



Smart solutions.  
Strong relationships.

# CG DRIVES & AUTOMATION

Variable Speed Drives,  
Softstarters, Shaft Power Monitors



## CG DRIVE - SK

Simple to use.... Compact to fit

CG DRIVE-SK are simple to install and easy to configure yet the cutting edge technology behind it makes it suitable not only for standard applications but for various complex applications too!

### Range

0.25kW to 45kW

### Supply

200V/400V

Single phase

Dual phase, Three phase

### Application

Variable/Constant torque



## Key features

- Automatic no-spin autotune for rapid performance optimization
- 8 preset speeds available for greater application flexibility
- Switching frequency from 3kHz up to 18kHz - quiet motor operation
- Output frequency from 0 to 1500 Hz
- Linear and S type acceleration and deceleration ramps
- DC injection braking as standard
- Dynamic braking transistor as standard
- Energy savings with dynamic motor flux V/Hz
- Fan and pump energy optimization with quadratic motor flux V/Hz
- Advanced standard software features, such as timers, thresholds, maths blocks, logic operators, PID controller and kW/h meter

## CG CUTE

Smart, Compact and Efficient

CG CUTE is a general purpose drive which is designed for handling most of the applications in the industry like pumps, fans, material handling, door applications and many others. It offers you all the functionality built in a single unit.

### Range

0.25kW to 5.5kW

### Supply

200V/400V

Single phase,

Three phase

### Application

Variable/Constant torque



## Key features

- Small physical size
- DIN rail and screw mountable
- Intelligent menu
- Extensive and fully programmable I/O
- Modbus as standard
- Varnished boards as standard
- Brake chopper in 3-phase QT2 and QT3 frames
- PI controller as standard
- Integrated EMC C2 level filter as option
- Recyclable materials
- Optimized energy consumption
- RoHS compliant
- Motor potentiometer application
- Door machinery application
- PFC Multi-pump control for booster sets

## CGAC DRIVES

### Complete range of high performance Drives - CGSL, CGSS, CGSP Series

CGAC series brings you the complete range of high performance AC drives built for the most challenging applications. The freedom of CGAC drives gives you the leverage of having numerous application functionalities built in single package.

#### CGSL Series

Three Phase, 380V - 500V : 1.1kW to 30kW

#### CGSS Series

Three Phase, 380V - 500V : 37kW to 160kW

#### CGSP Series

Three Phase, 380V - 500V : 200kW to 1200kW

Three Phase, 500V - 690V : 3kW to 5000kW

#### Application

Variable/Constant torque



### Key features

- Complete power and voltage range
- Wide set of applications
- Controls induction and permanent magnet motors
- Dynamic open and closed loop vector control
- Complete range of communications and I/O options
- Fast drive to drive communication
- Low noise (both drive and motor)
- Large amount of features (e.g. fully programmable I/O, autoidentification, PID controller, flying start)

## CG FDU 2.0 DRIVES

### Full control and optimized operation

CG FDU helps you save energy and draw maximum efficiency from your processes. CG FDU with modular concept allows cost optimization and is a perfect choice for tailor made requirements. CG FDU offers simplicity in its most advanced form which makes it easy to program and user friendly.

#### Range

0.75kW to 3000kW

#### Supply

400V/525V/690V

Three phase

#### Application

Variable/Constant torque



### Key features

- Modular design
- More I/Os available - 4AI, 2AO, 8DI, 2DO, 3RO
- Operation parameters can be set in your process units, for example m/s, tons/h or cycles/min.
- Module fuses included as standard for sizes 300 - 3750 A (480 V) and 210 - 3000 A (690 V).
- Removable control panel with own memory means it is easy to transfer or copy settings.
- Robust and certified IP54 metal construction as standard (up to 132kW) offers cost-efficient installation close to the application.
- One CG FDU can control up to seven units without external control systems.
- Speed controlled fans assures less noise, a more even drive temperature and higher efficiency.

## CG VFX 2.0 DRIVES

### Full control with precision

The CG VFX 2.0 variable speed drive optimizes your process and prevents damage and downtime. The combination of direct torque control, accurate speed control and efficient vector braking makes it the ideal solution for all dynamic applications, such as cranes, crushers, mills, mixers and centrifuges.

#### Range

0.75kW to 3000kW

#### Supply

400V/525V/690V

Three phase

#### Application

Variable/Constant torque



### Key features

- Modular design
- More I/Os available - 4AI, 2AO, 8DI, 2DO, 3RO
- Direct torque control reacts extremely quickly and eliminates disturbances due to abrupt load changes.
- Operation parameters can be set in your process units, for example m/s, tons/h or cycles/min.
- Integrated vector braking ensures quick and controlled stops, increasing productivity and safety.
- Removable control panel with own memory means it is easy to transfer or copy settings.
- Module fuses included as standard for sizes 300 - 3750 A (480 V) and 210 - 3000 A (690 V).
- Robust and certified IP54 metal construction as standard (up to 132kW) offers cost-efficient installation close to the application.

## CG MSF 2.0 SOFTSTARTERS

### More than just a soft start

Whilst traditional softstarters handle the most common start challenges, CG MSF 2.0 offers a lot more. Start and stop sequences are optimized. Advanced braking techniques increase productivity. Built-in monitor functionality protects your process from inefficiency, damage and downtime. Easy installation and set-up save time and money. In addition, the CG MSF is developed for selected applications, which means optimized functionality adapted to your specific needs.

#### Range

7.5kW to 1800kW

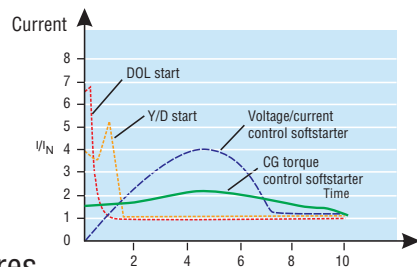
#### Supply

400V/525V/690V

Three phase

#### Application

Variable/Constant torque



### Key features

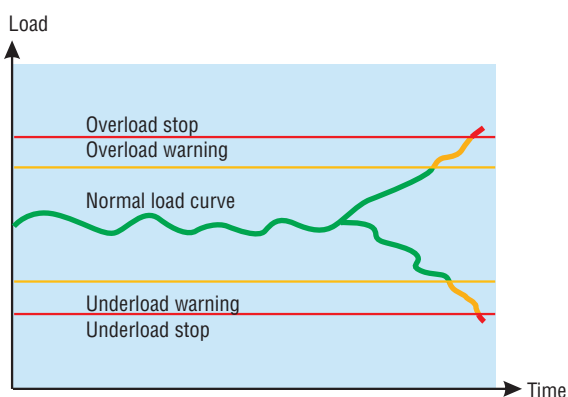
- Torque control provides linear acceleration and deceleration. Minimizes impact on equipment and eliminates need for motor-controlled valves.
- Built-in vector brake offers quick and safe braking of screens. No need for mechanical brakes.
- Built-in shaft power monitor sends warning or stops the pump when load is outside your chosen limits. Actual load can be displayed via e.g. Profibus.
- Analogue sensor can be connected directly to MSF to control start and stop levels.
- MSF torque control minimizes start currents.



## CG M20 SHAFT POWER MONITOR

### Your shield against overloads and damage

CG M20 shaft power monitor helps you save time and money. It protects your pumps and other equipment against damage and detects process inefficiency. Early warnings allow you to take preventive action. Unique features include measuring shaft power output and using the motor as a sensor. The result is reduced maintenance and installation costs, extended equipment lifetime and increased reliability.



CG M20 shaft power monitor protects your equipment and process against damage and downtime. Early warnings and stops allow preventive action.

### Key features

- Detects over- and underload. Sends warning or stops the pump.
- Using pump motor as sensor eliminates need for external sensors. No moving parts increases reliability.
- Shuts pump off before it runs dry.

## CG CDU/CDX 2.0

### Compact and Intelligent

Integrating speed control will add considerable value to your pump and enable you to increase your turnover. Optimize your pump by supplying a plug-and-play solution with built-in intelligence. Your customers will benefit from simplified installation, energy savings and improved process reliability - all from a single supplier.

#### Range

3kW to 22kW

#### Supply

400V/525V

Three phase

#### Application

Variable/Constant torque



### Key features

- No external motor cables
- Easy to install and commission
- Screw terminals for easy connection
- Robust and compact IP55
- Shock and vibration proof
- Own cooling system independent of motor cooling
- Built-in PTC thermistor
- All standard motor constructions
- Mains supply from below or side
- Logo and company colours
- Fieldbus communication
- Profibus DP
- DeviceNet
- Industrial Ethernet
- Modbus/TCP
- Serial communication
- RS232 or RS485 with Modbus RTU
- Up to three I/O boards
- Three relay outputs
- Three digital inputs
- EMC protection category C1
- PTC/PT100 for motor protection and temperature feedback without a transmitter
- Standby power supply
- Safe stops



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