ZGZX INTELLIGENT MODULE

ZGV Series Intelligent Power Drive Module

Features

This product is a multi-functional power module, which combines thyristor power circuit, phase-shift and trigger circuit. It is a integrated electricity phase-shift and open-loop system. It can realize the voltage control of the load. With built-in linear control circuit, it is highly precise and stabilized. It is widely used the fields such as speed modulation of DC motor, industrial automation, electric heating control, mechanical and electrical integration, diversified power supplies. It has hand-control and automation control interfaces, no phase order requirements of the AC inputs. With built-in linear control circuit, it is highly precise and stabilized.

Ordering Options

ZGV **TR** **200** / **480**

ZGV Series

Intelligent Power Drive Module

Module Type

DA: Single-phase AC Voltage Modulation
TA: Three-phase AC Voltage Modulation
DR: Single-phase Rectifier Voltage Modulation
TR: Three-phase Rectifier Voltage Modulation

Rated Current

50: 50A
70: 70A
120: 120A
200: 200A
250: 250A
350: 350A
500: 500A
800: 800A

Operating Voltage

280: 280VAC
480: 480VAC

Product Selection

Rated Current	AC Voltage Modulation			Rectifier Voltage Modulation		
	DA "280VAC"	DA" 480VAC"	TA" 480VAC"	DR "280VAC"	DR" 480VAC"	TR" 480VAC"
50A	ZGVDA50/280	ZGVDA50/480	ZGVTA50/480	ZGVDR50/280	ZGVDR50/480	ZGVTR50/480
70A	ZGVDA70/280	ZGVDA70/480	ZGVTA70/480	ZGVDR70/280	ZGVDR70/480	ZGVTR70/480
120A	ZGVDA120/280	ZGVDA120/480	ZGVTA120/480	ZGVDR120/280	ZGVDR120/480	ZGVTR120/480
200A	ZGVDA200/280	ZGVDA200/480	ZGVTA200/480	ZGVDR200/280	ZGVDR200/480	ZGVTR200/480
250A	ZGVDA250/280	ZGVDA250/480	ZGVTA250/480	ZGVDR250/280	ZGVDR250/480	ZGVTR250/480
350A	ZGVDA350/280	ZGVDA350/480	ZGVTA350/480	ZGVDR350/280	ZGVDR350/480	ZGVTR350/480
500A	ZGVDA500/280	ZGVDA500/480	ZGVTA500/480	ZGVDR500/280	ZGVDR500/480	ZGVTR500/480
800A	ZGVDA800/280	ZGVDA800/480	ZGVTA800/480	ZGVDR800/280	ZGVDR800/480	ZGVTR800/480

Main Technical Standards

Input Voltage	220V±20% or 380V±20%
Power Source	12V, ≤1A
Controlling Voltage	0-10VDC
Controlling Current	4-20mA
Hand-control Potentiometer Resistance	10KΩ
Colling Method	Wind-colling radiator, Wind speed ≤6m/s
Ambient Temperature	-30 to 40°C
Protect Temperature	75°C±2°C
Input Voltage Asymmetry Degree	≤6%
Rectifier Voltage Modulation Output Voltage	0-513VDC

Wenzhou Zhongxuan Electric Technology Co., Ltd.
Tel: +86 13868881108
Homepage://www.zgzxele.com E-mail:sales@zgzxele.com
Add: No.100 Xinguan Road, Liushi, Yueqing,Zhejiang, 325604 P.R.China

ZGV Series Intelligent Power Drive Module

Main Circuit Parameter

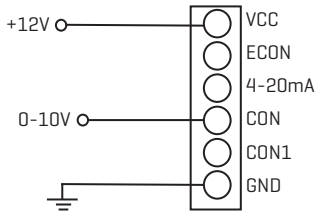
Parameter	Unit	Value							
Load Current	Arms	50	70	120	200	250	350	500	800
Max Working Current	Arms	50	70	120	200	250	350	500	800
Transient Overvoltage	Vpk	1200							
Frequency	Hz	50-60							
Off State Voltage Rising Rate	V/sec	500							
On State Voltage Rising Rate	A/sec	100							
Off State Leakape Current	mArms	≤8	≤10	≤10	≤10	≤15	≤15	≤20	≤20
On State Leakape Current	Vrms	1.6	1.6	1.8	1.8	1.8	1.8	1.8	1.8
Voltage Drop Insulating Voltage	Vrms	≥2500							
Weight	kg	0.425			2.2				

Note: The maximum temperature of bottom plate shall not exceed 80°C

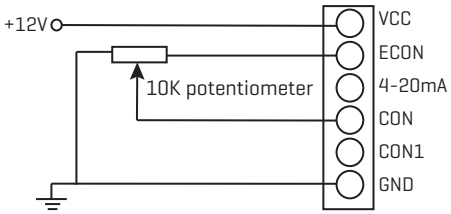
Connection Diagram

Connections of control lines（50-120A module）

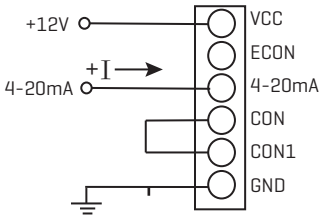
10V voltage control



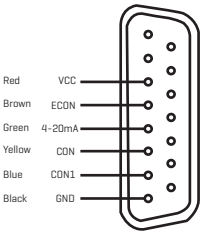
10K potentiometer control



4-20mA control

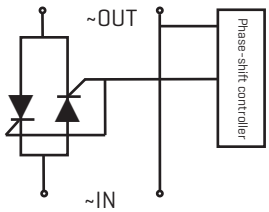


Connections of control lines
（200-800A module）

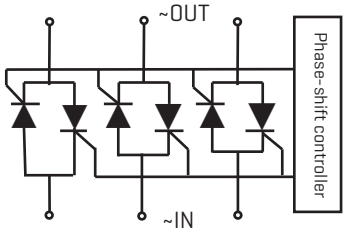


Remarks:the interfaces of 200A—500A modules:VCC[red]、CON1（blue）、Econ[orange]、CON[yellow]、4-20mA（green）GND（black）others are blank See the right map connections is the same as above.

AC Voltage modulation Internal circuit connection

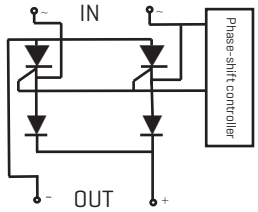


Single-phase AC Voltage modulation

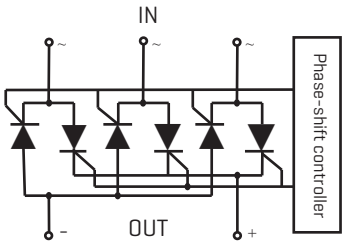


Three-phase AC Voltage modulation

Rectifier voltage modulation Internal circuit connection



Single-phase Rectifier voltage modulation

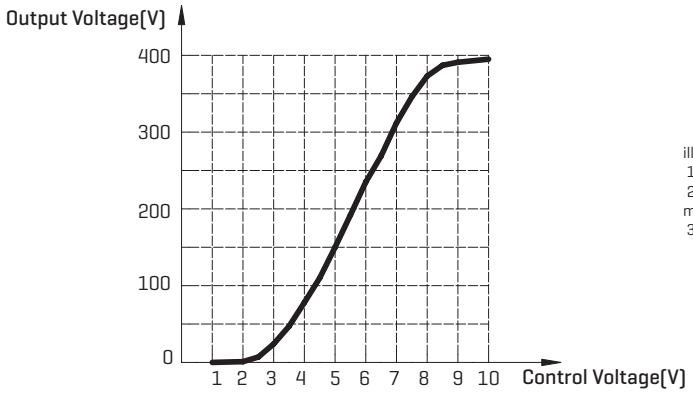


Three-phase Rectifier voltage modulation

Wenzhou Zhongxuan Electric Technology Co., Ltd.
Tel: +86 13868881108
Homepage://www.zgzxele.com E-mail:sales@zgzxele.com
Add: No.100 Xinguan Road, Liushi, Yueqing,Zhejiang, 325604 P.R.China

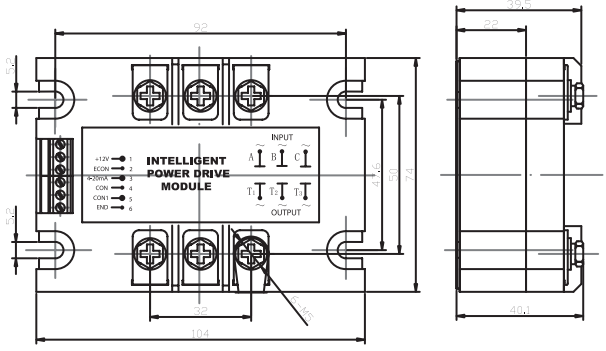
ZGV Series Intelligent Power Drive Module

Three-phase voltage regulator module control curve

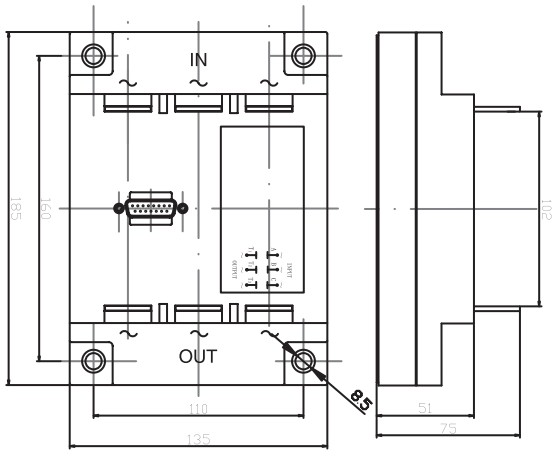


illustrate:
1. The X-axis is the control voltage, and the Y-axis is the output voltage of the main circuit.
2. The test load is a 380V three-phase symmetrical resistive load, and the half-control module and inductive load are different from this curve.
3. This picture is for reference only.

Dimensions



50~120A



200~800A

▪ Unit:mm

Wenzhou Zhongxuan Electric Technology Co., Ltd.
Tel: +86 13868881108
Homepage://www.zgzxele.com E-mail:sales@zgzxele.com
Add: No.100 Xinguan Road, Liushi, Yueqing,Zhejiang, 325604 P.R.China