

GENERAL ELECTRIC COMPANY

SCHENECTADY, N. Y.

Sales Offices in Principal Cities

Motor Drive and Control

For Heating, Ventilating and Air Conditioning Systems

Methods of Drive



Fig. 1

Fig. 1. Silent chain drive can frequently be employed to advantage, with a lowering of the motor cost as compared with direct-connected drive. The illustration shows a 25 hp., 500/900 r.p.m., Type CD, adjustable speed, motor driving an American Blower Fan at the Portland (Oregon) Journal Building. The chain drive is enclosed in an oil-tight housing.

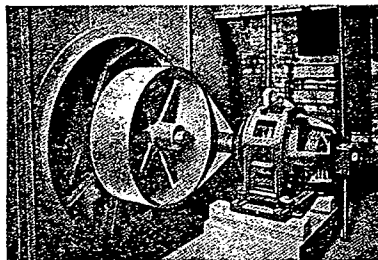


Fig. 2

Fig. 2. "Trapezoid" drive makes possible the placing of the motor very close to the fan pulley, and saves space. The illustration shows a 50 hp., 850 r.p.m. motor driving a Buffalo fan. The maximum air speed is 140 r.p.m.

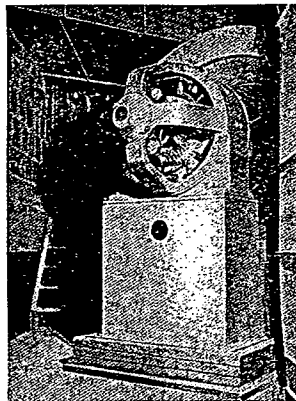


Fig. 3

Fig. 3. The direct-connected, slow-speed direct-current motor has long been a standard drive for ventilating and exhaust fans in large buildings. It is quiet and compact in operation, and has the lowest possible maintenance for a long period of years. The illustration shows a Type CD, 15 hp., slow-speed, adjustable speed motor driving an American Blower fan at the Detroit Masonic Temple.

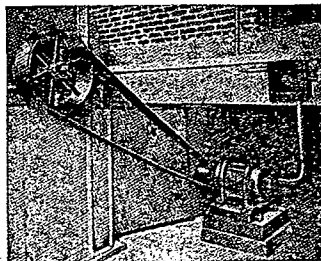


Fig. 4

Fig. 4. With fans of moderate size driven by alternating-current motors, the simple belt drive is efficient and economical. This illustration shows a Type KT, 3 hp., 860 r.p.m., constant speed motor controlled by a CR7005 magnetic switch, operating a Buffalo fan in the Plaut Store, Newark, N. J.

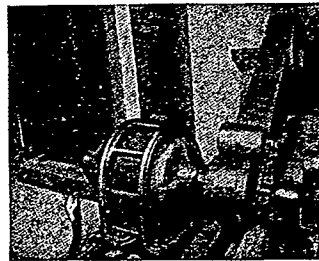


Fig. 5

Fig. 5. The center distances on a belt drive can be shortened by using the "Lenix" idler to insure a larger arc of contact at the motor pulley. The illustration shows a 10 hp., Type MT, slip-ring induction motor driving a fan at the Washington High School, New Rochelle, N. Y.

This Company will gladly assist in the solution of any electrical problem in relation to heating and ventilation

Motor Drive and Control

For Heating, Ventilating and Air Conditioning Systems

Controllers for Use with Varying Speed, 3- or 2-phase, Alternating-Current, Slip-Ring Motors for Driving Fans

Remote Indicating Control

Four Speeds—CR7761-F1

Remote indicating control, four speeds, operated by remotely located push-button station with bull's-eye lights of different colors indicating speed selected or attained. 5-15 hp. CR7761-F1 and BS-15-F.

CR7761-F1 enclosed contactor panel includes four speed-controlling or accelerating contactors with three relays. Remote located push-button station BS-15-F has four speed buttons marked (1) Slow Speed, (2) Second Speed, (3) Third Speed, (4) Full Speed, and one "stop" button. On pressing any "speed" button the motor accelerates automatically to that speed and the corresponding bull's-eye is illuminated. Speed can be changed while running to any other value by pressing button corresponding to speed desired. An additional control station BS-31-A with three buttons, "start," "safe," and "run," may be provided adjacent to the motor to start the equipment at the motor for test purposes. When the "safe" button is pushed the equipment is not only stopped but cannot be started from the remote indicating station. The "run" button on the BS-31-A station adjacent to the motor is pressed to release the "safe." When started by the BS-31-A station adjacent to the motor, the motor can be run at slow speed only. If it is desired to arrange this controller so that the motor can only be started in the fan room, add a CR7002 and a BS-79-J Start-Stop station. With this arrangement the BS-31-A station will not be required. Speed control and stopping may be secured from the remote station as before.

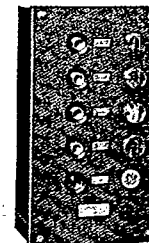


Fig. 2.—BS-15-F

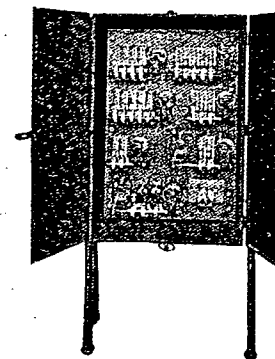


Fig. 1.—CR7761-F1, 20-50 Hp.

H.P.	Dimensions in Inches (Approx.)			Net Weight in Lb. (Approx.)
	Height	Width	Depth	
5-7 1/2	*67 1/2	36	37	360
10-15	*67 1/2	36	37	375
20	*67 1/2	36	37	475
25	*67 1/2	36	37	575
30	*67 1/2	39 1/2	37	650
40	*67 1/2	39 1/2	37	725
50	*67 1/2	39 1/2	37	850

*All sizes mounted on 64-in. angle supports.

Equipment includes one CR7761-F1 control panel, one BS-15-F four-speed indicating station, one BS-31-A start-safe-run station and one CR1924, 3-pole, fused switch. Dimensions of BS-15-F are 8 in. by 15 1/4 in. Sizes 5-15 hp. have self-contained resistors. Larger sizes have separate resistors.

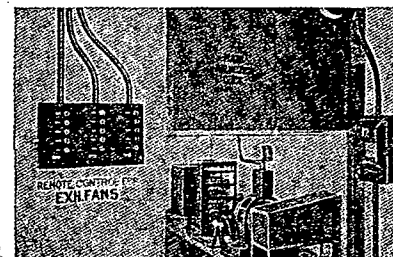


Fig. 3

Installation of 3 BS-15-F, Remote Indicating Control Stations for CR7761-F1 Controllers operating Exhaust Fans in the Pent House of the Salaam Temple, Newark. At right is shown a Type MT Motor belted to Supply Fan and Controlled by a CR7764 Controller.

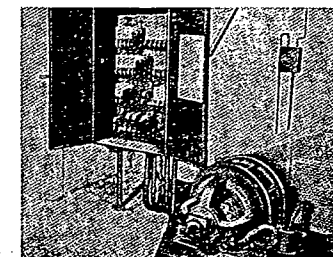


Fig. 4

Installation of Type MT Motor belted to Exhaust Fan at Salaam Temple, Newark. Motor is controlled by a CR7761-F1 Remote Indicating Control Panel operated from a Remote Point by one of the Control Stations shown in Fig. 3.

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