



Type series SU..L/SZ..L

load resistors up to 1 kW, adjustable,
(selection for 230/400 V)IP
20

SUDL400x65G

Technologies

- different current rates possible
- continuous dissipation up to 1 kW
- in laboratory version as slide-resistor, in one- or three phase version
- adjustable without steps
- safety sockets 4 mm

Adjustable load resistor for smaller continuous dissipation up to 1000 Watt. Built for a rated voltage and a winding, which is adapted to the flow of current. The winding is made of blank wire and in cemented version for smaller current rates up to about 1:2,5. Or wound with isolated - oxidized wire in different steps for higher current rates up to 1:10.

The winding is divided into an adjustable part R_S to reduce the current and power from the maximum to the minimum value and in a not adjustable part, the fixed resistor R_F , which is protected by a mechanical stop.

The current and the power can be adjusted between the maximum and the minimum value through a slider.

Attention: There is danger of burning, because the slider is possibly in the heat sector.

Alternative we can build it for an extra charge as a slide resistor with spindle drive.

Application

- adjustable load resistors
- resistors for experimenting and testing in laboratories, schools and universities

Special design

- designed for other rated voltages
- enclosure in special varnish
- with micro-fuse

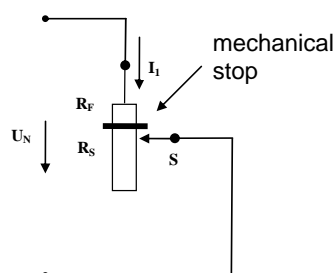
Electrical and mechanical data

Type series - resistor value	max. continuous dissipation in W	min. power in W	Current rates	current - rate from ...A up to ...A	rated voltage in V, AC	Mechanical stop in ohm for partial- resistor
SZZL400x65-212	500	250	1 : 2	1,09 – 2,17	230	106
SZZL500x65-265	500	215	1 : 2,5	0,9 – 2,17	230	106
SUZL400x65G-320	500	165	1 : 3	0,72 – 2,17	230	106
SUZL400x65G-530	500	100	1 : 5	0,43 – 2,17	230	106
SUZL500x65G-1060	500	50	1 : 10	0,22 – 2,17	230	106
SUZL500x65G-460	700	115	1 : 6	0,5 – 3,0	230	77
SUZL600x65G-460	1000	115	1 : 9	0,5 – 4,5	230	51
SUDL200x65G-3x4.0k	350	35	1 : 10	0,05 – 0,5	3x400	3x460
SUDL400x65G-3x2.5k	620	65	1 : 10	0,09 – 0,9	3x400	3x250
SUDL600x65G-3x3.0k	1000	55	1 : 19	0,075 – 1,4	3x400	3x160

Type series	dimensions in mm				weight in kg
	H	L	O	R	
S.ZL400x65	156	400	446	185	5,5
S.ZL500x65	156	500	546	185	6,5
S.ZL600x65	156	600	646	185	7,5
S.DL200x65	156	200	246	275	5,0
S.DL400x65	156	400	446	275	7,8
S.DL600x65	156	600	646	275	11,0

see on page T411E, or on request

wiring:



R_F – fixed resistor
 R_S – adjustable resistor
 S - slider

Example of dimensioning:

Requested data: - rated voltage, e.g. 230 V AC,

- maximum continuous dissipation, e.g. 500 W, therefore you get a maximum current of 2,17 A,

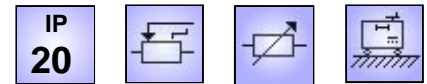
- rate of minimum current or power to maximum current or power, with e.g. 1:3; you get a minimum current of 0,72 A, minimum power of 165 W

Selection from above chart results in our type SUZL 400x65G – 320 with a resistance value of 320 ohm (mechanical stop at 106 ohm)



Type series BW 18 up to BW 81

load resistor unit up to 5,6 kW, adjustable,
for 14V and 28V DC voltage



Wirewound lamina type fixed resistor, degree of protection IP 20 in varnished steel sheet enclosure, in laboratory version with laboratory terminals, cam switch, fine adjustment device and rubber feet.

Technologies

- compact construction form
- continuous dissipation up to 5,6 kW
- for 14 V and 28 V, interchangeable
- BW 18 up to BW 20 for location on table with rubber feet
- BW 80 up to BW 81 for location on floor with 4 rollers
- gapless adjustment range of current and dissipation

The total power is divided into 6 or 10 equal steps, which are connected in parallel by a cam switch. The current may be adjusted gaplessly (but not steplessly) by a power potentiometer or a slide resistor as a fine adjustment device in step 1. This version with 3 terminals is suited for 14V and/or 28V DC voltage.

The adjustment to the supply voltage is done by fitting an enclosed connection bridge between adequate terminals.

Supply voltages of e.g. 12 or 24 VDC can also be connected. Power or current are then reduced according to Ohm's law. Please look at page T406E.

Application

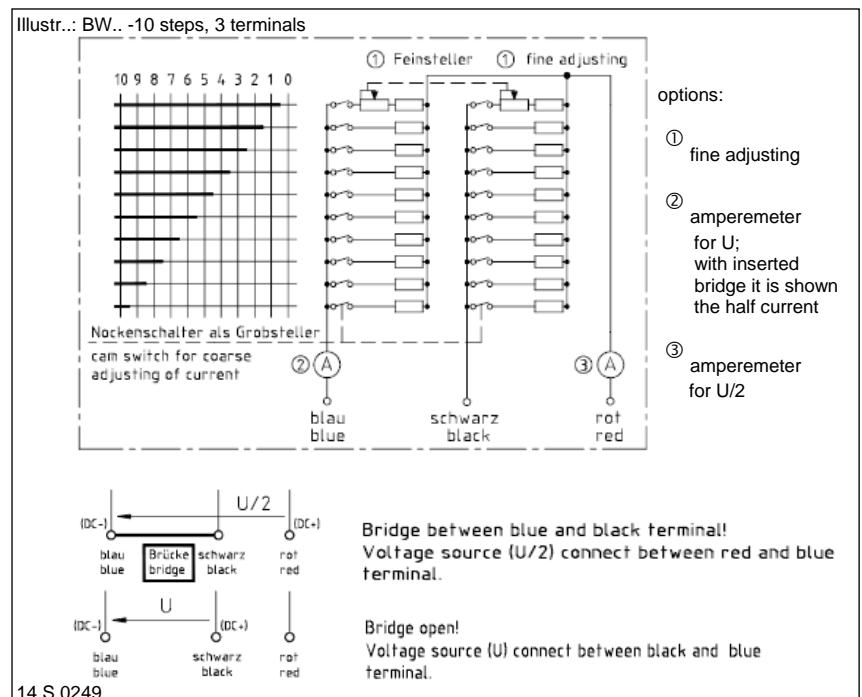
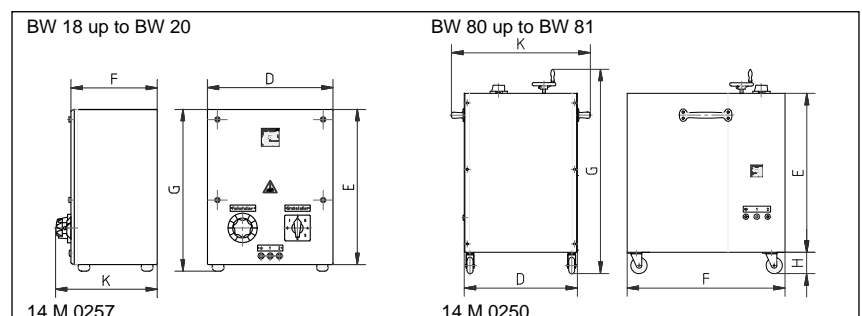
- use in laboratory or experimental setup
- as load resistor for a monophasic supply unit
- for testing or continuous loading of power packs or charging units
- for discharging of accumulators

Special design

- further power and voltage values on request

Electrical and mechanical data

Type	typical power in kW at 40°C and 100% DCF	no. of steps	adjustment range of current in ampere at voltage of		dimension in mm						weight in kg
			14 VDC (U/2)	28 VDC (U)	D	E	F	G	H	K	
BW 18	1,2	6	1,5-86	0,75-43	230	295	182	310	-	216	8
BW 19	2,0	6	3,0-142	1,5-71	290	410	200	440	-	234	14
BW 20	2,8	10	4,0-200	2,0-100	290	410	335	440	-	370	20
BW 80	4,2	10	5,0-300	2,5-150	430	500	450	700	101	430	35
BW 81	5,6	10	6,0-400	3,0-200	430	600	600	800	101	524	50





Type series BW 18 up to BWV 83

load resistor unit up to 50 kW, adjustable, for DC-;
AC- or three-phase voltage (230/400V)

BW 81

**IP
20**

Wirewound lamina type fixed resistor, degree of protection IP 20 in varnished steel sheet enclosure, in laboratory version with laboratory terminals, cam switch, fine adjustment device, mobile by 4 rollers (BW 80 up to BWV 83) for 230 V DC and AC current as well as for 3 x 230/400 V three-phase current.

Technologies

- compact construction form
- continuous dissipation up to 50 kW
- BW 18 up to BW 20 for location on table with rubber feet
- BW 80 up to BWV 83 for location on floor with 4 rollers
- gapless adjustment range of current and dissipation
- BWV 83 with forced ventilation, 230 V; 50 Hz., with IEC power plug

The total power is divided into 6, 10 or 20 equal steps, which are connected in parallel by a cam switch.

The current may be adjusted gaplessly (but not steplessly) by a power potentiometer or a slide resistor as a fine adjustment device in step 1.

The monophase version with 2 terminals is suited for 230V AC or DC current. The three-phase version for three-phase current is wired in star and has 3 terminals. The star point is in the resistor. As an option with 6 terminals (star point at terminals, please look at page T406E).

Application

- use in laboratory or experimental setup
- as load resistor for mono- or three-phase supply unit.
- for developing, testing or for continuous loading of power packs, uninterruptible power supply, alternators, generators and batteries.

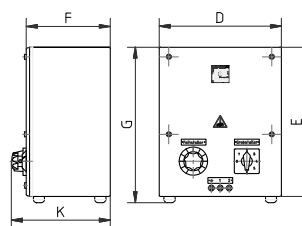
Special design

- integrated amperemeter possible for BW 80 – 83
- micro fuse for protection
- further power and voltage values on request

Electrical and mechanical data

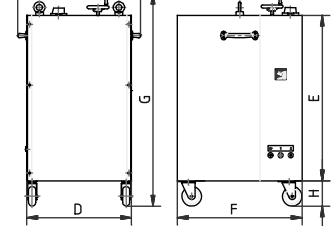
Type	typical power in kW at 40°C and 100% DCF	# of steps	adjustment range of current in ampere at voltage of		dimension in mm						weight in kg
			230V~ oder 230V=	3 x 230/400V; 50Hz	D	E	F	G	H	K	
BW 18	1,2	6	0,2–5,2	-	230	295	182	310	-	216	8
BW 19	2,0	6	0,2–8,7	-	290	410	200	440	-	234	14
BW 20	3,0	6	0,3 - 13	0,2 - 4,3	290	410	335	440	-	370	20
BW 80	3,0	6	0,3 - 13	0,2 - 4,3	430	500	450	700	101	430	32
BW 80	5,0	6	0,6 - 22	0,3 - 7,3	430	500	450	700	101	430	35
BW 81	7,5	6	0,7 - 33	0,4 - 11	430	600	600	800	101	524	52
BW 81	10	6	0,7 - 44	0,5 - 15	430	600	600	800	101	524	55
BW 82	15	10	-	0,5 - 22	505	800	600	1000	122	600	85
BW 82	20	10	-	0,6 - 29	505	800	600	1000	122	600	90
BW 83	25	10	-	0,7 - 36	685	940	680	1140	122	780	125
BW 83	30	10	-	0,9 - 43	685	940	680	1140	122	780	130
BWV83	50	20	-	0,6 - 72	685	940	680	1140	122	780	130

BW 18 - 20



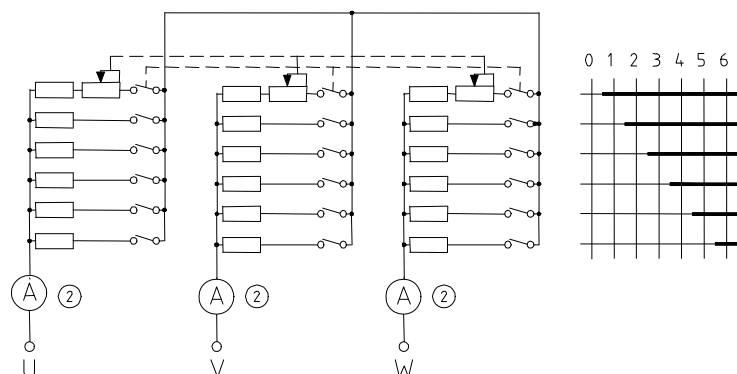
14 M 0257

BW 80 – BWV 83



beginning with type BW 82 with eyebolts for liftina 14 M 0250

Illustr: 3phase, 6-steps, 3 terminals



14 S 0136; B3-6-3

② amperemeter as option