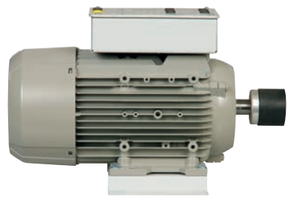
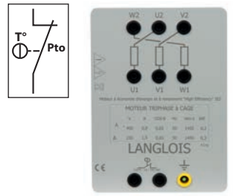
ROTARY MACHINES

RANGE 1500W

3-PHASE SQUIRREL CAGE INDUCTION MOTOR

These engines work as well with a speed variator as directly connected to a 3-phase supply.

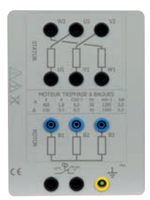
REF	U (V)	I (A)	H	B	L	Weight
MAS22	230/400V	5.9/3.4	112	190	390	20kg
MAS52	400V/690V	3.3/1.9	112	190	390	20kg

STAR/DELTA STARTER

Manual star/delta starter in safety box

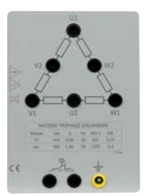
ref. CO-ET-8A

3-PHASE ASYNCHRONOUS SLIP RING INDUCTION MOTOR

REF	U (V)	I (A)	H	B	L	Weight
MAT20	230/400V	8.9 / 3.9	112	190	540	35kg
MAT20-C1	similar than MAT20 with 1024 points encoder.					

3-PHASE ASYNCHRONOUS 2-SPEED MOTOR (AC)

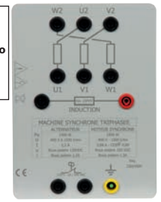



1 coil winding motor with 4/8 pole Dalhander coupling for quadratic resistive torque machines

REF	n in RPM	U (V)	I (A)	P (W)	H	B	L	Weight
DAL20	1500/750	400/400	3,3/2,7	1500/750	112	190	410	25kg

Each machine is equipped with a binary temperature sensor with a contact that can be inserted into a control circuit.

3-PHASE SYNCHRONOUS MACHINE

Works as a synchronous motor and 3-phase alternator. Equipped with LEBLANC poles for mains network synchronization. Pole wheel voltage 130Vdc / 1.2A.

REF	U (V)	H	B	L	Weight
MSM20	230/400V	112	190	540	35kg

STARTER RHEOSTAT

Safety starting rheostat for **high-power** slip-ring motors

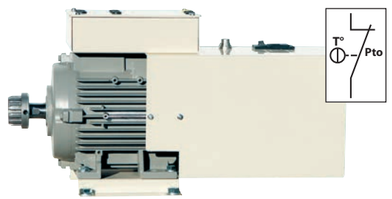
ref. REDA12

SINGLE-PHASE MOTOR WITH 2 CAPACITORS


2 capacitors, 1 starting and 1 running

REF	U (V)	I (A)	H	B	L	Weight
MO20	230V	9A	112	190	350	17kg

3-PHASE ASYNCHRONOUS CAGE MOTOR VECTORIAL CONTROL




Fitted with a 1024 pts encoder and a forced ventilation to run at slow speed

REF	U (V)	I (A)	H	B	L	Weight
VAV20	230/400V	5.9 / 3.4	112	190	580	24kg
VAV50	400/690V	3.4 / 1.95	112	190	580	24kg

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SHUNT / SEPARATED DC MOTOR 220/220V


This engine works as well with a **DC speed variator** as directly connected to a **DC supply.** Inductor 220V/0.6A

REF	U (V)	I (A)	H	B	L	Weight
CC20	220/220V	9A sous 230V	112	190	510	51kg

POLYEXCITATION COMPOUND DC MOTOR


Designed to be high-performance motor (characteristics below), this machine also works as a generator. Inductor 220V/0.65A

REF	U (V)	I (A)	H	B	L	Weight
PM20	220V	7.6A	112	190	510	53kg

RHEOSTAT DE DEMARRAGE

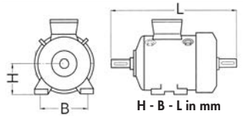
Rhéostat de démarrage de sécurité pour moteur CC de **forte** puissance

ref. REDA34

SHUNT / SEPARATED DC GENERATOR


Designed for a didactic use. Inductor 150V/1A

REF	U (V)	I (A)	H	B	L	Weight
CG20	240V	7A	112	190	510	53kg



H - B - L in mm

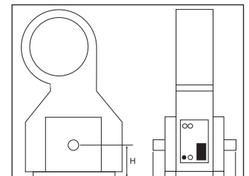
The couplings are compatible across a single power range. Coupling and fastening screws provided with each reference number.

POLYEXCITATION COMPOUND DC GENERATOR


Designed to be high-performance generator (characteristics below), this machine also works as a motor.

REF	U (V)	I (A)	H	B	L	Weight
PE20	255V	6A	112	190	510	53kg

POWDER BRAKE



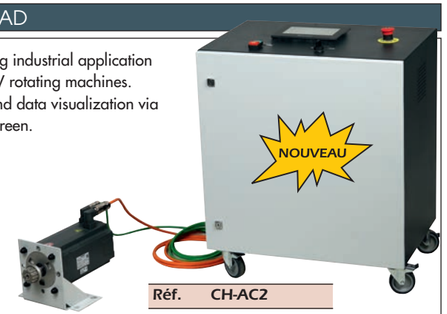

PRINCIPLE OF POWDER BRAKES

A continuous excitation current injected into the brake coil creates a field that agglomerates the magnetic powder placed in the air gap. The braking torque is proportional to the excitation current alone. The torque measurement requires a rotating sensor to be positioned either on the left or the right. Max rotation speed 1800 rpm.

Ref.	FP2-2
Voltage/Current max for blocking	10Vcc / 0.5A
Max torque	65Nm
H / B / L in mm	112 x 190 x 356
Weight	43kg
Ventilation	Fan

ACTIVE LOAD

System simulating industrial application loads on 1500W rotating machines. Configuration and data visualization via the integrated screen.

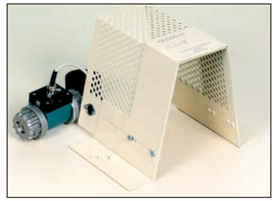


Réf. CH-AC2

PDF Data sheets detailed on last page

ACCESSORIES FOR 300W ROTARY MACHINES

BRUSHLESS TORQUE SENSORS WITH OR WITHOUT SPEED OUTPUT



Connecting cable and protection casing supplied with all our sensors.

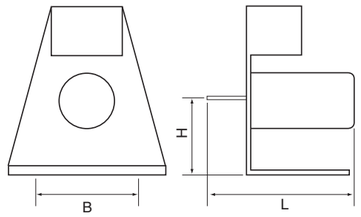
These brushless torque sensors have to be placed between 2 machines and measure the torque sensor V2 and the twist torques and speeds for the version V22. It is equipped with an optical torque so without mechanical wear and maintenance, with a dynamic range allowing to measure some important torque changes and high speeds. The values of starting are so easily measurable.
Torque output signal: 0 to 5V for the measuring span in Nm (0 to -5V according the rotating way).
Maximum rotating speed: 2000 rpm
Sensor supply: between 12 and 28 VDC

Réf	For POWER	Sensor Range	Speed Output	L mm	Use with an important inertia *
CR2-V2*	1500W	50 Nm	no	220	no*
CR2-V22*	1500W	50 Nm	5V to 2500 rpm	220	no*

** The use of an inertia wheel + a rotary sensor (CR design) between the motor and the brake gives starting torques which can go to 7 times the operating torque.*

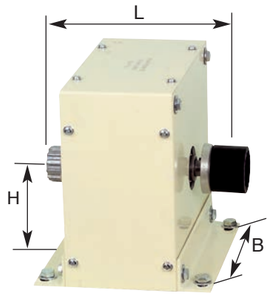
DC TACHOGENERATORS

These tachogenerators deliver a continuous voltage proportional to the rotating speed.
Supplied complete with couplings, housings and screws bolt.



Réf.	Power	Voltage at 1000 rpm	Connector	H (mm)	B (mm)	L (mm)
DYTA2	1500W	10V	Terminals	112	190	130

INERTIA WHEELS



This inertia wheel allows to simulate rotary machines with a high moment of inertia.
Supplied with 1 coupling + 1 cover + screws.

Ref.	VOL2
For power	**1500W**
Inertia	0,2kg/m²
Weight	39kg
H	112mm
B	190mm
L	220mm

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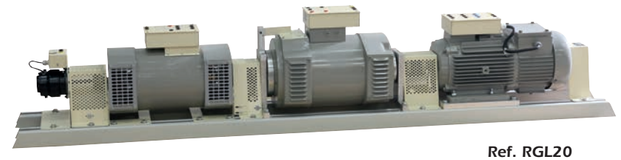
GUIDE RAILS

These rails will be used to align and secure the machines forming groups composed according to your own configuration.
The two rails are joined by two shaft end covers and one intermediate cover. Total width: 212 mm.

*RGA is only compatible with the CTA motor stand on wheels
**RGL is only compatible with the CTL motor stand on wheels

Réf.	Power	Overall length	Pitch of rails	Weight
RGA20*	1500W	950mm	190/216mm	16kg
RGC20	1500W	1600mm	190/216mm	24kg
RGL20**	1500W	1900mm	190/216mm	28kg

Ref. RGC20



Ref. RGL20

CASTER OPTIONS FOR A MOBILE SOLUTION WITHOUT MOTOR STAND

This economical option consists of fixing 4 or 6 castors equipped with brakes directly under the rails. This solution effectively replaces a chair with casters and allows you to easily move your motor unit.
This solution raises the assembly by 170mm.

4-wheel solution
compatible with RGA rails
ref. ROU-4

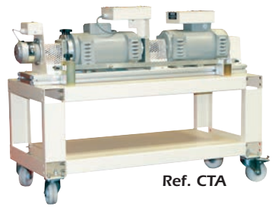
6-wheel solution
compatible with RGC - RGL rails
ref. ROU-6

MOTORS STAND ON WHEELS

Designed to transport a complete set of machines. 4 wheels, 2 of them with a brake.

Réf.	Useful Length	Width	Height	Weight
CTA	950mm	470mm	500mm	30kg
CTB	1300mm	470mm	500mm	30kg
CTC	1610mm	470mm	500mm	39kg
CTH	1610mm	470mm	845mm	45kg
CTL	1900mm	470mm	500mm	45kg

Ref. CTH



Ref. CTA

Ref. CTC

Handle option
ref. OP-CT

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CE PRODUCTS
2 YEARS GUARANTEE

ACTIVE LOAD: SIMULATOR FOR STUDYING 1500W ROTATING MACHINES

This system allows you to carry out studies on 1500W rotating machines (alternating or direct current). It simulates a load on the motor studied by applying the profile of an industrial application previously configured from the screen. It is thus possible to study applications simulating, for example, a lifting winch, a conveyor, a mixer, ventilation, a pumping station, etc.

The set allows the acquisition and visualization of the following data:

	Rotary machine	Load
Data type	Voltage (AC/DC)	Voltage
	Current (AC/DC)	Current
	Active power	Active power
	Cos phi	
	Torque	
	Speed	
	Mechanical power	

ref. CH-AC2

STUDENT/TEACHER EDUCATIONAL FILE

The copies are connected via 4mm safety cables. The energy generated by motor braking is fed directly back into the electrical grid.

The profile types are:
- Constant torque (lifting winch, conveyor belt, etc.)
- Torque proportional to speed (screw compressor, metering pump, etc.)
- Torque proportional to the square of the speed (mixer, fan, etc.)
- Cyclic torque (cutting shears, etc.)

All configuration is performed directly from the integrated screen.
The application allows you to view load data in real time and plot it on a graph.

This data can be retrieved in .csv format directly onto a USB drive for processing in the spreadsheet software of your choice.

EDUCATIONAL OBJECTIVES

- ***Conduct a study on a rotating machine***
- ***Take readings of physical quantities***
- ***Understand the mechanical and electrical characteristics of the main industrial applications***
- ***Take readings and then interpret them***

COMPOSITION
- Tabletop control box comprising:
  - 1 touchscreen
  - 1 emergency stop button
  - 1 load activation switch
  - 1 on/off button
  - 1 padlockable disconnect switch
  - 1 3m connection cable with a 400V HYPRA plug - 4P+E. - 1 USB port
  - 1 Ethernet port

Case dimensions: 600 x 560 x 400mm.
- 1 SIEMENS brushless motor with its sleeve and support

Axle height: 90mm
- 1 set of 2m encoder and power cables

Practical work
- Performing engine tests under load at nominal torque
- Recording physical quantities
- Plotting characteristic curves
- Setting up a load simulation
- Visualizing and interpreting data
- Exporting data to spreadsheet software.