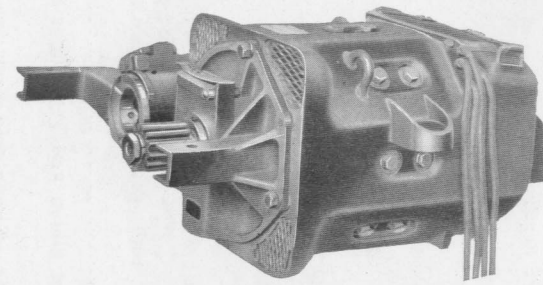


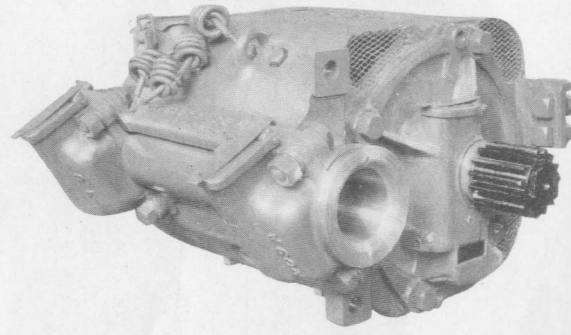
GENERAL ELECTRIC COMPANY

IGE44412.1-8 GE-265, 600-volt Railway Motor.

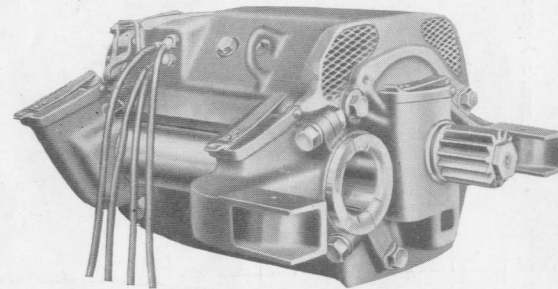
**GENERAL ELECTRIC
MODERN RAILWAY MOTORS**
For City, Suburban or Interurban Service



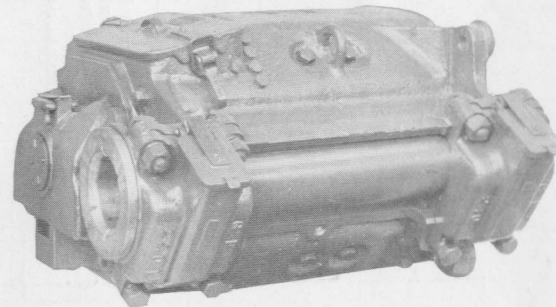
GE-264—25 H.P.



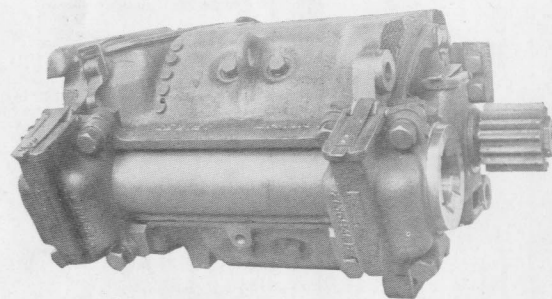
GE-263—65 H.P.



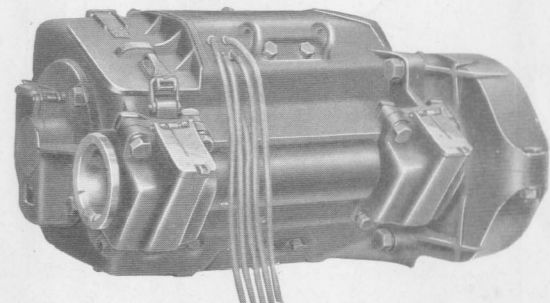
GE-265—35 H.P.



GE-240—105 H.P.



GE-275—50 H.P.



GE-254—140 H.P.

International

General Electric  **Company, Inc.**

New York, N. Y.

U. S. A.

Schenectady, N. Y.

General Electric Company

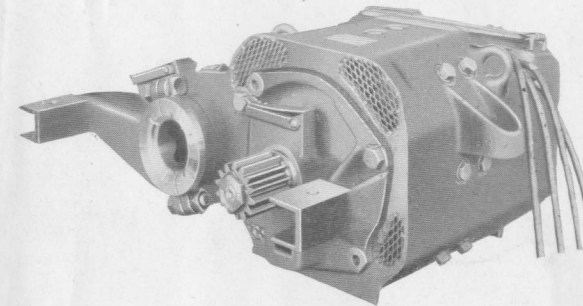
Schenectady, N.Y.

October, 1922

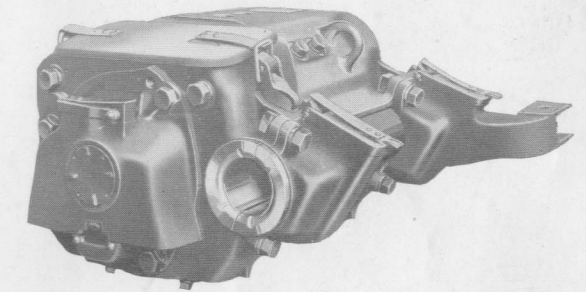
Bulletin No. IGE44412.1

GE-265, 600-VOLT RAILWAY MOTOR

For Light Weight Cars in City, Suburban
or Interurban Service



Suspension Side



Axle Side

GE-265-A RAILWAY MOTOR

RATING

Hourly: 35 H. P. on 600 volts for 75 deg. C.
rise by thermometer.

Continuous:
(65 deg. C. rise by thermometer) 40.5 amperes on 600 volts
39.0 amperes on 450 volts
36.5 amperes on 300 volts

WEIGHTS

Including Gear, Pinion, Gear Case and
Axle Linings.

Form A motor complete, approximately
1415 lb.

Form C motor complete, approximately
1500 lb.

FRAME

Box Type

ARMATURE LININGS

Bronze lined with babbitt.

FORMS

Form A motor for 26-in. wheels.

Form C motor for 30-in. wheels.

LUBRICATION

Oil and Waste used throughout.

Oil Boxes have auxiliary wells for filling.

NOTE.—Data subject to change without notice.

ARMATURE

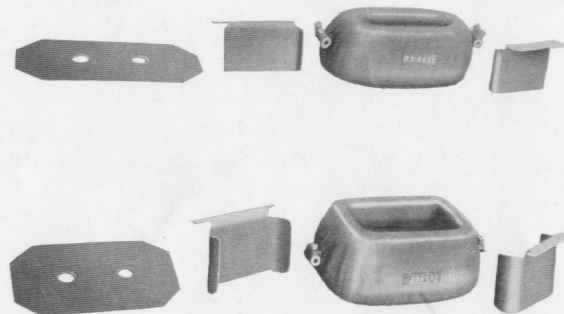
Core made of soft steel laminations and keyed to shaft.

Windings of rectangular copper and insulated with varnished cambric and cotton tape. End windings protected by hood.

Shaft can be removed without disturbing windings or connections to the commutator.

VENTILATION

Multiple Fan made integral with pinion end armature head.



FIELD COILS AND SUPPORTS

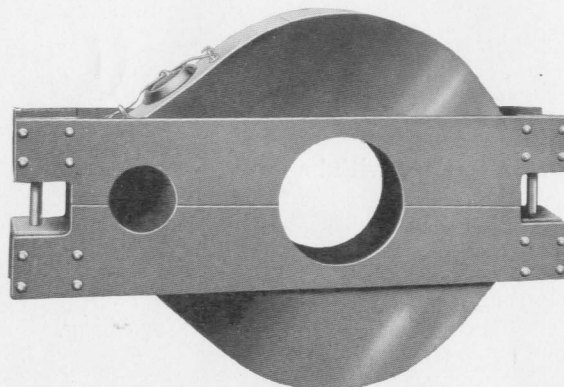
BRUSH-HOLDERS

Clock Spring type.

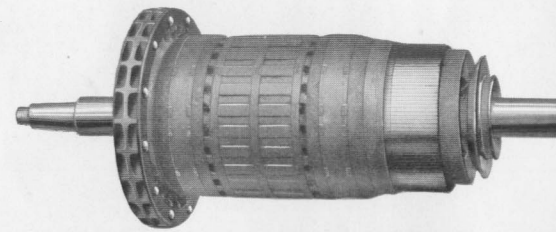
Renewable carbon way.

Insulated from frame by mica.

Bolted and Doweled to finished seats on magnet frame.



GEAR CASE



ARMATURE

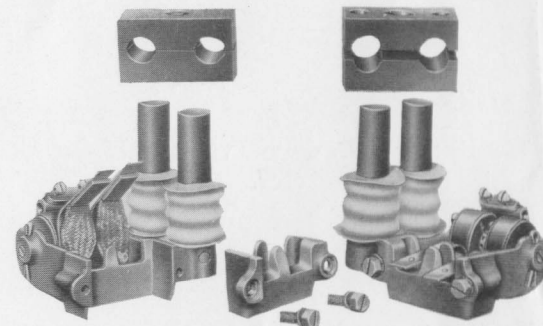
FIELD COILS

Wound with rectangular copper.

Filled with insulating compound by vacuum process.

Insulated from ground by varnished cambric and cotton tape.

Held against sheet steel pads next to the frame by spring flanges which press against the pole piece tips.



BRUSH-HOLDERS

GEARING

Gear, short addendum, 4-in. face.

Pinion, long addendum.

Gear Case, pressed steel welded to cradle, and supported at each end by lugs on frame head and axle cap.

TRUCK DATA

	Form A 26-in. Wheel Motor	Form C 30-in. Wheel Motor
Maximum diameter of axle in linings.....	4 in.	4 1/2 in.
Clearance under frame with 26-in. wheels.....	4 in.
Clearance under gear case with 26-in. wheels (max. red.)...	3 1/16 in.
Clearance under frame with 30-in. wheels.....	6 in.
Clearance under gear case with 30-in. wheels (max. red.)...	3 3/16 in.
Max. gear ratio (4 pitch).....	69/14	86/14

Both forms of motor provided with nose for spring suspension.

The GE-265 railway motor has been developed by the General Electric Company for use on light weight cars operating in city, suburban or interurban service. Proven features which are in general favor with operating engineers, and which are embodied in the standard line of G-E motors, are included in the design of the GE-265.

The box type of magnet frame possesses the inherent advantages of maximum structural strength for minimum weight and great durability with low maintenance cost.

The armature bearing linings are prevented from turning by keys. The thickness of the babbitt is such that in case it is melted due to overheating, the armature is prevented from striking the pole pieces.

Adequate openings are provided in the frame for brush renewal and inspection purposes. The opening over the commutator is closed by a sheet steel cover held in place by a spring locking device, no part of which projects above the top of the motor.

The axle caps are tongued and bolted to machined surfaces which are inclined at an angle of approximately 60 degrees to the horizontal, dowels being used to prevent the linings from turning.

WEIGHTS

Description	APPROX. WT. IN LB.	
	Form A 26-in. Wheel Motor	Form C 30-in. Wheel Motor
Two-motor equipments, complete with two K-63 controllers.....	3685	3855
Four-motor equipments, complete with two K-35 controllers.....	7150	7490

The armature is temporarily banded while hot to insure a tight fit of coils. All permanent binding bands are placed on flat surfaces below the surface of the armature core and securely anchored in position. The armature windings are thoroughly insulated and pressed to a uniform size in heated moulds.

Armature shaft bearing surfaces are accurately ground and rolled insuring minimum wear and long life of bearing linings. Oil is prevented from entering the interior of the motor by oil deflectors.

The commutator shell and cap are accurately machined and insulated with the best grade of mica. The commutator bars are made of hard drawn copper machined accurately to gauge and insulated from each other by a high grade of mica, which is grooved to a depth of 3/64 in. below the surface.

For lubrication, oil soaked waste is held against the bearings on the low pressure side. Oil boxes are closed by deep lipped, felt lined covers held in place by springs. The axle is enclosed between bearings by a sheet steel dust guard.

All parts of the motor are effectively cooled by air drawn in through openings at the commutator end by a fan made integral with the pinion end armature head. One air path is through the armature core, and the other over the armature and around the field coils to the pinion end where the air is expelled through openings in the frame.

IGE44412.1-4 GE-265, 600-volt Railway Motor

SCHEDULE SPEED, GE-265, 600-VOLT MOTOR

The following tables indicate the capacity of the GE-265 motor and will assist materially in determining whether this motor is suitable for the desired schedule. They are based on the following assumptions: Average trolley potential, 550 volts; acceleration and braking, 1.5 miles per hour per second; duration of stops, 10 seconds; coasting for 230 feet on all runs; straight level track, maximum tem-

perature rise not exceeding 65 deg. C. Schedule speeds given are 10 per cent less than theoretical values to allow for delays due to grades, curves, slow downs, or other factors that may affect the schedule.

It is strongly recommended that service data be supplied and the General Electric Company's engineers be consulted before the final selection of a motor and gear ratio, since co-operation has been found to be mutually beneficial.

FORM A MOTOR—550 VOLTS—25-IN. WHEELS—10 SECOND STOPS

Stops per Mile	Gear Ratio	MILES PER HOUR WITH LOAD IN TONS PER MOTOR			
		5	6	7	
1	4.93	19.5	18.9	18.2	
1	4.18	21.0	20.4	19.7	
3	4.93	14.0	13.8	13.5	
3	4.18	14.6	14.4	14.1	
4	4.93	12.4	12.3	12.1	
4	4.18	12.9	12.7		
5	4.93	11.2	11.1	10.9	
5	4.18	11.5	11.4		
6	4.93	10.2	10.1	10.0	
6	4.18	10.4	10.3		
7	4.93	9.4	9.30	9.20	
7	4.18	9.6	9.50		
8	4.93	8.7	8.60	8.50	
8	4.18	8.8	8.70		
10	4.93	7.7	7.65	7.60	
10	4.18	7.8	7.75		
*Maximum free running speed for 4-motor equipment		4.93 4.18	28.6 32.2	27.7 31.4	26.8 30.5

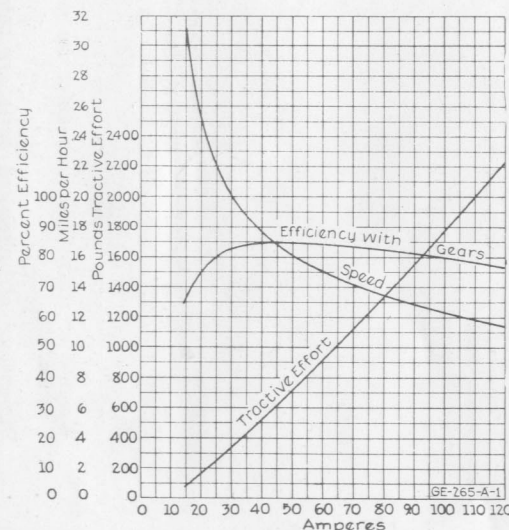
FORM C MOTOR—550 VOLTS—30-IN. WHEELS—10 SECOND STOPS

Stops per Mile	Gear Ratio	MILES PER HOUR WITH LOAD IN TONS PER MOTOR			
		5	6	7	
1	6.14	18.7	18.1	17.5	
1	5.25	20.2	19.6	18.9	
3	6.14	13.8	13.5	13.2	
3	5.25	14.3	14.1	13.8	
4	6.14	12.3	12.1	11.9	
4	5.25	12.6	12.5	12.3	
5	6.14	11.1	11.0	10.9	
5	5.25	11.3	11.2	11.0	
6	6.14	10.1	10.0	9.9	
6	5.25	10.3	10.2	10.1	
7	6.14	9.30	9.20	9.10	
7	5.25	9.50	9.40		
8	6.14	8.60	8.55	8.50	
8	5.25	8.70	8.60		
10	6.14	7.70	7.65	7.60	
10	5.25	7.70	7.65		
*Maximum free running speed for 4-motor equipment		6.14 5.25	25.7 29.0	25.3 28.5	24.9 28.0

* Maximum free running speed of 2-motor equipment approximately 90 per cent of above.

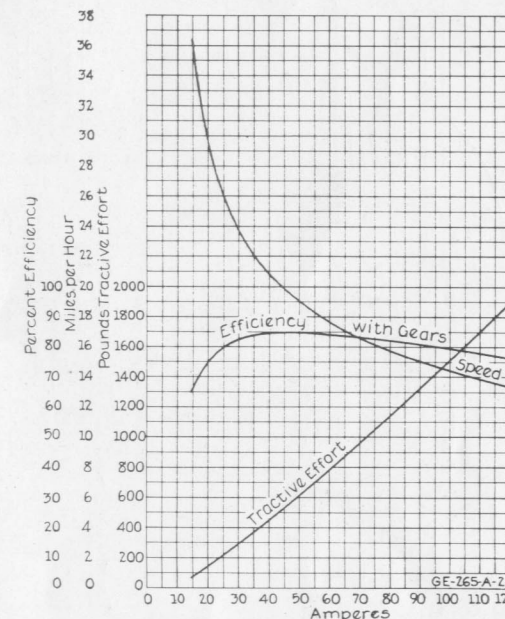
GE-265, 600-volt Railway Motor IGE44412.1-5

GE-265 26-IN. WHEEL MOTOR
Characteristic Curves on 550 Volts, Diameter of Car Wheels, 26 Inches; Gear, 69 Teeth; Pinion, 14 Teeth; Ratio, 4.93; Maximum Gear Ratio



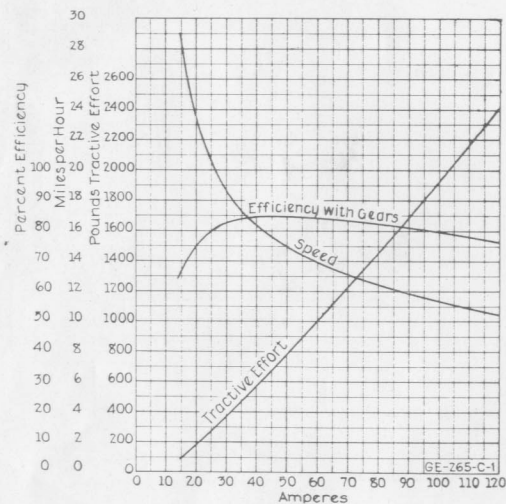
CHARACTERISTIC CURVE NO. 338

GE-265 26-IN. WHEEL MOTOR
Characteristic Curves on 550 Volts, Diameter of Car Wheels, 25 Inches; Gear, 67 Teeth; Pinion, 16 Teeth; Ratio, 4.18



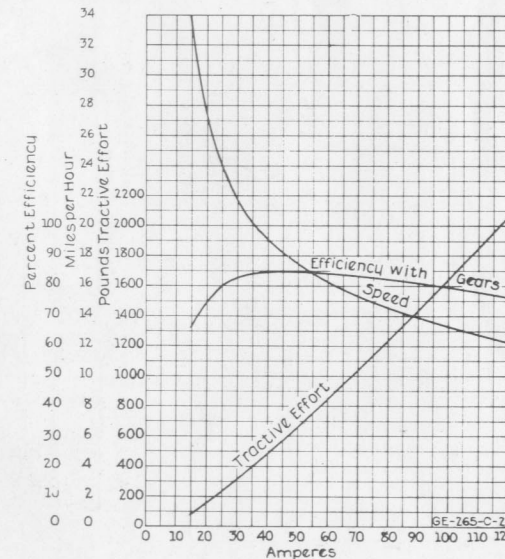
CHARACTERISTIC CURVE NO. 339

GE-265 30-IN. WHEEL MOTOR
Characteristic Curves on 550 Volts, Diameter of Car Wheels, 30 Inches; Gear, 85 Teeth; Pinion, 14 Teeth; Ratio, 6.14; Maximum Gear Ratio



CHARACTERISTIC CURVE NO. 340

GE-265 30-IN. WHEEL MOTOR
Characteristic Curves on 550 Volts, Diameter of Car Wheels, 30 Inches; Gear, 84 Teeth; Pinion, 16 Teeth; Ratio, 5.25



CHARACTERISTIC CURVE NO. 341

