

STUDY OF A SINGLE-PHASE TRANSFORMER 230V-140VA



QUICK-G is a set of modules (H-250mm) for studying a compensated single-phase transformer 230V with three secondary windings.

Supplied without frame - Frame on next page

ref. QUICK-G

EDUCATIONAL OBJECTIVES

- Study a single-phase transformer with no load, in short-circuit and loaded.
- Measurement of the different electrical values at the primary and secondary windings.
- Calculation of the powers, efficiency, transformation ratio, and losses of the transformer.

TEACHING RESOURCES STUDENT & TEACHER

Proposed Practical Works

- Creation of the wiring diagram with measuring devices.
- Study of the use of the compensation winding at the primary.
- Readings of the electrical values of the transformer with no-load.
- Readings of the electrical values of the transformer with load.
- Calculations of the electrical characteristics, power and the transformation ratio.
- Plots of the curves of electrical power and efficiency.

Comprises

- 1 Variable autotransformer module 0-250V AC - 5A.
- 1 Single-phase transformer module 140VA.
Primary winding 230V, 1 secondary winding 15V/3.6A and 2 fuse-protected separate secondary windings 12V/3.6A.
- 3 Voltage digital display modules.
- 3 Current digital display modules.
- 3 Power digital display modules.
- 1 Variable rheostats module 0-22 ohms.
- 1 Variable rheostats module 0-3.3 ohms.
- 1 set of safety leads for carrying out the different practical works.
Mains power supply 230V - 50/60Hz. 3-metre lead with plug 2P+E.

MADE TO MEASURE



FRAMES FOR MODULAR SOLUTIONS

FRAMES ON WHEELS



SUP-AKR-1



SUP-AKR-11



SUP-AKR-22-T

Réf.	SUP-AKR-1	SUP-AKR-1T	SUP-AKR-11	SUP-AKR-11T	SUP-AKR-2	SUP-AKR-2T	SUP-AKR-22	SUP-AKR-22T
Simple face	yes	yes	no	no	yes	yes	no	no
Double face	no	no	yes	yes	no	no	yes	yes
Height	1610mm	1610mm	1610mm	1610mm	2000mm	2000mm	2000mm	2000mm
Width	940mm	940mm	940mm	940mm	1490mm	1490mm	1490mm	1490mm
Depth	500mm	500mm	500mm	700mm	750mm	750mm	750mm	900mm
Number of modules max (L166mm x H250mm)	20	20	2 x 20	2 x 20	40	40	2 x 40	2 x 40
Rack for leads (30 fingers)	1	1	2	2	1	1	2	2
Shelf 19mm	0	1	0	2	0	1	0	2

FRAMES ON TABLE



ref. SUP-AK-6

PERFECT FOR SOLUTIONS WITH 6 MODULES MAXIMUM

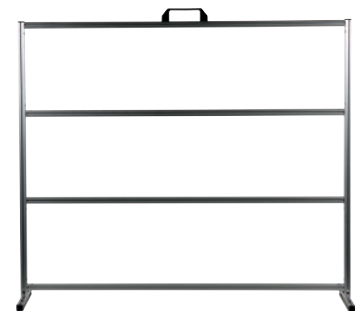
- Dimensions H 610mm x W 590mm x D 310mm
- Takes 6 modules (W-166mm x H-250mm)



ref. SUP-AK-9

PERFECT FOR SOLUTIONS WITH 9 MODULES MAXIMUM

- Dimensions H 880mm x W 590mm x D 310mm
- Takes 9 modules (W-166mm x H-250mm)



ref. SUP-AK-15

PERFECT FOR SOLUTIONS WITH 15 MODULES MAXIMUM

- Dimensions H 880mm x W 1040mm x D 380mm
- Takes 15 modules (W-166mm x H-250mm)

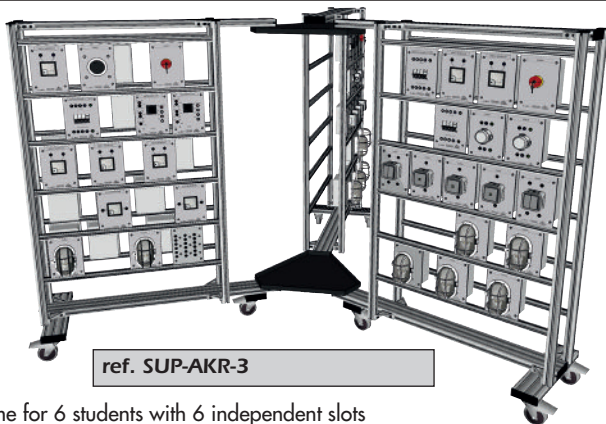
FRAME TO BE FIXED ON TABLE



ref. SUP-AK-20

- Frame with clamps, mobile and easy to store.
- Attaches to any support up to 60mm thick.
- Dimensions: H-1360mm x W-1440mm x D-500mm
- Takes to 20 modules (W-166mm x H-250mm)

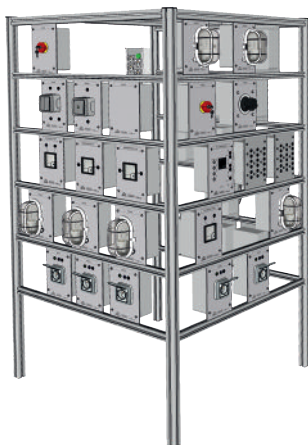
FOLDING FRAME - 6 SIDES



ref. SUP-AKR-3

- Frame for 6 students with 6 independent slots
Easily foldable at the end of use. Mounted on 9 wheels (6 with brakes).
- Dimensions: Unfolded: Ø3000mm Height 1810mm
Ground clearance folded: 1850 x 1080mm
- Takes to 25 modules per side (W-166mm x H-250mm)

FRAME 3 SIDES



- Frame 3 sides
- Dimensions
H-1800mm x W-990mm x D-990mm
- Takes to 23 modules per face
(W-166mm x H-250mm)

ref. SUP-AKC-60

POWER CONSOLES FOR FRAMES



OPTIONS FOR FRAMES

SCREEN/KEYBOARD SUPPORT

- Screen support arm
- 3 rotation points on 2 ball joints
- Supports one screen up to 12kg
- With shelf for keyboard and mouse

ref. QUICK-ECRAN



CENTRAL UNIT SUPPORT

- Wire mesh 45x45mm
- Cabling space to rear
- Epoxy paint
- Dimensions: 400x400x195mm

ref. QUICK-UC



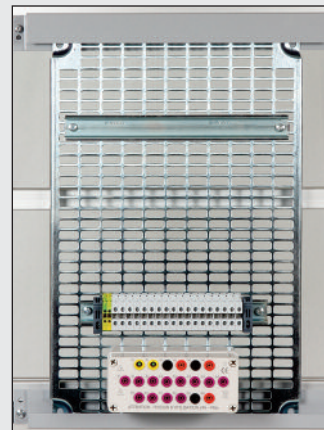
WIRING GRID

Equipped with:

- 1 Omega rail 300mm
- 1 set of 20 terminals 6mm²
- 1 box equipped with 20 safety terminals Ø4mm
- Dimensions 500x350mm

The grid can be removed instantly without tools.

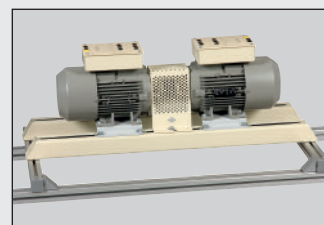
ref. QUICK-GRIL



GUIDE RAILS

- Rails for rotating machines.
- The distance between the rails can be adjusted from 70 to 380mm
- Dimension: Length 900mm
- Supplied with sliding nuts.

ref. QUICK-RGA



POWER CONSOLES FOR FRAMES

SINGLE-PHASE POWER SUPPLY



Front panel equipment

- 1 16A thermal magnetic circuit breaker
- 1 Emergency key-operated emergency stop button
- 1 Push-button on + light
- 1 230V single-phase power outlet on 4mm safety terminals
- 2 AC outlets 2P + T 230VAC

Rear equipment

- 10 Power outlets 2P + T 230VAC
- 1 Power LED

Compatible with: all SUP-AKR frames

The SUP-AKC-60 frame

The SUP-AK-20 frame

ref. PUP-AK-M

Dimensions : 500 x 135 x 120mm



The sockets at the rear of the consoles can be used to connect the modules as well as the computers

3-PHASE POWER SUPPLY



Front panel equipment

- 1 4-pole magnetothermal circuit breaker
- 1 Emergency key-operated emergency stop button
- 1 Push-button on + light
- 1 Sort output. 3 x 400V + N + T on 4mm safety terminals
- 2 AC outlets 2P + T 230VAC

Rear equipment

- 10 Power outlets 2P + T 230VAC
- 1 Power LED

Compatible with: all SUP-AKR frame

The SUP-AKC-60 frame

The SUP-AK-20 frame

ref. PUP-AK-T

Dimensions : 500 x 135 x 120mm



The sockets at the rear of the consoles can be used to connect the modules as well as the computers