Job Information

Job #: 141872 Date: March 30, 2020

Priority: — Authorized OT: No Authorized by:

Customer Information

Name: Motor#:

Name Plate Information

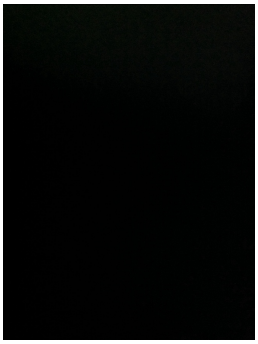
Manufacturer:	Reliance	Enclosure :	Totally Enclosed Non-Ventilated
Serial#:	T16G3015N-70	Model#:	
Service Factor:		Frame:	1610ATC
Horsepower/kW:	1.5	Rated RPM:	1750

Armature		Fields	
Volts	180	Volts	100200
Amps	74	Amps	9648

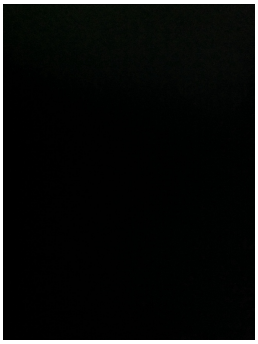
Winding Inspection

Identify winding disassembly & winding assembly.

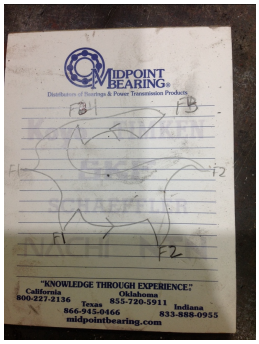
Armature diagram



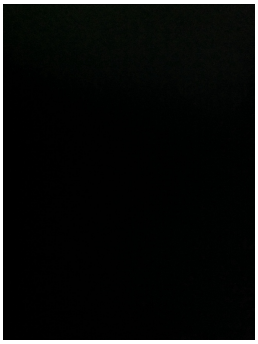
IP diagram



Flds diagram



Comm diagram



Winding Inspection (Continued)

DC Drop Test

Megohmmeter reading to ground @ 500 V DC

Armature

Shunt

Interpole

Series

Nameplate field volts:

Nameplate amps:

Num coils:

Resistance = Field votes: / Field amps: = 0

Total field resistance: @ F/C correct to 25 degrees C

Test tolerances: For a DC drop Test +/- 5% from average; for an AC drop test +/- 10% from average.

Applied Voltage 1: DC/# of Coils 1: = Target Voltage/coil 1: 0

Applied Voltage 2: DC/# of Coils 2: = Target Voltage/coil 2: 0

DC Drop Test (Continued)

Match mark all coils clockwise beginning at the leads.

Voltage Applied

Shunt DC Voltage: Shunt AC Voltage:

Voltage Measured

Coil #	DC	AC
Coil 1		
Coil 2		
Coil 3		
Coil 4		
Coil 5		
Coil 6		
Coil 7		
Coil 8		
AVERAGE	0	0
+5%	0	0
-5%	0	0

DC Drop Test (Continued)

Match mark all coils clockwise beginning at the leads.

Voltage Applied

A. Interpoles DC Voltage:

A. Interpoles AC Voltage:

Voltage Measured

Coil #	DC	AC
Coil 1		
Coil 2		
Coil 3		
Coil 4		
Coil 5		
Coil 6		
Coil 7		
Coil 8		
AVERAGE	0	0
+5%	0	0
-5%	0	0

DC Drop Test (Continued)

Match mark all coils clockwise beginning at the leads.

Voltage Applied

B. Interpoles DC Voltage:

B. Interpoles AC Voltage:

Voltage Measured

Coil #	DC	AC
Coil 1		
Coil 2		
Coil 3		
Coil 4		
Coil 5		
Coil 6		
Coil 7		
Coil 8		
AVERAGE	3.31	0.69
+5%	0	0
-5%	0	0

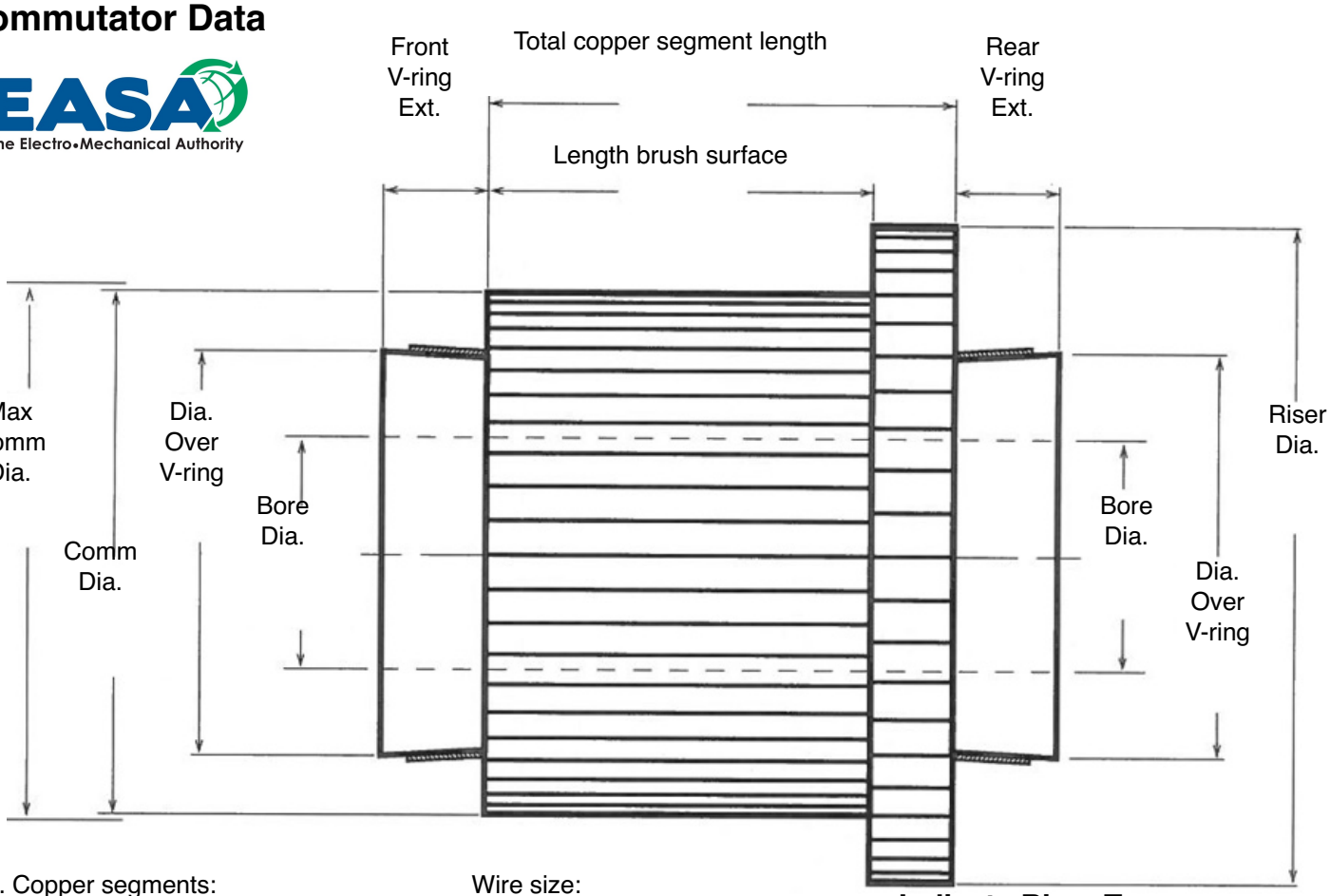
Conclusion

Service Tech name:

Service Tech signature:

Commutator Data

EASA The Electro•Mechanical Authority



No. Copper segments: Wire size:

Mica segment thickness: Wires/riser slot:

Equalizer size: Equalizer/riser slot:

Equalizer seq. on comm.:

Commutator Type ☐ Nut v-ring ☐ Bolt v-ring ☐ Glassband

☐ Riveted* ☐ Molded*

☐ Other*

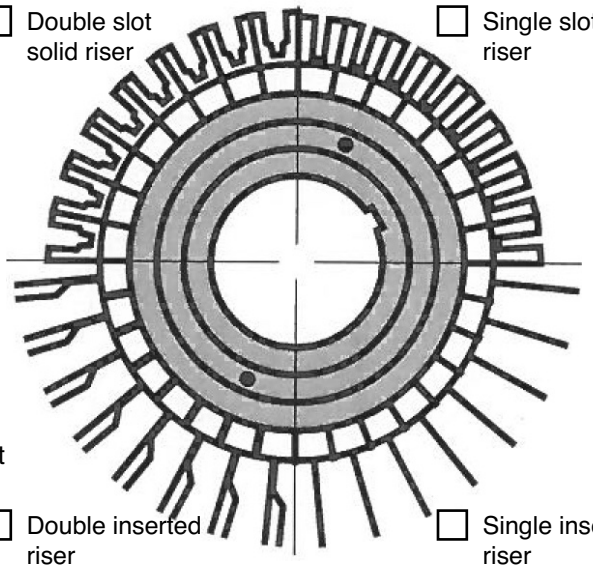
Shaft Diameter
Keyway alignment with center line of: ☐ Mica ☐ Copper segment

Keyway size:

*If molded, riveted or other micrometer measurement of shaft diameter corresponding to the commutator bore diameter is required.

Indicate Riser Type

☐ Double slot solid riser ☐ Single slot solid riser



☐ Double inserted riser ☐ Single inserted riser

Inserted riser thickness:

WEST TENNESSEE
7030 Ryburn Drive
Millington, TN 38053
Phone 901-873-5300
Fax 901-873-5301

CENTRAL ARKANSAS
6812 Lindsey Rd.
Little Rock, AR 72206
Phone 501-375-9178
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DC Machine Data Sheet

EASA The Electro-Mechanical Authority

Armature Coil Data

Slots: Turns per coil: Coil per slot:

Wire size: Wires in mult.: Wire type: Wire weight: Lbs.

Bars: Slot span 1 to: Comm span 1 to:

No. of equalizers: Span 1 to: Wire size:

Knuckle: ☐ Standard ☐ Double

Wound: ☐ Flat ☐ Edge

Coil: ☐ Left hand ☐ Right hand

Compensating Winding

Wire size: Turns per slot:

Winding Type

☐ Shunt

☐ Series

☐ Compound

Interpoles: Yes

☐ Compensating or Pole Face Winding

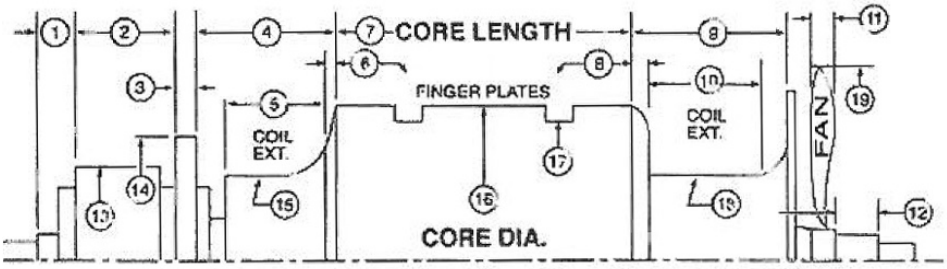
☐ Permanent Magnet

Insul. class:

Temp. Rise:

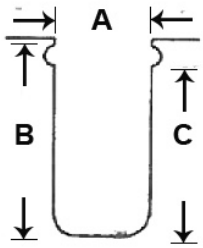
Duty:

1 2 3 4 5 6 7 8 9 10



11 12 13 14 15 16 17 18 19

Slot Dimensions



A

B

C

Wave Winding

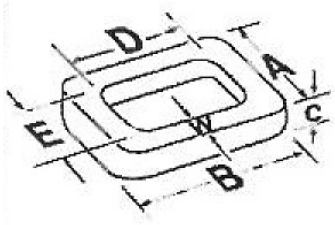
Leads from slot 1 to bar:

Leads from

Slot to bar:

Field Coil Dimensions

TYPE	A	B	C	D	E	W
Shunt	5.25	8.5	0.75	5.5	1.	1.750
Series						
Interpoles						



Manufacturer's Part Numbers

Lap Winding

Leads from slot 1 to bar:

Leads from

Slot to bar:

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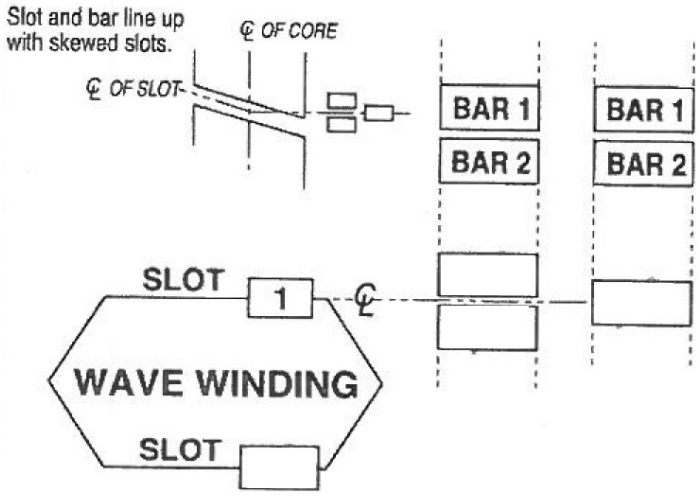
DC Machine Data Sheet (Continued)

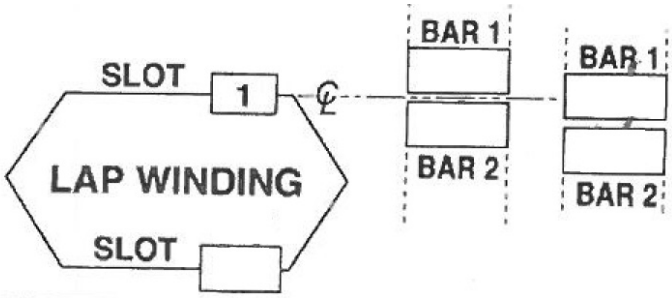
EASA The Electro•Mechanical Authority

Field Coil Winding Data

Type	No. Coils	No. Cir.	Turns Per Coil	Wire Mult.	Wire Size & Type	Lbs. Per Coil	25 Ohm Per Coil DC
Shunt	2	1	2550	1	25.5	3.5	
Series							
Interpoles							

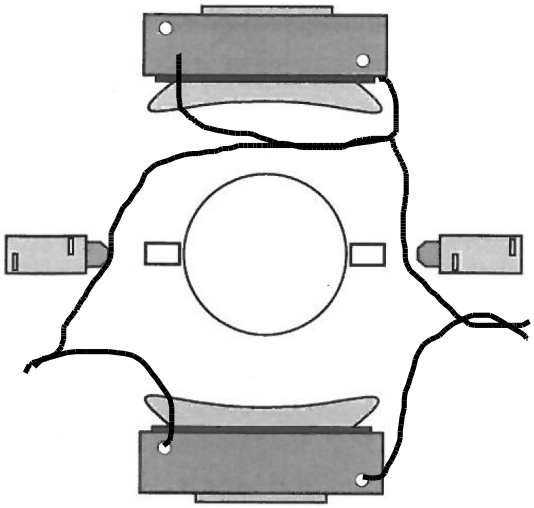


Slots and bars are numbered 1-2-3 etc... in CCW direction facing the commutator.



Remarks

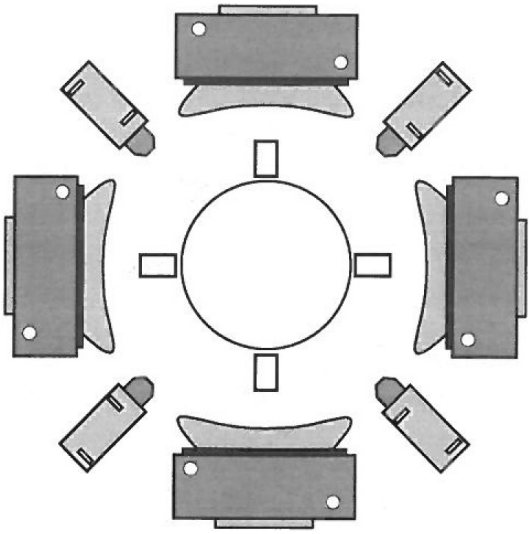
As-Received Connection Form--2-,4-,and 6-pole DC Machines



(Draw and number leads and jumpers as received)

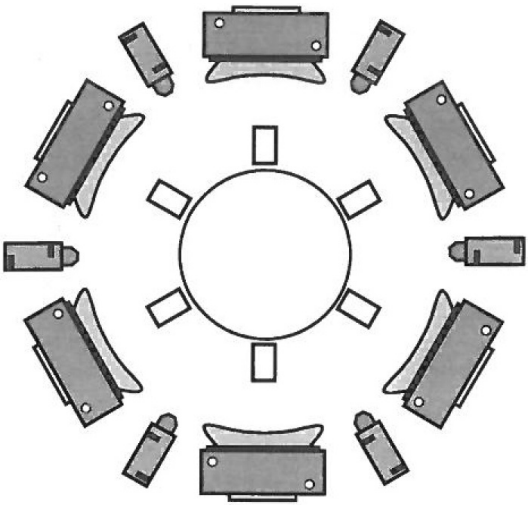
2-Pole Template

		Quantity in series	Quantity in parallel
Number of poles	2		
Number of interpoles			
Number of series fields			



4-Pole Template

	Quantity in series	Quantity in parallel
Number of poles		
Number of interpoles		
Number of series fields		



6-Pole Template

	Quantity in series	Quantity in parallel
Number of poles		
Number of interpoles		
Number of series fields		

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