



Westinghouse Electric Corporation

Plants in 25 Cities—Offices Everywhere

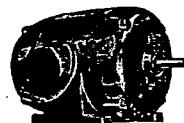
MOTORS FOR HEATING, VENTILATING AND AIR CONDITIONING APPLICATIONS



Capacitor
Type FL



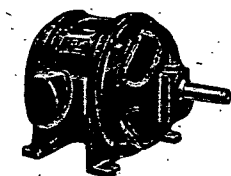
Induction
Type FS



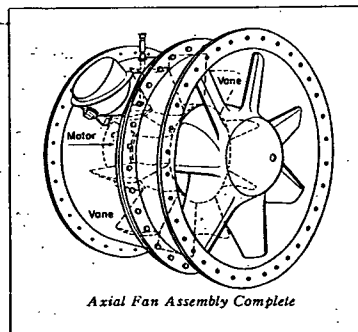
Repulsion-Start
Induction-Run
Type CRP



Open, Drip-
Proof Squirrel-
Cage Induction
Type CSP



Open Squirrel-
Cage Induction
Type CS



Axial Fan Assembly Complete

Westinghouse manufactures a complete line of motors for all types of compressors, fans and pumps. For full details contact your nearest Westinghouse office or write for Catalog 2000 (Motors) and 7000 (Control).

FRACTIONAL HP MOTORS

For direct-connected fans on unit heaters and ventilators; propeller fans for roof ventilation; and furnace and centrifugal blowers, etc. Vertical types are recommended for "Down Blast" heaters and vertical coolers.

SINGLE PHASE A-C—Type FH—Split phase. $\frac{1}{20}$ to $\frac{1}{2}$ hp, 115, 230 volts.

Type FL—Permanently split capacitor design. $\frac{1}{20}$ to $\frac{1}{4}$ hp, 115, 230 volts.

Type FJ—Capacitor-start induction run. $\frac{1}{2}$ to $\frac{3}{4}$ hp, 115, 230 volts.

POLYPHASE A-C—Type FS—Induction squirrel cage design for 2 and 3 phase circuits. $\frac{1}{2}$ to $\frac{3}{4}$ hp, 220, 440 and 550 volts.

DIRECT CURRENT—Type FK—Single speed and multi-speed motors. $\frac{1}{20}$ to 1 hp, 32, 115 and 230 volts.

INTEGRAL HP MOTORS

SINGLE PHASE—For fans and centrifugal pumps requiring constant speed operation. Available in standard voltages and frequencies.

Type CRP—Repulsion-start induction-Run— $\frac{1}{4}$ to 5 hp.

Type CU—Repulsion-induction—2 to $7\frac{1}{2}$ hp.

Type CJP—Capacitor, $\frac{3}{4}$ to 10 hp.

POLYPHASE A-C—Type CS and CSP—Squirrel cage, constant speed, induction motors. Available in three torque classes for all standard voltages and frequencies $\frac{1}{2}$ to 200 hp.

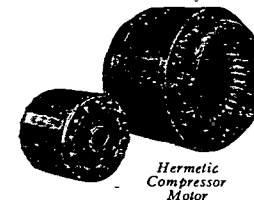
Standard enclosures include: Open, totally enclosed (fan cooled or non-ventilated) and splash-proof. Types can be supplied with Underwriters' label for Class I, Group D, and Class II, Groups E, F and G Hazardous Locations. Motors with special mounting or modifications can also be supplied.

AXIAL FAN MOTORS

Type CS—A modified design of a-c fan-cooled motor is used for axial flow fans in ventilation installations. The drawing at the left shows a typical unit, integral with the duct work. Motors from 1 to 25 hp in a variety of speeds can be supplied.

HERMETIC COMPRESSOR MOTORS

Types CS and CT feature a wound stator with machined steel shell of oil-tight construction, wrapped around the stator punchings. Insulation is suitable for operation in freon and similar refrigerators. Rated 1 to 3 hp (single phase), 115 and 230 volts, 1 hp and larger (polyphase), 60, 50, 25 cycles, 208, 220, 440 and 550 volts.



Hermetic
Compressor
Motor

MOTOR CONTROL

The Westinghouse line of control includes manual or magnetic, reversing or non-reversing, across-the-line and reduced voltage starters for single or multi-speed a-c and d-c motors. Magnetic types are furnished with built-in or separate pilot devices for local or remote control. All standard NEMA enclosures are available. Representative types are described and shown below.

MANUAL CONTROL

Motor Snap Switch—(Class 10-015) for starting and stopping small a-c and d-c motors where overload protection is not required. Rated up to 2 hp, 110 to 600 volts.

Sentinel Breakers—Type H—(Class 10-023) provide control and burnout protection for fractional hp motors—up to 1 hp, 110 to 220 volts. Protects motors against locked rotor or overload conditions.

"De-ion" Motor Watchman—Type DnW—(Class 10-100) designed for starting, stopping and protecting small single phase and polyphase a-c motors, from $\frac{1}{2}$ to $7\frac{1}{2}$ hp, 110 to 600 volts.

MANUAL MULTI-SPEED CONTROLS

Controllers for Type FL Motors—2 speed, double throw, double pole toggle action switch for operation on 115 or 230 volts.

Controllers for Type FK Motors—A variable resistor connected in armature circuit. Selector switch has six speed operations.

"De-ion" Motor Watchman—Type DnW—(Class 10-130) Starter suited to industrial fans—for use with 2 speed, 2 winding motors. $\frac{1}{2}$ to $7\frac{1}{2}$ hp, 160 to 600 volts.

MAGNETIC CONTROL

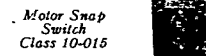
For starting squirrel-cage induction motors directly across the line. Provides remote control and complete protection when used with pushbuttons, selector switches, etc.

"De-ion" Linestarters—(Class 11-200)—Rated 1 to 25 hp, single phase, $\frac{1}{2}$ to 750 hp polyphase, 110 to 600 volts.

"De-ion" Combination Linestarters—(Classes 11-203—fusible, 11-204—non-fusible; and 11-206—with AB nofuse circuit breaker) 1 to 200 hp, 110 to 600 volts.

PILOT CONTROL

Standard Duty Pushbuttons—Type SD-2 (Class 15-010) and **Heavy Duty Pushbuttons—Type HD** (Class 15-020)—For use with magnetic starters. Units and stations are designed for pilot control circuits 110-600 volts a-c and 115-600 volts d-c in sheet steel, water and dust-tight or oil immersed enclosures.



Motor Snap
Switch
Class 10-015



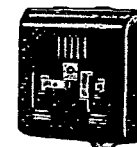
Sentinel
Breaker
Type H
Class 10-023



"De-ion" Motor
Watchman
Type DnW
Class 10-100



"De-ion"
Linestarter
Class 11-200



"De-ion" Motor
Watchman
Type DnW
Class 10-130



Multi-Speed
Controller for
Type FL Motor



Dust and Water-Tight
Standard Duty Station
Type SD-2
Class 15-020



"De-ion"
Combination
Linestarter
Class 11-204