GINO-AKA
ZAC du bois Chaland
15, rue des Pyrénées
91090 – LISSES
FRANCE
Tel: 0033 1 60 76 15 55
Fax: 0033 1 64 97 24 87

Commercial Leaflet

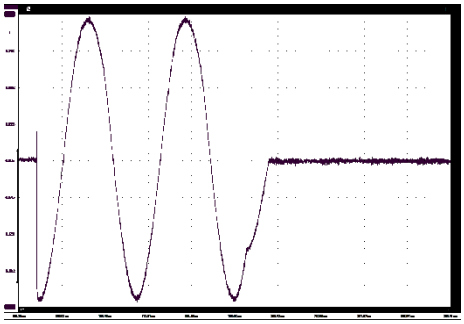
Thyristor Power Controller AKGrad32

2020/2021

http://www.aka.fr
info@aka.fr

AKGrad32 Thyristor Power Controller

AKGrad32 SCR Power Controller performs a smooth and continuous regulation of the power dissipated by the heating elements connected to the mains voltage through the Thyristors by switching ON or OFF every half cycle (typ. 10ms) of the AC electrical power line according to the Setpoint defined by the process.

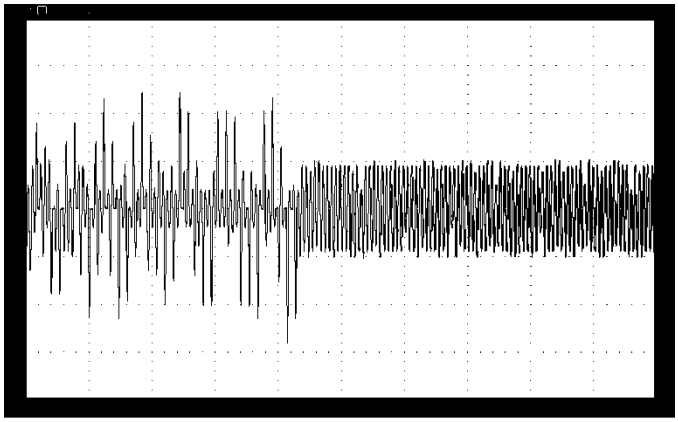


Each SCR/Thyristor is a switching device which can provide fast AC full wave or proportional phase angle conductions of electric power. AKGrad32 performs a well-balanced power regulation with the best accuracy for your heat process at the same time it guarantees an optimized heater life following the specifications of heating elements manufacturers.

Thanks to its powerful 32bits DSP processor, an AKGrad32 calculates true RMS U, I, P and R for each phase. This powerful measurement system enables:

- Very high precision closed loop kW, rate %, I^2 or U^2 regulation and real-time adaptation to the power line variations.
- Phase angle soft start for loads with high cold/hot variation and load failure diagnosis.
- Patented soft-start firing for inductive downstream transformer which avoid any over current peak due to magnetic current even in cost saving 2-Phases Control Three Phase Circuit.
- Protections against over current peak, instantaneous correction against voltage slowdown or load surge.
- Patented algorithm integrated into each AKGrad32 control card for power savings and flicker suppression SYNCHRO

AKGrad32 Power Controller	Full Wave Mode with/without phase angle soft-start feature		Permanent Phase Angle with current limit **"PA"**
	Resistive Load **"R"**	Any Downstream Transformer **"QR"**	Any load with/without downstream Transfo
Single Phase 1 Thyristor Control	YES	YES	YES
Three Phase 2 Thyristors Control	YES	YES	NO
Three Phase 3 Thyristors Control	YES	YES	YES



On the left side without SYNCHRO / On the right side with SYNCHRO

GINO AKA
ZAC du Bois Chaland
15 rue des Pyrénées
91090 – LISSES
GINO-AKA
Phone : +33 (0) 1 60 76 15 55
Fax : +33 (0) 1 64 97 24 87
SIRET : 88451682400015
TAX ID : FR54884516824
info@aka.fr

AKGrad32 Order Details

Designation: AKGrad32-U-IIII-N-T-H-P-S

	Mains Voltage Range	Thyristor Ampere Size	Qty Thyristors 1P/2P/3P	R = Resistive T = Transformer (Downstream)	Optional HMI Touchscreen	Optional Factory Automation Fieldbus/Networks	Optional Synchro savings
AKGrad32	U	IIII	N	T	HMI	COM	S
	2= 20V-280V	100A	1P= 1x Thyr.	R = No	N/A = No	N/A = 2x Modbus RS232 only	N/A = No
	4= 280V-460V	To	2P = 2x Thyr.	T= Yes	HMI4 = 4"	P= Profibus-DP	S = Yes
	6= 480V-690V	2500A	3P = 3x Thyr.		HMI7 = 7"	ETH= Modbus Ethernet	
						M= Modbus Serial RS485/RS422	
	[+10%, -15%]					EIP = Ethernet/IP	
						PN = Profinet 2-ports	

Mechanical Footprint

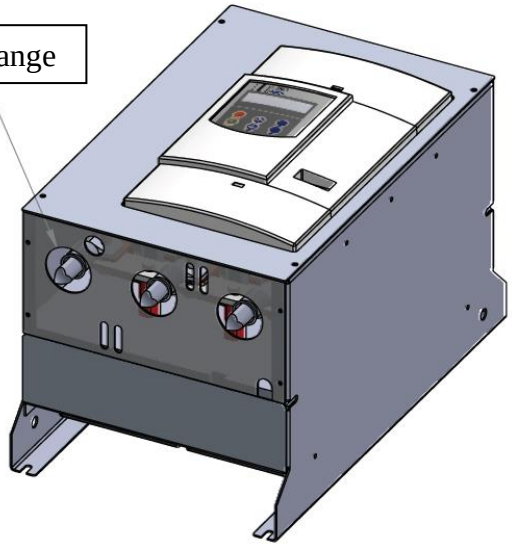
Calibre		60A	100A	150A	230A	330A	420A	600A 750A	900A	1200A 1500A	1800A 2500A
3 Thyristors Control Three Phase AKGRAD32	Lmm	175	175	267	267	267	267	575	655	820	820
	Hmm	300	300	436	436	436	436	805	805	805	805
	Pmm	235	235	300	300	300	300	374	374	425	425
2 Thyristors Control Three Phase AKGRAD32	Lmm	175	175	175	175	175	267	537	655	820	820
	Hmm	250	300	300	300	300	436	575	450	450	805
	Pmm	235	235	235	235	235	300	385	425	425	425
1 Thyristor Control Single Phase AKGRAD32	Lmm	175	175	175	175	175	175	575	655	820	820
	Hmm	250	300	300	300	300	300	375	375	375	450
	Pmm	235	235	235	235	235	235	385	385	425	425

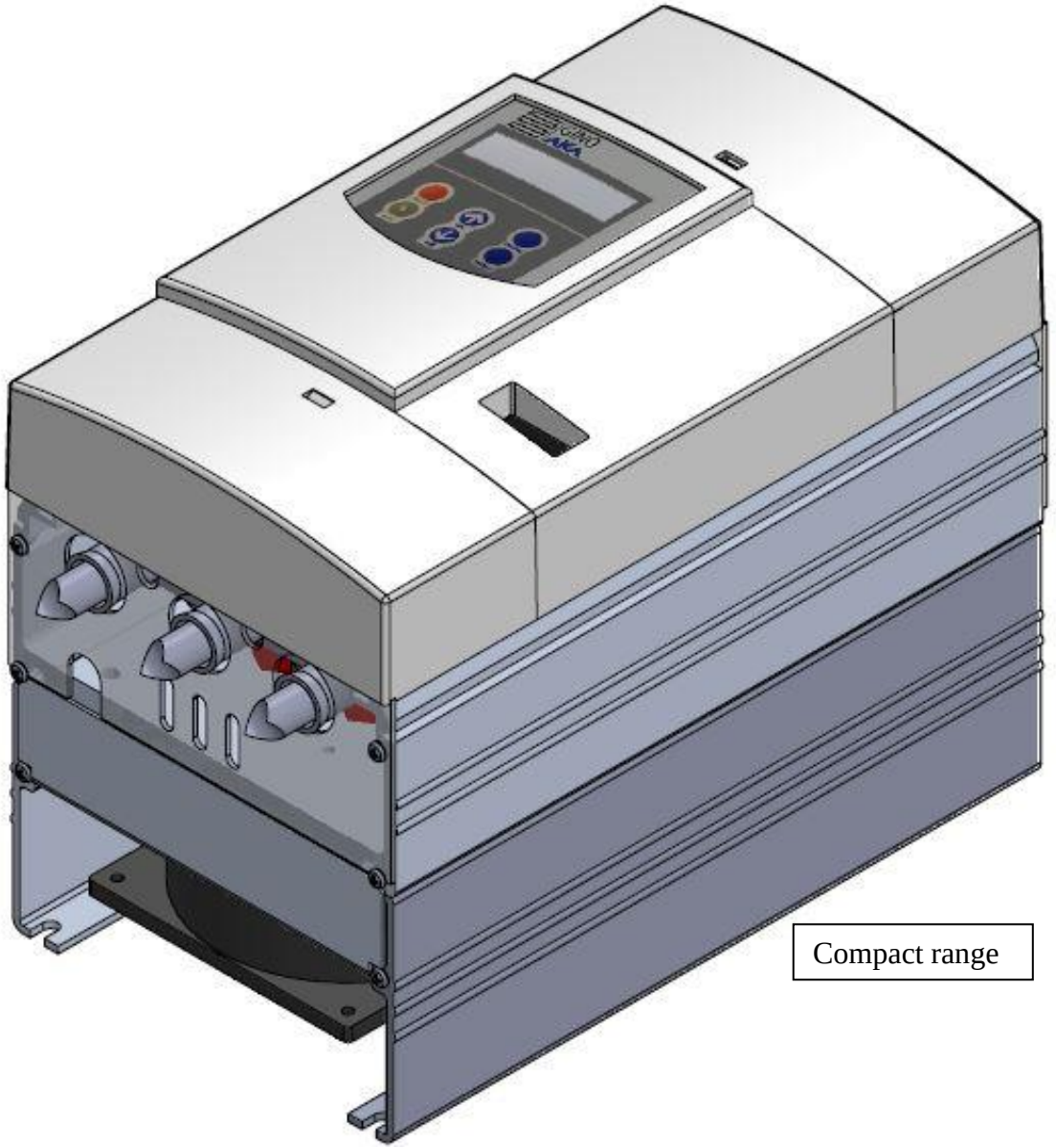
GINO AKA
ZAC du Bois Chaland
15 rue des Pyrénées
91090 – LISSES
GINO-AKA
Phone : +33 (0) 1 60 76 15 55
Fax : +33 (0) 1 64 97 24 87
SIRET : 88451682400015
TAX ID : FR54884516824
info@aka.fr

AKGrad32 HARDWARE Overview

HMI

Extended range





Compact range

GINO AKA

ZAC du Bois Chaland
15 rue des Pyrénées
91090 – LISSES

GINO-AKA
Phone : +33 (0) 1 60 76 15 55
Fax : +33 (0) 1 64 97 24 87

SIRET : 88451682400015
TAX ID : FR54884516824

info@aka.fr