
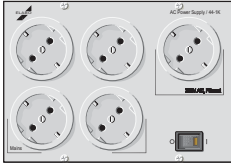

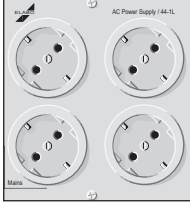





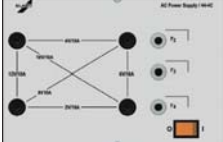


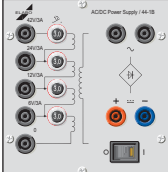







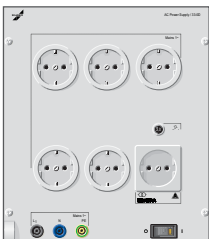
8.2 AC-supply 1-phase, fixed

AC and AC/DC-supply 1-phase

		Technical Data	Order no.
<p>AC-supply 1-phase 3HU / 36HP</p> 		<p>Insert plate with</p> <ul style="list-style-type: none"> 4 Schuko sockets 230V 1 Schuko socket with line filter 230V / 4A, high attenuation 1 illuminated rocker switch 	44-1K
<p>AC-supply 1-phase 3HU / 24HP</p> 		<p>Insert plate with 4 Schuko sockets</p> <hr/> <p>as with type 44-1L with Swiss sockets</p> <hr/> <p>as with type 44-1L with Danish sockets</p> <hr/> <p>as with type 44-1L with French sockets</p> <hr/> <p>as with type 44-1L with British sockets</p> <hr/> <p>as with type 44-1L with USA sockets</p>	<p>44-1L</p> <hr/> <p>44-1L ZC00</p> <hr/> <p>44-1L ZD00</p> <hr/> <p>44-1L ZF00</p> <hr/> <p>44-1L ZG00</p> <hr/> <p>44-1L ZU00</p>
<p>AC-supply 1-phase 3HU / 36HP</p> 		<p>Insert plate with</p> <ul style="list-style-type: none"> 5 Schuko sockets 1 illuminated rocker switch 	44-1L Z817
<p>AC-supply 1-phase 3HU / 36HP</p> 		<p>Insert plate with floating alternating current voltage 230V / 100VA</p> <ul style="list-style-type: none"> 1 illuminated rocker switch 1 thermal magnetic circuit breaker 1 transformer with separated coils 1 socket without earth contact 	44-4B
<p>AC-supply 1-phase 3HU / 36HP</p> 		<p>Insert plate with floating extra-low alternating current 2, 4, 6, 8, 10, 12V / 10A</p> <ul style="list-style-type: none"> 1 illuminated rocker switch 1 transformer with separated coils 3 thermal magnetic circuit breakers 4 laboratory safety sockets <hr/> <p>as 44-4C with floating extra-low alternating current 6, 12, 18, 24, 36, 42V / 3A</p>	<p>44-4C</p> <hr/> <p>44-4D</p>
<p>Laboratory safety sockets 3HU / 12HP</p> 		<p>Insert plate with mains voltage L / N / PE ~ 50Hz with 3 laboratory safety sockets L1, N, PE</p>	44-1W
<p>Adjustable AC/DC-supply 3HU / 36HP</p>		<p>Eurocassette with floating extra-low alternating current voltage 6, 12, 18, 24, 30, 36 and 42V / 3A</p> <ul style="list-style-type: none"> 1 externally switchable bridge rectifier (B2) 4 thermal magnetic circuit breakers 9 laboratory safety sockets 1 illuminated rocker switch 	44-1B





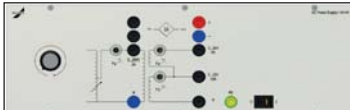

AC-supply 1-phase

Elabo plates and inserts with floating alternating current voltage can be used in many ways – e.g. for measurements of inductivities and capacities, in production test rooms or as floating voltage supply systems for training, servicing and development.

		Technical data	Order no.
AC-supply 1-phase 6HU / 1BE		<p>Insert plate for supplying with alternating current voltage 230V AC / 16A</p> <ul style="list-style-type: none"> 4 Schuko sockets 3 Schuko sockets, 3 laboratory safety sockets L1, N, PE 2 Schuko sockets, 1 emergency-off mushroom button, non-wired 	<p>32-1J</p> <p>32-1M</p> <p>32-1P</p>
AC-supply 1-phase 6HU / 1BE		<p>Insert plate for supplying with floating extra-low alternating current voltage 2, 4, 6, 8, 10, 12V AC / 10A</p> <ul style="list-style-type: none"> 4 laboratory safety sockets for drawing extra-low alternating current voltages 3 circuit breakers 1 illuminated rocker switch 	32-1E
AC-supply 1-phase 6HU / 1BE		<p>Insert plate for supplying with extra-low alternating current voltage 6, 12, 18, 24, 36, 42V AC / 3A</p> <ul style="list-style-type: none"> 4 laboratory safety sockets for drawing extra-low alternating current voltages 3 circuit breakers 1 illuminated rocker switch 	32-1F
AC-supply, 1-phase with line filter 6HU / 1BE		<p>Insert plate for supplying with filtered alternating current voltage</p> <ul style="list-style-type: none"> 1 Schuko socket for drawing mains voltage 230V / 16A 1 Schuko socket for drawing alternating current voltage through line filter with high attenuation 230V / 16A (line filters with special technical data upon request) 1 fine wire fuse 1 illuminated rocker switch 	32-1R
AC-supply 1-phase 6HU / 1BE		<p>Insert plate for supplying with alternating current voltage 230V AC / 100VA</p> <ul style="list-style-type: none"> 1 socket without earth contact for drawing 230V / 100VA, floating 1 isolating transformer 1 Schuko socket for drawing alternating current voltage 1 circuit breaker 1 illuminated rocker switch 	32-1S
AC-supply 1-phase 6HU / 2BE		<p>Insert for supplying with alternating current voltage 230V AC</p> <ul style="list-style-type: none"> 5 Schuko sockets and 3 laboratory safety sockets for drawing mains voltage 230V / 16A 1 socket without earth contact for drawing 230V / 3A, floating 1 circuit breaker 1 illuminated rocker switch 	33-0D

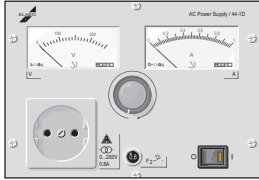
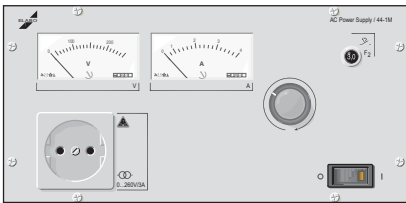
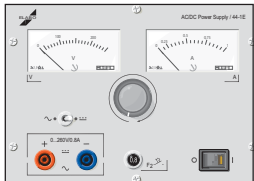

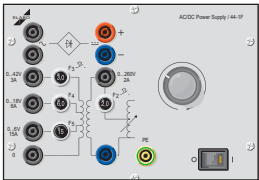
8.3 AC-supply 1-phase, adjustable

AC- und AC/DC-supply 1-phase




		Technical data	Order no.
AC/DC-supply 1-phase 3HU / 84HP		Insert plate with floating direct current and alternating current voltage 0...24V / 4A with analogue displays 1 voltmeter 1 ammeter 1 transformer with separated coils 1 economy variable transformer 1 thermal magnetic circuit breaker 1 illuminated rocker switch 2 laboratory safety sockets	44-4F
AC-supply 1-phase 3HU / 84HP		Insert plate with non-floating alternating current voltage 0...260V / 1A and mains voltage 1/N/PE ~ 50Hz 1 illuminated rocker switch 1 economy variable transformer 1 thermal magnetic circuit breaker 3 laboratory safety sockets 2 Schuko sockets	44-4K
AC-supply 1-phase 3HU / 84HP		Insert plate with non-floating alternating current voltage 0...260V / 1A and mains voltage 1 / N / PE ~ 50Hz with analogue displays 1 illuminated rocker switch 1 economy variable transformer 1 thermal magnetic circuit breaker 1 voltmeter 1 ammeter 3 laboratory safety sockets 2 Schuko sockets	44-4L
AC/DC-supply 1-phase 3HU / 84HP		Insert plate with non-floating direct current and alternating current voltage 0...260 V / 1A and mains voltage 1 / N / PE ~ 50Hz 1 illuminated rocker switch 1 economy variable transformer 1 thermal magnetic circuit breaker 6 laboratory safety sockets 2 Schuko sockets	44-4M
AC-supply 1-phase 3HU / 76HP		Insert plate with non-floating alternating current voltage 0...260V / 2A and floating extra-low voltages 0...12V / 12A, 0...24V / 6A with externally switchable bridge rectifier 1 illuminated rocker switch 1 economy variable transformer 1 transformer with separated coils 3 thermal magnetic circuit breakers 10 laboratory safety sockets 1 bridge rectifier	44-4N
AC-supply 1-phase 3HU / 76HP		Insert plate with non-floating alternating current 0...260 V / 2 A and floating low-level voltages 0...6 V / 15 A, 0...18 V / 6 A, 0...42 V / 3A with externally switchable bridge rectifier 1 illuminated rocker switch 1 economy variable transformer 1 transformer with separated coils 4 thermal magnetic circuit breakers 11 laboratory safety sockets 1 bridge rectifier	44-4P

Eurocassette for AC and AC/DC-supply

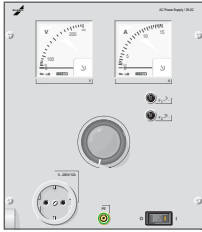
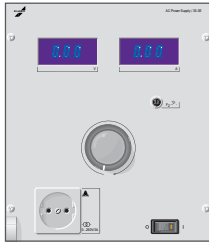

Elabo eurocassettes with direct current and alternating current voltage for supplying devices in the laboratory and in the test room. Voltage setting by means of a ring core variable transformer with rotary knob, analogue moving armature instruments installed with effective value display.

		Technical Data	Order no.
AC-supply 1-phase with isolating transformer 3HU / 36HP		<p>Eurocassette with floating, adjustable alternating current voltage 0...260 V / 0.8A</p> <ul style="list-style-type: none"> 1 analogue voltmeter 0...300V 1 analogue ammeter 0...1A 1 thermal magnetic circuit breaker 1 socket without earth contact 1 illuminated rocker switch 	44-1D
Adjustable AC-supply 3HU / 36HP		<p>Eurocassette with floating, adjustable alternating current voltage 0...260V / 3A</p> <p>Load: 0...3A, transient 4A across the entire setting range</p> <ul style="list-style-type: none"> 1 analogue voltmeter 0...300V 1 analogue ammeter 0...4A 1 thermal magnetic circuit breaker 1 socket without earth contact 1 illuminated rocker switch 	44-1M
Adjustable AC-supply 3HU / 52HP		<p>Eurocassette with floating alternating current voltage 0...260V / 0.8A, can be switched to direct current 0...260V / 0.8A, RW 48%</p> <ul style="list-style-type: none"> 1 voltmeter 0...300V 1 ammeter 0...1A 1 toggle switch 1 thermal magnetic circuit breaker 2 laboratory safety sockets 1 illuminated rocker switch 	44-1E
AC-supply 3-phase 3HU / 66HP		<p>Eurocassette with floating alternating current voltage 0...30V / 4A, can be switched over to direct current 0...30V / 4A, RW 48%</p> <ul style="list-style-type: none"> 1 voltmeter 0... 30 V 1 ammeter 0... 4A 1 toggle switch 1 thermal magnetic circuit breaker 2 laboratory safety sockets 1 illuminated rocker switch 	44-1G
AC/DC-supply 3HU / 24HP		<p>Eurocassette with continuously adjustable direct current and alternating current voltage.</p> <ul style="list-style-type: none"> 0...260V / 2A non-floating 0... 42V / 3A floating 0... 18V / 6A floating 0... 6V / 15A floating 1 externally switchable bridge rectifier (B2) 4 thermal magnetic circuit breakers 10 laboratory safety sockets 1 illuminated rocker switch 	44-1F

Eurocassette for AC and AC/DC-supply



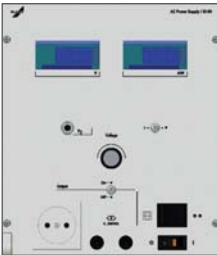

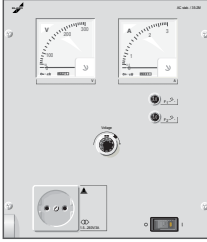
	Technical data	Order no.												
Adjustable AC/DC-supply 3HU / 52HP	 <p data-bbox="805 264 1300 324">Eurocassette with continuously adjustable floating alternating current voltage 0...260V / 3A or 0...50V / 10A can be switched over to DC with RW 48% 0...260V / 3 A or 0...50V / 10A</p> <table border="0" data-bbox="805 403 1300 526"> <tr> <td>1 voltmeter</td> <td>1st range</td> <td>0... 300V</td> </tr> <tr> <td></td> <td>2nd range</td> <td>0... 50V</td> </tr> <tr> <td>1 ammeter</td> <td>1st range</td> <td>0... 4A</td> </tr> <tr> <td></td> <td>2nd range</td> <td>0... 10A</td> </tr> </table> <p data-bbox="805 526 1300 660">Additional protection function: When switching from direct current to alternating current voltage or from mains voltage to extra-low voltage or vice-versa, the load must be unplugged and then replugged at the laboratory safety sockets.</p> <ul style="list-style-type: none"> 2 thermal magnetic circuit breakers 2x 3 laboratory safety sockets 2 changeover rocker switches 1 illuminated rocker switch 	1 voltmeter	1st range	0... 300V		2nd range	0... 50V	1 ammeter	1st range	0... 4A		2nd range	0... 10A	44-1P
1 voltmeter	1st range	0... 300V												
	2nd range	0... 50V												
1 ammeter	1st range	0... 4A												
	2nd range	0... 10A												
Adjustable AC-stabiliser 3HE / 66HP	 <p data-bbox="805 817 1300 907">Eurocassette with floating alternating current voltage 2...260V / 2A. Electromotive stabilisation with tracking controller and setpoint potentiometer.</p> <ul style="list-style-type: none"> 1 digital display 4-digit for voltage 1 digital display 4-digit for current switch-selectable active power 1 rocker pushbutton switch for output on/off <p data-bbox="805 1019 1300 1059">Output to 2 safety lab terminals</p>	44-5M 												

Adjustable AC-supply

		Technical Data	Order no.
AC-supply 1-phase 6HU / 2WU		Adjustable, non-floating alternating current voltage 0...260V AC / 12.5A	35-2C
		1 analogue voltmeter 0...300V 1 analogue ammeter 0...15A Load: 12.5A, transient 15A across the entire setting range	
		1 Schuko socket for drawing 0...260V / 0...12.5A non-floating 1 PE laboratory safety socket 2 circuit breakers 1 illuminated rocker switch	
		0...260V / 3A with analogue voltmeter and ammeter 1 Schuko socket, 1 laboratory safety socket	35-2A
		0...260V / 5A with analogue voltmeter and ammeter 1 Schuko socket, 1 laboratory safety socket	35-2B
AC-supply 1-phase 6HU / 2WU		Adjustable, floating alternating current voltage 0...260V AC / 3A	35-3E
		1 digital voltmeter 0...300V 1 digital ammeter 0...4A Load: 3A, transient 4A across the entire setting range	
		1 socket without earth contact 1 circuit breaker 1 illuminated rocker switch	
		0...260V / 5A floating with analogue voltmeter and ammeter socket without earth contact	35-3F
AC-supply 1-phase 6HU / 2WU		Adjustable, floating alternating current voltage 0...260V AC / 3A	35-2E
		1 analogue voltmeter 0...300V 1 analogue ammeter 0...4A Load: 3A, transient 4A across the entire setting range	
		1 socket without earth contact 1 circuit breaker 1 illuminated rocker switch	
		0...260V / 800W floating with analogue voltmeter and wattmeter socket without earth contact	35-2G
		0...260V / 5A floating with analogue voltmeter and ammeter socket without earth contact	35-2F
		0...260V / 1500W floating with analogue voltmeter and wattmeter socket without earth contact	35-2H
		0...260V / 12A floating with analogue voltmeter and ammeter socket without earth contact	35-2J

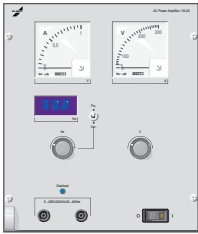
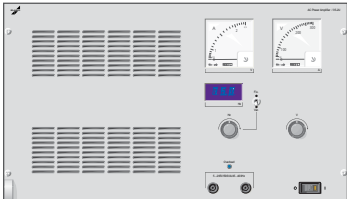
Adjustable AC-stabiliser

With the adjustable AC-stabilisers, the stabilisation of the alternating current voltage takes place electromechanically: variable transformer with motor drive, electronic stabilisation unit and downstream isolating transformer. With an output voltage of U_{nominal} stability is rated at $260V \pm 2V$. The output voltage can be set precisely by means of a ten turn potentiometer. The control time is approx. 0.5s with a network voltage fluctuation of 10%.

		Technical data	Order no.
AC-stabiliser 6HU / 2WU		Adjustable, non-floating alternating current voltage 2...260V / 12A Electromechanical stabilisation with tracking controller and setpoint potentiometer 1 4-digit digital display for voltage 1 4-digit digital display for current switch-selectable active power 1 rocker pushbutton switch for output on/off Output parallel on Schuko and laboratory safety sockets	35-5C 
AC-stabiliser 6HU / 2WU		Adjustable, floating alternating current voltage 2...260V / 5A Electromechanical stabilisation with tracking controller and setpoint potentiometer 1 4-digit digital display for voltage 1 4-digit digital display for current switch-selectable active power 1 rocker pushbutton switch for output on/off Output can be switched to one socket without earth contact or to 2 laboratory outlets	35-5H 
AC-stabiliser 6HU / 2WU		Adjustable, stabilised, floating alternating current voltage 1.5...260V AC / 3A 1 analogue voltmeter 0...300V 1 analogue ammeter 0...4A Load: 0...3A across the entire setting range Stabilisation: $V_{\text{nom}} \pm 2V$ Actuating time: approx. 0.5s with 10% mains voltage change 1 socket without earth contact 1 motor-driven variable transformer with separated coils and electronic stabilisation unit for maintaining constant voltage in accordance with the electromechanical principle 2 circuit breakers 1 illuminated rocker switch	35-2M
		as with type 35-2M, but 1.5...260V AC / 6A 1 analogue ammeter 0...6A	35-2N

Power generators

All power generators provide an adjustable, stabilised alternating current voltage or 3-phase alternating current (5...400V) with adjustable frequency (45Hz...400Hz). They are used for testing, repair and maintenance of components and devices which are operated with a dedicated network voltage – e.g. in air and sea travel. They are also used as alternating current-stabilisers for networks with special frequencies.

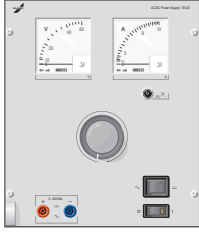
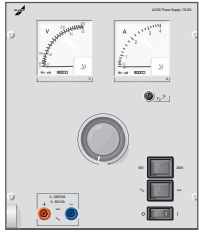

	Technical Data	Order no.
<p>Power generator 1-phase 6HU / 2WU</p> 	<p>Single-phase power generator with stabilised alternating current voltage 5...265V AC / 220VA</p> <ul style="list-style-type: none"> 1 analogue voltmeter 0...300V 1 analogue ammeter 0...1A 1 digital frequency display 3-digit, resolution 0.1Hz <p>Output voltage: 5...265V</p> <p>Output power: 220VA with maximum output voltage</p> <p>Frequency: 50Hz crystal stable, can be switched over to 45...400Hz (not crystal stable)</p> <ul style="list-style-type: none"> 2 laboratory safety sockets 1 ten turn helical potentiometer for voltage adjustment 1 ten turn helical potentiometer for frequency adjustment 1 overload protection 1 illuminated rocker switch 	35-2S
<p>Power generator 1-phase 6HU / 2WU</p>	<p>Single-phase power generator with stabilised alternating current voltage 5...135V AC / 220VA</p> <ul style="list-style-type: none"> 1 analogue voltmeter 0...150V 1 analogue ammeter 0...2A 1 digital frequency display 3-digit, resolution 0.1Hz <p>Output voltage: 5...135V</p> <p>Output power: 220VA with maximum output voltage</p> <p>Frequency: 60Hz crystal stable, can be switched over to 45...75Hz (not crystal stable)</p> <ul style="list-style-type: none"> 2 laboratory safety sockets 1 ten turn helical potentiometer for voltage adjustment 1 ten turn helical potentiometer for frequency adjustment 1 overload protection 1 illuminated rocker switch 	35-2V
<p>Power generator 1-phase 6HU / 4WU</p> 	<p>Single-phase power generator with stabilised alternating current voltage 5...265V AC / 500VA</p> <ul style="list-style-type: none"> 1 analogue voltmeter 0...300V 1 analogue ammeter 0...2A 1 digital frequency display 3-digit, resolution 0.1Hz <p>Output voltage: 5...265V</p> <p>Output power: 500VA with maximum output voltage</p> <p>Frequency: 50Hz crystal stable, can be switched over to 45...400Hz (not crystal stable)</p> <ul style="list-style-type: none"> 2 laboratory safety sockets 1 ten turn helical potentiometer for voltage adjustment 1 ten turn helical potentiometer for frequency adjustment 1 overload protection 1 illuminated rocker switch 	35-2U

Power generators

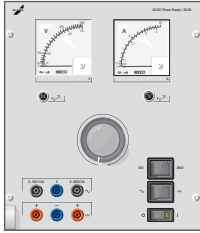
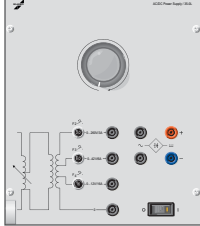
	Technical data	Order no.
Power generator 1-phase 6HU / 4WU	1-phase power generator with stabilised alternating current voltage 5...135V AC / 500VA 1 analogue voltmeter 0...150V 1 analogue ammeter 0...4A 1 digital frequency display 3-digit, resolution 0.1Hz Output voltage: 5...135V Output power: 500VA with maximum output voltage Frequency: 60Hz crystal stable, can be switched over to 45...75Hz (not crystal stable) 2 laboratory safety sockets 1 ten turn helical potentiometer for voltage adjustment 1 ten turn helical potentiometer for frequency adjustment 1 overload protection 1 illuminated rocker switch	35-2W

Adjustable AC/DC-supply

These inserts provide alternating current voltage which can be continuously adjusted, starting from 0, and can be switched over to direct current. Moving armature instruments with effective value displays are installed for current and voltage measurement. The voltage adjustment is accomplished by means of a variable transformer. The pulsating direct current exhibits a ripple of 48 %. All devices are equipped with an AC/DC selection switch and can also be obtained with digital displays upon request.




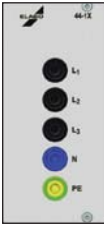
		Technical Data	Order no.
AC/DC-supply 6HU / 2WU		Insert for supplying with floating alternating current voltage or direct current AC: 0...60V / 8A, can be switched over to DC with 0...60V / 8A Effective ripple of the direct current approx. 48% 1 analogue voltmeter 0...60V 1 analogue ammeter 0...10A 2 laboratory safety sockets 1 rotary knob for adjusting the voltage 1 changeover switch from alternating current voltage to direct current 1 circuit breaker 1 illuminated rocker switch	35-0D
		Alternating current voltage 0...260V / 3A Direct current 0...260V / 3A analogue voltmeter analogue ammeter 2 laboratory safety sockets	35-0E
		Alternating current voltage 0...260V / 5A Direct current 0...260V / 5A analogue voltmeter analogue ammeter 2 laboratory safety socketsw	35-0F
AC/DC-supply 6HU / 2WU		Insert for supplying with floating alternating current voltage or direct current AC/DC 0... 260V / 3A, can be switched over to 0...50V / 3A Effective ripple of the direct current approx. 48% 1 analogue voltmeter 1st range 0...300V 2nd range 0...50V 1 analogue ammeter 0...4A 2 laboratory safety sockets 1 rotary knob for adjusting the voltage 1 changeover switch from alternating current voltage to direct current 1 changeover switch 50 / 260V 1 circuit breaker 1 illuminated rocker switch	35-0G
		Insert for supplying with floating alternating current voltage or direct current, as with type 35-0E, but with additional extra-low alternating current voltages 2, 4, 6, 8, 10 and 12V / 10A. 4 thermal circuit breakers 1 thermal magnetic circuit breaker 1 changeover switch from alternating current voltage to direct current 1 illuminated rocker switch	35-0H
AC/DC-supply 6HU / 2WU		floating extra-low alternating current voltage 6, 12, 18, 24, 36, 42 V / 3A Direct current 0...260 V / 3A analogue voltmeter analogue ammeter 2 laboratory safety sockets	35-0J


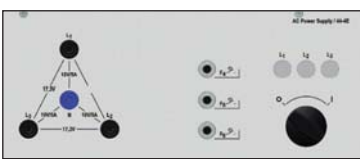
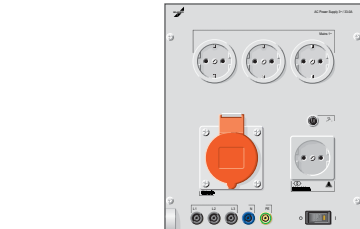

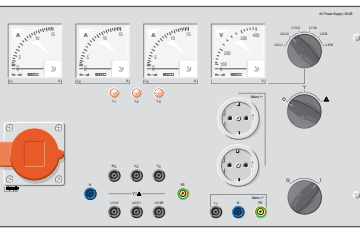
Adjustable AC/DC-supply

AC/DC-supply 6HU / 2WU		Technical data	Order no.
		<p>Insert for supplying with floating alternating current voltage or direct current and additional protective function (forced replugging of the load). AC/DC 0... 260V / 3A, can be switched over to 0...50V / 10 A</p> <ul style="list-style-type: none"> 1 analogue voltmeter <ul style="list-style-type: none"> 1st range 0...300V 2nd range 0...50V 1 analogue ammeter <ul style="list-style-type: none"> 1st range 0...4A 2nd range 0...10A <p>Effective ripple of the direct current: approx. 48%</p> <ul style="list-style-type: none"> 6 laboratory safety sockets 1 rotary knob for adjusting the voltage 1 changeover switch from alternating current voltage to direct current 1 changeover switch 50V / 260V 2 circuit breakers 1 illuminated rocker switch <p>Additional safety is ensured with the 35-0K device in that the load must be unplugged and then replugged at the laboratory safety sockets when switching from alternating current voltage to direct current or from extra-low voltage to low voltage.</p>	35-0K
AC/DC-supply 6HU / 2WU		<p>Insert for supplying with floating alternating current voltage in the ranges: 0...260V / 3A 0...42V / 6A 0...12V / 15A</p> <ul style="list-style-type: none"> 1 freely switchable rectifier (B2 - 300V / 16A) for rectifying the alternating current voltages <p>Ripple of the rectified voltages: approx. 48%</p> <ul style="list-style-type: none"> 1 rotary knob for adjusting the voltage 8 laboratory safety sockets 3 circuit breakers 1 illuminated rocker switch 	35-0L



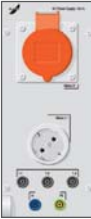
8.4 AC-supply 3-phase, fixed

AC-supply

	Technical data	Order no.
<p>CEE socket 3HU / 24HP</p>  	<p>Insert plate with mains voltage 3 / N / PE ~ 50Hz with 1 CEE socket</p> <hr/> <p>Insert plate with mains voltage 3 / N / PE ~ 50Hz with 1 CEE socket 5 laboratory safety sockets L1, L2, L3, N, PE</p>	<p>44-2C</p> <hr/> <p>44-2C Z001</p>
<p>Laboratory safety sockets 3HU / 12HP</p>  	<p>Insert plate with mains voltage 3 / N / PE ~ 50Hz with 5 laboratory safety sockets L1, L2, L3, N, PE</p>	<p>44-1X</p>

		Technical Data	Order no.
<p>AC-supply 1-phase 3HU / 36HP</p> 		<p>Insert plate with floating 3-phase alternating current supply 3 ~ 10 / 17.3V 5A</p> <ul style="list-style-type: none"> 1 rotary switch I/O 3 glow lamps 1 3-phase current transformer with fine wire fuses 3 circuit breakers 4 laboratory safety sockets 	44-4E
<p>AC-supply 1- and 3-phase 6HU / 2WU</p>		<p>Insert for supplying with 3-phase alternating current and alternating current voltage</p> <ul style="list-style-type: none"> 1 CEE socket and 5 laboratory safety sockets for drawing 3-phase alternating current 3 Schuko sockets for drawing alternating current voltage 1 socket without earth contact for drawing 230V / 1A, floating 1 isolating transformer 230VA 1 circuit breaker 1 A 1 illuminated rocker switch 	33-0A
		<p>as with type 33-0A, but with technical data:</p> <ul style="list-style-type: none"> 1 socket without earth contact for drawing 230V / 3A, floating 1 isolating transformer 690VA 1 circuit breaker 3A 1 illuminated rocker switch 	33-0B
<p>AC-supply 1- and 3-phase 6HU / 2WU</p>		<p>Insert for supplying with non-floating 3-phase alternating current 3 / N / PE 400V AC / 6A / 50Hz</p> <ul style="list-style-type: none"> 1 voltmeter 0...400V, can be switched to outer conductor / outer conductor or outer conductor / neutral conductor via changeover switch 1 ammeter 0...6A, can be switched on via changeover switch in any phase 1 CEE socket 5 laboratory safety sockets for drawing 3-phase alternating current 1 Schuko socket 3 circuit breakers 3 external conductor indicator lamps 1 Off switch 	36-0F
<p>AC-supply 1- and 3-phase 6HU / 4WU</p>		<p>Insert for supplying with non-floating 3-phase alternating current 230 / 400V 16A delta or wye with analogue displays</p> <ul style="list-style-type: none"> 1 rotary switch I/O 1 rotary switch 0 / delta / wye 3 glow lamps 1 rotary switch, 6-stage 1 voltmeter analogue 0...400V, moving armature Class 1.5 3 ammeter analogue 0...15A with 45A overload scale, moving armature Class 1.5 1 CEE socket 5p380V16AB 5 laboratory safety sockets L1/U1, L2/V1, L3/W1, N, PE 3 laboratory safety sockets U2, V2, W2 2 Schuko sockets 3 laboratory safety sockets 	36-0E

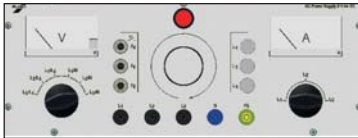


AC-supply

AC-supply 1- and 3-phase 6HU / 1WU		Technical data Insert plate for supplying with floating 3-phase alternating current 3 ~ 23 / 40V / 3A 4 laboratory safety sockets for drawing 3-phase alternating current 3 circuit breakers 3 external conductor indicator lamps 1 rotary switch 1 3-phase current transformer with fine wire fuses	Order no. 32-1G
AC-supply 1- and 3-phase 6HU / 1WU		Insert plate for supplying with non-floating 3-phase alternating current 3 / N / PE ~ 50Hz 230 / 400V 16 A 5 laboratory safety sockets for drawing 3-phase alternating current 3 external conductor indicator lamps 1 Off switch	32-1H
AC-supply 1- and 3-phase 6HU / 1WU		Insert plate for supplying with 3-phase alternating current 1 CEE socket 16A and 5 laboratory safety sockets L1, L2, L3, N, PE for drawing 3-phase alternating current 1 Schuko socket for drawing alternating current voltage	32-1L

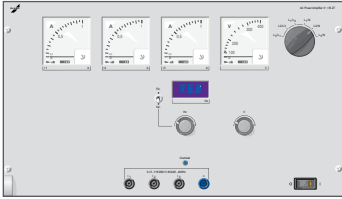
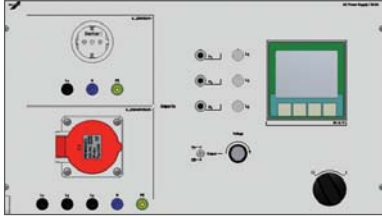

8.5 AC-supply 3-phase, adjustable

AC-supply 3-phase

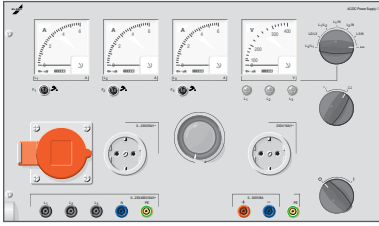
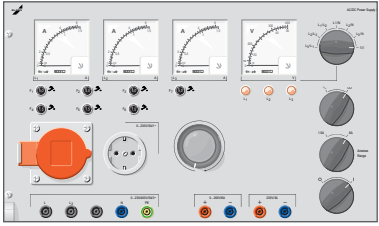
Elabo eurocassettes with direct current and alternating current voltage for supplying devices in the laboratory and in the test room. Voltage setting by means of a ring core variable transformer with rotary knob, analogue moving armature instruments installed with effective value display.

		Technical data	Order no.
AC-supply 3-phase 3HU / 66HP		<p>Eurocassette with non-floating 3-phase alternating current 0...400V / 3A with analogue displays</p> <ul style="list-style-type: none"> 1 illuminated pushbutton switch 3 external conductor indicator lamps 1 3-phase ring core variable transformer with economy coil 3 circuit breakers, 1-pin, 3A 1 moving armature voltmeter 0-400V, Class 2.5 1 voltmeter changeover switch 1 moving armature ammeter 0...4A Class 2.5 1 ammeter changeover switch 5 laboratory safety sockets 	44-1R
AC-supply 1- and 3-phase 6HU / 2WU		<p>Adjustable, non-floating 3-phase alternating current 3 / N / PE 0...400V AC / 2A, transient to 2.5A</p> <ul style="list-style-type: none"> 1 voltmeter 0...400V, can be switched to outer conductor / outer conductor or outer conductor / neutral conductor via changeover switch 1 ammeter 0...2.5A, can be switched to every outer conductor via changeover switch 5 laboratory safety sockets L1, L2, L3, N, PE 3 circuit breakers 3 external conductor indicator lamps 1 Off switch 	36-0D
AC-supply 1- and 3-phase 6HU / 4WU		<p>Adjustable, non-floating 3-phase alternating current 3 / N / PE 0...400V AC / 5A, transient 6A with analogue displays and mains voltage 1 / N / PE ~ 50Hz 230V 16A</p> <ul style="list-style-type: none"> 1 rotary switch I/O 3 glow lamps 1 economy variable transformer for 3-phase current 1 mains/transformer rotary switch 3 circuit breakers TMT5A 3 ammeters, analogue 0...6A, moving armature Class 1.5 1 rotary switch, 6-stage 1 voltmeter analogue 0...400V, moving armature Class 1.5 1 CEE socket 5-pin 400V/16 A 5 laboratory safety sockets 1 Schuko socket 0...230 V / 5 A or 1 / N / PE ~ 50 Hz 230 V 5 A 1 Schuko socket 230 V 16 A 3 laboratory safety sockets 	36-0A
		<p>as with type 36-0A, but with output current up to 8A, transient up to 10A</p> <p>3 ammeters 0...10A</p>	36-0B
		<p>similar to type 36-0A, 3 / N / PE 0...290/500V AC / 4A</p> <ul style="list-style-type: none"> 1 voltmeter 0...500V 3 ammeters 0...6A 3 circuit breakers 1-pin K 4A 	36-0C

Power generator, AC-supply

	Technical Data	Order no.
<p>Power generator 3-phase 6HU / 4WU</p>	 <p>Insert with 3-phase power generator 500VA</p> <ul style="list-style-type: none"> 1 analogue voltmeter 0...200V 1 analogue ammeter 0...1.5A 1 digital frequency display 3- or 4-digit, resolution 0.1Hz <p>Output voltage: 3 x 5...115 / 200V Output power: 500VA with maximum output voltage Frequency: 400Hz crystal stable, can be switched over to 45...400Hz (not crystal stable)</p> <ul style="list-style-type: none"> 4 laboratory safety sockets for drawing the stabilised 3-phase alternating current 3 x 5...115 / 200V / 500VA 1 ten turn helical potentiometer for voltage adjustment 1 ten turn helical potentiometer for frequency adjustment 1 overload protection 1 illuminated rocker switch <p>The programming can be altered to allow the user to switch between an anti-clockwise rotating field or a clockwise rotating field. The utilisation options of the device can be expanded with phase shift – e.g. as a bridge amplifier (option).</p>	<p>35-2T</p>
<p>AC-supply 6HU / 4WU</p>	 <p>Insert with non-floating 3-phase alternating current 0...230 / 400V / 5A (transient 6A) with electromotive control for variable voltage adjustment</p> <ul style="list-style-type: none"> 1 CEE socket 16 A 5 laboratory safety sockets 1 Schuko socket 3 laboratory safety sockets 3 phase monitoring lamps 1 ten turn potentiometer for manual adjustment of the output voltage 1 rocker pushbutton switch for switching off the output voltage <p>The following measurement values can be selected for display by means of a multi-function display feature: Neutral conductor current, active power measurement (W), idle power measurement (VAr kap, VAr ind), apparent power measurement (VA), power factor measurement (cos phi), frequency.</p>	<p>36-5A</p>
	<p>as with 36-5A with 2 Ethernet interfaces for remote control</p>	<p>36-5A Z102</p> 

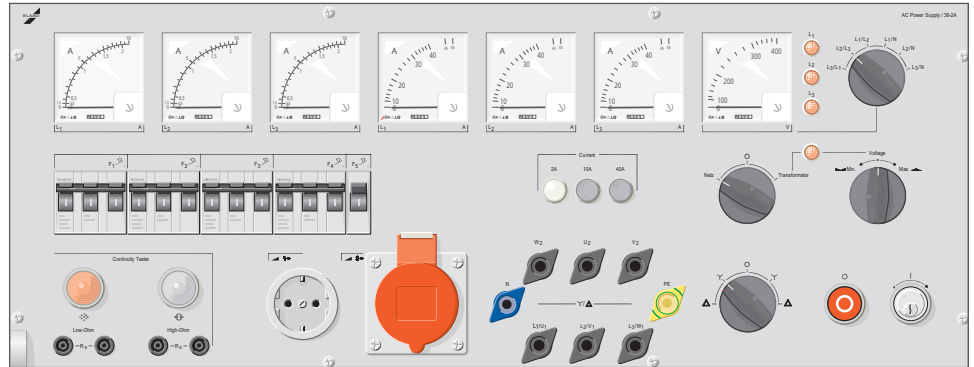
AC/DC-supply 3-phase

AC/DC-supply 6HU / 4WU		Technical data	Order no.
		<p>Insert with continuously adjustable, non-floating 3-phase alternating current and direct current with 5% RW 3-phase alternating current: 3 / N / PE 0...400 V AC / 8A</p> <p>can be switched over to direct current: 0...500V / 10A, ripple approx. 5% effective</p> <ul style="list-style-type: none"> 1 analogue voltmeter 0...500V 2 analogue voltmeters 0...10A 1 rotary knob for adjusting the voltage 1 changeover switch for 3-phase alternating current and direct current 1 voltmeter changeover switch – can be switched to outer conductor/outer conductor or to outer conductor / neutral conductor, as well as into the direct voltage circuit 1 5-pin CEE socket 1 Schuko socket for variable voltage 1 Schuko socket for mains voltage 5 laboratory safety sockets L1, L2, L3, N, PE 3 laboratory safety sockets for direct current 1 protective earth wire laboratory socket 3 circuit breakers 3 external conductor indicator lamps 1 4-pin Off switch 	36-1C
		<p>as with 36-1C, but with 3-phase alternating current: 3 / N / PE 0...400 V AC / 5 A / 50 Hz, can be switched over to direct current: 0...500V / 6A, 1 3-phase ring core variable transformer</p>	36-1A
AC/DC-supply 6HU / 4WU		<p>Insert with continuously adjustable, non-floating 3-phase alternating current and direct current with 18% RW and additional fixed direct current with 48% RW 3-phase alternating current: 3 / N / PE 0...400V AC / 5A / 50Hz</p> <p>can be switched over to direct current: 0...250V / 6A, ripple approx. 18% effective</p> <p>Fixed direct current: 230V / 3A, ripple approx. 48% effective</p> <ul style="list-style-type: none"> 1 analogue voltmeter 0...400V 3 analogue ammeters 1st range 0...6A 2nd range 0...1.5A 1 measurement range changeover switch 1.5 / 6A 1 rotary knob for adjusting the voltage 1 changeover switch for 3-phase alternating current or direct current 1 voltmeter changeover switch – can be switched to outer conductor/outer conductor or to outer conductor / neutral conductor, as well as into the direct voltage circuit 1 5-pin CEE socket 1 Schuko socket for variable voltage 5 laboratory safety sockets L1, L2, L3, N, PE 2 laboratory safety sockets for variable direct current 2 laboratory safety sockets for fixed direct current 1 protective earth wire laboratory socket 7 circuit breakers 3 external conductor indicator lamps 1 4-pin Off switch 	36-1D
		<p>as with 36-1D, but with 3-phase alternating current: 3 / N / PE 0...400V AC / 8A / 50Hz, can be switched over to direct current: 0...250V / 10A, ripple approx. 18% effective</p> <p>Fixed direct current: 230V / 3A, ripple approx. 48%, effective</p> <ul style="list-style-type: none"> 1 analogue voltmeter 0...400V 3 analogue ammeters 1st range 0...10A; 2nd range 0...2A 	36-1E

Test rooms

The test rooms 36-2A and 36-3A are appropriate for general utilisation at test stations in production and repair operations. The mains connection supplies 3-phase alternating current 3 / N / PE 400V AC / 40A / 50Hz to a labelled serial terminal board. The main switch is designed as a key switch button. The test room is equipped with 3 outer conductor monitoring lamps, 1 control fuse and 16A 3-way automatic devices for the backup rooms in the desk rack. A selection switch with the settings "Mains" - 0 - "Transformer" makes it possible to switch from mains supply to supply with adjustable voltage by means of a transformer (available separately).

Test room insert with three current measurement ranges 6HU / 6WU



Operating modes

- "Mains" The mains voltage is switched directly through the measuring instruments to the drawing terminals or sockets.
- "Transformer" In this position, the drawing terminals or sockets are fed with continuously adjustable selectable voltage (possible only with variable transformer, must be ordered separately).
- Setting: 1 selection switch "Mains or Transformer"

- Continuity testing: high-impedance with 230V AC, displayed with 230V glow lamp, low-impedance with 24V AC, displayed with 24V glow lamp.

Current measurement

- Preselection: 3 ranges 2A / 10A / 40A, selectable through a pushbutton assembly with mutual actuation.
- Display: 3 moving armature ammeters with two ranges and dual scale 0...2A / 0...10A, each secured with one triple circuit breaker (2A and 10A) 3 moving armature ammeters 0...40A with overload scale 120A (switching-current transient). Because the switchover takes place without voltage interruption, no switch-on peaks arise. This makes it possible to always be able to measure the current exactly, e.g. after the completed startup of an electrical motor.

- Mains connection: 1 labelled serial terminal board for 3-phase alternating current 3 / N / PE 400V AC / 40A / 50Hz
- Approvals: 1 CEE socket 16A / 5-pin 6 screw-type terminals, 63A, aligned like a terminal board, with 4mm plug-in option W2 U2 V2 L1 / U1 L2 / V1 L3 / W1 2 screw-type terminals 63A N / PE with 4mm plug-in option

Voltmeter

- Preselection: pushbutton selection switch: Min: for lowering the voltage Max: for raising the voltage via the variable transformer which must be ordered separately.
- Display: 1 moving armature voltmeter 0...400V can be switched with changeover switch to outer conductor / outer conductor or outer conductor / neutral conductor.

- Main switch: 1 key-operated On button 1 Off button 1 air-break contactor, 5-pin 3 external conductor indicator lamps
- Fuse protection: 1 control fuse 1 triple circuit breaker 16A for the backup panels
- Motor startup: 1 delta-wye switch with neutral setting
- Options: insert rectifier 25A 36-2B, insert rectifier 40A 36-2C, insert polarity reversal panel 36-2D

- Note: the 3-phase current transformer is not included in the scope of delivery. 3-phase current transformer 36-2G or 3-phase current transformer 36-2H each in a separate housing made of steel plating

Test rooms

Four current ranges can be selected with the test field 36-3A. In the interest of improved legibility, each of these is displayed above large moving coil ammeters with a meter rectifier and linear scale. When used in conjunction with an optional 3-phase variable transformer, the opportunities for error diagnostics with 1-phase and 3-phase test items of all types can be broadened considerably.

Test room insert with four current measurement ranges 6HU / 6WU



Operating modes

- "Mains" The mains voltage is switched directly through the measuring instruments to the drawing terminals or sockets.
- "Transformer" In this position, the drawing terminals or sockets are fed with continuously adjustable selectable voltage (variable transformer, must be ordered separately).
- Setting: 1 selection switch "Mains" - 0 - "Transformer"

- Continuity testing: high-impedance with 230V AC, displayed with 230V glow lamp, low-impedance with 24V AC, displayed with 24V glow lamp.
- Mains connection: 1 serial terminal board for 3-phase alternating current 3 / N / PE ~ 50Hz 400V / 40A
- Approvals: 1 CEE socket 5-pin 16A

Current measurement

- Preselection: 4 ranges 1.5A / 4A / 15A / 40A, selectable through pushbuttons with mutual actuation.
- Display: 3 moving coil ammeters
3-pin circuit breakers secure each range.
Current and measurement ranges are switched over together. Because the switchover takes place without voltage interruption, no switch-on peaks arise. This makes it possible to measure the current exactly, e.g. after the completed startup of an electrical motor.

- 63A with 4mm plug-in option
 - W2 U2 V2
 - L1 / U1 L2 / V1 L3 / W1
- 2 screw-type terminals 63 A N / PE with 4mm plug-in option
- Main switch: 1 key-operated On button
1 off button
1 air-break contactor, 5-pin
3 external conductor indicator lamps

Voltmeter

- Preselection: pushbutton selection switch:
Min: for lowering the voltage
Max: for raising the voltage
via the variable transformer which must be ordered separately.
- Display: 1 moving coil voltmeter 0...400V with meter rectifier and linear scale, can be switched with changeover switch to outer conductor / outer conductor or outer conductor / neutral conductor.

- Fuse protection: 1 control fuse
1 triple circuit breaker 16A for the backup panels
- Motor startup: 1 delta-wye switch with neutral setting

- Options: insert rectifier 25A 36-2B
insert rectifier 40A 36-2C
Insert polarity reversal panel 36-2D
- Note: the 3-phase current transformer is not included in the scope of delivery.
3-phase current transformer 36-2G or
3-phase current transformer 36-2H,
each in a separate housing made of steel plating

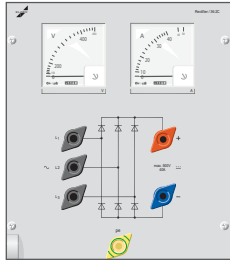
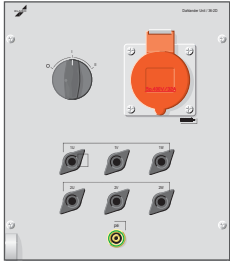
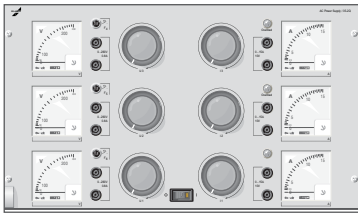
Order no. 36-3A

Auxiliary equipment for test rooms

	Technical Data	Order no.
3-phase variable transformer 6HU	<p>3-phase ring core variable transformer with economy coil and motor drive for the test rooms 36-2A and 36-3A</p> <p>Rated output: 17.3kVA Input: 3 / N / PE ~ 50Hz 400V Output: 3 / N / PE 0...400V / 25A Drive: capacitor motor 230V / 50Hz</p> <p>Housing made of lacquered steel plating, W = 420mm, D = 405mm, H = 690mm, Protection class IP 20</p>	36-2G
3-phase variable transformer 6HU	<p>3-phase variable transformer with ring core economy coil and motor drive for the test rooms 36-2A and 36-3A.</p> <p>Rated output: 27.6kVA Input: 3 / N / PE 230 / 400V AC Output: 3 / N / PE 0...230 / 400V / 40A Drive: capacitor motor 230V / 50Hz</p> <p>Housing made of lacquered steel plating, W = 660 mm, D = 410mm, H = 1030mm, Protection class IP 20</p>	36-2H
Current limitation 6HU	<p>Inrush current limitation for 3-phase current variable transformer type 36-2G (25A)</p> <p>A high current peak occurs when the transformer is switched on which could under certain circumstances cause the upstream fuses to respond. This apparatus limits the inrush current. The combination is installed in the transformer housing.</p> <p>W = 150mm, D = 100mm, H = 120mm</p>	36-2E
Current limitation 6HU	<p>Inrush current limitation for 3-phase current variable transformer type 36-2H (40A)</p> <p>W = 150mm, D = 100mm, H = 120mm</p>	36-2F
Stabilisation unit for 3-phase current transformer 6HU	<p>The output voltage of the transformers fluctuates with changing loads. The stabilisation unit holds the output voltage constant at approx. $\pm 2\%$. Manipulating speed: approx. 100V / s The setpoint potentiometer is located on the front plate of the test room.</p>	36-2K

Application: Limitation of the startup current, testing of stators and rotors in dismantled state, error diagnostics, e.g. as with short-circuited coils. All variable transformers can be loaded with the maximum amount of current across the entire setting range. Driven by a capacitor motor. 3 Neozed elements are installed as fuses. The transformers are each equipped with a 5m connection cable for connection to the test room inserts. You will find our motor test bay on page 124 onwards.

If a fixed or an adjustable direct current is required for testing, then an additional insert for direct current supply can be utilised here. This insert is fed from the laboratory terminals U1 - V1 - W1 of the testing insert 36-2A or 36-3A in conjunction with the utilisation of a 3-phase ring core variable transformer. In addition to the function of supplying direct current, extensive testing can also be implemented with this configuration.

		Technical data	Order no.
Rectifier insert 6HU / 2WU		Insert with rectifier in DB(B6) switching. Input: 3 x 0...400V AC / 50Hz Output: 0...500V / 25A DC 1 moving coil voltmeter 0...500V 1 moving coil ammeter 0...25A Ripple of the direct current: approx. 5% with 3-phase current connection approx. 48% with alternating current connection 3 screw-type terminals 63A for feeding the alternating current voltage with 4mm plug-in option 2 screw-type terminals 63A for drawing the direct current with 4mm plug-in option 1 PE-screw-type terminal	36-2B
Rectifier insert 6HU / 2WU		Insert with rectifier in DB(B6) switching. Input: 3 / N / PE 0...400V AC / 50Hz Output: 0...500V / 40A DC Moving coil voltmeter 0...500V Moving coil ammeter 0...40A Ripple of the direct current: approx. 5% with 3-phase current connection approx. 48% with alternating current connection 3 screw-type terminals 63A for feeding the alternating current voltage with 4mm plug-in option 2 screw-type terminals 63A for drawing the direct current with 4mm plug-in option 1 PE-screw-type terminal	36-2C
Pole reverser 6HU / 2WU		Insert with 1 Dahlander pole reverser 40A 6 screw-type terminals 63A, aligned like a terminal board aligned with 4mm plug-in option 1 CEE socket 5-pin 32A 1 PE screw-type terminal The insert is pre-wired with the test rooms 36-2A or 36-3A.	36-2D
Voltage and current transmitter 3-phase 6HU / 4WU		Insert with floating, 3-phase voltage and current transmitter for application in the area of EVU workshops. The insert is used not only for checking voltage and current relays, but also overvoltage, overcurrent and bimetallic relays. Floating current transmitter 3 variable transformers with downstream current transformers Current setting range: 0...15A No-load voltage: 0...10V 3x 2 laboratory safety sockets, designated I1, I2, I3 3 ammeters 0...15A (moving armature instruments, class 1.5) 3 overcurrent displays Floating voltage transmitter 3 variable transformers Secondary voltage: 0...260V Load current: maximum 0.8A 3 thermal magnetic circuit breakers for fusing on the secondary side 3x 2 laboratory safety sockets, designated U1, U2, U3 3 voltmeters 0...300V (moving armature instruments, class 1.5) 1 illuminated rocker switch	35-2Q