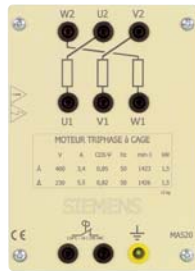
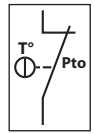


Rotary machines 1500W RANGE

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	5.7/3.3	112	190	355	19kg
MAS52*	400V/690V	3.3/1.9	112	190	355	19kg

*IE2 see the specifications Page 58

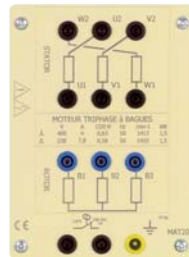
STAR/DELTA STARTER

Manual STAR/DELTA starter into a 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	6.4 / 3.7	112	190	620	43kg

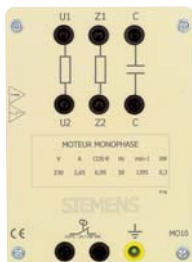
SAFETY STARTER RHEOSTAT

Safety starter rheostat for high powerful slip ring machines

ref. REDA12



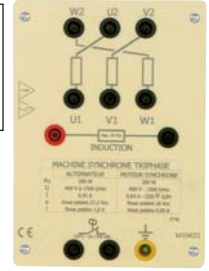
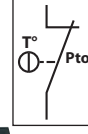
SINGLE PHASE MOTOR WITH 2 CAPACITORS



2 capacitors, 1 starting and 1 running

REF	U (V)	I (A)	H	B	L	Weight
MO20	230V	8.7A	112	190	335	19kg

3-PHASE SYNCHRONOUS MACHINE



Works as a synchronous motor and 3-phase alternator. Equipped with LEBLANC poles for mains network synchronization.

REF	U (V)	H en mm	B en mm	L en mm	Weight
MSM20	230/400V	112	190	550	48kg

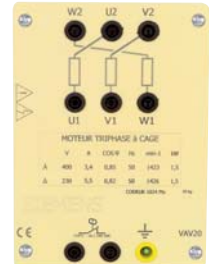
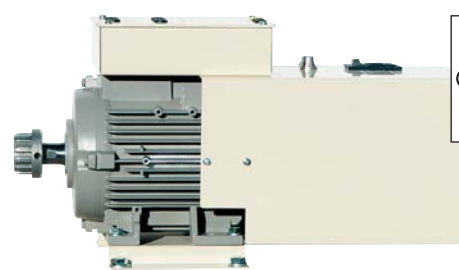
SYNCHRONOSCOPE

Safety laboratory synchroscope 16A - 400V max.

ref. CHR3



3-PHASE ASYNCHRONOUS CAGE MOTOR WITH 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	19kg
VAV50	400/690V	3.4 / 1.95	112	190	580	19kg

SPEED VARIATOR



ref. VCV52
Page 94

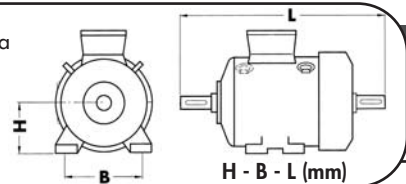
TACHOMETER FOR 1024PTS ENCODER



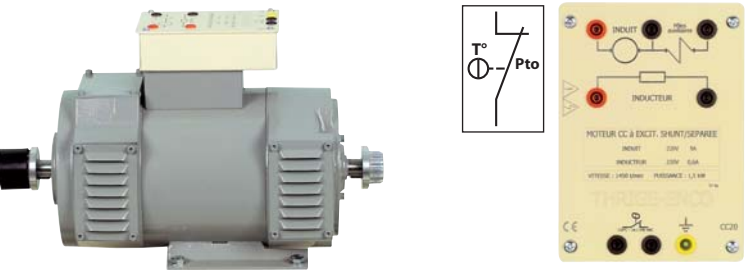
ref. VICOD

Rotary machines

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



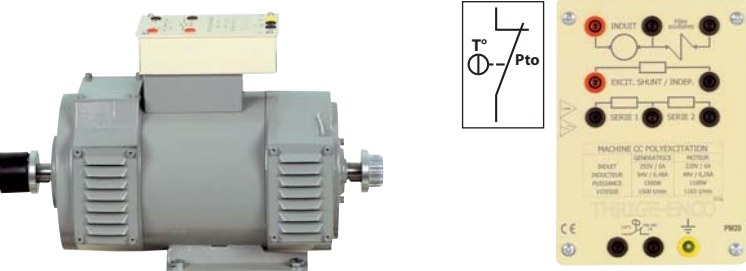
SHUNT / SEPARATED DC MOTOR 220/220V



This engine works as well with a DC speed variator as directly connected to a DC supply.

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

POLYEXCITATION COMPOUND DC MOTOR



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

REF	U (V)	I (A)	H	B	L	Weight
PM20	220V	8.6A	90	172	420	26kg

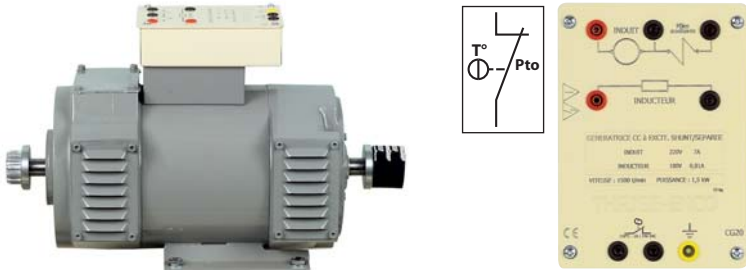
STARTER RHEOSTAT

Safety starter rheostat for **high** powerful DC machines

ref. REDA34



SHUNT / SEPARATED DC GENERATOR



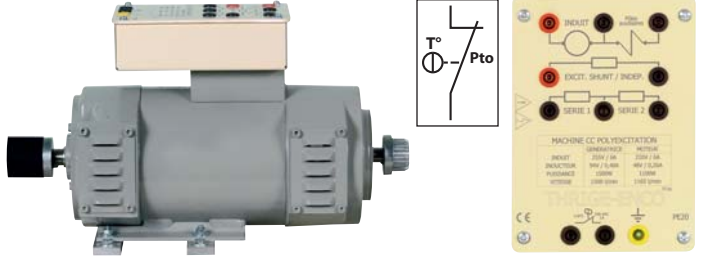
Designed for a didactic use.

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



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

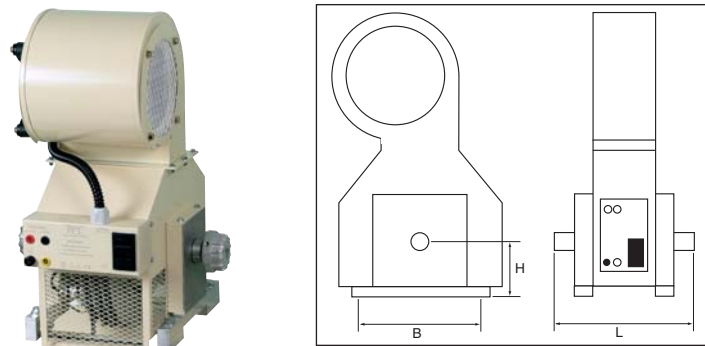
POLYEXCITATION COMPOUND DC GENERATOR



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

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

POWDER BRAKE

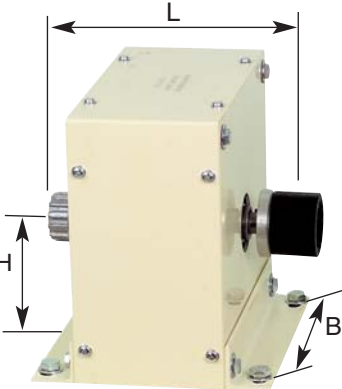


POWDER BRAKE PRINCIPLE

The DC current injected into the brake coil creates a field which causes the magnetic powder placed in the air gap to agglomerate. The braking torque is proportional to the field current alone; in particular it is independent of the speed of rotation. Waste heat is eliminated by forced ventilation. A circuit breaker cuts the field current in the event of the brake overheating. This brake is always mounted in balance so that it can be equipped with a static sensor with a strain gauge. Additionally, it is delivered on guide rails (Ref RGC) with housings, couplings and screws.

Ref.	FP2
Voltage/Current max for blocking	10V / 0.5A
Max torque	65Nm
H / B / L in mm	112 x 190 x 356
Weight	21kg
Ventilation	Fan

INERTIA WHEEL FOR 1500W MACHINES



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

Ref.	VOL2
Inertia	0,2kgm ²
Weight	39kg
H	112mm
B	190mm
L	220mm



DISPLAYS PAGES 86 AND 87

*1 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.



Ref. CTH



Ref. CTC



TORQUE SENSORS FOR 1500W MACHINES

STANDARD VERSION

This family of brush sensors operates as 4-resistor measurement bridge changing value linearly according to the torque.
JA: Sensor designed for mounting only on particle brakes.
CR: Rotary sensor for installing between 2 machines, for measuring the torque by torsion, even when greatly variable.
Maximum recommended speed of rotation 1500 rpm to prevent early wear.
Connecting cable and protection casing supplied.
Compatibility with other systems explained in the instructions.

Ref	Sensor design	Sensor range	L	Use with an important inertia	Movement
JA2	Static	20Nm	/	yes	Buckling
CR2*	Rotary	50Nm	140	no*1	Torsion

BRUSHLESS VERSION



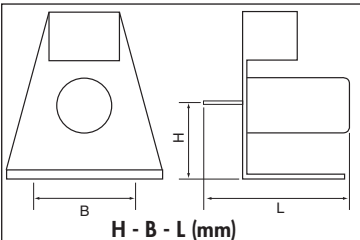
Rotary sensor for installing between 2 machines, for measuring the torque by torsion, even when greatly variable.
Contactless technology, using optical measurement, enables rotation speeds of 3000 rpm and all maintenance free.
It should be powered between 12 and 28 V DC to obtain a 'high level' measurement in voltage from 0 to 10 V full scale.
The sign depends on the direction of rotation. Connecting cable and protection casing supplied.

Ref	Sensor design	Range	Use with an important inertia	Output voltage
CR2-V2	Rotary	50Nm	no*1	± 5V for 50Nm
CR2-100-V2	Rotary	100Nm	yes	± 5V for 100Nm

DC TACHOGENERATORS FOR 1500W MACHINES

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

Ref.	Voltage at 1000 rpm	Connector	H	B	L
DYTA2	10V	Safety terminals	112	190	130
DYTA62	20V/60V	Dyn/Safety terminals	112	190	170



MOTOR STAND ON WHEELS

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

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

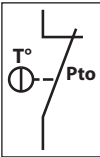
GUIDE RAILS WITH COVERS AND FASTENINGS

These rails will be used for aligning and fixing the machines constituting of the made up groups according to your own configuration. With each pair of guide rails are included 2 end of shaft protective covers and 1 intermediate housing.
FP2 powder brake is always fitted with its own rails (RGC).

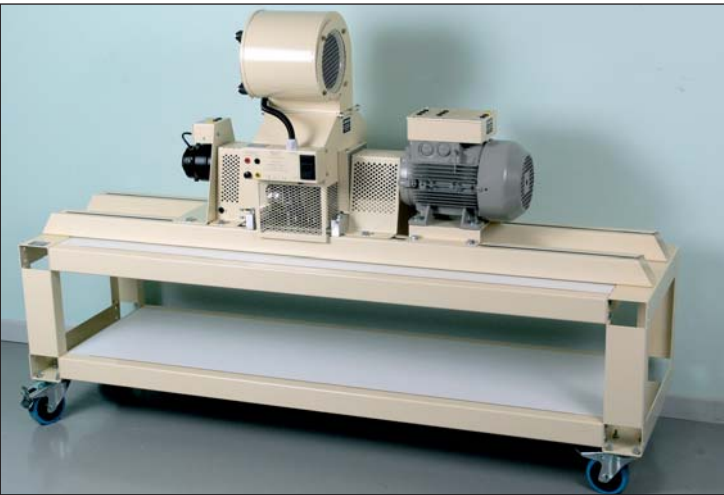
Ref.	Overall length	Pitch of rails	Weight
RGA	950mm	190/216mm	16kg
RGC	1600mm	190/216mm	24kg
RGL	1900mm	190/216mm	28kg

Complete 1500rpm rotating units **1500W RANGE**

Consisting of machines whose features are shown in the previous pages, these are the most commonly used units in the field of education.
1500W units: supplied complete with couplings, housings and a stand on wheels.
Each machine is equipped with a binary temperature sensor with a contact that can be inserted into a control circuit.

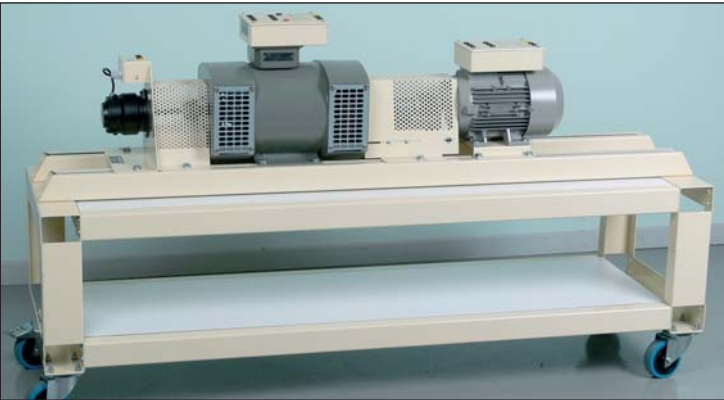


COMPLETE AC 1500RPM ROTATING UNIT
AC 3-PHASE SQUIRREL CAGE MOTOR + BRAKE



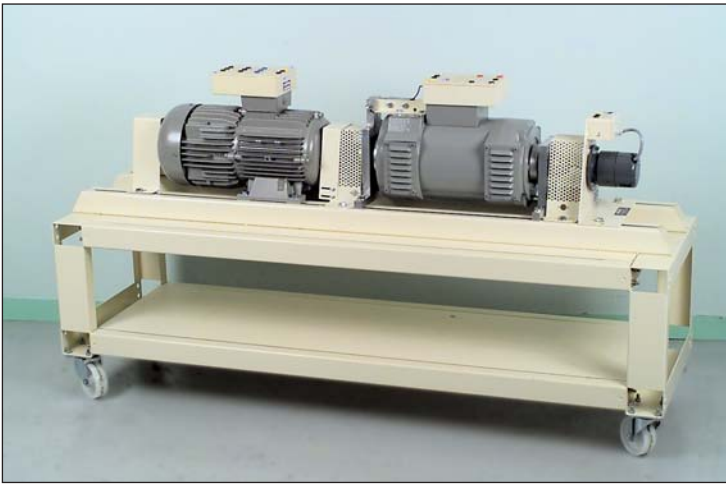
REF.		GM56-1500	GM57-1500
MAS22	3-phase squirrel motor	▪	▪
FP2	Powder brake	▪	▪
JA2	Static sensor	▪	
CR2	Rotary sensor		▪
DYTA2	DC Tachogenerator	▪	▪
RGC	Guide rails	▪	▪
CTC	Stand on wheels	▪	▪

COMPLETE AC 1500RPM ROTATING UNIT
AC 3-PHASE SQUIRREL CAGE MOTOR + ALTERNATOR



REF.		GM70-1500
MAS22	3-phase squirrel motor	▪
MSM20	3-phase synchronous machine	▪
CR2	Rotary sensor	▪
DYTA2	DC tachogenerator	▪
RGC	Guide rails	▪
CTC	Stand on wheels	▪

EXAMPLES OF COMPLETE UNITS MADE TO MEASURE



MAT20	Asynchronous slip ring motor
CG20	Shunt separated DC motor
DYTA2	DC tachogenerator
RGC	Guide rails
CTC	Stand on wheels

**ALL UNITS, WHETHER STANDARD OR COMPOSITE,
ARE SUPPLIED ALREADY ASSEMBLED,
TESTED AND READY FOR OPERATION.**