

Rectifier Module

Type GR-5713 (1~) and GR-5701 (3~)

The modules can be used for direct supply or as a float charge rectifier an unlimited number of units can be connected in parallel.

The rectifiers are of the newest state of the art, in switched-primary construction. The current into the intermediate circuit filter is limited at switch-on, so that the AC inrush current does not exceed 120% of the rated current.

The operation status of each unit is displayed with LED's. Test sockets are available for current and voltage measurements. The modules are provided with 3-4 voltage characteristics for charging.

The connection is made at the front of the unit.

The modules are protected by external fuses.

Specials features

- High efficiency
- Compact design
- Easy accessible connection
- In wide range without fans
- Noise < 1 mV (24 V), < 2 mV (48/60 V)
- Option: Temperature controlled charging voltage

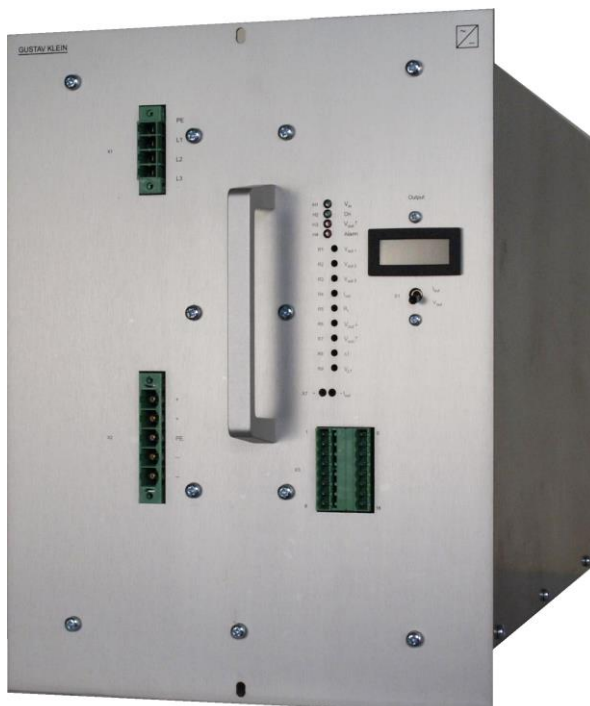
High test voltages

According to German Railway standard

Input – Output: 5,3 kV rms

Output – Ground: 2,8 kV rms

Output – Ground: 2,8 kV rms



Technical Data										
AC input voltage:				V		see table				
Frequency:				Hz		45 – 63				
Power factor cos phi:						> 0.95 (10 – 100 % load)				
Crestfactor:						< 1.6				
DC output										
Voltage characteristics:				V / Z		2.0 / 2.23 / 2.4 (adjustable)				
Regulation of output voltage:				%		± 1				
Regulation time:				msec		10				
Output voltage tolerance at load change 10-100-10 %:				%		< 2				
Current limiting threshold:						at nominal current				
Charging characteristic:						IU according to DIN 41772				
Ripple of output voltage:				%		≤ 1 rms.				
Noise voltage:						≤ 1 mV (24 V); ≤ 2 mV (48/60 V) Weighted with a (CCITT-A-filter)				
EMC:						EN 61000-6-2 and EN 61000-6-4				
Protection class:						IP 20 according EN 60529 for cabinet mounting				
Permissible climate:						Indoor, 3K3 according to EN 60721 (max. 85% rel. humidity, no condensation)				
Ambient temperature:				°C		-5 ... + 40				
Standard types 1)										
Input voltage V	Output voltage V	Output current A	Efficiency %	Dimensions width x height x depth mm					Cooling 1)	Weight kg
230	24	10	> 85%	80	x	219	x	282	AN	0,9
230	24	25	> 85%	88	x	304	x	352	AN	3,8
3x 400	24	50	> 89%	132	x	355	x	440	AN	9,4
3x 400	24	100	> 88%	150	x	449	x	303	AN	14
230	48/60	5	> 88%	80	x	219	x	282	AN	0,9
230	48/60	10	> 87%	88	x	304	x	352	AN	3,8
230	48/60	25	> 89%	132	x	355	x	442	AN	7,4
3x 400	48/60	25	> 90%	110	x	304	x	382	AN	6,3
3x 400	48/60	50	> 91%	132	x	355	x	440	AF / AN	9,4 / 16
3x 400	48/60	110	> 90%	267	x	355	x	440	AF	20
230	48/60	125	> 88%	483	x	265,9	x	444 (6HE)	AF	33
3x 400	110	12,5	> 92%	110	x	304	x	382	AN	6,3
3x 400	110	30	> 92%	132	x	355	x	440	AF / AN	9,4 / 16
3x 400	110	60	> 92%	267	x	355	x	440	AF	20
3x 400	110	100	≥ 93%	483	x	310,3	x	440 (7HE)	AF	48
3x 400	140	75	≥ 93%	483	x	310,3	x	440 (7HE)	AF	48
3x 400	220	30	> 93%	267	x	355	x	440	AF	20
230	110/220	35	> 91%	483	x	265,9	x	440 (6HE)	AF	33
3x 400	220	50	> 93%	483	x	265,9	x	440 (6HE)	AF	48
230	375	35	> 96%	483	x	265,9	x	440 (6HE)	AF	32
¹⁾ Other versions on demand ²⁾ „AN“ natural convection; „AF“ forced air cooling (fan)										