MJB CONTROLS

Product Catalogue

2016/2017

MJB Controls Pty Ltd
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www.mjbcontrols.com.au

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AC Controls and Thermostats

Zoning Solutions

Storage Hot Water Controls

Temperature and Humidity Controls

Motor Control and Protection

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Timers

Refrigeration Parts

Switchboard Components

Future Releases

ACCS-1 Digital 7 Day Programmable Air Conditioning Controller with Zone Control.

General Description:

The ACCS-1 Air Conditioning control system is a self explanatory, easy to use intelligent microprocessor controlled 7-day programmable thermostat specifically designed for the residential split ducted market. Features such as 3 speed fan control, HEAT / COOL / AUTO functions as well as zone control are standard. The host of installer and user programmable features are configured directly from the large LCD and are nothing more then a few button presses away. No more setting numerous and confusing dip switches.

The ACCS-1 has a clean, visually appealing shape, large blue backlit LCD that will look at home in even the most discerning of décor. Also included is a fast response temperature sensor for convenience, accuracy and comfort.

A secure menu is also incorporated for manufacturer representatives and service personal, where the system set-up, fault and running logs are stored. These can prove invaluable, particularly in troublesome installations that always seem to be running correctly when service personal arrive on site. All this and more is available at a touch of a button.

Features:

7-Day programme as standard.
Controls up to 4 zones as standard.
Simple menu driven system.
Large easy to read LCD.
Ease of use.
PIN protected menus.
3 speed fan
Small compact design.
Tactile buttons
Serial Communication used throughout the system.
Fault log.
Back light available in other colours.
Reduced installation time.
Complete condenser and evaporator management including hot start and de ice functions.

Perfect for replacing most models of controls used on Australian made air conditioners
Australian designed and manufactured.

Part Number	Description
ACCS-1	Complete Controller Assembly C/W 2 Metre Probe
MDWC-4	ACCS-1 Wall Controller 4 Zone
MCCB-02	ACCS-1 Condenser PCB
MECB-02	ACCS-1 Evaporator PCB
MCCB-02/SEN	MCCB-02 and MECB-02 Replacement 2 Metre Sensor

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WCCS-1 Programmable Water Cooled Air Conditioning Controller with Zone Control.

General Description:

The WCCS-1 Air Conditioning control system is a self explanatory, easy to use intelligent microprocessor controlled 7-day programmable controller specifically designed for the residential high rise water cooled package market. Features such as 3 speed fan control, HEAT / COOL / AUTO functions as well as zone control are standard. The host of installer and user programmable features are configured directly from the large LCD and are nothing more then a few button presses away (No more setting numerous and confusing dip switches)

The WCCS-1 has a clean, visually appealing shape, large blue backlit LCD that will look at home in even the most discerning of décor. Also included is a fast response temperature sensor for convenience, accuracy and comfort. A secure menu is also incorporated for manufacturer representatives and service personal, where the system set-up, fault and running logs are stored. These can prove invaluable, particularly in troublesome installations that always seem to be running correctly when service personal arrive on site. All this and more is available at a touch of a button.

Features:

12 Hour countdown timer as standard.
7-Day programmable time clock is optional.
Controls up to 2 zones as standard.
Simple menu driven system.
Large easy to read LCD.
Ease of use.
PIN protected menus.
3 speed fan with auto function
Small compact design.
Tactile buttons
Serial Communication used throughout the system.
Fault log.
Back light available in other colours.
Custom overlays available for the WCCS-1 (Customer branding)
Reduced installation time.
Low water temp, HP/LP protection standard

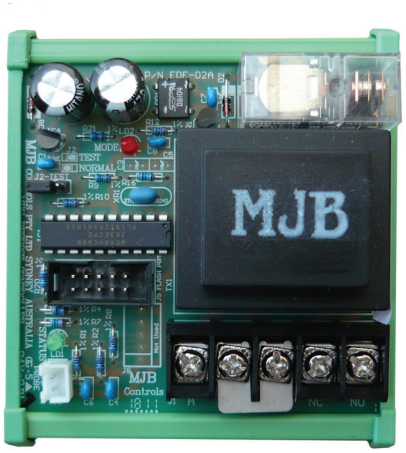
Perfect for replacing controls used on Australian made and imported water cooled package units.
Australian designed and manufactured.

Part Number	Description
WCCS-1	Complete Controller Assembly C/W 2 Metre Probe
MDWC-2	WCCS-1 Wall Controller 2 Zone
WCCB-08A	WCCS-1 Main PCB
WCCB/SEN	Replacement 2 Metre Sensor

EDF-02A Microprocessor Defrost Control with Fuzzy Logic.

General Description:

Performance and efficiency of an air-cooled heat pump can be reduced when uncontrolled ice build-up is allowed to continue to form on the outdoor heat exchanger. The MJB EDF-02A defrost controller is suitable for Reverse Cycle Air Conditioners, Swimming Pool and Spa heaters requiring accurate and reliable defrost control.



Operation:

While the reverse cycle air conditioner (heat pump) is in heating operation, the sensor will continuously monitor the outdoor coil temperature. Once the coil reaches minus 2 °C, the MJB EDF-02A will go through the following sequences:

Defrost Verification Mode
Defrost Pending Mode
Defrost Mode
Defrost Termination
Normal Mode

The above sequence will also be reset should the temperature rise above 10 °C during the defrost pending time period. Also included as standard on the MJB EDF-02A is a test function to enable the field technician to thoroughly check all aspects of the defrost system. The MJB EDF-02A defrost controller is our latest offering using microprocessor technology; this technology provides greater accuracy and flexibility and through the use of the MJB EDF-02A on-board flash-programming socket, customer specific requests have never been easier.

Superior industry leading fuzzy logic control means optimum defrost all the time every time. No dip switches to set like some inferior brands.

EDF-02 Specifications:

Input Voltage	240V, 24V AC. (Model dependant)
Operating Temperature	-20 ~ + 60 °C
Switching Capacity	16 Amps Resistive 8 Amps at cos 0.4 (480 w).
Defrost initiation	- 2°C.
Defrost Time	10 min.
Defrost Termination	10 °C or 10 Minutes (Time vs. Temperature).
Defrost Confirmation	4 minutes.
Pending Mode	Self Adapting.
Sensor Length	2 Metre (10 Metre on request).
Size	72 mm x 76 mm.
Mounting	35, 32 Din Rail.

The MJB EDF-02A also has LED indication of running status and fault diagnostics. (i.e. Ready, Pending, Sensor fault, Defrost mode, Sensor temperature etc.)

Part Number	Description
EDF-02A	EDF-02A 240V C/W 2 metre probe
EDF-02A/24	EDF-02A 24V C/W 2 metre probe
EDF-02A/SEN	Replacement 2 metre sensor

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WPDT7D Wireless Programmable 7 Day Digital Thermostat.

General Description:

The WPDT7D series thermostat is a wireless thermostat and controller that can be placed anywhere in your home to control your heating and cooling needs. It provides automatic time and temperature control of heating or cooling systems in apartments and houses. The WPDT7D is compatible with single or dual stage Gas / Electric / Heat Pump or Hydronic units.

The thermostat pack consists of a room unit and a relay box. No wiring to the room unit is required. The installer only needs to wire the relay box to the controlled device (e.g. electric heater) and mount the room unit in a suitable location where RF communication is reliable. The WPDT7D thermostat uses reliable RF communication technology in the 433MHz band.

Features:

Transmits up to 30 metres through walls and floors.
Communicates at 433 MHz for interference free operation.
Works with single or dual stage Gas / Electric / Heat Pump or Hydronic systems. Programmable up to 4 periods daily, which can be customized for each day of the week.
Auto change over from heating to cooling with adjustable deadband.
Backlit display for easy night time viewing (automatically turns off after non-use).
Displays either Centigrade or Fahrenheit.
Wireless thermostat uses and includes rechargeable Li-battery (recharge via USB).
Install yourself if you are familiar with installing a standard HVAC thermostat.
7 Day programmable with 4 time periods per day and holiday mode.
Designed for use with 24Vac heating and cooling systems

Specifications:

Power Supply:	18~30 VAC 50/60Hz
Switch Type:	SPST
Temperature	Range 5~35 °C adjustable
Switching Differential	Approx. 1 °C
Operating Humidity:	5 ~ 90 %
Dimension:	140 x 94 x 28.5mm H x W x D
Operating Temperature:	0~45 °C
Storage Temperature:	-20 ~ 55 °C
Output Rating:	24 - 230 V ac, 0.8A run, 5A inrush.
RF operation band:	ISM (433) MHz, 1% duty cycle.
RF communication range:	30 metres in a residential building environment.
Stages:	up to 2 heat 2 cool

Part Number	Description
WPDT7D	Wireless 7 Day (5+2) Thermostat 2 stage

TST1002 Programmable Touch Screen Thermostat
Single and Multi Stage Control, with MODBUS

General Description:

The TST1002 programmable touch screen thermostat has been design to be easy on the eye as well as easy to use. This fully featured thermostat will be at home in any décor.

Features:

24VAC or Battery Powered (2 x AAA).
Large Backlit LCD.
Security Logic including Key Lock & Limit Control.
7 day, 5+2 Day or Manual Operation.
Programmable Fan Logic.
Heat Cool & Heat Pump Logic.
Single & Multistage Control.
Remote Sensor Input.
Outside Temperature Display.
Adaptive Recovery
MODBUS communication

Specifications:

Input Voltage 20-30 VAC 50/60 Hz (hard wired)
Battery Power (2) AAA 1.5 V
Relay Rating 24 VAC @ 1 amp max per relay
Operating Temperature 0° C to 55° C
Operating Relative Humidity 0-95% (non-condensing)
Storage Temperature 0° C to 65° C
Size: 125” W x 85” H x 25” D (mm)
LCD Display Size 57 W x 99 H (mm)
Back Light Blue (other colours available on request)
Short-Cycle Delay Off or 4 minutes
Displayed Temperature Resolution 0.1° c
Set Point Range:
Heating 5° C - 49° C
Cooling 6° C - 50° C
Heating and Cooling limits adjustable
Onboard Sensor NTC 100K
Remote NTC 10K

Part Number	Description
TST1002	Programmable touch screen thermostat with MODBUS, Multi Stage Control
TST1002/SEN	Remote Sensor

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PDT7D Series Programmable 7 Day (5 + 2) Day Digital Thermostat.

General Description:

The PDT7D is designed to operate with Gas, Oil, Electric as well as Heat Pump systems, as well as other low powered control systems. Single Stage as well as 2 Stage configurations are available on request.

Features:

5 + 2 or 7 Days 4 periods programmable.
Compressor anti cycle protection.
Latching relays.
Selectable options.
Cool, Heat, Auto selectable.
12/24 Hour clock.
°C / °F Selector.
Non volatile memory.
Filter change indicator.
Low battery indicator.
Easy front loading battery access.
24 Volts with battery backup or battery only.
Soft touch key Pad.
Adjustable dead band setting.
Large easy to read LCD display, bright green EL back light.
Supports gas, oil, electric, heat pump systems.
Millivolt system compatible.
Temporary or continuous program override.
Remote sensor available (model dependant)
Keypad lock (model dependant)
Adaptive recovery.

Specifications:

Power Supply :	Battery powered or 24Vac with battery backup.
Temperature Sensor:	Inside sensor: NTC 10K, Remote sensor: NTC 100K.
Backlight:	Green light.
Dimensions:	140 x 95 x 28mm (W H D).
Display:	45 x 43.5mm LCD display.
Thermostat Terminals:	Rc Rh O B G Y1 Y2 W1 W2 Aux E L
Accuracy:	+ / - 1°C

Part Number	Description
PDT7D1	7 Day (5+2) Programmable Thermostat 1 Heat / 1 Cool
PDT7D2	7 Day (5+2) Programmable Thermostat 2 Heat / 2 Cool

H8100H 7 Day Programmable Floor Heating Touch Screen Thermostat.

Programming:

Choice of 7 day, 5/2 day programmable or
non-programmable (installer selectable).
4 time and 4 temperature settings per day.
pre-programmed or personalized schedule.
Energy savings up to 33%

Display:

Large, 4.3-inch touch screen display.
Blue, lighted display for easier low-light viewing.
Larger, easy-to-read character size.
Extra-large touch keys for easy operation.
Clean, uncluttered touch screen display provides easier navigation.

Specifications:

Intuitive menu-driven set-up, programming and operation with
audio prompt to confirm touch screen entries.
Permanent program retention during power loss.
Set point temperature “limited range” capable.
Enhanced touch screen security prevents tampering.
Room temperature display can be calibrated up to +/- 4°C.
Can switch up to 16 amps (230v).
Temperature display resolution: 0.1 C.
Temporary temperature override.
C / F temperature format selection by buttons.
Air / floor temperature calibration separately.
A / AF/ F models all in one
Combination of 3 models.
A - Air only, with built-in sensor.
F - Floor only,controls floor temperature.
AF - Controls air temperature with ability to limit the floor temperature.
Each thermostat is equipped with built-in sensor plus 3 meter floor sensor.
The floor sensor can be extended if required.
24hr/12hr clock format selection.
Switching differential setting.
Floor temperature limit.

Available in white and silver finishes as well as horizontal and vertical models.

Part Number	Description
H8100HW	Touch screen thermostat for floor heating horizontal layout white.
H8100VW	Touch screen thermostat for floor heating vertical layout white.

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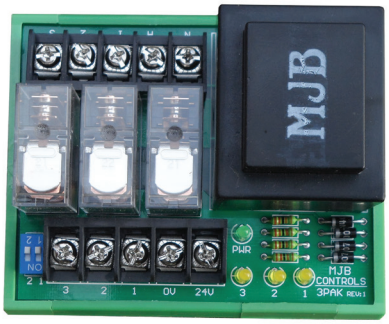
3PAK 240 Vac to 24 Vac Interface Module.

General Description:

The MJB Controls 3PAK has been designed where 240V equipment must be controlled by a 24V thermostat or equivalent device. This simple to install interface module provides total voltage isolation between the equipment (High Voltage) and controller/thermostat (Low Voltage).



The 3PAK has been fitted with LED indicators to provide easy to understand visual indication of each relays status. This can be invaluable during system commissioning and testing, or when having to fault find a previous installation. The 3PAK is fitted with a selector switch that gives the 3PAK the unique ability to control a heat pump system using a standard Heat/Cool thermostat if changing the existing thermostat is not desirable or possible.

The 3PAK's enclosure provides secure mounting on either standard 32mm or 35mm DIN rail. The 3PAK has been designed with the HVAC/R installer in mind. It has been built like all MJB Controls products to be simple to understand, simple to install and reliable. Typical use of the 3PAK is to interface between a 24V heat and cool or heat pump room thermostat, a cool only or heat pump air conditioner unit.

Features:

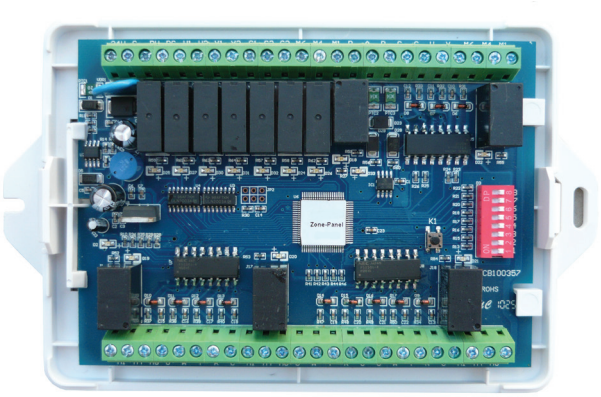
Relays rated at 240v 16A.
LED indication of all functions.
Universal DIN rail mounting.
Advanced control options. (DIP Switchable)

Part Number	Description
3PAK	240 Vac to 24 Vac Interface Module

ZC4 Air Conditioning Zone Controller.

General Description:

The ZC4 is a microprocessor based HVAC zone control system that can be used with any standard or programmable thermostat or thermostats (input type “RYWG”) such as the MJB Controls PDT7D series.



This will allow the control of any heating, cooling or air conditioning system with up to 4 zones (plus 1 spill or bypass zone).

Each zone can be independently controlled by its own thermostat and hence can be set to the occupants individual temperature needs.

Also if the ZC4 is used with programmable thermostats then each zone can be individually controlled on different time schedules as well as temperature settings.

Features:

Individual zone times
Individual temperatures
LED Status indication on all inputs and outputs
Heat/Cool and Heat Pump logic as standard.
Heating, Cooling and economy cycle
Isolated inputs and outputs
Multi stage equipment control
Multi fan speed control

Specifications

Input Voltage	24 Vac 50 Hz +/- 15%
Operating Temperature	0 ~ 50^{C}
Operating RH	0 ~ 95% Non Condensing
Dimension	110 x 200 x 60 (mm)
Memory Type	Non Volatile (No back up battery required)
Max relay voltage	24 V ac
Max switching current	2 Amps
Time slicing	30 mins max
Zone damper logic	Last direction held
Reversing valve logic	Held for 30 mins or until opposite mode called
Status LED’s	Heartbeat with fault codes
Fuse	All fuses auto reset.

Part Number	Description
ZC4	Air Conditioning Zone Controller 4 zones plus spill

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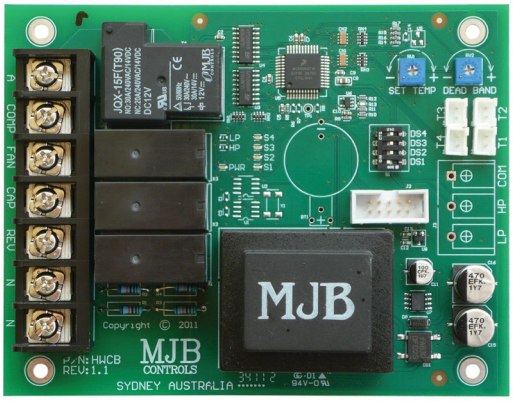
HWCB Heat Pump Storage Hot Water Controller.

General Description:

The HWCB heat pump storage hot water controller designed and built by MJB Controls is currently used by leading manufactures of heat pump hot water storage systems to supply reliable and constant hot water all year round to their customers.



Built using MJB Controls industry leading defrost technology using fuzzy logic, the HWCB will provide you with maximum energy efficiency which is good for your wallet as well as the environment. The MJB Controls HWCB has been tested and passed by Mechlab/UNSW for the new heat pump hot water regulations.

To provide maximum system efficiency the HWCB controls the compressor, fan, and reversing valve and compressor cooling solenoids. This provides total system control in a small easily adaptable package that can also be easily fitted to other brands or makes of hot water heap pump systems that may have had their control system fail.

Optional data logging can be provided. This may be of use in commercial applications that may monitor or report energy usage.

Features:

All in one microprocessor system control
LED indication of system status and faults
Temperature monitoring of both tank and system
Adjustable water temperature
Adjustable dead band temperature
High and Low supply voltage system protection
Refrigerant LP and HP pressure monitoring
Field service tool available
Designed and built in Australia
Mechlab / UNSW tested and passed.

Part Number	Description
HWCB	HWCB Heat Pump Storage Hot Water Controller C/W Sensors
HWCB/SEN-1	Replacement 1 Metre Sensor
HWCB/SEN-4	Replacement 4 Metre Sensor
HWCB/SEN-11	Replacement 11 Metre Sensor
HWCB/ST	Service tool to suit HWCB

MTC-30 Temperature Controller.

General Description:

The MTC-30 is an electronic temperature controller with advanced features such as administrator and user menus, copy key function, ability to used either NTC or PTC sensors, plus complies with the HACCP standard. These features, plus more make the MTC-30 the temperature control of choice in the heating and cooling industries.

Features and Functions:

Refrigeration or Heating modes.
User and Administrator menus separately settable.
Buttons can be locked.
Temp display switchable between °C and °F.
Resolution of 0.1 deg.
COPYKEY function.
Complies with HACCP standard (records last alarm temperature and duration).
Buzzer alarm optional.
High capacity relay.
Programmable digital input.
IP 65.

Technical Parameters:

Product size:	75 × 35 × 58(mm)
Mounting hole size:	71 × 29 (mm)
Temperature measuring range	-50 ~ 120 deg
Temperature controlling range	-50 ~ 110 deg
Supply voltage	240 Vac
Relay capacity compressor	16 amps

Part Number	Description
MTC-30	Medium Temp Refrigeration Temperature Controller C/W probe
TCCK	Copy Key
TC-SEN	MTC-30 Temperature Sensor

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MTC-60 Refrigeration Temperature Controller.

General Description:

The MTC-60 is an electronic temperature controller with advanced features such as administrator and user menus, copy key function, ability to used either NTC or PTC sensors, plus complies with the HACCP standard. These features, plus more make the MTC-60 the temperature control of choice in the heating and cooling industries.

Features and Functions:

Controls Refrigeration, defrost and fan.
User and Administrator menus separately settable.
Buttons can be locked.
Temp display switchable between °C and °F.
Resolution of 0.1 deg.
COPYKEY function.
Complies with HACCP standard (records last alarm temperature and duration).
Buzzer alarm optional.
High capacity relays.
Programmable digital input.
IP 65.

Technical Parameters:

Product size:	75 × 35 × 58(mm)
Mounting hole size:	71 × 29 (mm)
Temperature measuring range	-50 ~ 120 deg
Temperature controlling range	-50 ~ 110 deg
Supply voltage	240 Vac
Relay capacity compressor	16 amps
Relay capacity fan	10 amps
Relay capacity defrost	10 amps

Part Number	Description
MTC-60	Low Temp Refrigeration Temperature Controller C/W probe
TCCK	Copy Key
TC-SEN	MTC-60 Temperture Sensor

DHC-100 Humidity Controller.

General Description:

The DHC-100 is an electronic hydrostat which uses a macromolecule humidity sensor. It features high accuracy, high immunity to interference and rapid response. It is widely used for humidification, dehumidification as well as measuring and display of relative humidity.

Can be used for laboratory, hydroponics, mushroom farms, greenhouses, indoor farms, incubators, and textile applications etc.

Features and Functions:

Humidification, dehumidification modes
Alarm function when sensor fails
Alarm function when humidity exceeds limits
Delay time
Key lock function
Sensor calibration

Specification:

Mounting size:	71(W) x 29(H) (mm)
Product size:	75(W) x 34.5 (H) x 85 (D) (mm)
Power supply:	240VAC+10%/-15%, 50/60HZ
Humidity measuring range:	0%~+99%
Humidity controlling range:	+10%~+99%
Resolution:	1%
Accuracy:	± (5%RH+0.5digit) at 25 ± (6%+0.5digit) at 0%RH~59% ± (8%+0.5digit) at others, when +10~+40
Relay output contact capacity:	10A/240VAC
Temperature annual drift:	±0.5%

Part Number	Description
DHC-100	Electronic Humidity Controller 240V C/W probe

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ETC-200+ Temperature Controller.

General Description:

The ETC 200+ is electronic temperature controller with advanced features such as adjustable defrost, alarm, switchable refrigeration and heating modes. The ETC 200's simple menu makes programming the temperature control easy.
Perfect for Bain Maries or Display Cabinets.

Specifications:

Panel Size:	75 x 43.5 mm
Hole Size:	71 x 29 mm
Dimensions:	75 x 34.5 x 85 mm

Technical Specifications:

Power supply:	240 Vac +/- 10% (12Vac/dc, 24Vdc optional)
Power consumption:	<5w
Temperature range	-50 ~ 120 °C
Display resolution:	0.1 (1 when > 100 °C)
Accuracy:	+/- 0.5oC from -10 to 85oC <+/- 2°C at all other.
Compressor time delay:	0 ~ 30 min (adjustable)
Temperature calibration:	-5 ~ +5 °C
Defrost cycle:	0 ~ 99 hours (adjustable)
Defrost time:	0 ~ 99 mins (adjustable)
Compressor relay capacity:	10A/240Vac
Defrost relay capacity:	10A/240Vac
Exceed temperature alarm range:	0 ~ 20oC
Maximum sensor cable length:	100m
Password protection	Yes

Part Number	Description
ETC-200	Temperature Controller Heating/Cooling 240V
TC-SEN	ETC-200+ Temperature sensor

TPM-110 Temperature Display.

General Description:

The TPM-110 is a temperature display meter. Common uses include cool rooms and fridges but can be used any where accurate temperature display is required.

Specification:

Mounting size:	64(W) x 31(H) (mm)
Product size:	58.5(W) x 25.7(H) (mm)

Technical parameters:

Power supply:	240VAC±10%, 50/60HZ
Temperature measuring range:	-30~110 Operation environment: -10~60 (20%~85%)
Resolution:	0.1 (<100), 1 at others
Accuracy:	±1
	Display EEE when sensor error (short circuit or open circuit)
	Display HHH when measuring temperature >110
	Display LLL when measuring temperature <-30
Sensor:	NTC Max length 50 m

Part Number	Description
TPM-110	LED Temperature Display 1 Channel 240V
TPM-111	LED Temperature Display 2 Channel 240V

Plastic Enclosures.

General Description:

The EUR121210H enclosure made from ABS comes complete with a cut out in the face to take all our temperature, and humidity controls listed in this catalogue.
The EUR121210H may also fit other brands that use the same mounting hole.

Specifications:

Size:	125 x 125 x 100mm
Mounting Hole:	29 x 71mm.
Protection Rating:	IP65

Part Number	Description
EUR121210H	Plastic enclosure with pre-cut mounting hole.

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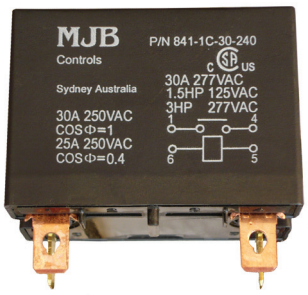
841-1C-30-240 Heavy Duty / High Current Relay.

General Description:

The 841-1C-30-240 is a 30 amp single pole 240V ac coil high power relay used in refrigeration and cool room installations where the temperature control's internal relay lacks the power switching capability to reliably control the compressors high load.



Features:

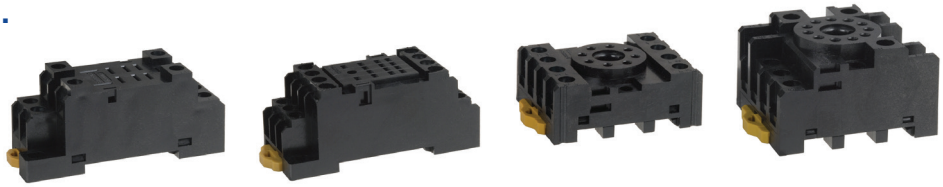
30 A switching capability
4kV dielectric strength (between coil and contacts)
Heavy load up to 7500VA
Class F insulation available
3mm contact gap available
Environmental friendly product (RoHS compliant)
Outline Dimensions: (52.5 x 35.5 x 47.0) mm

Part Number	Description
841-1C-30-240	High Power Relay 1 pole 3 H.P. 240Vac

Plug in relays.

Part Number	Description
MJB-2C-240-L	2 pole 10A 240 Vac with LED
MJB-2C-24-L	2 pole 10A 24 Vac with LED
MJB-4C-240-L	4 pole 5A 240 Vac with LED
MJB-4C-24-L	4 pole 5A 240 Vac with LED

Plug in Relay Bases.



Part Number	Description
PTF08A-E	Relay Base suit 2 pole 10A relay
PYF14A-E	Relay Base suit 4 pole 5A relay
PF083A-E	Relay Base suit 8 Pin octal relay
PF113A-E	Relay Base suit 11 Pin octal relay

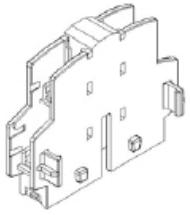
GMC Series 3 phase AC Contactors.

	Instantaneous Auxiliary contacts		Rated Insulation Voltage	AC1 duty 40c	AC3 duty 40c	Rated operational power in AC-3 3 Phase				Rated operational power in AC-3 1 Phase	
						220V	380V	440V	575V	120V	230V
Model	N/O	N/C	Ui	Ith	Ie	KW HP	KW HP	KW HP	KW HP	KW HP	KW HP
GMC-09	1	1	1000V	20A	9A	2.2 3	3.7 5	3.7 5	3.7 5	0.37 0.5	1.5 2
GMC-12	1	1	1000V	25A	12A	3 4	5.5 7.5	5.5 7.5	5.5 7.5	0.55 0.75	1.5 2
GMC-18	1	1	1000V	32A	15A	3.7 5	7.5 10	7.5 10	7.5 10	0.75 1	2.2 3
GMC-22	1	1	1000V	40A	22A	5.5 7.5	11 15	11 15	11 15	1.5 2	3.7 5
GMC-32	2	2	1000V	50A	32A	7.5 10	15 20	15 20	15 20	2.2 3	4 5.5
GMC-40	2	2	1000V	60A	42A	11 15	19 25	19 25	19 25	3 4	5.5 7.5
GMC-50	2	2	1000V	80A	55A	15 20	30 40	30 40	30 40		
GMC-65	2	2	1000V	100A	65A	19 25	33 45	33 45	33 45		
GMC-75	2	2	1000V	110A	80A	22 30	37 50	37 50	37 50		
GMC-85	2	2	1000V	135A	105A	25 35	45 60	45 60	45 60		

Contactor Auxiliaries.

AU2
Instantaneous Auxiliary Contacts : 1NO + 1NC
AU4
Instantaneous Auxiliary Contacts : 2NO + 2NC

Note: rated 10A max at 600Vac
Ui 600V Ith10A
Suits Contactor : GMC-09 to GMC-85



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NTH Series Thermal Overloads.





Model	Relay Setting Range RC (FLC) A	Suit Contactors
GTH22 - 1.3	1.00- 1.6A	GMC-09~18
GTH22 - 2.1	1.6 - 2.5A	GMC-09~18
GTH22 - 3.3	2.5 - 4.0A	GMC-09~18
GTH22 - 5	4 - 6A	GMC-09~18
GTH22 - 6.5	5 - 8A	GMC-09~18
GTH22 - 7.5	6 - 9A	GMC-09~18
GTH22 - 8.5	7 - 10A	GMC-09~18
GTH22 - 11	9 - 13A	GMC-18 - 22
GTH22 - 15	12 - 18A	GMC-18 - 22
GTH22 - 19	16 - 22A	GMC-18 - 22
GTH40 - 22	18 - 26A	GMC-22 - 32
GTH40 - 30	24 - 36A	GMC-22 - 32
GTH40 - 34	28 - 40A	GMC-22 - 32
GTH85 - 42	34 - 50A	GMC-40 - 50
GTH85 - 55	45 - 65A	GMC-50 - 65
GTH85 - 65	54 - 75A	GMC-65 - 75
GTH85 - 74	63 - 85A	GMC-65 - 75

Compensated and differential overload relays with 1 N/O + 1 N/C electrically separated auxiliary contacts For direct connection with GMC- series contactors.

Note : Select and set the overload relay according to the current value on the motor rating plate.
Terminals protected against direct finger contact and fitted with ready to tighten screws.
Lockable and settable Man/Auto switch. Trip Test.

DOL Non Reversing Motor Starters.

The MS1 DOL starter is housed in a ABS IP65 enclosure and comes complete with overload, pushbuttons and contactor. Control gear used within the dol. starter is rated to ensure a long service life.

Model	3 Phase				1 Phase		Overload
	220V	380V	440V	575V	120V	230V	
	HP	HP	HP	HP	HP	HP	NTH-Series
MS1-09D	3	5	5	5	0.5	2	NTH-Series
MS1-11D	4	7.5	7.5	7.5	0.75	2	NTH-Series
MS1-12D	5.5	10	10	10	1	3	NTH-Series
MS1-18D	7.5	15	15	15	2	5	NTH-Series
MS1-25D	10	20	20	20	3	5.5	NTH-Series
MS1-35D	15	25	25	25	4	7.5	NTH-Series

PFR-03 Phase Failure and Sequence Monitoring Relay.

General Description:

Phase Failure: When the monitored 3 phase supply voltage is valid, the PFR-03 output relay is ON. Should any of the 3 phases fail, the output relay switches OFF immediately.

Phase Sequence: When the phase sequence is correct (R, S, T in clockwise direction) The PFR-03 output relay is ON, should the phases not be in the above sequence, the output relay will be switched OFF immediately.

Voltage Imbalance: Should the voltage of each phase not be the same then the PFR-03 output relay will switch OFF within 0.2 seconds.

Part Number	Description
PFR-03	Phase Failure and Sequence Monitoring Relay

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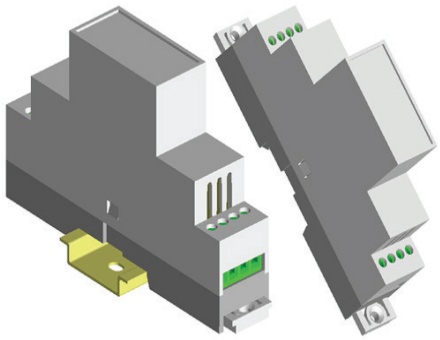
MPR15MD Motor protection Relay

General Description:

Electrical failure of three phase motors can occur due to electrical supply issues including loss of a phase, low supply voltage, intermittent supply or damaged motor contactor contacts. The outcome of these failures usually leads to a burnt out motor which will require re-winding or replacement.



The cost of a failure is usually much more then the obvious cost of the motor itself when you figure in labour to remove & re-instal the motor, possibility of stock loss and hence profits.

The MPR15MD is compatible with all motor sizes and therefore can be used in any motor installation application.

The MPR15MD also includes as standard a 15 min anti-cycle timer which can eliminate the need for additional circuitry in refrigeration and air conditioning applications making it the perfect option for motor protection.

The MPR15MD is build using advanced microprocessor and software techniques, so they are small in size and cost effective to use on individual motors of all sizes with an input voltage of 380~440V AC, 50~60Hz.

Single phase operation is also available by simply changing a dip switch setting so all motor configurations can enjoy the same protection.

Features:

Protects motors from the following fault conditions:
Loss of phase.
Incorrect phase rotation. (Optional)
Failure of motor contactor contacts.
Voltage imbalance.
15 Minute anti cycle timer.
LED Status of operation and fault conditions

Part Number	Description
MPR15MD	Motor Protection Relay with 15 Min Anti Cycle Delay

SY6600 and SY8600 Series Variable Frequency / Speed Drives.

Features:

Various commonly used control modes (SVC, VF).
Automatically recognises motor parameters.
RS-485 communication interface, with MODBUS protocol.
PWM flexible energy braking, provides the ability to quickly halt machine.
Torque output is 150% at 0.5HZ.
Zero speed torque output.
Super silent running.
Quick simple menu design.
Simple PLC, PID adjustment.
Trip suppression and stable running.
High stability, strong anti-interference design.
25 protection functions.
Dual-DSP + MCU + IPM provides high performance and high reliability.
Automatic identification of motor parameters, automatic temperature compensation.
Speed and torque control switching whilst online.
Zero servo lock function.
Standard built-in RS485 port, TDS-PA01 adapter supports various Fieldbus. Optional Profibus, DeviceNET, CANopen, support.
Built-in PG card, built-in brake unit up to 18.5KW
LCD/LED optional keyboard.
Supports uploading and downloading parameters.

* When ordering, please nominate in part number either -
G = General Purpose (Constant Torque Type)
P = Fan and Water Pump
H = Heavy Duty

Please enquire about brake units, resistors, communication cards and EMC filters. Contact MJB for larger models.

Part Number	Description	Rated Output Current Amps
SY6600-0R4*-S2	1PH to 3PH 0.4 KW	2.3
SY6600-07R5*-S2	1PH to 3PH 0.75 KW	4.5
SY6600-1R5*-S2	1PH to 3PH 1.5 KW	7
SY6600-2R2*-S2	1PH to 3PH 2.2 KW	10
SY8600-0R4*-4	3PH to 3PH 0.4 KW	1.5
SY8600-07R5*-4	3PH to 3PH 0.75 KW	2.5
SY8600-01R5*-4	3PH to 3PH 1.5 KW	3.7
SY8600-2R2*-4	3PH to 3PH 2.2 KW	5
SY8600-4*-4	3PH to 3PH 4 KW	9
SY8600-5R5*-4	3PH to 3PH 5.5 KW	13
SY8600-7R5*-4	3PH to 3PH 7.5 KW	17
SY8600-011*-4	3PH to 3PH 11 KW	25
SY8600-015*-4	3PH to 3PH 15 KW	32
SY8600-018*-4	3PH to 3PH 18.5 KW	37
SY8600-022*-4	3PH to 3PH 22 KW	45

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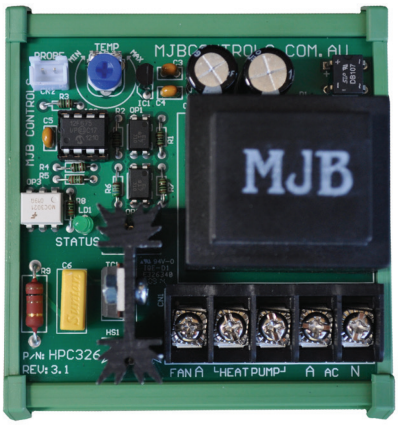
HPC326 Fan Speed Controller.

General Description:

The MJB HPC326 operates as a temperature-sensitive, motor fan speed Head Pressure Control for Air Conditioning and Refrigeration control.
Head pressure is regulated during low ambient temperature conditions by varying the amount of airflow through the condenser coil. This helps ensure sufficient pressure across the expansion valve, preventing costly downtime.



Operation:

Upon initial application of power to the controller, the output voltage will be in the "Hard start" mode for a specified period of time. This time may be either factory fixed or field adjustable from 0.1 - 5 seconds.

Upon completion of the Hard Start period, the output voltage control reverts to the temperature probe. Speed control will not occur until the line temperature falls below 40 deg C. Above 40 deg C full voltage will be applied to the motor such that there is no loss in condensing efficiency. As the temperature being sensed decreases, the output voltage to the fan motor will decrease to the determined "Low Temperature Cut-off". Upon reaching the Low Temperature Cut-off setting, the output voltage will go to zero volts thus effectively turning the fan off until the condenser coil temperature rises above the Low Temperature Cut-off temperature. The Low Temperature Cut-off setting maybe either factory fixed or field adjustable.

The system will restart the fan once the temperature exceeds the "Low Temperature Cut-off" temperature by a pre-determined amount, which is the system hysteresis (Deadband).
The hysteresis is factory fixed. Removal of the line voltage will de-energize the output immediately.
Re-application of the line voltage will energize the output at maximum voltage for the Hard Start duration, regardless of the value of the thermistor input.

Specifications:

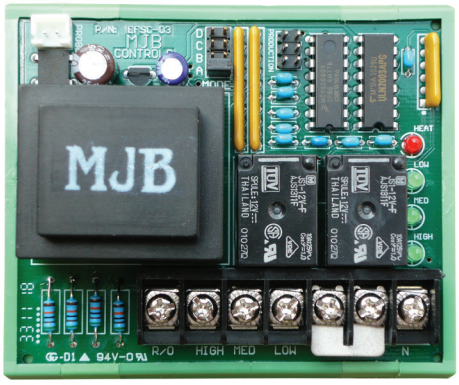
Input Voltage	240V AC, 50 Hz. (Other voltage on request)
Output	Solid State Triac; 5 amps max. 100 mA minimum.
Leakage Current	5 mA Max.
Voltage Drop	3 Volts Max.
Power Consumption:	1 watt max.
Mounting:	35, 32mm DIN Rail.
Visual Indication:	Green LED Flashes for full speed, part speed and standby modes
Size:	72 mm x 76 mm
Operating Temperature	-20 ~ +50 Deg^{C}

Part Number	Description
HPC326	Temperature sensitive Condenser Fan Speed Controller C/W 2 Metre Probe
HPC326/SEN	Replacement 2 Metre Probe

EFSC-03 Electronic Fan Speed Control - 3 Speed.

General Description:

The EFSC-03 series Fan Speed Controller provides simple low cost, and effective method of speed / noise control of three speed outdoor fan motors on the following types of HVAC equipment in a simple DIN rail mountable unit.



Packaged Air conditioners.
Heat Pumps.
Commercial Refrigeration Equipment.

The EFSC-03 also provides field personal with constant visual indication of current fan speed, current operation mode (Invert or Force to High) and temperature probe condition.

Application:

It is often undesirable that an outdoor fan run continuously at maximum speed. Some issues such as system performance may be reduced, and excessive noise from the outdoor fan particularly in todays noise conscience environment are examples.

The EFSC-03 helps to alleviate these problems by providing an effective means of selecting the most suitable fan speed for the current conditions.

Temperature settings	Mode A	Mode B
Change to high	31 °C	38 °C
Change to Medium	25 °C	25 °C
Change to Low	19 °C	13 °C
(Set Via Jumper)		

Specifications

Input Voltage	240Vac
Accuracy	+/- 0.5 °C
Operating Temperature	-20 ~ + 60 °C
Switching Capacity	12 Amps Resistive 5 Amps at cos 0.4
Power Consumption	1 VA Maximum
Sensor Length	2 Metre (10 Metre on request).
Size	81 mm x 76 mm.
Mounting	35, 32 Din Rail.

Part Number	Description
EFSC-03	3 Speed Fan Speed Control C/W 2 metre probe
EFSC-03/SEN	Replacement 2 Metre Probe
EFSC-03/TP	Plug In field tester to be used with on board test option

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SPSS25 Single Phase Soft Starter.

General Description:

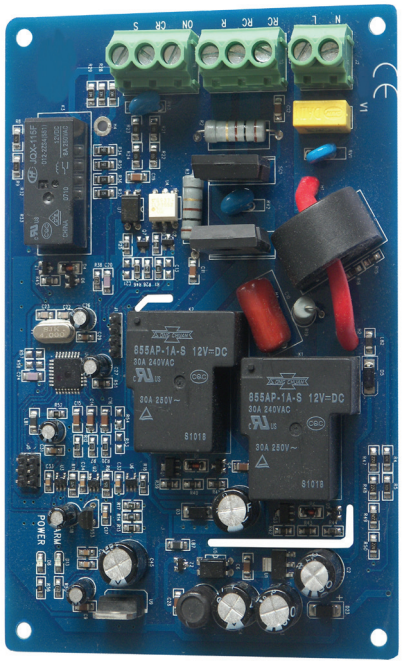
SPSS25 soft starter is an microprocessor controlled single phase soft starter specially developed for single phase motors and compressors. In typical direct on line (DOL) installations the start up current of induction motors is 4-7 times higher than the nominal running current.

By using the SPSS25 soft starter, the compressor/motor start up current can be reduced to approximately 2 times the standard running current, whilst still providing full start up torque.

This helps protect the compressor or motor against mechanical and electrical stress and therefore helps enhances its working life. It also eases the impact on the electricity grid from large start up currents with most power authorities are now looking to reduce.

The SPSS25 is suitable for both 50Hz or 60Hz, and is suitable for 1-3 hp single phase compressors / motors.

Used in HVAC/R, Irrigation pumps and installations were back up power generation is used.



Specifications:

Voltage: 230V ±15%
Frequency: 50/60Hz (Auto detect)
Start times/hour: 12
Rated current: 25A
Max start up current: 40A
Restart interval: 1 minute
Max compressor power capacity: 3HP
Working temp: -10°C ~ +50°C
Approvals: CE

Part Number	Description
SPSS25	Single Phase Soft Starter 3 HP

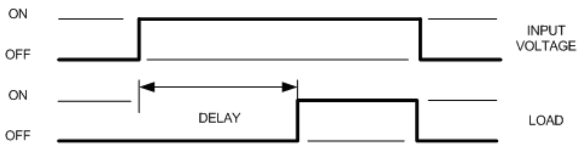
ODT240X480 Solid State On Delay Cube Timer.

General purpose “On delay” (delay on make) timing function. Ideal for compressor staging and stagger-starting multiple units. Helps to reduce power surges in multiple compressor applications.

Simple 2 wire (series load) connection.

Operation:

When power is applied to the input, the time delay begins. After the time delay is complete, the load energizes and remains energized as long as power is applied. The control is reset by removing power during or after the time delay.



Part Number	Description
ODT240X480	On Delay 6s - 8 min Solid State Cube Timer

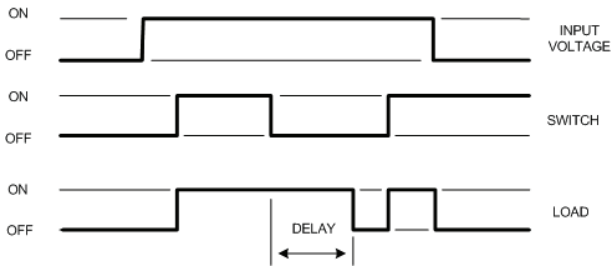
ROT240X1800 Solid State Run-On / Lag Off Cube Timer.

The ROT240X1800 provides simple, low cost run-on / lag off (off delay) Timer timing functionality for bathroom / toilet exhaust fans where it is desirable to run the fan longer then the room is occupied. Other uses include element heating applications where the fan is continued to be run to remove any residual heat before turning off, therefore helping to prevent “nuisance trips” of any safety thermostat.

The ROT240X1800 can also be used in instances were a particular load or device needs to be run longer then another.

Operation:

When voltage is applied to the timer and the switch is closed the load will operate. Once the switch is opened / released the timer continues until the set time expires, turning off the load or device.



Part Number	Description
ROT240X1800	Run - On / Lag Off 10s - 30 min Solid State Cube Timer

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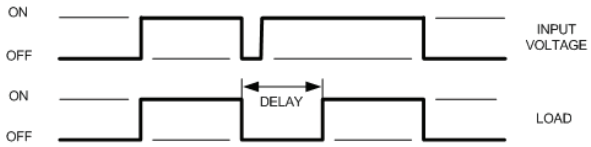
LT240X180 Solid State Anticycle Cube Timer.

Provides cost effective protection to Air Conditioning, Refrigeration and Heat Pump equipment from damage that may be caused by the rapid short cycling of compressors.

Simple 2 wire (series load) connection.

Operation:

Upon application of power, the load is energized. When the thermostat opens or there is a loss of power, the load is de-energized and the delay period begins. The compressor will not start again during the delay period.



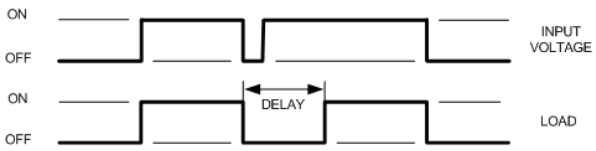
Part Number	Description
LT240X180	Anticycle Fixed 3 min Solid State Cube Timer

LT240X300T Solid State Anticycle Cube Timer.

Provides cost effective protection to Air Conditioning, Refrigeration and Heat Pump equipment from damage that may be caused by the rapid short cycling of compressors. The LT240X300T is a direct wire for wire replacement for the 4 pin cube timer found in Temperzone units.

Operation:

Upon application of power, the load is energized. When the thermostat opens or there is a loss of power, the load is de-energized and the delay period begins. The compressor will not start again during the delay period.



Part Number	Description
LT240X300T	Anticycle Fixed - 5 min Solid State Cube Timer

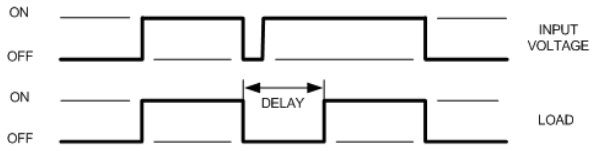
LTA240X480 Solid State Anticycle Cube Timer.

Provides cost effective protection to Air Conditioning, Refrigeration and Heat Pump equipment from damage that may be caused by the rapid short cycling of compressors.

Simple 2 wire (series load) connection.

Operation:

Upon application of power, the load is energized. When the thermostat opens or there is a loss of power, the load is de-energized and the delay period begins. The compressor will not start again during the delay period.



Part Number	Description
LTA240X480	Anticycle 6s - 8 min Solid State Cube Timer

BTA240X480 Solid State Bypass Cube Timer.

Provides cost effective ability to “bypass” low pressure switches or other devices, which helps to reduce nuisance lockouts on equipment start up. Perfect for low ambient startups.

Operation:

When power is applied to the input, regardless of the state of the pressure switch, the load is energized and timing begins. After the timing delay is complete, the pressure switch will control the load. The control is reset by removing power during or after the time delay completes.

Part Number	Description
BTA240X480	By-Pass 6s - 8 min Solid State Cube Timer

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ST3PC 8 Pin On Delay Timer.

Contact form	On-delay	SPDT
	Instantaneous	SPDT
Delay range (Adjustable)		0.5s/5s/50s/5m/30m
Power consumption		3W max
Setting method		Knob
Indication		LED
Hole dimensions (mm)		50.50 x 40.50
Contact rating		3A@250Vac, 5A@28Vdc
Repeat accuracy		±0.3%, ±0.05 sec
Setting error		±0.5%, ±0.05 sec
Supply voltage		240Vac +/- 10%
Mounting		Plug-in socket Octal (8 pin)
Operating temperature		0 to 50 °C (32 to 122 °F)
Operating humidity		95% RH max, non-condensing

Part Number	Description
ST3PC	On Delay Timer 8 Pin 0.5S-30M

ST3PF 8 Pin On Delay Timer.

Contact form	On-delay	SPDT
	Instantaneous	SPDT
Delay range (Adjustable)		0.25-2M/20M/2H/12H
Power consumption		3W max
Setting method		Knob
Indication		LED
Hole dimensions (mm)		50.50 x 40.50
Contact rating		3A@250Vac, 5A@28Vdc
Repeat accuracy		±0.3%, ±0.05 sec
Setting error		±0.5%, ±0.05 sec
Supply voltage		240Vac +/- 10%
Mounting		Plug-in socket Octal (8 pin)
Operating temperature		0 to 50 °C (32 to 122 °F)
Operating humidity		95% RH max, non-condensing

Part Number	Description
ST3PF	On Delay Timer 8 Pin 0.25S-12H

DTC 010 7 Day programmable digital Time Clock.

General Description:

Latest technology quartz micro-controller.
General purpose time switch with daily and weekly programs.
Repeat programs with 8 ON/OFF settings per day.
Can control timing of Air Conditioning, Refrigeration, Pool Pumps, Chlorinator's and many other similar applications.

DIN Rail installation.
To-the-minute setting accuracy.
LCD displays time, day, ON / AUTO / OFF and program.
Attractive finger proof case.
Manual override button.
Battery Backup
LED indication of program status.
Max Switching Current 16 Amps resistive

Part Number	Description
DTC 010	1 Channel 7 Day programmable digital Time Clock

SDT1-100 Star Delta Timer.

General Description:

Designed to provide a simple, economical and reliable operation for Star - Delta induction motor starters.
DIN rail Mounting
Change time(0.1~0.5sec) from star(Y) to delta(Δ) is according to the requirement of the user
Short release time, suitable for fast repeat operation
Process indications: Green LED for delta operation, Red LED for star operation.
Front adjustable knob for star time: 1 sec~100 sec
Simple Star-Delta Starter Wiring.

Part Number	Description
SDT1-100	Star Delta Timer 1 ~ 100 Sec

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CF Series External Rotor Axial Condenser/ Evaporator Fans.

General Description:

The CF range of grill mount external rotor axial fans are used in heat pump / refrigeration installations. These high quality, low noise fans are available from 250 mm to 700 mm in 240 volt single phase or 415 volt 3 phase, two to eight pole versions. Suck or blow configurations are available by request. Sickle blades are standard across the entire range.

The CF range from MJB Controls are used by many leading Australian OEM's. They are also a perfect cost effective bolt in replacement for other brands of fans used in cool rooms and freezers and condensing units.

Corrosion resistant coating.
Maintenance-free ball bearings.
IP 54/55.
Standard:VDE-RoHS DIN EN 60252.

Please contact MJB Controls for fan curve data.

Part Number	Description
CF250-4P240V	250mm 4Pole 240V 1 Phase
CF300-4P240V	300mm 4Pole 240V 1 Phase
CF350-4P240V	350mm 4Pole 240V 1 Phase
CF350-4P415V	350mm 4Pole 415V 3 Phase
CF350-6P240V	350mm 6Pole 240V 1 Phase
CF400-4P240V	400mm 4Pole 240V 1 Phase
CF400-4P415V	400mm 4Pole 415V 3 Phase
CF450-4P240V	450mm 4Pole 240V 1 Phase
CF450-4P415V	450mm 4Pole 415V 3 Phase
CF450-6P240V	450mm 6Pole 240V 1 Phase
CF500-4P240V	500mm 4Pole 240V 1 Phase
CF500-4P415V	500mm 4Pole 415V 3 Phase
CF500-6P240V	500mm 6Pole 240V 1 Phase
CF550-4P240V	550mm 4Pole 240V 1 Phase
CF550-4P415V	550mm 4Pole 415V 3 Phase
CF550-6P240V	550mm 6Pole 240V 1 Phase
CF600-4P240V	600mm 4Pole 240V 1 Phase
CF630-4P240V	630mm 4Pole 240V 1 Phase
CF630-4P415V	630mm 4Pole 415V 3 Phase
CF630-6P240V	630mm 6Pole 240V 1 Phase
CF630-6P415V	630mm 6Pole 415V 3 Phase
CF700-6P415V	700mm 6Pole 415V 3 Phase

Encapsulated Pressure Switches.

General Description:

The LP and HP series of low and high pressure encapsulated switches are primarily protective devices used as a safety monitor to make sure the running pressures of a HVAC or other Refrigeration system are not outside of specification. These can be made to customer specifications if required.

Specifications

Max Voltage 240V
2.9 FLA – 15 LRA amp contact rating
Operating Temperature -35 to +120°C
Fly leads or 6.3 mm push on connectors
Screw on fitting (Schrader valve) or weld in
Manual or Auto reset
Life at rated current 100000 cycles
Dielectric strength 750V rms terminal to terminal, 1500V rms terminal to case

Part Number	Description
LP0020	Low Pressure Switch C/O 0 PSI C/I 20 PSI
LP0525	Low Pressure Switch C/O 5 PSI C/I 25 PSI
LP1530	Low Pressure Switch C/O 15 PSI C/I 30 PSI
LP2550	Low Pressure Switch C/O 25 PSI C/I 50 PSI
LP2560	Low Pressure Switch (R410A) C/O 25 PSI C/I 60 PSI
HP 400300	High Pressure Switch C/O 400 PSI C/I 300 PSI
HP425325	High Pressure Switch C/O 425 PSI C/I 325 PSI
HP665565	High Pressure Switch C/O (R410A) 665 PSI C/I 565 PSI
HP400MR	High Pressure Switch C/O 400 PSI manual reset
CP240280	Fan Cycling Switch C/O 240 PSI C/I 280 PSI

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Switches Push Buttons and Contact Blocks





Part Number	Description
LA115-A2-11	Flush push button
LA115-A2-11D	Illuminated push button
LA115-A2-11T	Maintained push button
LA115-A2-11TD	Illuminated maintained push button
LA115-A2-11H	Extended push button
LA115-A2-11HD	Illuminated extended push button
LA115-A2-11HT	Maintained extended push button
LA115-A2-11HTD	Illuminated maintained extended push button
LA115-A2-11X	2 Position short lever selector
LA115-A2-11CX	2 Position long lever selector
LA115-A2-20XS	3 Position short lever selector
LA115-A2-20CXS	3 Position long lever selector
LA115-A2-11XD	Illuminated 2 position short lever selector
LA115-A2-11CXD	Illuminated 2 position long lever selector
LA115-A2-20XSD	Illuminated 3 position short lever selector
LA115-A2-20CXSD	Illuminated 3 position long lever selector
LA115-A2-11M	Mushroom push button
LA115-A2-11MD	Illuminated mushroom push button
LA115-A2-11MT	Maintained mushroom push button
LA115-A2-11MTD	Illuminated maintained push button
LA115-A2-11MTD	Illuminated maintained mushroom push button
LA115-A2-11ZS	Emergency stop button
LA115-A2-11Y	2 Position keylock selector
LA115-A2-20YS	3 Position keylock selector
LA115-A-01	N/C Contact block
LA115-A-10	N/O Contact block
LA115-FD	Emergency Stop Warning plate
LA115-FH	Push button protection cover / lockable

Technical Data

Ambient air Temp -25 oc ~ + 40oc
Max RH 90%
Protection rating IP40 / IP65

Max Altitude 2000m
Pollution degree Class 3
Ith 10A

Specify Colour and Voltage when ordering.

22mm LED Indicators and Buzzers

Specify Colour and Voltage when ordering.

Part Number	Description
AD116-22	22MM Indicator lamp
AD116-22DS-M	22MM Ultra short buzzer
AD116-22DS-MFS	22MM Ultra short flashing buzzer

Modular Contactors

35mm din rail mountable
Current rating of 25, 40 and 63 amps
24 and 240 Volt coil voltages
Multiple contact configurations
Indication of operation status

Part Number	Description
LNC2-11-25-24 V	25 Amps 1N/O 1N/C 24V coil / 1 module wide
LNC2-20-25-24 V	25 Amps 2N/O 24V coil / 1 module wide
LNC2-11-25-240 V	25 Amps 1N/O 1N/C 240V coil / 1 module wide
LNC2-20-25-240 V	25 Amps 2N/O 240V coil / 1 module wide
LNC2-13-25-240 V	25 Amps 1N/O 3N/C 240V coil / 2 modules wide
LNC2-31-25-240 V	25 Amps 3N/O 1N/C 240V coil / 2 modules wide
LNC2-40-25-240 V	25 Amps 4N/O 240V coil / 2 modules wide
LNC2-04-25-240 V	25 Amps 4N/C 240V coil / 2 modules wide
LNC2-22-25-240 V	25 Amps 2N/C 2N/O 240V coil / 2 modules wide
LNC2-40-40-240 V	40 Amps 4N/O 240V coil / 4 modules wide
LNC2-40-63-240 V	63 Amps 4N/O 240V coil / 4 modules wide

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Transformers.

All Transformers come standard with 200 mm flying leads on both primary and secondary connections. Mounting is via screws.

Part Number	Description
T240241A6	Transformer 240V-24 1.6A
T240243	Transformer 240V-24V 3A
T240244	Transformer 240V-24 4.1 AMP

Nylon Cable Ties.

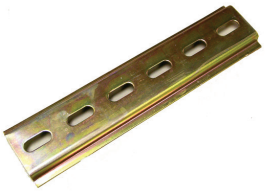
Black weather resistant. All ties have operating temp of -10° to 85° C.

Pack size is 100 pcs.

Part Number	Description
CT-100-2.5/B	100 X 2.5 BLACK
CT-150-3.5/B	150 X 3.5 BLACK
CT-200-3.5/B	200 X 3.5 BLACK
CT-250-4.8/B	250 X 4.8 BLACK
CT-300-4.8/B	300 X 4.8 BLACK
CTM-2525	25 x 25mm Stick-on Cable tie mounts

35mm Din Rail.

Zinc bichromate plated steel,or Aluminium pre punched length 2 m
DIN EN 60715



Part Number	Description
DIN35AS-2M	Din Rail Aluminium Slotted 35mm / 2M
DIN35SS-2M	Din Rail Steel Slotted 35mm / 2M

12 Way Terminal Strip.

General Description:

Base 1.0~2.5 mm Raised Base Type
Housing Material Polyamide 66 (Nylon 66) Flame-retardant to UL 94V-2
Temperature Rating 105°C (UL), -30°C to 110°C (VDE)
Terminal Insert Brass metal alloy, nickel plated
Steel provided with a brass strip
Wire Protector (DS) Stainless spring steel
Screw Steel, zinc plated

Part Number	Description
TS-12-10A	12 Way Terminal Strip 10A
TS-12-25A	12 Way Terminal Strip 25A
TS-12-35A	12 Way Terminal Strip 35A
TS-12-50A	12 Way Terminal Strip 50A

Universal Mounting Clip for 35mm and 32mm DIN Rail.

General Description:

These DIN rail mounting brackets come in handy for a wide variety of projects where DIN rail is used for mounting devices. The flat mounting surface make this clip perfect for mounting virtually anything that does not have their own DIN rail mount. This clip is designed to be universal so that it allows it to be clipped onto 35mm as well as 32mm DIN rail.

Features:

12 x 43.6 mounting surface.
6mm x 0.8 mm pitch mounting screw.

Part Number	Description
DRMC	Universal Mounting Clip for 35mm and 32mm DIN Rail

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Economy PLC / Smart Relay

Features include:

12, 24 I/O's
Extension I/O modules available
Voice and SMS extension modules
Battery backed up real time clock
0-10V, 4-20mA analogue inputs
Relay or Transistor outputs
PWM outputs
12-24 Vdc or 240 Vac supply
RS485 and RS232
MODBUS RTU
Password protection
Programming software available

Contact MJB Controls for more information on this product
or about its release date.

Notes.

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