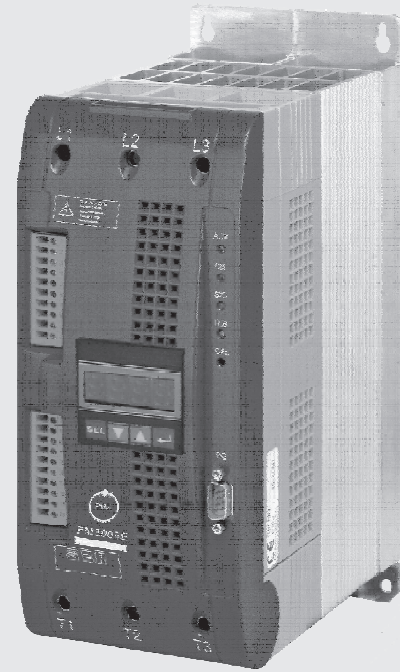


PM 3000E

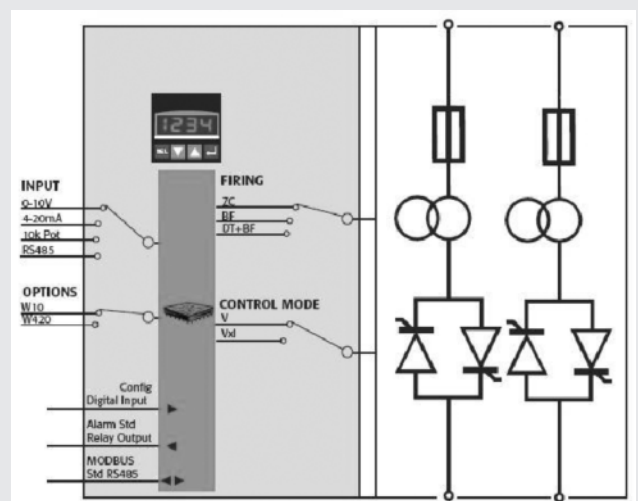
2 PHASE THYRISTOR POWER CONTROLLER

General Features

- ❖ PM3000E 2PH is a Full digital and universal Thyristor unit based on a very powerful dedicated microprocessor configurable via serial communication port for all inputs, firing modes, feedback modes and loads types.
- ❖ Two leg switching three wires load star or delta connections.
- ❖ Suitable to drive resistive loads and three phase transformer.
- ❖ External Key Pad to control the unit and to read power, current and voltage value
- ❖ Universal Input signal with automatic zero/span calibration.
- ❖ Universal Firing modes, customer configurable via RS 485 comm. Modbus or communication port as Burst Firing, Zero crossing and Delayed Triggering .
- ❖ Built in RS 485 Modbus RTU interface
- ❖ Comply with EMC and CE
- ❖ IP20 Protection.
- ❖ Operating temperature 0- 45°C. For higher temperature use Derating curve.
- ❖ Range 330V to 480V max and 600V on request,
- ❖ Auxiliary Voltage 90-265 V AC and 110 on request
- ❖ Analog Input Primary reference, 4-20mA , 0-10V, 10K Pot, Communication port,
- ❖ Voltage (V), Power (Vxl) and External feedback,
- ❖ Microprocessor based circuitary to diagnose partial or total load failure and short circuit on Thyristors



2 Phase Thyristor Power controller



Worlroegem's geregelf
close the loop with PMA



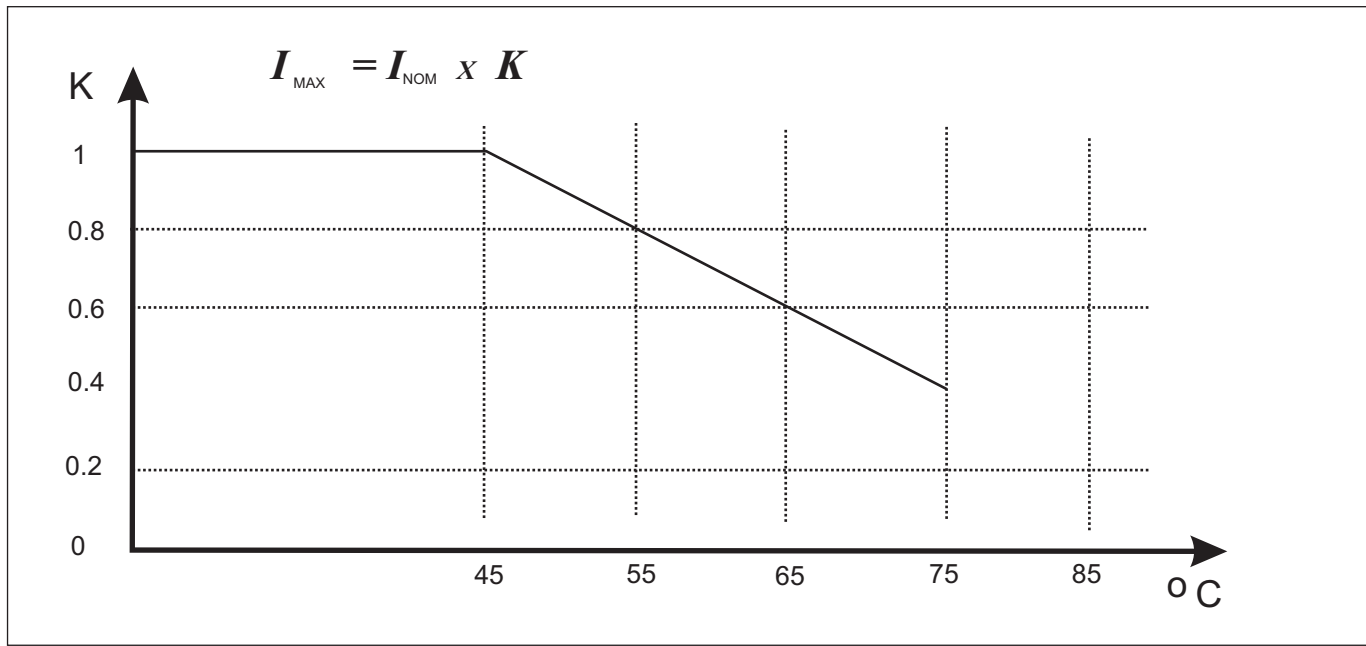
Specification - Technical data

Firing modes	ZC Zero crossing BF Burst Firing	DT+BF Delayed Triggering +Burst Firing					
One of these firing modes can be configured on line via serial port or through front panel display							
Max. Rated voltage	480 V (Range 330V to 480V max) 600, 690 V Range units are available on request						
Frequency	From 47 to 70 HZ						
Aux. Voltage Supply range	110 V, 230 V AC						
Current Ratings	25A 200A	35A 275A	45A 400A	75A 450A	100A 500A	125A 600A	150A 700A
* Higher current ratings available on request							
Analog input – 1	0-10V DC , 4-20mA, 10K POT, Communication Command Via RS 485 Modbus 1-5V, 0-5 V, 0-20mA Available on request.						
Analog output	One Analog output 0-10V, 0-20mA or 4-20mA, to use as retransmission of current, Voltage or power						
Feed Back control Mode	OL	Open Loop					
	V	Voltage feed back					
	Vxl	Power Feed Back					
Load type	Normal resistive ,3 Phase transformer Coupled with normal or cold resistance						
Load Connection	Star without Neutral , Delta						
Output	One Relay output for critical alarm 2 opto isolated digital output 12VDC						
Digital input	4 Opto isolated digital Input 12/24VDC, for Start, stop, calibration and Reset Alarm						
Unit display (HMI)	Control Panel display visualizes the Alarm Status, Load Voltage, Current, Power, %input Signal and internal LEDs						
System Interface	RS 485 Modbus RTU inbuilt & Profibus, other field bus protocols available as option.						
Protection	Inbuilt High rapid Semiconductor Fuse standard						
Monitoring	Microprocessor based circuitary to diagnose partial or total load failure and Short circuit on thyristors. Unbalanced load monitoring, Unit excess temperature monitoring on forced cooling units						

Configuration Through Control Panel and using Configurator Software

Cooling Fan 230V AC ± 15% fan standard and 110V on request.

Operating temperature 0-45°C, for higher temperature please see below Derating curve



Mounting Panel Mounting, IP 20 protection

Dimensions (in mm)

Current Rating	W	H	D	Current Rating	W	H	D	Current Rating	W	H	D
25A	116	316	187	125A	116	316	187	450A	262	520	270
35A	116	316	187	150A	116	316	187	500A	262	520	270
45A	116	316	187	200A	116	350	220	600A	262	520	270
75A	116	316	187	275A	262	520	270	700A	262	520	270
100A	116	316	187	400A	262	520	270				

Peak reverse voltage 1600V for 480V & 600V rating
Isolation voltage 2500 V AC

Power Loss	I= I nom(W)
Unit	Power Loss in watts
25 A	60
35A	84
45A	108
75A	180
100A	240
125 A	300
150 A	360
225A	480
275A	660
400A	960
450A	1080
500A	1200
600A	1440
700A	1680

Industry & Applications

Automobile

Furnace heating : SQF,GCF, Melting, Holding, Sintering, Tempering, Hardening ,MBF,Rotary, Bogie Hearth, Vacuum Furnace.

Plant Equipments

Extruders, Plastic process, Tungsten Manufacturing, Winding CoatingM/C

Chemical

Pipe trace heaters, Pre-heating equipments, Autoclaves

Oil & Gas

Regeneration Heating system and Gas heating Applications

Glass Processing

Float glass, Automotive glass, Fiber Glass, Lamp Manufacturing
Lab equipment Manufacturing

Ceramics

Electrical Kilns, Tempering Ovens etc

Packaging

Shrinkage Tunnel

Other industries

Industrial diffusion, Drying, Curing Ovens, Paint drying,
Bio Diesel , Herbal Extraction, Food Processing.

Research & Development

Crystal Growing, High Temperature furnace, Autoclave, Curing process.



Germany

PMA

Prozeß- und Maschinen-Automation GmbH
Miramstraße 87 · D-34123 Kassel/ Germany
Tel. +49 (0) 561 / 505 - 1307 · Fax –1661

India

PMA Controls India Ltd,

4th Floor Ceebros Arcade,
SP road, Adyar / Chennai- 20
Tel: +91(0) 44- 24430659
Mobile : 9444969444
info@pmacontrols.in