

BA-CF SERIES

GENERAL INFORMATION

BA and CF series motors are asynchronous, three phase, self-braking. The motor brakes in case of power supply failure. The braking action is obtained without axial sliding of the shaft and provides equal braking torque in both directions of rotation. The braking assembly is powered by alternating current, with the possibility of combined or separate power supplies to the motor and brake. Upon request the same type of brake assembly can be supplied for direct current, with the rectifier mounted inside the terminal board box. The rectifier is provided with safety protective devices against over-voltage and the emission of radio frequencies.



BA and CF series motors tolerate a high degree of overloading and have a high capability to withstand overheating, that guarantees high reliability, also under severe operating conditions.

All the series has been designed to be controlled by inverters. The motor winding insulation material used is class F, with the availability of class H, upon request. Motor construction type is totally enclosed, with external cooling, and IP54 protection degree (IP55 and IP56 available on request). Motors with shaft heights up to 132 mm are furnished as standard with a hexagonal hole on the shaft end in the back, that allows manual rotation, even with the power off. An hand release of the brake is furnished as standard for the entire product range. The brake disc of the BA and CF series, thanks to the construction of the motor, has a large lining surface, that allows high braking torque and the possibility of adjusting the air gap during maintenance, at long intervals. The lining of the surface on the motor side is self-ventilating, allowing a high braking workload and a constant braking time. The brake lining material is asbestos free. The motor frame for the BA series is die cast, light metal. The terminal board box is complete with cable glands and plugs and is positioned 180° above the motor support feet. The shields and the flanges are manufactured of aluminum on motors up to 90 frame size, and in cast iron for the motor shaft heights 100 and 112 mm. The frame, the shields and the flanges of the CF series are in cast iron. The construction type IM B3, for both BA and CF series, has integral support feet not attached to the frame, giving to the structure a notable robustness, that is particularly important for brake motors. Both on the BA and CF series, the rear cover (brake surface) and the brake moving element are in cast iron. The brake moving element and brake coil have a laminated nucleus to reduce electrical losses to a minimum, and ensure an extremely rapid brake intervention. Important characteristics of the BA and CF series are, therefore, a particularly robust construction, a very short braking reaction time both in application and release, a high and constant braking torque, fundamental to ensure precision in positioning, the capability to handle frequent and heavy load braking cycles, longer intervals between air gap adjustment, a very simple construction that facilitates any required adjustments.

The BA, CF, and BM series are also available in the following versions:

PV (BAPV, CFPV, BMPV) that allow progressive starting and stopping, particularly suitable for translation movements.

F (CFF) with double brake disks and extremely high braking torque

SV (BASV, CFSV, BMSV) with forced ventilation.