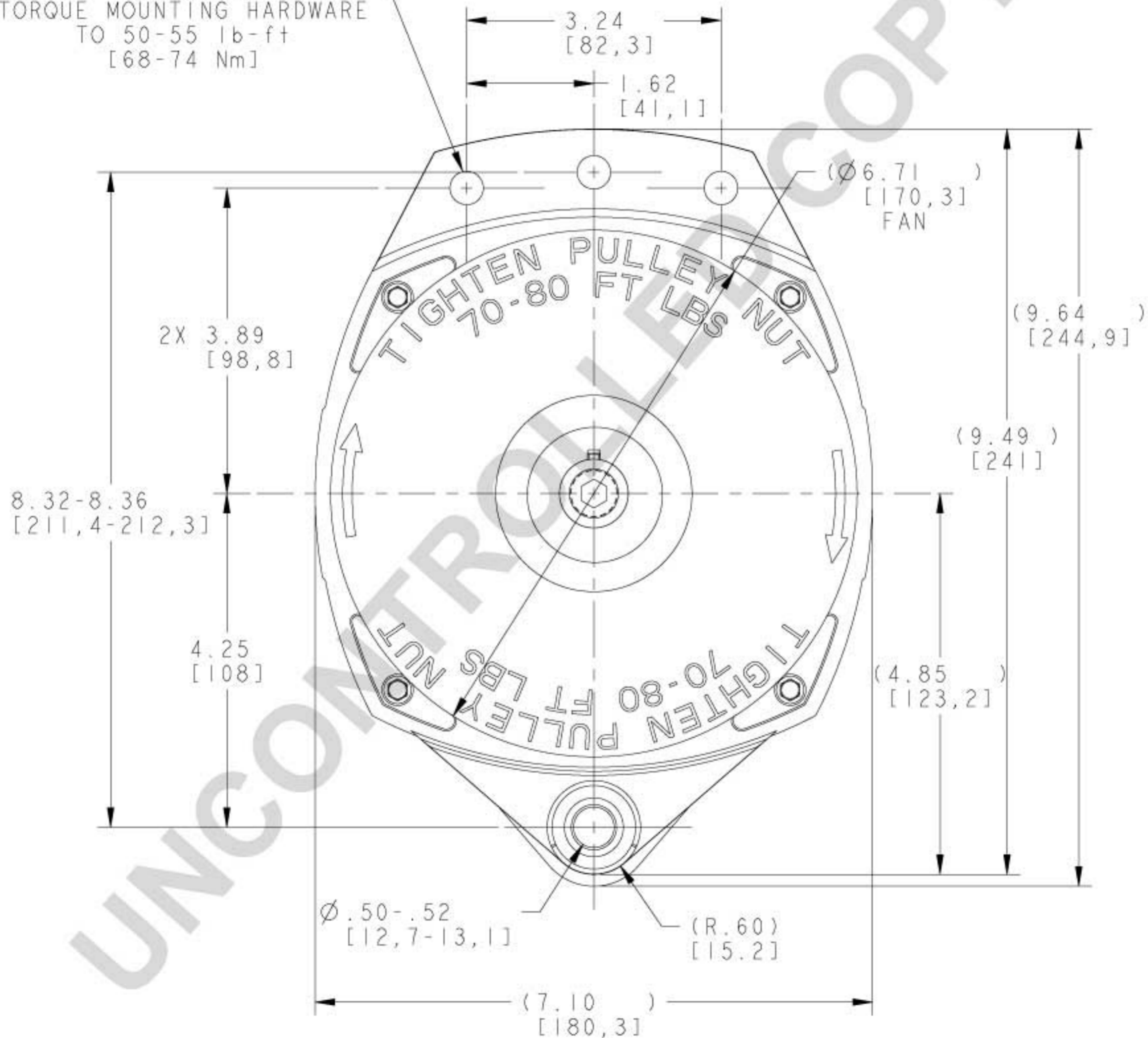
		PRESTOITE ELECTRIC, INC. 400 MAIN STREET ARCADE, N.Y. 14009	
PERFORMANCE CURVES		CURVE NO.	C-3551-1
		SHEET	1 OF 1

DESIGNED BY	CAB	DATE	11/7/01
CHECKED BY	CAB	DATE	11/7/01
ENGINEER BY	CAB	DATE	11/7/01
REV	A	DESCRIPTION	RELEASED FOR PRODUCTION
		DATE	
		APPROVED	

# 8SC3009ZA

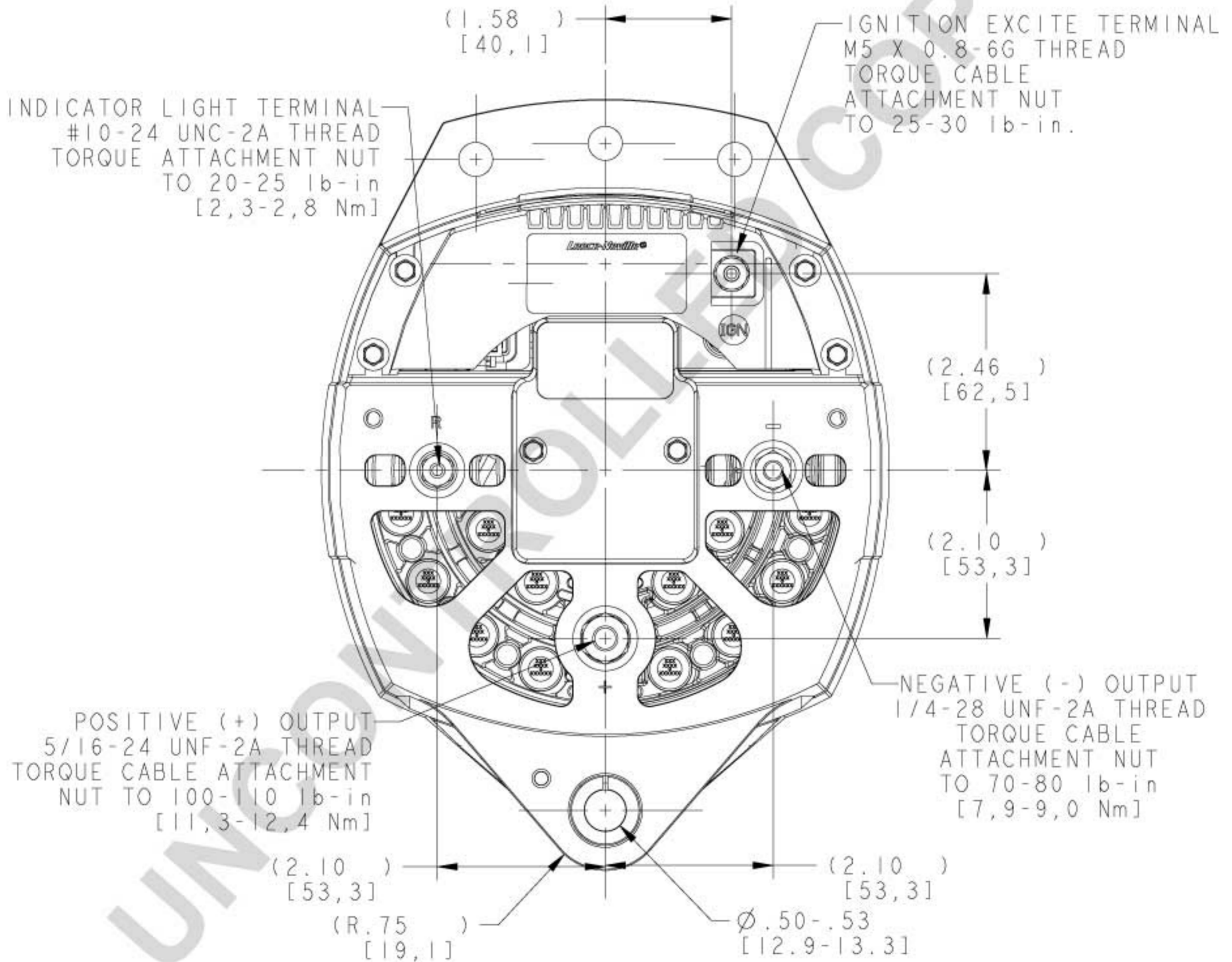
## Front

3x 1/2-13 UNC-2B THREAD  
TORQUE MOUNTING HARDWARE  
TO 50-55 lb-ft  
[68-74 Nm]



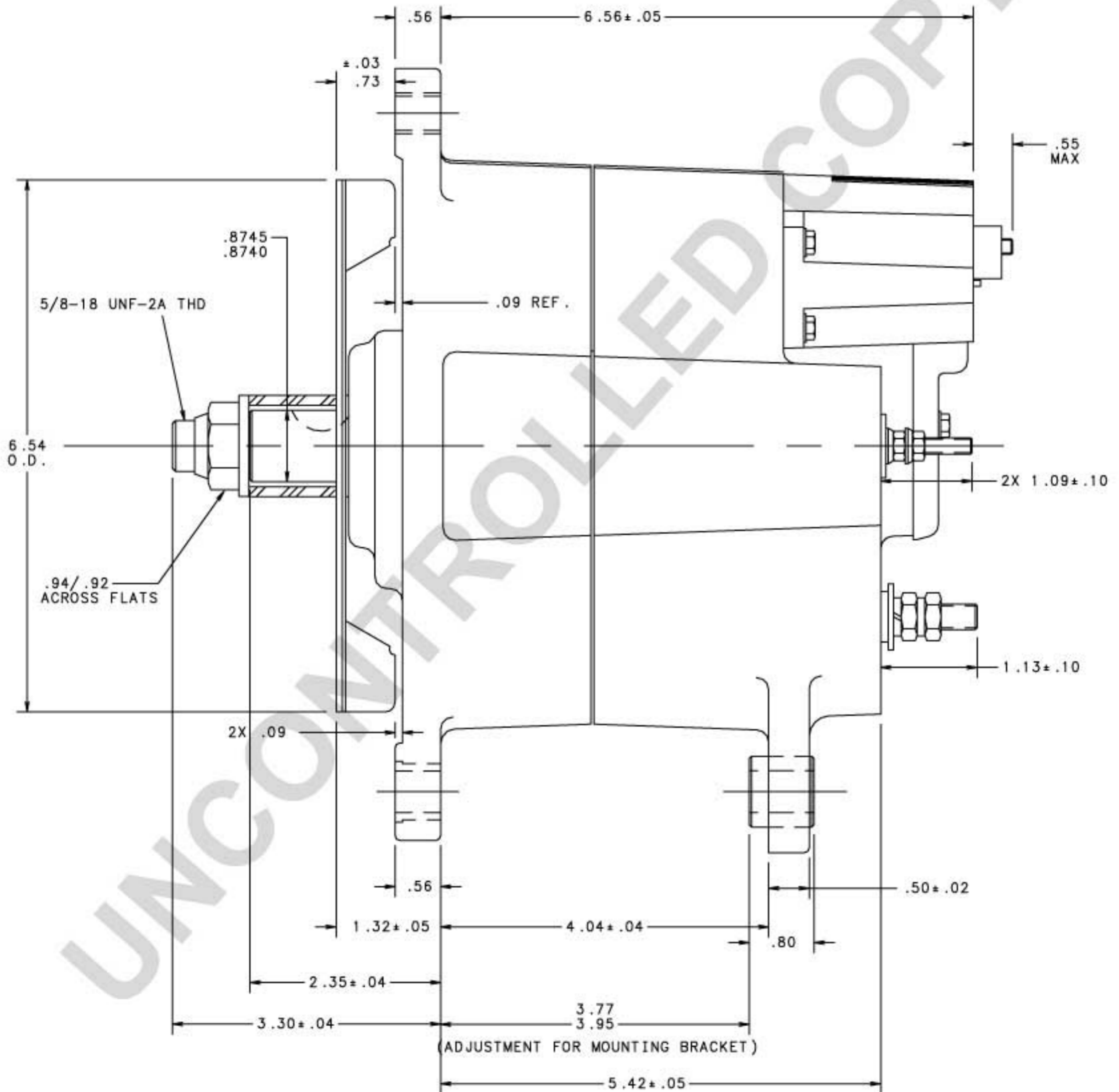
# 8SC3009ZA

## Rear



# 8SC3009ZA

## Side



# 8SC3009ZA Wiring Diagrams

