Order:
HCC (zone qty)

Order Example:
HCC 12
(it means the HCC controller has 12 zones)

Hot Runner Temperature Controller

Code: **HCC**

"HCC" Hot Runner Temperature Controllers have been produced from microprocessor - based devices and specially designed for Hot Runners.

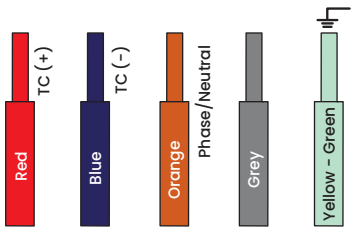
Specifications:

* 1.0^0 controlling accuracy.
* PID Control System.
* Soft Start Mode (working system increases resistance mode up to 8 times with soft start mode).
* Standby Mode; provides electricity saving.
* Proportional working mode (without thermocouple).
* Compatible with "J/K or B Type Thermocouples".
* 0-600 degree operation scale.
* Structure not requiring calibration / ability to restore factory calibration settings.
* Automatic parameter settings with Auto Tuning.
* Warning alarm output for over and under values.
* 25A Solid State Relay (ssr) output for each channel.
* Siemens 10A rapid fuse for each channel.
* With standard 3-meter connecting cable.
* 4-meter power cable with 5-unit feeder plug.
* Stranded and specially alloyed thermocouple cable in cable line (Fe-Const).
* It provides easy installation and use thanks to its "plug and go" structure.

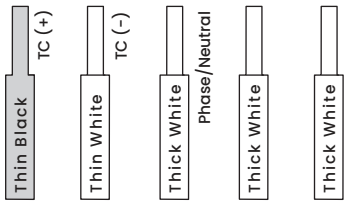
Cable Selection and its Importance:

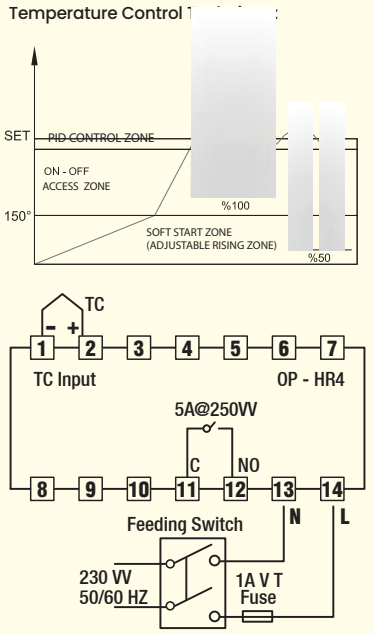
The device / controller and cables used here are very important in terms of mould, the colors that are used are also important. It should be inserted to the device / controller by considering these colours.

Heaters Cable Connection of Nozzles:

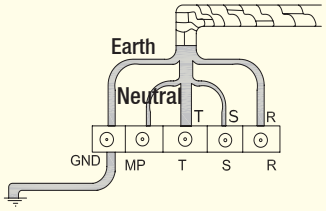


Heaters Cable Connection of Manifold:





Warnings (things to do before operation):
Before fastening "HCC" Controller to the mould, ensure that the network is grounded and your mould is connected to the earth connection. Electrical leakages which may occur in heaters in mould due to that there is no earth connection may pose risk for human health. Also, this leakage will damage the heater and thermocouple. The occurring leakages can be misread of temperature value or damage the device by transferring via thermocouple cable.

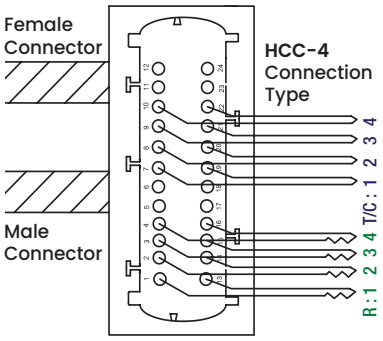


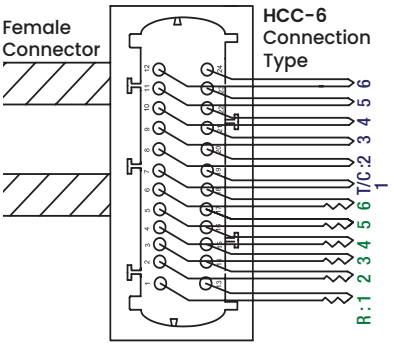
Attention!!
Neutral (N) and Earth (GND) are different than each other. Due to current switching from neutral line, please do not use this line for earthing. In order not to pose risk for human health and to operate your device normally, the earth terminal at power cable absolutely should be connected to actual earth line in your mains.

"HCC" Operation Procedure:

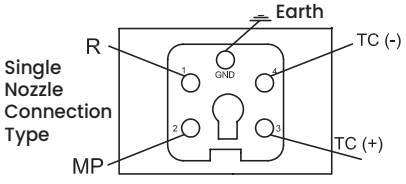
Before operating, make connection of heater and thermocouple in accordance with socket connection diagram given to you. After ensuring that socket connection is applied in accordance with the diagram, insert connecting cable into sockets on mould. Before giving energy to controller, switch rear fuses to off position, set pacco switch to zero position, plug power plug into appropriate socket and set pacco switch to position-1, then open the fuses in order, make sure that the temperature in zones opened its fuses is increased. By entering program menu, you can adjust the desired temperature values.

Example: Cable / Plug Connection Series





* For other connection types, pls. request info from our company (8 - 12 - 16 - 32).



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DME

ADVANCED, COMPACT TEMPERATURE CONTROL FOR MEDIUM SIZED MOLDS

The M1 platform combines popular features with advanced APS Technology for precision control of up to 48 zones. Powerful performance in a compact unit. Optimize the performance of any hot runner system and unlock your operations full potential with SmartSeries.

KEY FEATURES

LARGE, INTUITIVE 7" TOUCH SCREEN COLOR HMI

- Easily monitor and control multiple zones at once
- Simple to set-up and operate
- Data displayed in real time

ADVANCED FEATURES & SETTINGS

- Excellent control and precision
- Achieve greater process stability
- Mold parts with higher quality and reduce scrap

COMPACT CABINET DIMENSIONS

- Preserves valuable space, can be placet anywhere
- Up to 32% smaller dimensions than competition

HIGH CAPACITY MODULAR CONTROL CARD

- Reduces number of cards required by up to 60%
- On-board heater and thermocouple fuses
- Eliminates excess wiring and improves accessibility
- Simple to access and maintain

IMM COMMUNICATION

- Centralized alarm interlock
- Enhanced process control
- Prevents damage to equipment

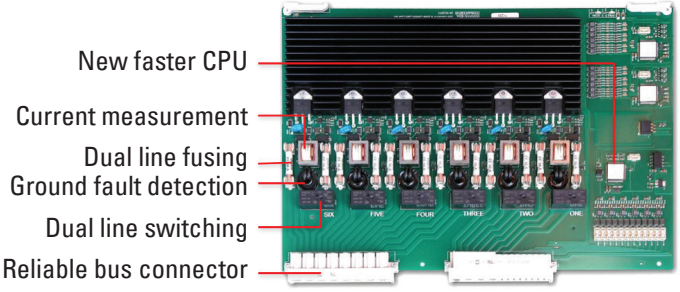
aps

Precise control. Set-point is maintained.

Without APS

Less control. Set-point fluctuates.

REF	Slots	# of Zones	Cabinet size	Dimensions WxDxH in cm	Main
M1P1212NC	2	12	XS	35 x 51 x 22	40A
M1P2424NC	4	24	S	35 x 51 x 28	63A
M1P3648NC	6	36	M	35 x 51 x 50	
M1P4848NC	8	48			



6-Zone, 15A/Zone Control Card

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DME **SMART SERIES® M1+**

CAPABILITIES

Control Features
APS (Adaptive Process System)
Phase Angle, Burst Firing
Low Mass High Watt Nozzle Control
Infield Calibration Mode
Thermocouple Slave (Auto/Manual)
Auto Standby/Alarm Output
T/C Auto/Man Kick-Off
Wet Heater Bakeout
T/C Filtering
Delta/Wye Convertable Option
Circuit Breaker Sized to Load
Interface Autopilot Control
Set Point Limit
Set Power Limit
Standby Timer
Sequential Melt-Start
Even Heat (Controlled Heating)
Even Cool (Controlled Cooling)

Operational Features
Auto/Manual Control
Zone “on”, “off” and “locked off”
Menu “Auto Save”
Boost (Manual/Auto)
Tool Store (100 Limit)
USB Port
Zone Naming
Programmable Display Groups
Purge Wizard (Color Change)
Sequence Start
Sequence Shutdown
Sequenced Power Up (Manual)
Tool Data Export/Archive
Multi-Level Password (2)
Time and Date Change
Network Printing (Ethernet IP)
Touch Screen Calibration
On-Line Help

Protection Features
On-Board Load Fuses
On-Board T/C Fuses
Soft Start
Continuous Ground Fault Detection
Current Measurement
Overload Protection
Short Circuit Protection
Automatic Tool Diagnostics
Plastic Leak Detection (Manual)
LED Fault Indicators (2)
I/O Card (Optional)

Monitoring/Reporting
Instant Data Reporting
Data Report Archive
Print Screen in jpg, png, pdf Format
Save to USB Drive
2-D Historical Graph

Alarms
Audible Alarm (Optional)
Alarm Beacon (Optional)
Zone Alarm Configure
(+) High Temperature
(-) Low Temperature
T/C Open (Remembered % Output)
T/C Reversed
Open Fuse
Open Heater
Shorted Heater/Wet
Ground Fault Detection
Plastic Leak Detection
Programmable Action

SPECIFICATIONS

User Interface	Full Color LCD Touch Screen
Display Sizes	7” (178 mm)
Control Algorithm	APS (Adaptive Process System)
Power Control	Phase Angle and Burst Firing Modes (Time Proportional, Zero-Crossing)
Display Resolution	0.1 (°C or °F)
Power Response Time	8.3 ms at 60 Hz
Temperature Scale	°C or °F (Software Selectable)
Thermocouple	J or K-Type (Software Selectable)
Operating Range	0 - 472°C (32 - 882°F)
Output Voltage (Max)	264 VAC
Supply Voltage	200/240V 3P Delta or 380/415V 3P Star with Neutral (480V, 3P with optional transformer)
Frequency	50 - 60 Hz Automatic Switching
Ambient Temperature Range	5 - 45°C (41 - 113°F)
Humidity Range	Up to 95% non-condensing

Ground Fault Detection	40mA per Zone
Alarm Output	Closing Contact Relay 5A, 230V (Max)
T/C Connector	HAN 24e
Power Connector	HAN 24e
Input Protection	63mA Nano Fuses on Both T/C Legs
Overload Protection	Semi-conductor fuses on both heater legs
Heater Fuses	15A @ 220V Fast Blow Type
Control Modes	Closed Loop (Auto), Open Loop (Manual), Standby, Boost, Slave
Ports	USB and Ethernet
LED Indicators	Scan, Fuse, Thermocouple, Failure, Ground Fault, Power%
Communications	SPI, Modbus
Languages	English, French, German, Spanish, Chinese, Japanese, Czech, Italian, Hungarian

INCLUDES

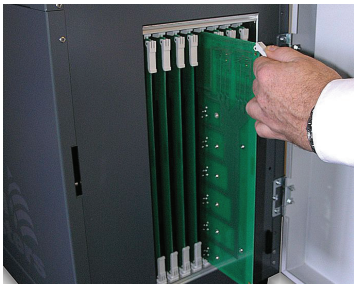
- Supply Cord
- Quick start guide

UPON REQUEST

- 4.8m (15’) Cable Set

OPTIONS

- Alarm beacon
- Portable stand
- I/O Card (Included as standard in EU)



Easy access to control cards

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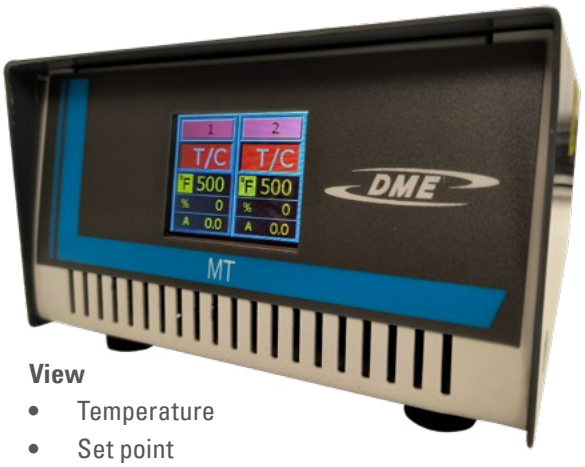
DME **SMART SERIES® MT2**

PRECISION TEMPERATURE CONTROL FOR 2-ZONE HOT SPRUE APPLICATIONS

The MT platform combines essential features with advanced APS Technology for precision temperature control and essential protection features. Powerful performance from a compact unit that helps improve part quality and minimize scrap.

Optimize the performance of any hot runner system and unlock your operations full potential with Smart Series.



View

- Temperature
- Set point
- Current (A)
- Power %

KEY FEATURES

INTUITIVE TOUCH SCREEN COLOR DISPLAY

- Simple, user friendly interface
- Allows for immediate familiarization
- Monitor 2 zones at once
- Continuous display of % power and current

2 ZONE CONTROL CARD

- On-board heater and thermocouple fuses
- Eliminates excess wiring and improves accessibility
- Servicing is quick and easy, minimizing downtime

COMPACT CABINET DESIGN

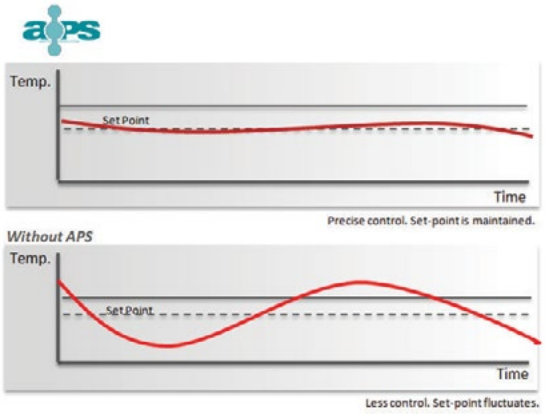
- Preserves valuable space
- Can be placed almost anywhere

DURABLE INDUSTRIAL DESIGN

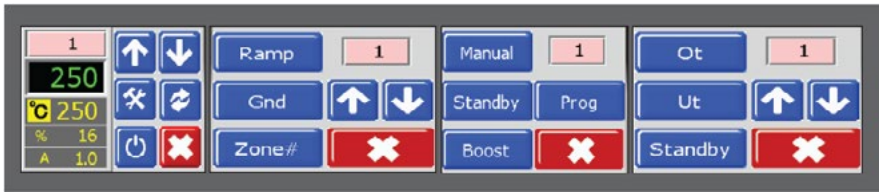
- Metal enclosure and heavy duty connectors
- High reliability

2 YEAR COMPREHENSIVE WARRANTY

- Worry free global support coverage
- Protects against manufacturers defects (fuses excluded)



SIMPLE TOUCH SCREEN CONTROLS



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DME **SMART SERIES® MT2**

CAPABILITIES

Control Features
APS (Adaptive Process System)
Phase Angle, Burst Firing
Infield Calibration Mode
Thermocouple Slave (Manual)
T/C Auto/Man Kick-Off
Wet Heater Break-out
T/C Filtering

Operational Features
Auto/Manual Control
Zone “on”, “off”
Menu “Auto Save”
Boost/Standby (Manual)

Protection Features
On-Board Load Fuses
On-Board T/C Fuses
Soft Start
Continuous Ground Fault Detection
Current Measurement
Overload Protection
Short Circuit Protection

Alarms
Zone Alarm Configure
(+) High Temperature
(-) Low Temperature
T/C Open (remembered % output)
T/C Reversed
Open Fuse
Open Heater
Shorted Heater/Wet
Ground Fault Detection

SPECIFICATIONS

User Interface	Full Color LCD Touch Screen
Display Size	2” (51mm) - 176 x 200 pixels
Control Algorith	36cm x 39cm x 20cm (14” x 15” x 8”)
Power Control	Phase Angle & Burst Firing Modes (Time Proportional, Zero-Crossing)
Control Accuracy	+/- 0.5˚C (+/-1˚F)
Display Resolution	+/- 1˚C (+/-1˚F)
Power Response Time	8.3 ms at 60 Hz
Temp. Resolution	+/- 1˚C (+/-1˚F)
Temperature Scale	°C or °F (Software Selectable)
Thermocouple	J or K-Type (Software Selectable)
Operating Range	0 - 472°C (32 - 882°F)
Output Voltage (Max)	264 VAC
Supply Voltage	240V Single Phase - 10’ Power Cord Included
Frequency	50 - 60 Hz Automatic Switching
Ambient Temperature Range	5 - 45°C (41 - 113°F)
Humidity Range	Up to 95% non-condensing
Ground Fault Detection	40mA per Zone
Mold Power and Thermocouple Connection	10’ Integrated Power and T/C Cable HAN10A
Input Protection	63mA Nano Fuses on Both T/C legs
Overload Protection	Semi-conductor fuses on both heater legs
Heater Fuses	15A or 10A @ 220V Fast Blow Type
Control Modes	Closed Loop (Auto), Open Loop (Manual)
Languages	English, French, German, Chinese

Equatemp® MD-series Dual-Zone Hot Sprue Bushing

REF	Description
MT20202HAN10A	Set
HAN10A	16 A mould end connector

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DME **SMART SERIES® M2+**

ADVANCED HOT RUNNER TEMPERATURE CONTROL AND PROCESS MONITORING

A fully featured controller platform with advanced capabilities for superior moulding performance. Well suited for tight process control on all co-injection applications, it is your best choice as a direct replacement for many existing outdated controller platforms.

Unlock your operations full potential.

KEY FEATURES

LARGE INTUITIVE TOUCH SCREEN CONTROLS

- Modernized interface
- Quick and easy to use
- Rapid response rates
- Familiar gestures like pinch-to-zoom
- Available in 8”, 12” and 17” formats

ADVANCED FUNCTIONALITY

- KORTEC auto cavity balancing
- Auto leak detection
- Auto tool diagnostics
- TC auto slave
- And much more

IO ALARM INTERLOCK

- Interface with any injection machine
- Triggers an alarm when issues are identified
- Pauses the moulding process until corrected
- Helps maintain process consistency

WIRELESS NETWORK CONTROL (WLAN)

- Multi cell operation
- Multiple IP operation
- Download/Upload tool set-up
- Valuable for clean room applications

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DME **SMART SERIES® M2+**

PRECISE TEMPERATURE CONTROL AND WORLD CLASS FEATURES

SPECIFICATIONS

User Interface	Full Color LCD Touch Screen
Display Sizes	8" (203mm), 12" (305mm), or 17" (432mm)
Control Algorithm	APS (Adaptive Process System)
Power Control	Phase Angle and Burst Firing Modes (Time Proportional, Zero-Crossing)
Control Accuracy	+/- 0.5°C (1°F)
Display Resolution	0.1 (°C or °F)
Power Response Time	8.3 ms at 60 Hz
Temperature Scale	°C or °F (Software Selectable)
Thermocouple	J or K-Type (Software Selectable)
Operating Range	0- 472°C (32- 882°F)
Output Voltage (Max)	264 VAC
Supply Voltage	200/240V 3P Delta or 380/415V 3P Star with Neutral (480V, 3P with optional transformer)
Frequency	50- 60 Hz Automatic Switching
Ambient Temperature Range	5- 45°C (41- 113°F)
Humidity Range	Up to 95% non-condensing
Ground Fault Detection	40mA per Zone
Alarm Output	Closing Contact Relay 5A, 230V (Max)
T/C Connector	Various Options Available
Power Connector	Various Options Available
Input Protection	63mA Nano Fuses on Both T/C Legs
Overload Protection	Semi-conductor fuses on both heater legs
Heater Fuses	15A @ 220V Fast Blow Type
Control Modes	Closed Loop (Auto), Open Loop (Manual), Standby, Boost, Slave
Ports	USB and Ethernet
LED Indicators	Scan, Fuse, Thermocouple, Failure, Ground Fault, Power%
Communications	SPI, Real VNC, Modbus, OPC-UA
Languages	English, French, German, Portuguese, Spanish, Polish, Russian, Chinese, Japanese, Czech, Italian, Turkish

Cabinet Size	# of Cards (Max)	# of Zones (Max)	Dimensions WxDxH cm (in.)
XS	6	24	31x45x81 (12x18x32)
S	12	48	36x45x96 (14x18x38)
M	24	96	45x60x116 (18x24x46)
L	36	144	45x60x141 (18x24x56)
XL	63	252	56x61x168 (22x24x66)

Based on 4z-15A cards. Increase max zones with 6z-5A cards.

INCLUDES:

- Supply cord
- Quick Start Guide

UPON REQUEST:

- 4.8m (15') Cable Set

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DME **SMART SERIES® M*e***

HOT RUNNER TEMPERATURE CONTROL MADE SIMPLE AND ECONOMICAL

The Me controller platform combines essential features with advanced APS Technology for precision hot runner temperature control. Powerful performance from a compact unit that helps improve part quality and minimize scrap. Optimize the performance of any hot runner system and unlock your operations full potential.

KEY FEATURES

INTUITIVE TOUCH SCREEN COLOR DISPLAY

- Simple, user friendly interface
- Allows for immediate familiarization
- Monitor up to 12 zones at once

INTEGRATED 15-AMP CONTROL CARDS

- Power to control a wide range of hot runner zones from nozzle tips to larger manifolds
- On-board heater fuses
- Quick and easy service access from the cabinet top and bottom

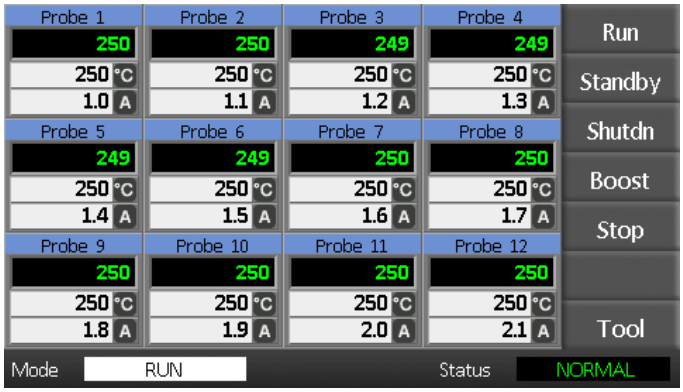
COMPACT, STACKABLE CABINET DESIGN

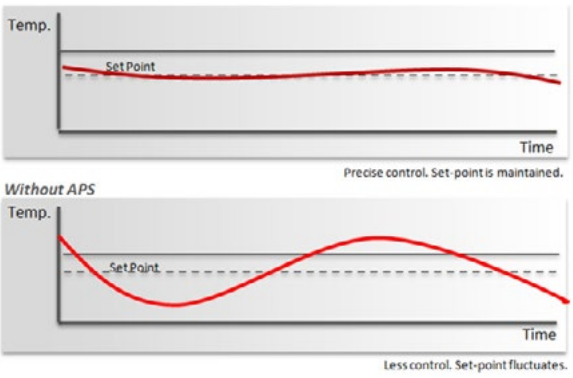
- Preserves valuable space
- Can be placed almost anywhere
- Available in 6 or 12 zone configurations
- Lightweight

2 YEAR COMPREHENSIVE WARRANTY

- Worry free global support coverage
- Protects against manufacturers defects (fuses excluded)

SIMPLE TOUCH SCREEN CONTROLS





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DME **SMART SERIES® M*e***

CAPABILITIES

Control Features
APS (Adaptive Process System)
Phase Angle, Burst Firing
Infield Calibration Mode
Thermocouple Slave (Manual)
Auto Standby/Alarm Output
Wet Heater Bakeout
T/C Filtering
Delta/Wye Convertible Option
Interface Autopilot Control
Set Point Limit
Set Power Limit
Auto Load % Output
Uniform Start-Up

Operational Features
Auto/Manual Control
Zone "on", "off" and "locked off"
Menu "Auto Save"
Tool Store (4)
USB Port

Monitoring/Reporting
2-D Historical Graph

Protection Features
On-Board Load Fuses
Soft Start
Continuous Ground Fault Detection
Current Measurement
Overload Protection
Automatic Tool Diagnostics
Plastic Leak Detection (Manual)
LED Fault Indicator (Scan)

Alarms
Audible Alarm
Zone Alarm Configure
(+) High Temperature
(-) Low Temperature
T/C Open (remembered % output)
T/C Reversed
Open Fuse
Open Heater
Shorted Heater/Wet
Ground Fault Detection
Plastic Leak Detection

SPECIFICATIONS

User Interface	Full Color LCD Touch Screen
Display Size	5"
Cabinet Dimensions	36cm x 39cm x 20cm (14" x 15" x 8")
# of Zones (Max)	6 or 12
Control Algorithm	APS (Adaptive Process System)
Power Control	Phase Angle & Burst Firing Modes (Time Proportional, Zero-Crossing)
Temp. Resolution	1 (0°C or 0°F)
Power Response Time	8.3 ms at 60 Hz
Temperature Scale	0°C or 0°F (Software Selectable)
Thermocouple	J or K-Type (Software Selectable)
Operating Range	0 - 472°C (32 - 882°F)
Output Voltage (Max)	264 VAC
Supply Voltage	200/240V 3P Delta or 380/415V 3P Star with Neutral (480V, 3P with optional transformer)

Frequency	50 - 60 Hz Automatic Switching
Ambient Temperature Range	5 - 450°C (41 - 113°F)
Humidity Range	Up to 95% non-condensing
Ground Fault Detection	40mA per Zone
Alarm Output	Closing Contact Relay 5A, 230V (Max)
T/C Connector	HBE-24
Power Connector	HBE-24
Overload Protection	Semi-conductor fuses on both heater legs
Heater Fuses	15A @ 220V Super Fast Blow Type (FF)
Control Modes	Closed Loop (Auto), Open Loop (Manual), Standby, Boost, Slave
Ports	USB
LED Indicators	Scan
Languages	English, French, German, Spanish, Polish, Russian, Chinese,Japanese, Czech, Italian, Hungarian, Turkish, Portuguese, Korean

INCLUDES:

- Supply cord
- Quick Start Guide

UPON REQUEST:

- 4.8m (15') Cable Set

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