Dehumidifying Dryer

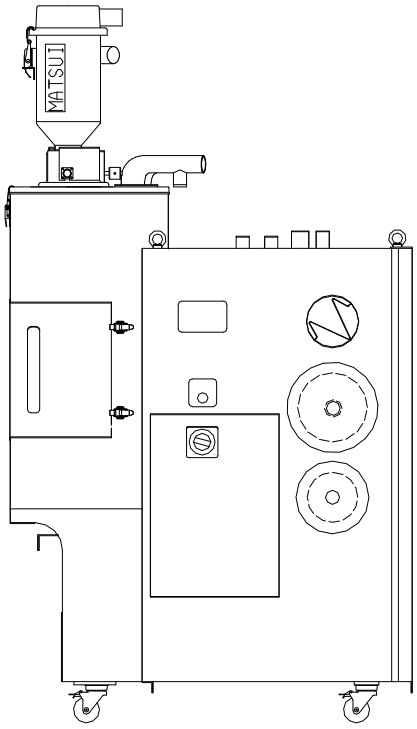
MJ3-10～300A

Manual Book

⚠ WARNING

Many thanks for your purchasing.
Read the manual carefully before operation.
In addition, keep the manual close to the machine for urgent reference.

Be sure to confirm a set value of each setting part when you install it on customer's place, and secure it so that there is no error.



MATSUI

Issued in December . 2010

CONTENTS

⚠ Items with this sign are particularly important. Please be sure of a sufficient comprehension before applying relevant devices.

Page

INTRODUCTION

1. Products Covered

This manual contains instructions for proper operation and maintenance of the Dehumidifying Dryer.

2. Target Readers

When you use the Dehumidifying Dryer for the first time, please read this manual thoroughly. Even if you have already used it, please read this manual for reconfirmation.

3. Warranty

This product is produced with the latest designing and manufacturing technologies of Matsui Mfg. Co. If any defect is found in our product, we will repair or replace the product, which we determine to be defective, according to the following conditions.

1) Scope

The quality of our machines and devices is warranted and we will repair them and/or replace parts when something should go wrong with any of them. However, there is NO warranty on products made with our machines or devices. Any products that you cannot make perfectly when using our machines or devices, are NOT our responsibility.

However, if while you are operating our machine or device in a normal way and there is a problem caused obviously as a result of a defect in design or in production of our machine or device, we will repair it or replace the parts free of charge within the following period and terms.

1)-A. The relevant defective part shall be returned to us.

1)-B. This warranty shall remain valid for twelve (12) months starting on the date when the new products you purchased are delivered to you.

1)-C. Only the following parts are subject to the warranty period of twelve (12) months after such delivery date.
1. Electrical components and parts 2. Sealing materials
3. Bearings and 4. Level switches.

2) Exceptions to which this warranty shall not be applicable.

2)-A. This warranty shall not be applied to the following without exception.
1.Any problem resulting from an environmental change.
2.Any damage or loss attributable to a failure in our delivered products.
3.Any deterioration (in paint or plating) as may occur from a time-course change.
4.Any sensory phenomenon which is considered to have no effect on quality and functions.
5.Any failure due to alteration in your company.
6.Any lamp, fuse, and other consumable part.

2)-B. Warranty does not apply to any failure or defect resulting from the following.

1.Failure/defect resulting from natural disasters such as an earthquake, storm, flood, or accident or fire, etc.
2.Failure/defect resulting from operation at a location other than a normal installation site.
3.Failure/defect resulting from application other than specified in the catalog or in the instruction manual.
4.Failure/defect resulting from use of the non-designated parts or oils.

5.Failure, by intention or negligence, in observing the instructions and maintenance shown in this document.
6. Improper or incorrect maintenance, service, or handling; and
7. Your own transportation, repositioning, or installation of our products.

2)-C. The following is excluded from the warranty.
1. Any insufficient conveyance capacity, conveyance defect, weighing failure resulting from property degeneration of the raw material.
2. Any clogging in pipes, conveyance defect, weighing failure resulting from caking or cohesion of the raw material.
3. Lifetime of abrasion materials such as hoses or pipes is not guaranteed.
4. Degree of crystallization or moisture ratio (except for moisture ratio for the resin tested and pre-confirmed and mutually recognized is guaranteed.) is not guaranteed.
5. Failure/defect resulting from deformation and cohesion of resin.
6. Failure/defect resulting from any volatile additive yielded from resin.
7. Failure/defect resulting from any condition that is not stated in the quotation.

3) Maintenance
The following inspection and maintenance must be performed at the user's responsibility and expense.
This warranty does not cover any product fault due to omitting the specified maintenance.

3)-A. Inspection for operation.
3)-B. Periodic inspection designated in the instruction manual or in the catalog.
3)-C. Periodical replacement of parts designated in the instruction manual or in the catalog.
3)-D. Replace consumable parts when they expire.
3)-E. Inspect, supplement, replace, clean the following items.
- ○ Oil, filter, sealing material, grease, bearing
- ○ Ventilation duct, Freon gas
- ○ Oil filter of air apparatus
- ○ Sedimentary deposits
- ○ Other related items

3)-F. Adjust the following items
- ○ V belt
- ○ Chain
- ○ Temperature control apparatus
- ○ Valve for water supply or drain, etc.
- ○ Pneumatic apparatus for pressurized air
- ○ Over heating protection equipment, etc.

CHAPTER 1 Safety Precautions

This chapter describes the hazardous levels and their marks on the products, which call for your particular precaution in performing the operations, maintenance, and services for the safe use of the products.

> ⚠ WARNING
>
> In performing the operations, maintenance, and services of the products, be sure to observe the safety precaution included in this document.
> We shall take no responsibility and/or liability for any injury or accident attributable to your failure in observing such precaution.

1. Hazardous level marks and their meanings

This manual uses the following convention for the hazardous level marks:

Mark	Description
⚠ DANGER	Improper handling might lead to your death. This mark is followed by the information provided to avoid such result.
⚠ WARNING	Improper handling might lead to your serious injury. This mark is followed by the information provided to avoid such result.
⚠ CAUTION	Improper handling might lead to your slight injury or a damage on the products. This mark is followed by the information provided to avoid such result.
NOTE	This mark is followed by the information provided to call for your particular attention in the context of operation procedures and explanatory statements.
⚠	This mark is used to indicate a point to which you should pay particular attention in handling something.
※	This mark is used to indicate an exceptional condition or description in figures and tables.

2. Safety Precautions

Be sure to observe the following precautions when operating this equipment.

Precaution item	Description
Surfaces temperature ⚠ DANGER	Since this equipment is made for drying purposes, the surface of the body reaches high temperatures. In particular, the surfaces of the hot air piping and the exhaust filter case reach temperatures exceeding 130°C when the dryer is run continuously with the control temperature set to its maximum (160°C). Avoid careless proximity with the body when the equipment is in operation. Even when the equipment must be handled do to an emergency, do not touch with bare hands or allow direct contact with the skin. Before performing normal maintenance and cleaning, allow to cool naturally for at least five hours after stopping operation.
Equipment use	This equipment is designed for drying resin pellets. Drying of any other material may be the cause of equipment failure. Trouble resulting use with materials other than resin pellets is not covered by the warrantee.
	Drying cannot be done for the following resins pellet. Resins containing water particles, Special type of resins, and Humidified Nylon type resin.
	Gas is generated when resins are dried, and the dried resin get stuck on the Honeycomb rotor, this may decrease the Dehumidifying and Drying efficiency.
	Do not use materials containing volatile component and inflammable materials. Using such materials may cause burnt down. Matsui will absolutely not take responsibility of troubles caused by evolved gas.
	As for the material of possibility that gas occurs in drying, refer to “Technical Manual-3”.
Environment	Use this equipment indoor. Operate this equipment in ambient temperature from 0℃ to 40℃. Depending on the humidity condition, there is possibility that enough performance can not be performed. As for the relation between the humidity and the dry air dew point, refer to “Technical Manual-4”.
Drying temperature	Set within the maximum operating temperature range as noted in the specifications. Do not use temperatures exceeding the maximum operating temperature. Otherwise, failure or an accident may result.
Precautions during operation	Do not open the vertical body, the cleaning port, or the residual resin removal port. Resin and hot air will blow out – extremely dangerous.
Opening and closing the cleaning port	Please open and close after confirming that there is not material inside from the level window.
Maintenance	Before performing maintenance procedures, be sure to turn the circuit breaker on the right side of the control panel to “OFF”.

Precaution item	Description
Control panel Temperature controller	Do not apply strong shock to or spill water on control panel or temperature controller. Otherwise failure or fire may result.
	Only open the door when absolutely necessary. Otherwise, failure or accident may result.
Overheat protection device ⚠ CAUTION	Overheat protection device This equipment is equipped standard with the safety device (overheat protection device). When the safety device is operated, the operation power is blocked off and the heater and blower stop. Therefore, the heater part sometimes becomes quite high temperature. After cooling a heater part sufficiently in restart, once again, be careful sufficiently of the setting temperature that the overheat protection device doesn't sense. For details, refer to “Chapter4. Preparation for Operation”.
Warning labels Name plate	Keep legible until this equipment is disposed of.
Wiping clean	Do not wipe with petroleum solvents. Benzene, paint thinner, scouring powders, etc. will damage the surface. To clean dirty equipment, wipe with a soft cloth which has been soaked in water at 40°C and wrung out well.
Maintenance and repair	Someone should perform maintenance or repair that involves taking apart the equipment with sufficient knowledge of machinery and electricity. Otherwise, equipment failure or a dangerous situation may result. For guidelines regarding maintenance or repair, contact your nearest our service division.

Chapter 2 Explanation Equipment

1.Overview of the equipment

This device is used for dryness of resin particles.

This device can make dry air with sorbent to remove water in air. Then send the dry air into bunkers after the air has been heated to dry resin in the bunker.

As water in external air has been removed with sorbent, stable conditions for dryness can be obtained.

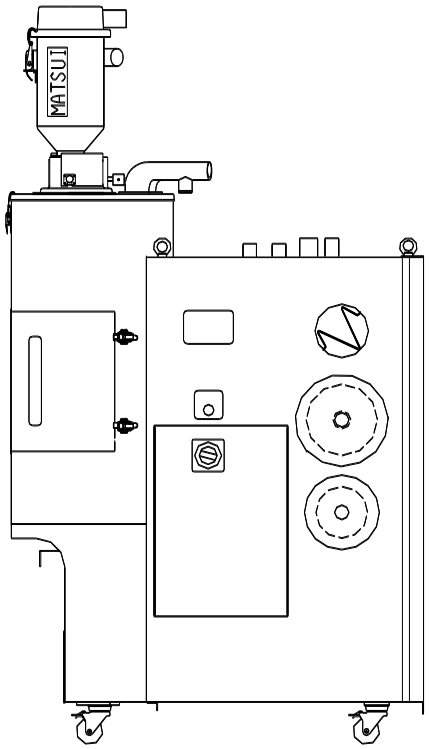
In addition, because of a low condensation point and little water in air, the evaporation of water in stuff can be quickened.

As the device recycles the exist gas in drying bunker to dry air, the waste air is not discharged out of the device. That’s why there is no odour and warm wind discharged, as well as the consumption of electricity is low.

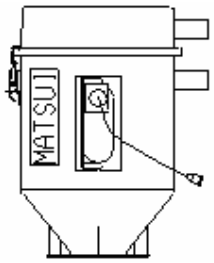
2. The packing confirmation

Make sure the whole machine is ready

○Main machine



○Feed container to the forming machine
(MVH hopper)
Model differs according to the specification

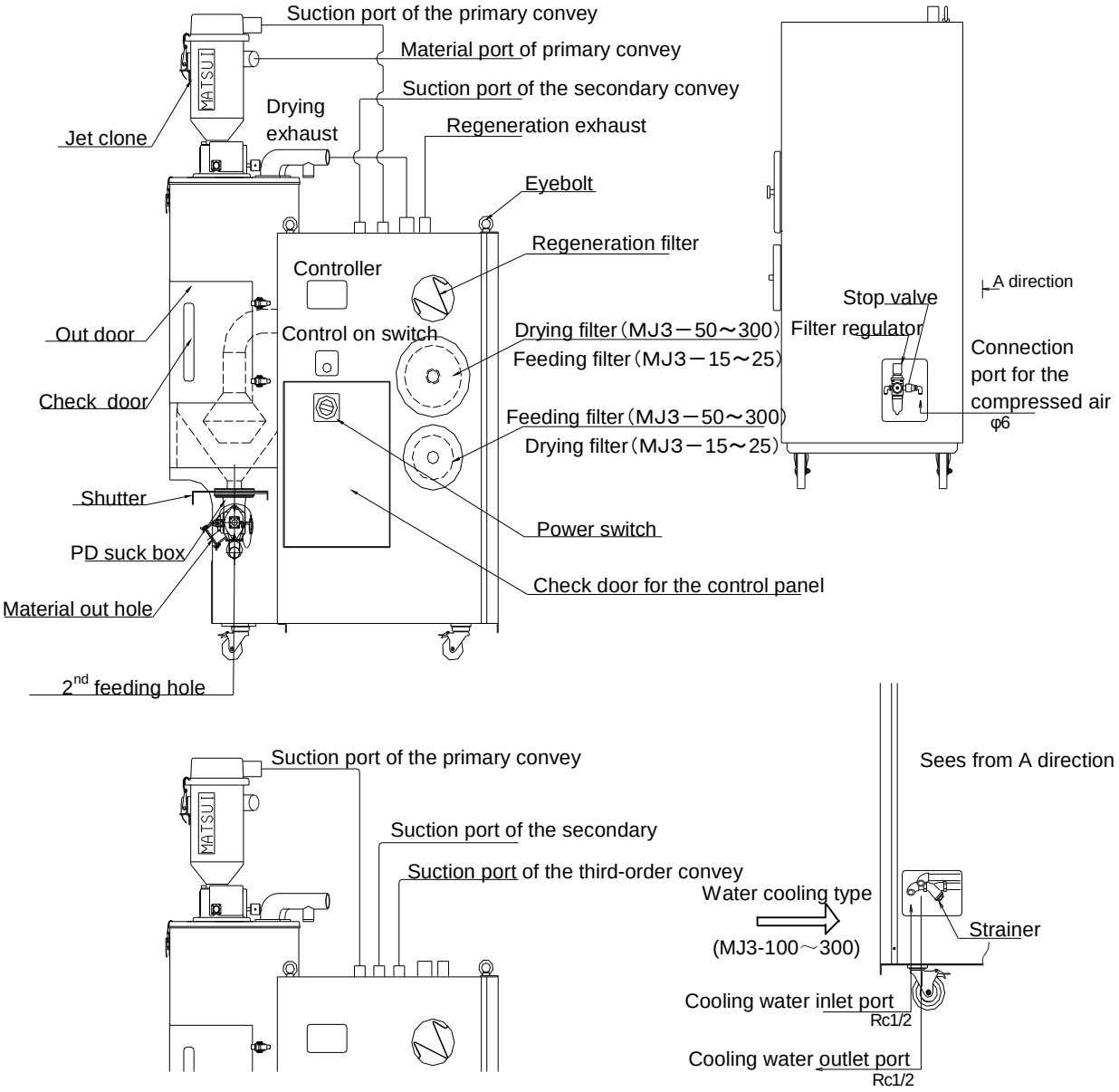


○Appendix

Attachment	MJ3-10~15A	MJ3-25~150A	Q'ty	MJ3-200~300A	Q'ty
Feed container to the forming machine	MVH-3	MVH-6	1	MVH-9	1
PVC hose (For convey)	Φ38×5m		2	Φ50×5m	2
PVC hose (For convey)	Φ38×5m		2	Φ65×5m	2
Suction nozzle (SUS)	Φ38		1	Φ50	1
Hose band (For PVC hose)	35-51		8	44-64	4
Hose band (For PVC hose)	-		-	57-76	4
Compress air hose	Φ6×10m		1	Φ6×10m	1
Cooling water tube	Φ10×5m		2	Φ10×5m	2
Hira type hose band	Φ16~25		4	Φ16~25	4

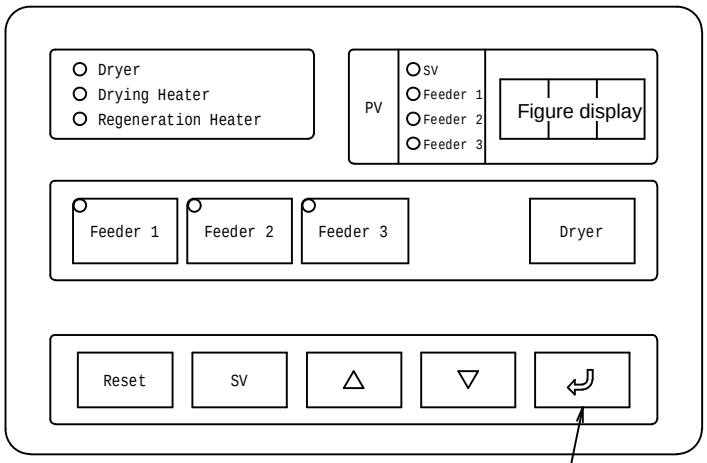
※1. Length and quantity for the hose differ on attached option and special specification.
※2. Hopper on molding machine of option specification: APH-1, 3, 6, 9, 18.

3. Name of each part （specify in the figure MJ3-50）



4. Name and the function of each controller part

(Prohibit operate panel with acute matter such as nail, neb etc)



Indicator lamp

Dryer …… Drying Indicator lamp

Drying Heater ……Drying Heater Indicator lamp

Regeneration Heater……Regeneration Heater Indicator lamp

SV …… Figure Setting Indicator lamp

Feeder 1 …… Feeding time setting

Feeder 2 …… Feeding time setting

Feeder 3 …… Feeding time setting

Switch

Feeder 1…… NO.1 direction feeding （To the drier）
Start/stop switch

Feeder 2…… NO.2 direction feeding （To molding machine 1）
Start/stop switch

Feeder 3…… NO.3 direction feeding （To molding machine 2）
Start/stop switch

Dryer ……Drying start/stop switch

Reset ……Alarm reset

SV ……Shift

△ ……Change Setting

▽ ……Change Setting

Enter ……Enter Setting

5.The unit machine usage regulation

The handling explanation of each unit equipment built in this device (Especially, about notes) is described.
Please observe, and drive notes of the content when you use this device and the unit equipment.

【Model: Branch damper】 (Branch damper attach Mechanical manipulative valve)

1. Usage regulation

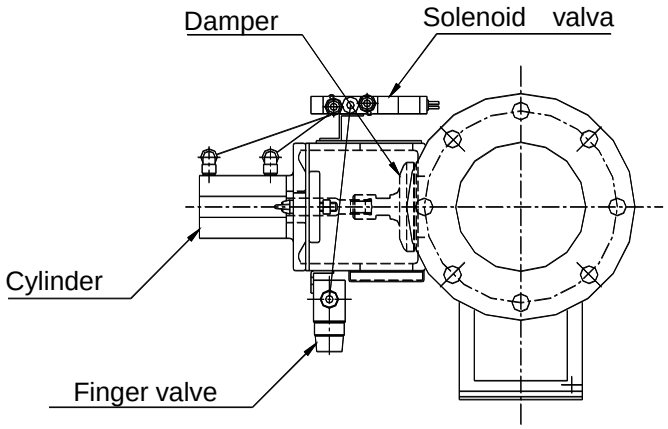
⚠WARNING

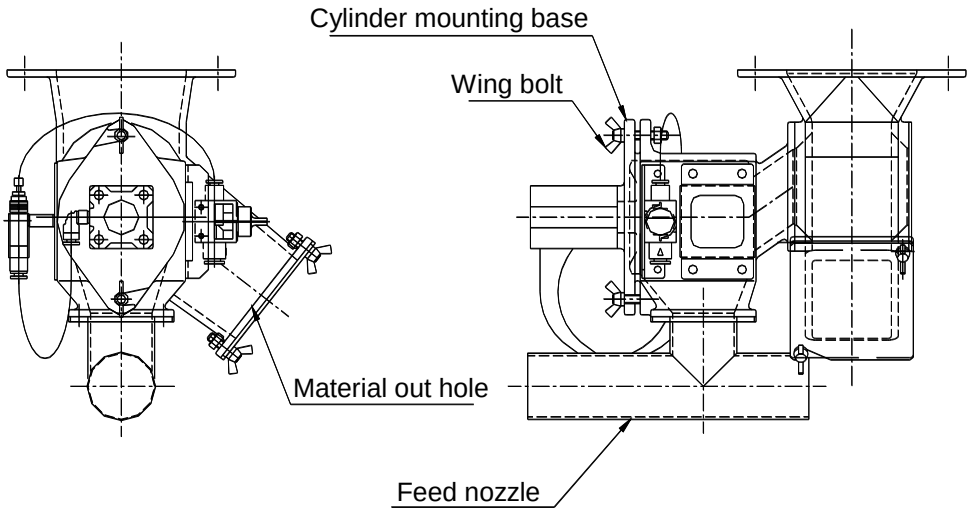
●Notice the finger	While connecting the power supply, supply the compressed air, please do not stretch the finger or hands into the plank box. Take care to avoid lacerations to fingers or hands and danger of them being broken.
●Mechanical manipulative valve and its cover is forbidden to disassemble	Because maybe arise lacerations to fingers or hands and danger of them being broken. so please absolutely not to disassemble or reconstruct 3 port mechanical manipulative valve and its cover.
●Maintenance • Repair	Maintenance • Repair article etc to the personnel of insufficient under standing to product, there will be fault, danger etc. so please do not carry on absolutely.
●Maintain and inspection	While Clean up ·Maintain and inspection ·exchange article. please turn off power breaker of electric box. stop transport the compressed air toward the air unit, open drain valve of filter modulator, carry on after discharge remaining pressure in the tube. After Clean up ·Maintain and inspection ·exchange article. Please reset to close the cover of damper, and really screw down damper cover's bolt. The cover of damper will not act in opening starts. Please contact our corporation's service department about maintenance, repair etc.

⚠CAUTION

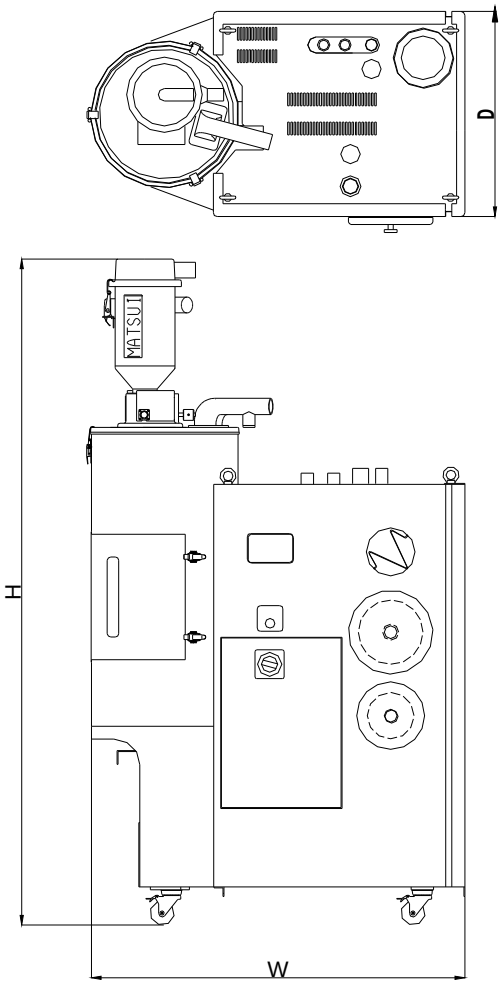
● Caution labels • Name plate	Keep the labels legible until you dispose of this unit.

2.Names of all components





6. Outer dimensions (mm)

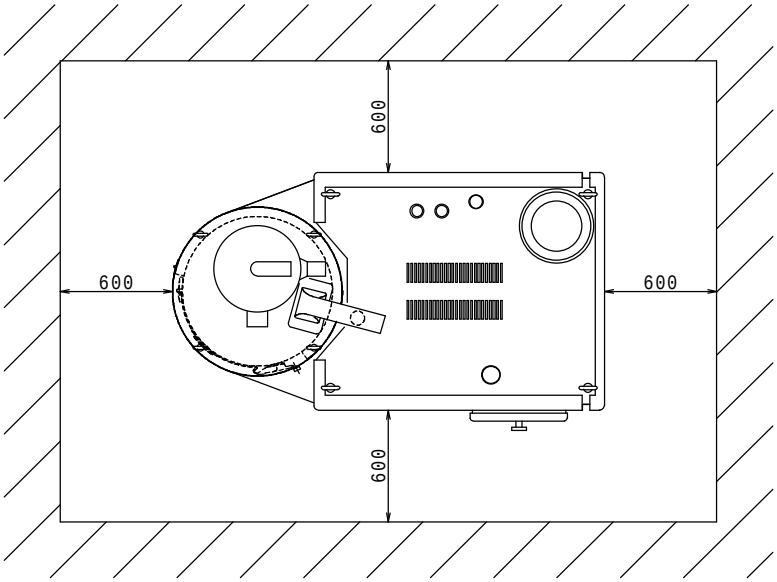
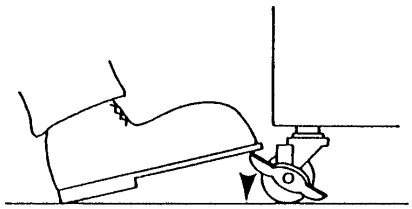


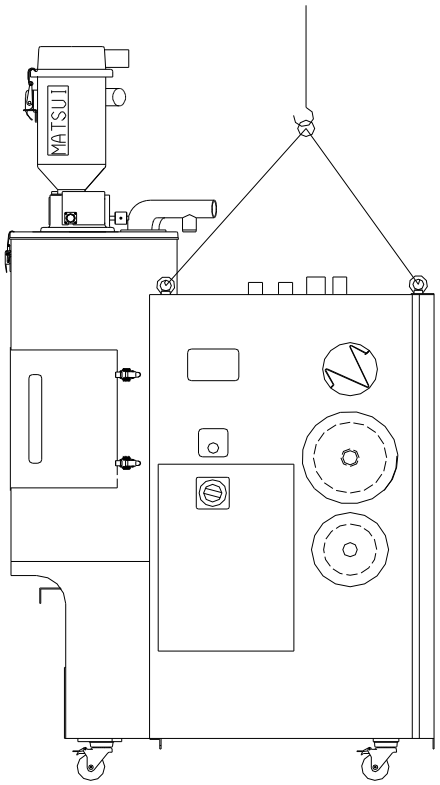
Model	MJ3-10A	MJ3-15A	MJ3-25A	MJ3-50A	MJ3-75A	MJ3-100A	MJ3-150A
W（mm）	960			1158		1285	
D（mm）	564			639		639	
H（mm）	1810	1820	2070	2036	2336	2218	2608
Gross weight（kg）	219	224	233	299	309	331	346

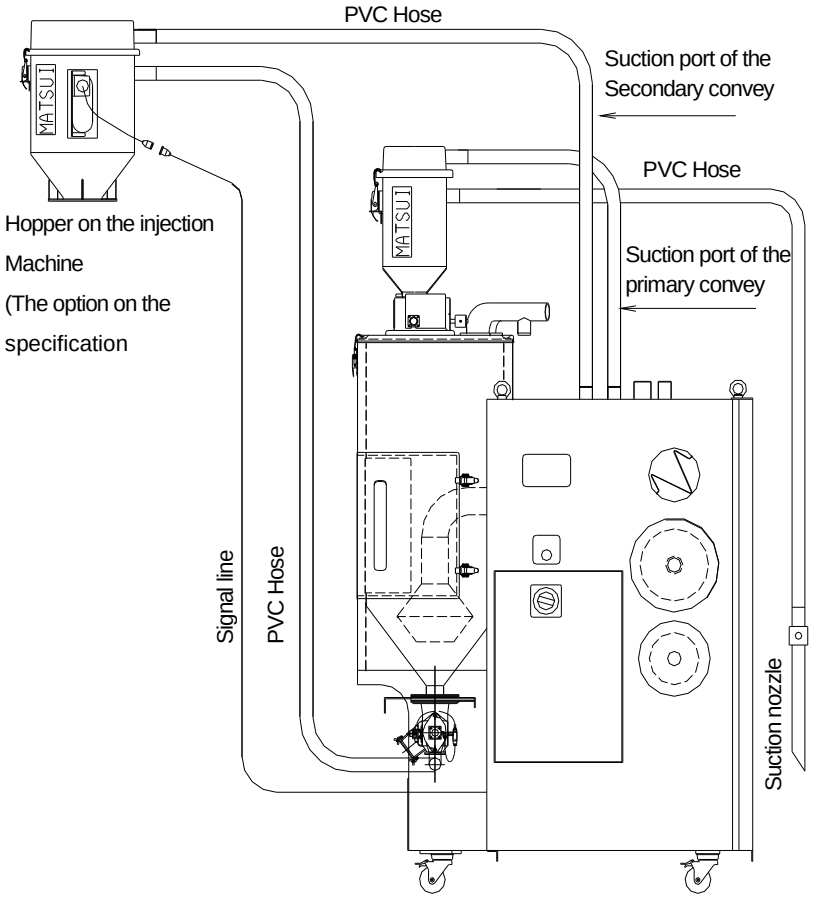
Model	MJ3-200A	MJ3-250A	MJ3-300A
W（mm）	1460	1710	
D（mm）	740	900	
H（mm）	2610	2460	2610
Gross weight（kg）	500	685	700

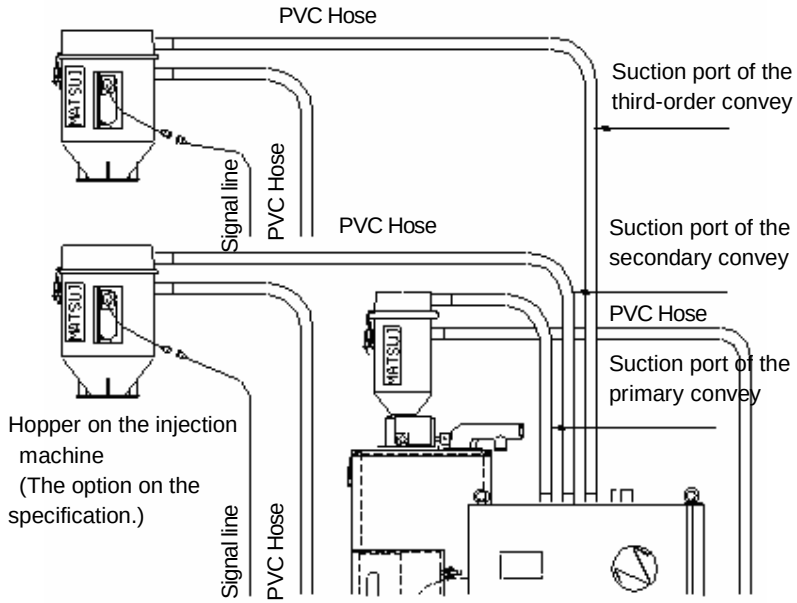
Chapter 3. Installation

1 Installation for equipment

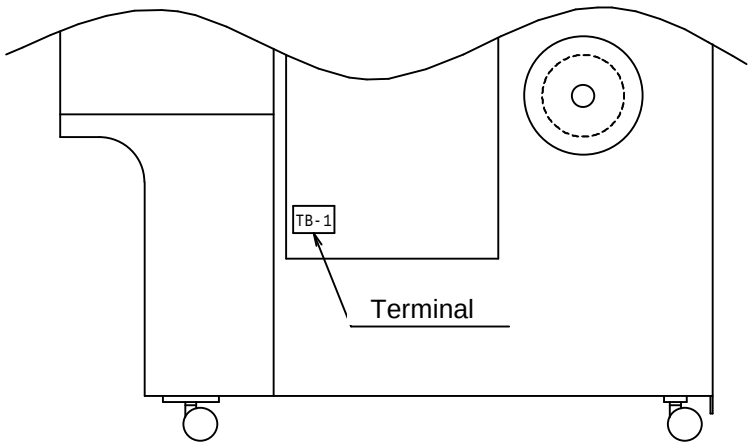
Step	Item	Operation Content
1	Installation of Device	Please install it on the smooth ground. The installation site is shown in the following drawing. Please set aside some room for maintenance and item-by-item checking. 
2	Caster brake	As shown in figure, apply the brake of the caster with brake. 

Step	Item	Operation Content
3	Movement of Device	Please confirm if the eye bolts, which are used to trice the device to move, on the top of the device are reliably tightened up, then hang the rope that has hook at each end and use your company's crane to trice the device to move. In addition, the stuff in the bunker must be cleared up before the device is trice.  **CAUTION** Be sure to use a hoisting rope (with hook) which can withstand the mass of the unit.

Step	Item	Operation Content
4	Installation of the Small Bunker on the Shaping Machine and Connection of the Hose Tube	・Install a hopper on the molding unit in the molding unit. Install surely with the gasket and the bolt for without the air leakage. ・Connect PVC hose of the primary side and the suction nozzle. Fasten up the connection part surely by the hose band. ・Connect PVC hose of the secondary side. Fasten up the connection part surely by the hose band. ・Connect PVC hose of the secondary side. Fasten up the connection part surely by the cuff and hose band. Standard specification (one transportation second direction) 

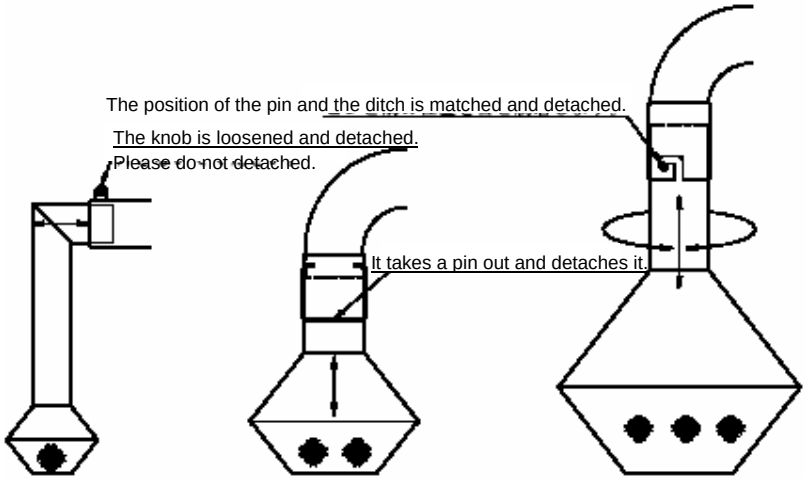
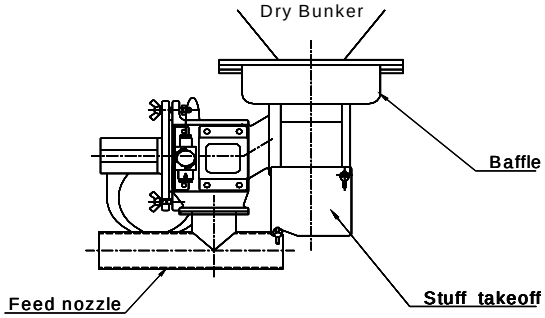
Step	Item	Operation Content
4	Installation of the Small Bunker on the Shaping Machine and Connection of the Hose Tube	Option specifications (The secondary convey 2 directions). 
5	Connection of water supply, water drainage and compressed air	Please connect the water supply, water drainage and compressed air to each connection outlet. Water supply and drainage outlet： ϕ 10.5×1/2B Hose nipple(MJ3-100~300) Compressed air outlet： ϕ 6

2 . Power supply connection

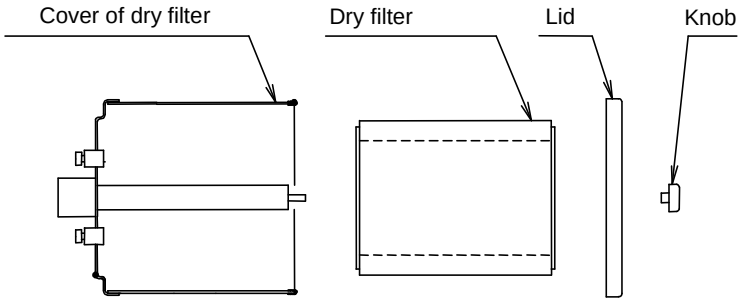
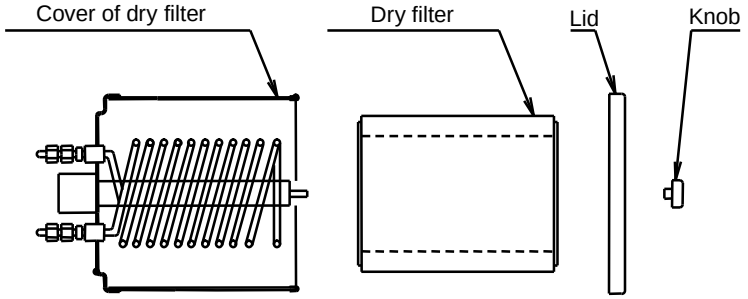
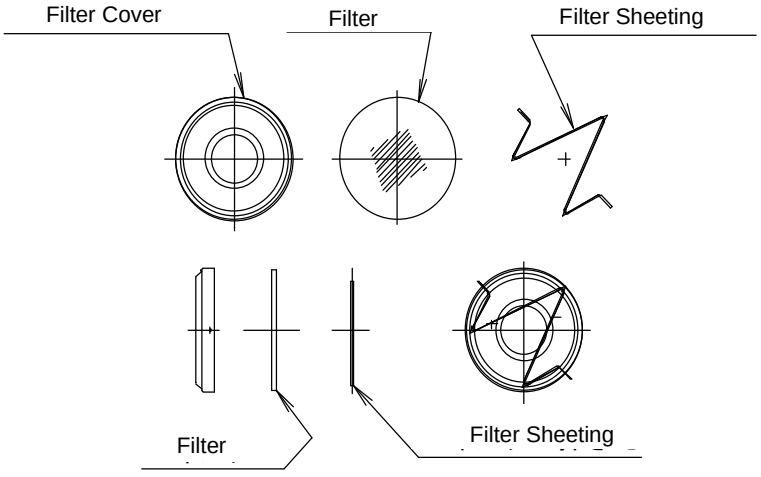
Step	Item	Operation Content
1	Connection of the Power Supply Wire	Please open the item-by-item checking door of the electric-controlled box and connect the power supply wire of your company to the terminal block of the power supply. 3-Phase AC Power Supply R: S: T: Earth Wire  If the power supply wire is attached, please connect it to the power supply terminal of your company. ⚠ CAUTION • Be sure to turn the power supply switch to “OFF” before connecting the power supply wire. • Please connect the power supply correctly and ensure that the joint isn’t loose. • The earth wire must be tightly connected.

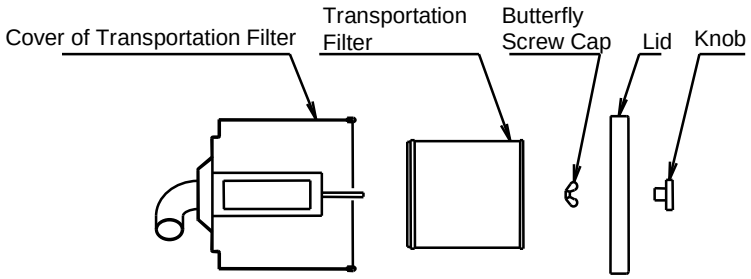
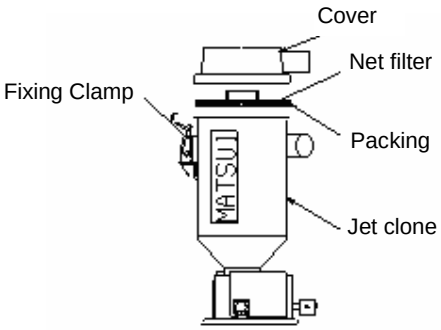
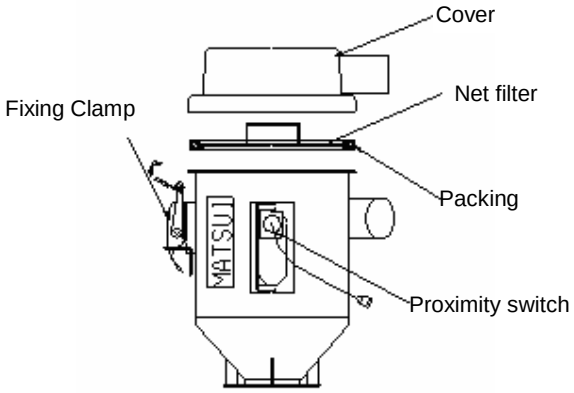
Chapter 4. Preparation for Operation

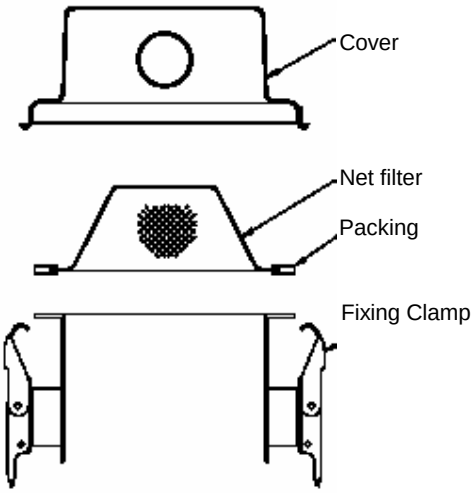
1. Inspecting inside of the hopper

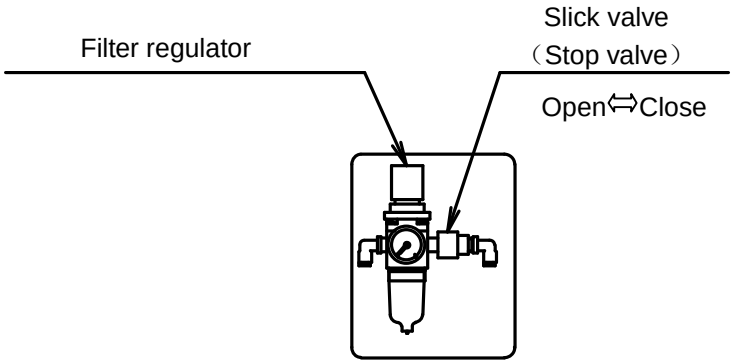
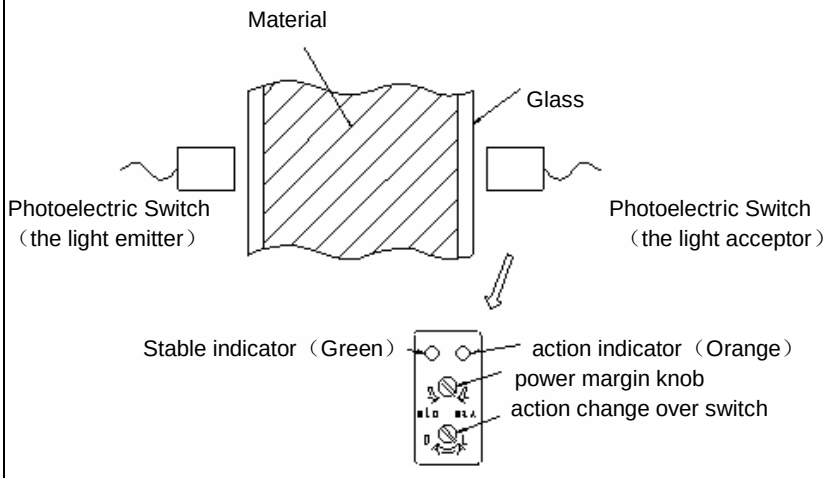
Step	Operation Content
1	(MJ3-10) Please confirm that there is no resin in the dry bunker, then open the item-by-item dry bunker cover and confirm that there is no impurity in the bunker. (MJ3-15~300) Please confirm that there is no resin in the dry bunker, then open the item-by-item checking door and confirm that there is no impurity in the bunker.
2	State of installation of diffuser. MJ3-10 Please confirm the knob has shut. MJ3-15~150 Please confirm the pin is in the hole. MJ3-200~300 Please confirm the pin is in the ditch.  MJ3-10 MJ3-15~150 MJ3-200~300
3	Please confirm if the baffle and stuff drawing out outlet at the bottom of the bunker is closed. Shutter: push→close pull→open 

2.Condition affirmation of each unit and feeding of the resin

Part Name	Confirmation Content
Dry Filter MJ3-50~75	Please use the knob handle to screw down the cover so as to prevent the air from leaking out. 
Dry Filter MJ3-100~300	Please use the knob handle to screw down the cover so as to prevent the air from leaking out. 
Regeneration Filter	Please confirm that the filter is connected to the suction inlet of blower fan as the following drawing shows. 

Part Name	Confirmation Content
Transportation Filter	Please use the knob handle to screw down the cover so as to prevent the air from leaking out. 
Filter of Small Bunker	Please reliably install the filter to ensure that the spacer isn't offset.  

Part Name	Confirmation Content
	 Hopper on molding machine of option specification: APH-1, 3, 6, 9, 18.

Part Name	Confirmation Content
Hose	Please confirm if each hose tube is correctly connected according to the installation item, especially confirm(MJ3-100~300)if the larynx-hoop is reliably tightened up in case that the air or water is leaked out.
Pressure Setting of the Filter Regulator	Please open the slide switch and use regulator to set the pressure. The setting pressure is 0.39～0.59MPa.  NOTE "Open" it as for the slide (stop valve)Previous air from the filter regulator comes off the slide valve when the slide is done to the side.
Identification of the checking status of the sucking hopper level gauge on the molding machine	Please identify the checking status of the sucking hopper level gauge (the photoelectric switch) on the molding machine. In normal, it is unnecessary to adjust the photoelectric switch (using the widest power margin), however, in the case of inadequate shade after the molding material is put into, you should turn the power margin Adjusting Knob Switch towards left, the green indicator lights up. You should use the L side of the Action Change Over Switch (“ON” as light). 

3 .Controller setting

Step	Operation Content
Power Supply Connection	Turn the power supply switch to “ON”.
Preparation for Operation	Press CONTROL ON switch and the controller display lamp should be lit.
Dry Temperature Setting	Press SV key until Sv and current setting value alternately occurs on the display. ↓ Press Enter key and then the current setting value will flash on the display. ↓ Press ▲ ▼key to modify the setting value. With each press, the value will increase or decrease in turn, and if continuously press them, the value will automatically increase or decrease. ↓ Press Enter key and enter the setting value. Be sure to press this key, or the setting value modification won’t be achieved. 1.Setting Range……0～350℃ 2.Delivery Setting Value……80℃ 3.Standard Setting Value……80～160℃
Starting Timer	Press SV key until dLy and current setting value alternately occurs on the display. ↓ Press Enter key and then the current setting value will flash on the display. ↓ Set the time of dryer operation after pressing Dryer key. Press ▲ ▼key to modify the setting value. With each press, the value will increase or decrease in turn, and if continuously press them, the value will automatically increase or decrease. ↓ Press Enter key and enter the setting value. Be sure to press this key, or the setting value modification won’t be achieved. 1.Setting Range……0.0～99.5h（0.1h＝10min） 2.Delivery Setting Value……0.0h 3.If the power is de-energized during starting the timer, the timer will not automatically start, then it must be manually started. About the operation instructions of the manual starting, please see chapter 5, Operation.

Step	Operation Content
No.1 Transportation Timer (for the first time transportation)	Press SV key until Fd1 and current setting value alternately occurs on the display. ↓ Press Enter key and then the current setting value will flash on the display. ↓ For the transportation timing time varies with the transportation distance and stuff type, so it should be set as the period between transportation beginning and small bunker to be filled with stuff. Press ▲ ▼key to modify the setting value. With each press, the value will increase or decrease in turn, and if continuously press them, the value will automatically increase or decrease. ↓ Press Enter key and enter the setting value. Be sure to press this key, or the setting value modification won't be achieved. 1.Setting Range……0～999seconds 2.Delivery Setting Value……20seconds(MJ3-10~150) /25seconds(MJ3-200~300) ※Driving that greatly exceeds 60 times an hour has the possibility of influencing the Blower longevity severely .
No.2 Transportation Timer (for the second time transportation)	Press SV key until Fd2 and current setting value alternately occurs on the display. ↓ Press Enter key and then the current setting value will flash on the display. ↓ For the transportation timing time varies with the transportation distance and stuff type, so it should be set as the period between transportation beginning to there be no stuff in the transportation tube. Press ▲ ▼key to modify the setting value. With each press, the value will increase or decrease in turn, and if continuously press them, the value will automatically increase or decrease. ↓ Press Enter key and enter the setting value. Be sure to press this key, or the setting value modification won't be achieved. 1.Setting Range……0～999seconds 2.Delivery Setting Value……15seconds(MJ3-10~150) /25seconds(MJ3-200~300) 3.Standard Setting Value……The after mentioned stuff drawing out time is +5 seconds. ※Driving that greatly exceeds 60 times an hour has the possibility of influencing the Blower longevity severely .

Step	Operation Content
No.3 Transportation Timer (for the second time transportation of No.2 direction)	Press SV key until Fd3 and current setting value alternately occurs on the display. ↓ Press Enter key and then the current setting value will flash on the display. ↓ For the transportation timing time varies with the transportation distance and stuff type, so it should be set as the period between transportation beginning to there be no stuff in the transportation tube. Press ▲ ▼key to modify the setting value. With each press, the value will increase or decrease in turn. ↓ Press Enter key and enter the setting value. Be sure to press this key, or the setting value modification won't be achieved. 1.Setting Range…… 0～999seconds 2.Delivery Setting Value……15seconds(MJ3-10~150) /25seconds(MJ3-200~300) 3.Standard Setting Value……The after mentioned stuff drawing out time is +5seconds ※Driving that greatly exceeds 60 times an hour has the possibility of influencing the Blower longevity severely .

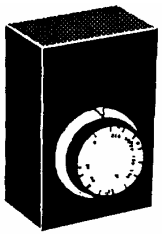
Step	Operation Content
No.1 Eduction Timer (for the first time transportation)	Press SV key until dc1 and current setting value alternately occurs on the display. ↓ Press Enter key and then the current setting value will flash on the display. ↓ Eduction timing time should be set as the period between eduction beginning to there be no stuff in the small bunker. Press ▲ ▼key to modify the setting value. With each press, the value will increase or decrease in turn. ↓ Press Enter key and enter the setting value. Be sure to press this key, or the setting value modification won't be achieved. 1.Setting Range……0～999seconds 2.Delivery Setting Value……25seconds
No.2 Eduction Timer(for the second time transportation)	Press SV key until dc2 and current setting value alternately occurs on the display. ↓ Press Enter key and then the current setting value will flash on the display. ↓ For the eduction timing time varies with the type and capacity of small bunkers on the shaping machine, so it should be set as the period between eduction beginning to there be no stuff in the small bunker. Press ▲ ▼key to modify the setting value. With each press, the value will increase or decrease in turn, and if continuously press them, the value will automatically increase or decrease. ↓ Press Enter key and enter the setting value. Be sure to press this key, or the setting value modification won't be achieved. 1.Setting Range……0～999seconds 2.Delivery Setting Time……25seconds

Step	Operation Content
No.3 Eduction Timer (for the second transportation of No.2 direction)	Press SV key until dc3 and current setting value alternately occurs on the display. ↓ Press Enter key and then the current setting value will flash on the display. ↓ For the eduction timing time varies with the type and capacity of small bunkers on the shaping machine, so it should be set as the period between eduction beginning to there be no stuff in the small bunker. Press ▲ ▼key to modify the setting value. With each press, the value will increase or decrease in turn, and if continuously press them, the value will automatically increase or decrease. ↓ Press Enter key and enter the setting value. Be sure to press this key, or the setting value modification won't be achieved. 1.Setting Range……0～999seconds 2.Delivery Setting Value……25seconds

Step	Operation Content
No.2 Stuff out Timer (for the second time transportation)	Press SV key until bt2 and current setting value alternately occurs on the display. ↓ Press Enter key and then the current setting value will flash on the display. ↓ For the stuff drawing out timing time varies with the transportation distance the stuff type, so it should be set as the period between transportation beginning to the small bunker to be filled with stuff. Press ▲ ▼key to modify the setting value. With each press, the value will increase or decrease in turn, and if continuously press them, the value will automatically increase or decrease. ↓ Press Enter key and enter the setting value. Be sure to press this key, or the setting value modification won't be achieved. 1.Setting Range……0～999seconds 2.Delivery Setting Value……8seconds
No.3 Stuff out Timer (for the second time transportation)	Press SV key until bt3 and current setting value alternately occurs on the display. ↓ Press Enter key and then the current setting value will flash on the display. ↓ For the stuff drawing out timing time varies with the transportation distance the stuff type, so it should be set as the period between transportation beginning to the small bunker to be to be filled with stuff. Press ▲ ▼key to modify the setting value. With each press, the value will increase or decrease in turn, and if continuously press them, the value will automatically increase or decrease. ↓ Press Enter key and enter the setting value. Be sure to press this key, or the setting value modification won't be achieved. 1.Setting Range……0～999seconds 2.Delivery Setting Value……8seconds

4.Setting the overheat protector

For safety, this unit has an overheat protector as standard equipment. If the sensor (temperature detector) reaches a temperature higher than the temperature setting of the overheat protection device, the power supplies to the heater is cut off.

Step	Description
1	Set the temperature setting of the overheat protector to a value about 20°C higher than the drying temperature (SV temperature setting). For standard specifications, set the temperature setting of the overheat protector to or less than 180°C. Dry overheat setting unit  Setting temperature Dry temperature +20℃ 【REMARKS】 The temperature controller has high and low limit alarm settings. When the high limit alarm occurs, the heater is turned OFF and, after the cooling time has elapsed, the blower is turned OFF, operation stops. (Both the high and low limits are set to 10 °C at the factory before shipping.)
2	Because the operation power is blocked off when a sensor (measurement temperature part) is heated by the setting temperature of overheat protector, the heater and blower stops and turn off a indicator, too. After cooling the heater part sufficiently, press CONTROL ON switch and restart the unit. (refer to CHAPTER 5. Operating Procedures). If the measurement temperature part of overheat protector doesn't become below the setting temperature, even if press CONTROL ON switch, because the operation power doesn't pull in, be careful.

NOTE

When a safety device is activated, the heater requires about one hour to cool. If the dryer is restarted before the heater has finished cooling, heat remaining in the heater may cause the overheat protector to trip again. Take sufficient care regarding the temperature setting when re-starting.

5. The method to adjust the balancing weight and Jet clone operations

1. The method to adjust the balancing weight

Under natural condition, adjust the position of balancing weight and the check bolt to make the distance between the check plate and the discharge valve to be 6mm and it is about 85^0 when put vertical. Tighten the hexagon bolt. Then set the box on a level place (below which there should be enough space for the check plate to be opened and closed), open and close for 5 times or more (lift it to the vertical position by hand and let it return to the horizontal position by its own weight), if it failed to return for once, check and adjust it again.

2. Jet clone operations

Turn the Feeder 1 to “ON” and then the eduction timer works, when the timing time is over, the blower fan will begin to operate, and meanwhile the baffle will be closed.

↓

The stuff is transported into the small bunker in the setting time of the transportation timer.

↓

When the timing time of the transportation timer is over, the blower fan will stop operating.

When the suction pressure decreases, the baffle of the small bunker will be open. The stuff is educted into the bottom dry bunker in the setting time of the eduction timer.

↓

Repeat above steps

↓

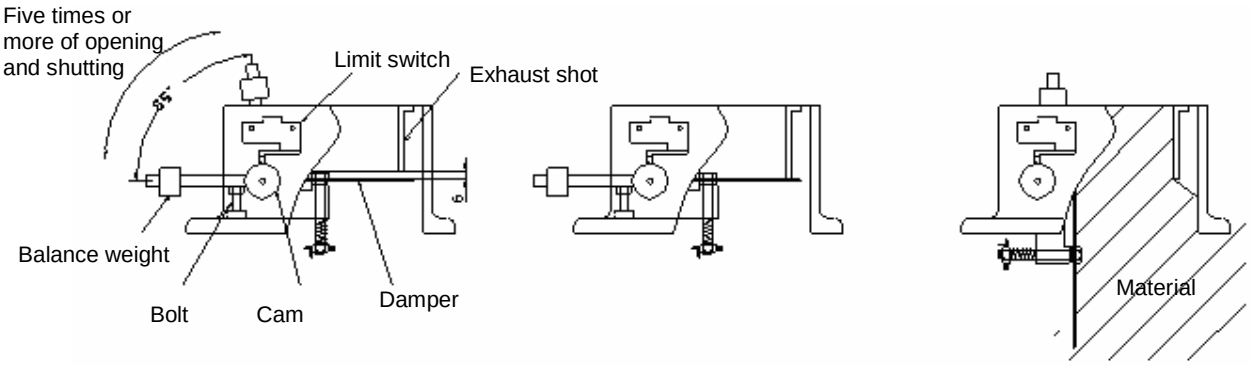
After the dry bunker is filled with stuff, the position-limited switch on the small bunker will give the full stuff signal, then the transportation, will be stopped.

↓

After that, even though the stuff decreases and the position-limited switch gives the Require signal, only when the setting time of the eduction timer is delayed may the blower fan begin to start, thus the baffle occlusion may be prevented.

<Damper operations>

(1)Natural condition (2) Close condition (suction type) (3) Material full condition (Operates limit SW, stops material convey)

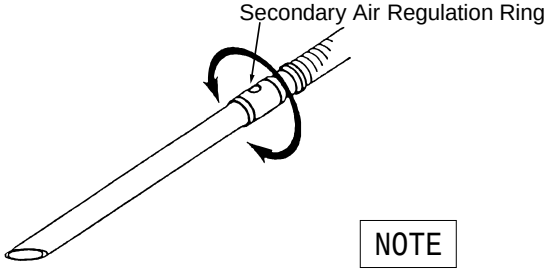


Chapter 5. Operating Procedures

Step	Operation Item	Operation Content
1	Power Supply	Turn the power supply switch to “ON”.
2	Preparation for Operation	Press CONTROL ON key and then the controller display lamp will be lit.
3	No.1 Transportation Starting (for the first time transportation)	Press Feeder 1 key and the indicating lamp on the top left of it will be lit, then the stuff transportation of No.1 direction will start. The indicating lamp will regular flash during transporting.
4	Dryer Starting	Press Dryer key and the indicating lamp of 『Dryer』will be lit, then the dryer begins to start. When setting the starting timer, the dryer begins to work after finishing setting the time. When setting the dryer starting time, be sure to simultaneously press both Reset and Enter keys.
5	No.2 Transportation Starting (for the second time transportation)	Press Feeder 2 key and the indicating lamp on the top left of it will be lit, then the stuff transportation of No.2 direction will start. The indicating lamp will regular flash during the course of transportation. ⚠ CAUTION Be sure to transport the stuff to the shaping machine after it has been sufficiently initially dry, for the insufficient initial dry stuff may cause the bad shaping.
6	No.3 Transportation Starting (for the second time transportation of No.2 direction)	Press Feeder 3 key and the indicating lamp on the top left of it will be lit, then the stuff transportation of No.3 direction will start. The indicating lamp will regular flash during the course of transportation. ⚠ CAUTION Be sure to transport the stuff to the shaping machine after it has been sufficiently initially dry, for the insufficient initial dry stuff may cause the bad shaping.

【Use stuff-absorbed lance to regulate the secondary air suction quantity】

Insert the stuff-absorbed lance into the raw material, then rotate the secondary air regulation ring to regulate so as to successfully transport the stuff.



NOTE

If the secondary air regulation ring is over-rotated, it may cause the stuff jammed in the transportation hose tube.

Step	Operation Item	Operation Content
7	No.1 Transportation Stopping (for the second time transportation) Dryer Stopping No.2 Transportation Stopping No.3 Transportation Stopping (for the second time transportation of No.2 direction)	1) Press Feeder 1 key and the indicating lamp will be lit, then the stuff transportation of No.1 direction will stop. 2) Press Dryer key and the heating tube will stop working to begin cooling, this time only the blower fan will operate. 『Dryer』indication lamp turns from light to regular flash. 3) Once the timing time of the cooling timer is up to 10 minutes, 『Dryer』indication lamp will go out and the device will stop operating. Unless specified condition, be sure not to de-energize the power supply before the 『Dryer』indication lamp goes out. 4) Press Feeder 2 key and the indication lamp will go out, then the stuff transportation of No.2 direction will stop. 5) Press Feeder 3 key and the indication lamp will go out, then the stuff transportation of No.3 direction will stop.
8	Power Supply OFF	After completing the above step 7, please turn the power supply switch to “OFF” ⚠ CAUTION When do step 5, be sure not to turn the power supply switch to “OFF” during blower fan is operating, for once de-energize the power supply, the blower fan will stop operating immediately, thus the heat on the heating tube will gather in the device and can’t be emitted, which may cause some bad conditions as device fault or stuff caking, etc.
9	Power Supply	During operation, after the power supply is de-energized for 40msec, the device will stop operating, so it is required to confirm if the restarting is OK after the power supply is re-energized, and required to restart the device according to the demands.

Chapter 6. Maintenance

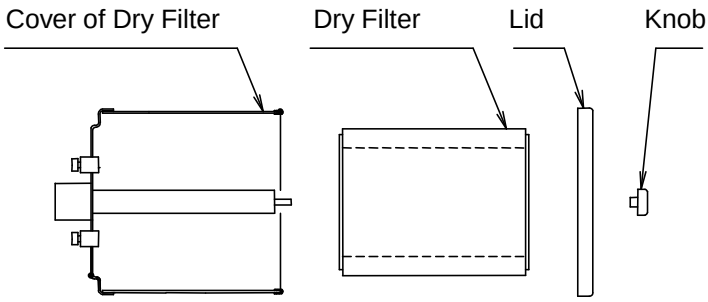
⚠ High Temperature Attention:

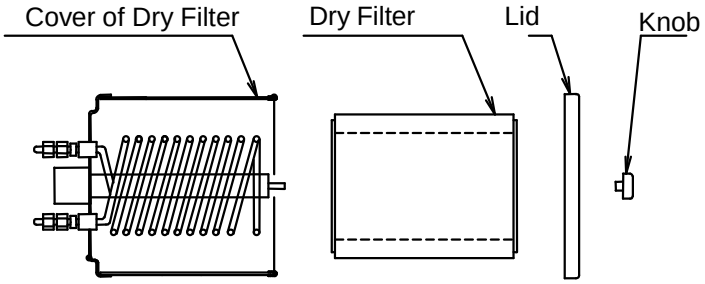
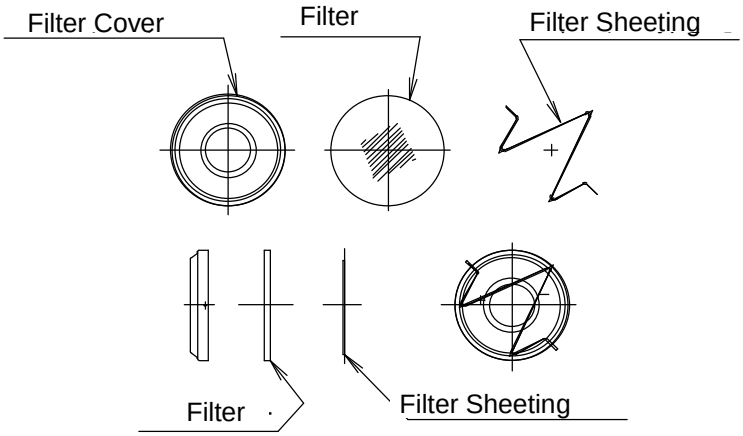
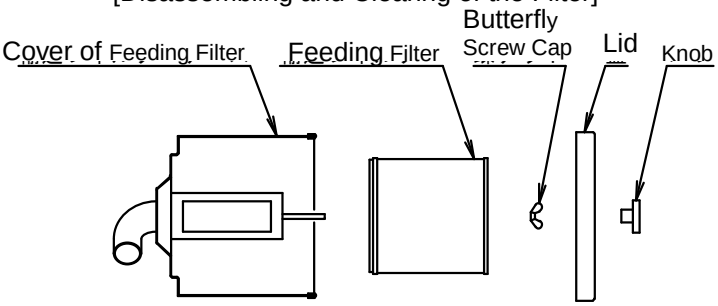
Please perform maintenance and item-by-item checking after the device completely cools down (natural cooling normally takes five hours), for the device may continue to keep high temperature after it has stopped operating for some time. Furthermore, pay attention that even though the exterior part of the device has cooled down, the inner part of it and some dry stuff may still keep high temperature.

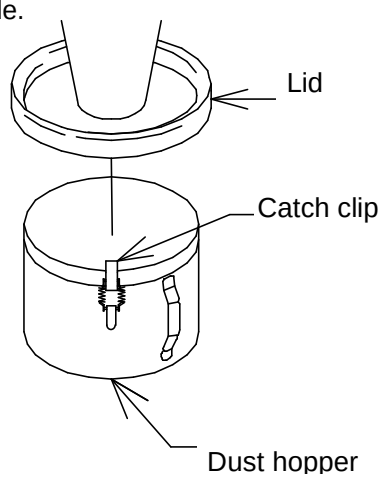
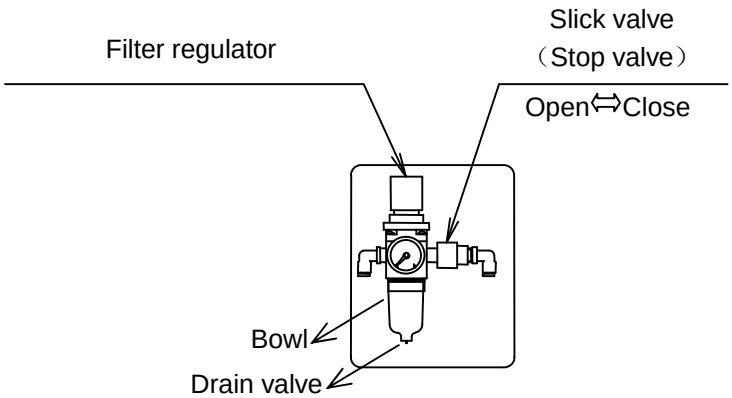
1. Daily maintenance

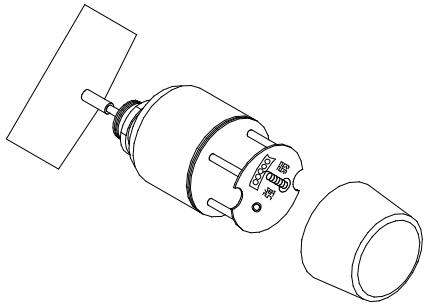
Maintenance and Item-by-Item checking item	Operation content
Confirmation of cooling water (MJ3-100~300)	Please confirm that the pressure of the cooling water inlet is below 0.49MPa (to protect the device), and meanwhile check if the cooling water is flowing. If the cooling water isn't flowing, the dry condensation point won't drop, thus may cause bad dryness.
Temperature Confirmation	Please confirm if the drying temperature and regeneration temperature are controlled by the controller. Confirmation method: 【Drying Temperature】 1. Press SV key of the controller, the 『SV』 indication lamp will be lit to confirm the setting value of drying temperature. ↓ 2. Press SV key to display the drying temperature, then compare it with the setting value. ↓ 3. Normal drying temperature is among setting value ±2～3℃. 【Regeneration Temperature】 1. Make the controller display shows drying temperature. ↓ 2. Simultaneously press Reset and SV keys, after pressing them, the display will show the actual regeneration temperature. ↓ 3. Normal regeneration temperature is between 180℃ and 220℃. (It is normal that the regeneration temperature changes with the ambient temperature.)

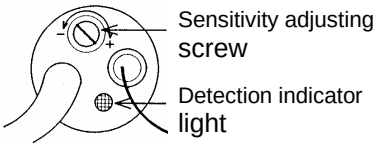
2.Weekly maintenance

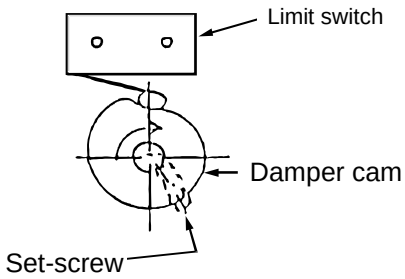
Maintenance and Item-by-Item checking item	Operation content
Breaking-Off and Air Leakage of Hose Tube	Please check if the hose tube has been broken off and if air leakage occurs on it. ※ If the hose tube has been broken, please replace it with a new one. 【Example of Air Leakage Checking-Method】 Suspend the string or fine line around the hose tube, then confirm if air leakage occurs by observing if the string or fine line sways.
Clearing of the filter	⚠ **CAUTION** **1. Please wear respirator to prevent dust when clearing the dry filter, for the impurity attached on the filter may fly in the air.** **2. Pay attention that the jamming of the filter may make its operation temperature and air rate unstable, and then cause fire hazard.** ※ If the filter is jammed, take it off and use clean dry air to blow off the attachment. ※ Different surrounding may cause different polluted condition, be sure to carefully check and clear the pollutant. ※ After completing checking, put the filter back and fix it. ※ If the mesh is badly jammed, please replace it with a new one.
Clearing of Feeding Filter (MJ3-200~300) Clearing of Dry Filter (MJ3-50~75)	Take off the filter and check if it is jammed and clean it up. [Disassembling and Clearing of The Filter] 

Maintenance and Item-by-Item checking item	Operation content
Clearing of Dry Filter (MJ3-100~300)	Take off the filter and check if it is jammed and clean it up. [Disassembling and Clearing of The Filter] 
Clearing of Regeneration Filter	Take off the filter and check if it is jammed and clear up it. 
Clearing of Feeding Filter (MJ3-10~150) Clearing of Dry Filter (MJ3-10~25)	Take off the filter and check if it is jammed and clean it up. [Disassembling and Clearing of the Filter] 

Maintenance and Item-by-Item checking item	Operation content
Dust hopper for air source unit	Remove the dust hopper and remove the fine particle that is stagnant inside.  **※The degradation of packing be terrible and exchange for the new packing when being transformed, discoloring and becoming solid.**
Method of exhausting drain of air kit	Discharge drain that is stagnant in the bowl. The discharge forms if pressing the drain valve in lower part of the bowl. Receive the drain with the can. 

Maintenance and Item-by-Item Checking Item	Operation Content
Little feeding hopper Collectors on each molding machine Filter cleaning	Open the top cover of the sucking hopper and then remove the filter to check building up or not. If building up, puff it away with dry and clean air. Get rid of the adhering material. ※ If the adhering material can't be puffed away with dry air, get rid of it with spiky head of metal iron wire, etc. ※ Please replace a new seal when the old one is seriously aging, distorted, color changed or hardened. ⚠ CAUTION ○ Air leakage will occur if the filter is distorted, witch will result in feeing can't continue. So that you should pay more attention to the using manner. Once the filter is distorted, hammer it to stretch with soft objects such as wood hammer or rubber hammer, etc. If it can't be repaired yet, please replace a new one. ○ The dirt adhering on the filter will fly in the atmosphere when the dry filter cleaned. Please wear a respirator to prevent the dust. ○ The transmitting blower running with overload or with low transmitting efficiency is always resulted from the building up to the meshes of the filter. Therefore you should notice when using.
Sensitivity adjustment by the paddle type level gage (Using the paddle type level gage)	When the level gage doesn't sense correctly by the kind of material, the sensitivity adjustment is necessary. 【Adjusting method】 Adjust sensitivity at the specific gravity of convey material. ①After turning the lid of the level gage, and remove. ②Change the position of the installation hole of spring. When moving a spring to the low position, the sensitivity up. And, when moving a spring to the high position the sensitivity down. 

Maintenance and Item-by-Item Checking Item	Operation Content
Weigh request gauge (Proximity switch) Sensitivity adjustment method	Generally, the proximity switch is used of detects the nonmetal. In addition to material, the size of object, vibrate, move speed's etc.s all will influence a measurement distance, therefore, actual measurement distance varying according to the actual use condition。 When the dust on the inside of the tank, please must adujust sensitivity adjusting screw rightwards be revolve to prolong proximity switch of measurement distance with the screwdriver. When not measuring the full material correctly, adjust the sensitivity of the proximity switch by the following procedure. (1) Remove material in the glass tube. (2) Confirm there is no between the end of proximity switch and glass tube. If there is a gap between them, loosen fastening screws (2pcs.) of proximity switch fitting bracket and fix proximity switch with its end touching glass tube.  (3) The following ①, ②, ③ and ④ operations are perform with the attached screwdriver. ①Confirm the “lights-OFF” of detection indicator light under the condition without material. (When lighting ON, the sensitivity adjustment screw of inside is turned to the – direction (Left rotation). Then, stopped in the “lights-OFF” position.) ②Next, in the condition of ①, turn the sensitivity adjustment screw to the + direction (Right rotation) slowly. Then, stopped in the “lights-ON” position of the motion indicator. (The position of the sensitivity adjustment screw is memorized.) ③The material is supplied under the condition of ①, and the sensitivity adjustment screw is turned to the – direction (Left rotation) slowly. Then, stopped in the “lights-OFF” position of the motion indicator. ④The position of sensitivity adjustment screw is stopped in middle of ② and③. (The sensitivity setting is completed.) NOTE (1) Perform the sensitivity setting with the actual using material. And, when there are various material, the ② and ③ operation are perform with light material of appearance specific gravity. (-)←——①————③————④————②——→(＋) Without material [Lights-OFF] With material [Lights-OFF] Middle of ②and③ ▲Setting point Without material (memory) [Lights-ON] (4) Perform the material conveyance and confirm that the detection indicator lights up.

<table>
<tr><th>Maintenance and Item-by-Item Checking Item</th><th>Operation Content</th></tr>
<tr><td>Adjustment for the Jet Clone damper cam in upper part of the dry hopper</td><td>When the damper doesn't open until the full signal appears on, adjust a damper cam by following procedure.
 

<table>
<tr><th>Step</th><th>Description</th></tr>
<tr><td>1</td><td>Loosen the set-screw with a hexagon rod spanner (2mm).</td></tr>
<tr><td>2</td><td>Adjust the cam so that limit switch may turn “ON” when the slides gate slightly opens (The cam slightly turns counterclockwise).</td></tr>
<tr><td>3</td><td>After adjusting the cam, secure it by tightening the set-screw.</td></tr>
</table></td></tr>
<tr><td>Removing and air leak of hose</td><td>Check the removing and air leak of hose.
※At time of the air leak, exchange to the new hose.

【Example of the checking method for the air leak】
In the checking method, hang a string or a thread near the hose.
In the shaking condition of a string or a thread, the air leak can be confirmed.</td></tr>
</table>

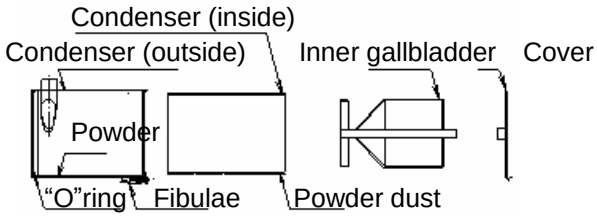
3.Monthly maintenance

Maintenance and Item-by-Item Checking Item	Operation Content
Screwing Down of Terminal	Please confirm if the wiring connection of the electrical apparatuses inside the electric-controlled box and the device is loose, screw down it if it is loose. ⚠ CAUTION Be sure to perform item-by-item checking after stopping the device and cutting off the power supply.

4.Every three months maintenance

Maintenance and Item-by-Item Checking Item	Operation Content
Checking for electromagnetic contractor(heater relay) ※Check of condition of connecting point (abrasion)	Open the control panel of the unit after turning OFF the control panel [ON/OFF] switch and shutting down the power breaker. ⇓ Replace white cover of Electromagnetic contractor (Figure 4.1B). You can replace the cover easily by pulling it toward you. Figure 4.1B White cover **NOTE** Some types of the unit do not have white covers. ⇓ Connecting point of the electromagnetic contractor is inside the component shown in Fig.4.2. Light one side of the terminal connecting section on the skew by a flashlight or like and check the condition of the point (Fig. 4.3). Replace immediately when it has discolored into blackish, and has abrasion like Fig. 4.4. Figure 4.2 Figure 4.3 Skew view of terminal connecting section Figure 4.4 Conditions of connecting Normal Abnormal (abrasion) Connecting section is inside in . The upper figures are side views of the connecting points.

5.Every six months maintenance

Maintenance and Item-by-Item Checking Item	Operation Content
Bolts and Screw Caps of Each Part of the Device	Please check if each bolt or screw cap is loose, screw down it if it is loose.
Cleaning of the air cooling back condenser （MJ3-15~75）	Please take out the cover, inner gallbladder and condenser (inside). Clean the condensers (outside and inside) to get rid of the adhering powder dust. 

Chapter 7. Alarm Function

⚠ CAUTION

Before doing the check of the malfunction cause and recovery, always perform the power breaker of control panel “OFF”.
The work with power “ON”, causes the trouble and the accident.
Don't do absolutely.

When the malfunction occurs during operation of the equipment, the protection unit operates, the alarm character is displayed in the control panel and the alarm buzzer sounds and informs the malfunction.

When pushing [Reset] key, the buzzer stops.

ALARM Display	Information Character	Abnormity Content / interlock Device	Solution
EPROM error	E0	When open the power, It’s read correct data in ROM.	Please see Chap 5. Operation, after switch primary power off, again open the power into run preparation. ↓ If emerge alarm again because of controller, please exchange it.
Reverse Phase	E1	It occurs when the power supply wire is connected in reverse phase sequence.	Please see section 2 of chapter 3, connection of power supply.
Dry blower fan is overloading.	E2	It occurs when over-current passes the blower fan and the thermal relay is disconnected. Device stops operating automatically.	Please see chapter 8,cause and solution of abnormity, to repair the abnormity. ↓ Please open the electric-controlled box and press RESET button of the heat relay. ↓ After eliminating the cause of abnormity, press [Reset] key, information character indication lamp will go out.
Transportation blower fan is overloading.	E3	It occurs when over-current passes the blower fan and the thermal relay of is disconnected. Device stops operating automatically.	Please see chapter 8,cause and solution of abnormity, to repair the abnormity. ↓ Please open the electric-controlled box and press RESET button of the heat relay. ↓ After eliminating the cause of abnormity, press [Reset] key, information character indication lamp will go out.

ALARM Display	Information Character	Abnormity Content/interlock Device	Solution
Upper Limit of Dry Temperature or Regeneration Temperature	E4	It occurs when the dry temperature or regeneration temperature is over setting temperature + upper limit of setting temperature. Device stops operating automatically.	Please see chapter 8,cause and solution of abnormity, to repair the abnormity. ↓ After eliminating the cause of abnormity, press Reset key, information character indication lamp will go out.
Dry sensor is disconnected.	E5	It occurs when the thermoelectric couple(CA sensor) for dryness or thermoelectric couple wiring is disconnected. Device stops operating automatically.	Please see chapter 8,cause and solution of abnormity, to repair the abnormity. ↓ After eliminating the cause of abnormity, press Reset key, information character indication lamp will go out.
Regeneration sensor is disconnected.	E6	It occurs when the thermoelectric couple(CA sensor) for dryness or thermoelectric couple wiring is disconnected. Device stops operating automatically.	Please see chapter 8,cause and solution of abnormity, to repair the abnormity. ↓ After eliminating the cause of abnormity, press Reset key, information character indication lamp will go out.
No.1 transportation is abnormal	E7	It occurs when No.1 small bunker isn't full after the stuff transportation of No.1 direction has started for some time. Or even though the stuff has been transported for twice, No.1 transportation isn't performed.	Please see chapter 8,cause and solution of abnormity, to repair the abnormity. ↓ When the stuff in No.1 small bunker is full, the alarm will be automatically eliminated. If it is needed to forcibly eliminate alarm, Please press convey switch again.
No.2 transportation is abnormal.	E8	It occurs when No.2 small bunker isn't full after the stuff transportation of No.2 direction has started for some time.	Please see chapter 8,cause and solution of abnormity, to repair the abnormity. ↓ When the stuff in No.1 small bunker is full, the alarm will be automatically eliminated. If it is needed to forcibly eliminate alarm, Please press convey switch again.

ALARM Display	Information Character	Abnormity Content/interlock Device	Solution
No.3 transportation is abnormal.	E9	It occurs when No.2 small bunker isn't full after the stuff transportation of No.2 direction has started for some time.	Please see chapter 8,cause and solution of abnormity, to repair the abnormity. ↓ When the stuff in No.2 small bunker is full, the alarm will be automatically eliminated. If it is needed to forcibly eliminate alarm, Please press convey switch again.
Overheat	E10	Occur when temperature in the heater box rises and over setting value of the overheat protector.	Please see chapter 8,cause and solution of abnormity, to repair the abnormity. ↓ When pushing a Reset switch after cancellation of the malfunction cause, the character indicator turns off.

Chapter 8 Troubleshooting

⚠ CAUTION

Before working in the check operate the stop of the equipment before working in the check. And, after the confirmation in the full stop of the equipment. Check after making a breaker “OFF” and heating part temperature's falling to the temperature that doesn't get a burn.

Specified about the malfunction of the following of this chapter.

Malfunction part	Contents	Note page
Convey blower	The blower does not rotate.	44
	The blower does overloaded operation and the thermal relay trips.	46
	A little air flow rate of the blower.	47
Dry blower	The blower does not rotate.	45
	The blower does overloaded operation and the thermal relay trips.	46
	A little air flow rate of the blower.	47
Dry temperature	The change of the dry temperature is large.	47
	The dry temperature doesn't up and down.	48
Dry inferior	The moisture content of resin does not go down.	49
Controller	The indicator with the PV value of the controller doesn't display the condition of “ON” in primary power.	50
Power breaker	The power breaker trips.	50
Overheat	The overheat alarm occurs.	50
The thermal setting value of every model.		51

Of the checkpoint and disposing method specified from the next page.
Examine before the repair request.
Yet, as for the removing method of a filter, refer to CHAPTER 6. Maintenance.

The convey blower does not rotate		
Searching for Abnormality	Solution	Notes
Please check that the indicator light of controller is normal or not.	Please turn the primary side and anterior power switch to ON, and press CONTROL ON button.	If still abnormal after having employed the left solutions, please turn to solutions in page 50 about 「The indicator with the PV value of the controller doesn't display the condition of “ON” in primary power」.
Please check that 『Feeder』 indicator light of controller is normal or not.	If the indicator light can not shine, please press Feeder button. If the indicator light still abnormal when pressing button down, please change a new controller.	The breakdown and danger are attended to there is no enough knowledge for electricity, and request the check and the clearing work to our company, please.
Please open the gear of electric-controlling box and check if magnetic connection point of electromagnetism switch is fused or consumed. Check when the switch is ON, if the magnetic body can make and break.	If it is fused or consumed, or abnormal in make and break, please change a new electromagnetism switch.	The total number of repeated make and break is 2 million times.
Please check if the indicator of controller display the abnormal symbol 『E2』 or not.	After having repaired the overload of blower fan, please open the gear of electronic box and press the unset button of thermorelay.	Information about causes of overload of blower fan please refer to 「The blower does overloaded operation and the thermal relay trips」 in page 46.
Please check the limit switch is ON or not in the condition of discontented stuff in bunker.	If the limit switch is ON, please refer to page 37 to adjust it.	Please pay attention to the following condition: stuff has been filled, but discharge can not be stopped.
Please check the sensibility of charge level indicator of bunker.	Please refer to page 35，36 to adjust sensibility of charge level indicator.	Please pay attention to the following condition: stuff has been filled, but discharge can not be stopped.

The dry blower does not rotate		
Searching for Abnormality	Solution	Notes
Please check that the indicator light of controller is normal or not.	Please turn the switch of primary side and electronic-controlling box to ON.	If still abnormal after having employed the left solutions, please turn to solutions in page 50 about 「The indicator with the PV value of the controller doesn't display the condition of "ON" in primary power」.
Please check the 『Dryer』 indicator light of controller is normal or not.	If it is abnormal, please press Dryer button. If it is still abnormal after pressing button, please change a new controller.	When setting starting timer, drying operation is started at the set moment.
Please open the gear of electric-controlling box and check if magnetic connection point of electromagnetism switch is fused or consumed. Check when the switch is ON, if the magnetic body can make and break.	If it is fused or consumed, or abnormal in make and break, please change a new electromagnetism switch.	The total number of repeated make and break is 2 million times.
Please check if the indicator of controller display the abnormal symbol 『E3』 or not.	After having repaired the overload of blower fan, please open the gear of electronic box and press the unset button of thermorelay.	Information about causes of overload of blower fan please refer to 「The blower does overloaded operation and the thermal relay trips」 in page 46.

The blower does overloaded operation and the thermal relay trips		
Searching for Abnormality	Solution	Notes
Please take out the filter pot in the discharging filter cover to check if there is blockage.	If there is blockage, please blow adherent on the inner side of filter pot away by clean dry air.	If the filter is too aging to remove the adherent, please change a new filter pot.
Please take out the filter pot in the drying filter cover to check if there is blockage.	If there is blockage, please blow adherent on the inner side of filter pot away by clean dry air.	If the filter is too aging to remove the adherent, please change a new filter pot.
Please open the gear of electric-controlling box and check if magnetic connection point of electromagnetism switch is fused or consumed. Check when the switch is ON, if the magnetic body can make and break.	If it is fused or consumed, or abnormal in make and break, please change a new electromagnetism switch.	The total number of repeated make and break is 2 million times.
Please check if the thermorelay inside the electronic box is set on the nominal value.	Please refer to the set values of thermorelay in all model numbers to set it on the nominal value.	Please operate after turning the primary side power to OFF.

A little air flow rate of the blower		
Searching for Abnormality	Solution	Notes
Please take out the filter pot in the discharging filter cover to check if there is blockage.	If there is blockage, please blow adherent on the inner side of filter pot away by clean dry air.	If the filter is too aging to remove the adherent, please change a new filter pot.
Please take out the filter pot in the drying filter cover to check if there is blockage.	If there is blockage, please blow adherent on the inner side of filter pot away by clean dry air.	If the filter is too aging to remove the adherent, please change a new filter pot.
Please check if the connecting tube inside the dehumidifying device, the dehumidifying device, and the connecting tube of drying bunker are broken or not, and if there are loosees on connection.	If tubes are broken, please change new tubes. If there are looses on connection, please tighten up.	If being sure of air leakage, please stop the device. Start operation again after sufficient cooling down of temperature of the heating part.

The change of the dry temperature is large		
Searching for Abnormality	Solution	Notes
Please take out the filter pot in the drying filter cover to check if there is blockage.	If there is blockage, please blow adherent on the inner side of filter pot away by clean dry air.	If the filter is too aging to remove the adherent, please change a new filter pot.
Please unbolt regenerative filter to check if there is any blockage.	If there is blockage, please blow adherent on the inner side of filter pot away by clean dry air.	If the filter is too aging to remove the adherent, please change a new filter pot.
Please refer to Technological Directory for all set values of the controller in special mode.	Please correct deviated values.	

The dry temperature doesn't up and down		
Searching for Abnormality	Solution	Notes
Please check if the connecting tube inside the dehumidifying device, the dehumidifying device, and the connecting tube of drying bunker are broken or not, and if there are loosees on connection.	If tubes are broken, please change new tubes. If there are looses on connection, please tighten up.	If being sure of air leakage, please stop the device. Start operation again after sufficient cooling down of the heating part.
Please check if there is flow of cooling water and sufficient water or not.	If there is flow of cooling water, please check if all valves are open or not.	According to running situation of the device, sometimes the temperature of air blew out from dehumidifying system ascends, and the drying temperature can not be set in the range from 80 ～90℃. At this time, please be sure of the flow of cooling water.
Please check if the drying heater is broken in line or not.	If it is broken, please change a new heater.	Please turn the switch of power to OFF after stop the device. Start operation again after sufficient cooling down of the heater.

The moisture content of resin does not go down		
Searching for Abnormality	Solution	Notes
Please check the cooling fans (two) of the air cooling back condenser stop or not and whether there is lots of powder dust adhering. （MJ3-15~75）	Remove the outside half panel to make sure that the cooling fans stop. To handle the powder dust, please follow 4 of chapter 6 to perform.	Please confirm whether the circumstance temperature is extremely high.
Please check if there is flow of cooling water and sufficient water or not. （MJ3-100~300）	If there is flow of cooling water, please check if all valves are open or not.	Pressure of water sending side can not be set above 0.49MPa.
Please take out the filter pot in the drying filter cover to check if there is blockage.	If there is blockage, please blow adherent on the inner side of filter pot away by clean dry air.	If the filter is too aging to remove the adherent, please change a new filter pot.
Please unbolt the regenerative filter to check if there is blockage.	If there is blockage, please blow adherent on the inner side of filter pot away by clean dry air.	If the filter is too aging to remove the adherent, please change a new filter pot.
Please check if the connecting tube inside the dehumidifying device, the dehumidifying device, and the connecting tube of drying bunker are broken or not, and if there are loosees on connection.	If tubes are broken, please change new tubes. If there are looses on connection, please tighten up.	If being sure of air leakage, please stop the device. Start operation again after sufficient cooling down of the heating part.
Please check if the drying heater is broken in line or not.	If it is broken, please change a new heater.	Please turn the switch of power to OFF after stop the device. Start operation again after sufficient cooling down of the heater.

The indicator with the PV value of the controller doesn't display the condition of “ON” in primary power		
Searching for Abnormality	Solution	Notes
Please check if the anterior switch of the electric-controlling box is ON or not.	Please turn the switch to ON if it is not, and press CONTROL ON button again.	The total number of repeated make and break is 10 thousands times. Please exchange the power supply breakers when the opening and shutting function doesn't operate normally.
Please check if the circuit protector (CP-1) in the electric-controlling box is OFF or not.	Please turn harness and components in the electric-controlling box to ON after check.	Please employ check after turn the primary side and the anterior power to OFF.

The power breaker trips		
Searching for Abnormality	Solution	Notes
Please check if there is short cut in the electric circuit.	Please get rid of the short cut.	The breakdown and danger are attended to there is no enough knowledge for electricity, and request the check and the clearing work to our company, please.

The overheat alarm occurs		
Searching for Abnormality	Solution	Notes
Please check if there is deviation on the set value of excess-temperature setup for dryness in the electric-controlling box. Set value Excess-temperature setup for dryness: drying temperature+20℃	Please make correction if deviation exists.	To avoid electric shock, please check after turn the power switch to OFF.
Please take out the filter pot in the drying filter cover to check if there is blockage.	If there is blockage, please blow adherent on the inner side of filter pot away by clean dry air.	If the filter is too aging to remove the adherent, please change a new filter pot.
Please unbolt the regenerative filter to check if there is blockage.	If there is blockage, please blow adherent on the inner side of filter pot away by clean dry air.	If the filter is too aging to remove the adherent, please change a new filter pot.
Solid state relay put out already.	Trouble shooting of solid state relay can occur check and exchange it.	To avoid electric shock, please check after turn the power switch to OFF.

The thermal setting value of every model（A）

Type / Power	MJ3-10A MJ3-15A MJ3-25A			MJ3-50A MJ3-75A		MJ3-100A MJ3-150A	
	Drying blower OCR-1		Feeding blower OCR-2	Drying blower OCR-1	Feeding blower OCR-2	Drying blower OCR-1	Feeding blower OCR-2
	MJ3-10A	MJ3-25A					
AC200V 50/60Hz	1.1	1.9	4.5/5.2	4.2/4.4	4.5/5.2	7.4	4.5/5.2
AC220V 60Hz	1.1	1.9	5.2	4.4	5.2	7.4	5.2
AC380～440V 50/60Hz	0.6	1.1	2.6/3.0	2.4/2.5	2.6/3.0	4.3	2.6/3.0

Type / Power	MJ3-200A			MJ3-250A MJ3-300A		
	Drying blower OCR-1	Feeding blower OCR-2	Regeneration blower OCR-3	Drying blower OCR-1	Feeding blower OCR-2	Regeneration blower OCR-3
AC200V 50/60Hz	9.8/7.4	10.9/8.5	0.7/0.75	6.2/6.0	10.9/8.5	0.7/0.75
AC220V 60Hz	7.4	8.5	0.75	6.0	9.5	0.75
AC380～440V 50/60Hz	5.7/4.3	6.3/4.9	0.4	4.3	6.3/4.9	0.4

Chapter 9. Technical Manual

1. The shipment setting value for the controller

Parameters in the user-setting mode

Once presses SV button, display lamp of parameters will switch. Please notice that press SV button for more than 5 seconds, it will turn to engineering-setting mode.

Usage	Information symbol	Set range	Initial set value
Drying temperature	SV	0～350℃	80℃
Starting timer	dLY	0.0～99.5 hours	0.0
NO.1 discharging time	Fd1	0～999 seconds	20（MJ3-10~150） 25（MJ3-200~300）
NO.2 discharging time	Fd2	0～999 seconds	15（MJ3-10~150） 25（MJ3-200~300）
NO.3 discharging time	Fd3	0～999 seconds	15（MJ3-10~150） 25（MJ3-200~300）
NO.1 efflux time	dc1	0～999 seconds	25
NO.2 efflux time	dc2	0～999 seconds	25
NO.3 efflux time	dc3	0～999 seconds	25
NO.2 reading access time of stuff	bt2	0～99 seconds	8
NO.3 reading access time of stuff	bt3	0～99 seconds	8

Parameters in engineering-setting mode

Keep pressing SV button for more than 5 seconds, it will enter into engineering-setting mode. In this mode, information symbol will switch once presses SV button.

Name	Information symbol	Set range	Initial set value
Upper limit delay time of temperature alarm detection	ULt	0～999 seconds	5
Feed1 Detection accounting of abnormal discharge	LCt	0～999 times	50
Abnormal accounting of charge level indicator of drying machine	FCt	0～999 times	20
Feed1 Delay time of abnormal discharge check	1Ed	0～999 minutes	120
Feed2 Delay time of abnormal discharge check	2Ed	0～999 seconds	180
Feed3 Delay time of abnormal discharge check	3Ed	0～999 seconds	180
Upper limit of temperature alarm(deviation of drying temperature)	dUS	0～40℃	10
Upper limit of temperature alarm(regenerative temperature deviation)	rUS	0～40℃	10
Broken-line detection time of drying system(dryness)	dLP	0～999 minutes	0
Broken-line detection time of regenerative system(regeneration)	rLP	0～999 minutes	0
Feed1 The level gauge requires delaying	L1d	0～999 seconds	3
Feed2 The level gauge requires delaying	L2d	0～999 seconds	3
Feed3 The level gauge requires delaying	L3d	0～999 seconds	3
Reverse phase inspect function	rst	0～1	1

2. The start-up method for the auto tuning

①While drier is running and the set value of drying temperature is displayed, press △and ▽buttons simultaneously for 2 seconds, auto-regulation will be started. (In auto-regulation, measured temperature and 「At」display alternately every second.)

②After the auto-regulation has been finished, it will turn back to common PV display. PID control will start according to the regulation.

③The operative process of forced termination of auto-regulation is totally same to①.
（PID set value now is same to it before auto-regulation without any modification.）

※As this controller can not display error information of auto-regulation, even if such errors occur (broken line of sensor, or auto-regulation continued over 3 hours), error information will not display, and buzzer will not alarm as well. In addition, if errors occur, a new auto-regulation can not be run unless power is re-switched on.

3. About influence of gas that occurs from the resin

The information on influence of gas that occurs from the resin

The unit sometimes can not function normally with influence of gas that occurs from the resin.
As for the resin that has this possibility, the compatible to suppress influence of gas becomes necessary.
There are one-pass methods and methods of installing the gas gathering unit etc. in compatible method. However, the method must be chosen by the dry material.
Also, there is not the complete measure to all resins in the present.
Therefore, depending on the using resin, the constant regular maintenance and the parts replace of consumables become necessary.
When the following phenomenon is confirmed in during use, there is possibility that the unit undergoes influence by gas. In such case, please consult to us.

1) The liquid of oily oozes from the filter box, the pipe connection part and the dry hopper etc.
2) There is discoloration in the filter box. Or, adheres to oil.
3) The thin smoke occurs from the regeneration exhaust port.
4) Oil dirties the whole unit.
5) Oil adheres to the floor.

As for the resin that influence of gas is estimated, refer to the list of next page.

●The resin list which needs the unit measure that the influence of gas is estimated
(The resin that gas compatible column in the table had ○ mark needs compatible.
× mark is unnecessary but depending on kind of the compounding material, it has possibility that the compatible becomes necessary.)

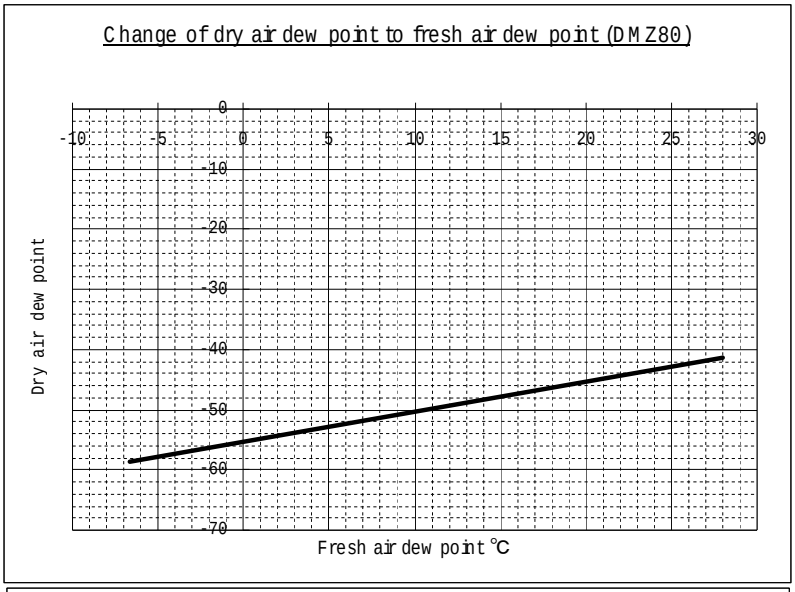
(Research in 2002)

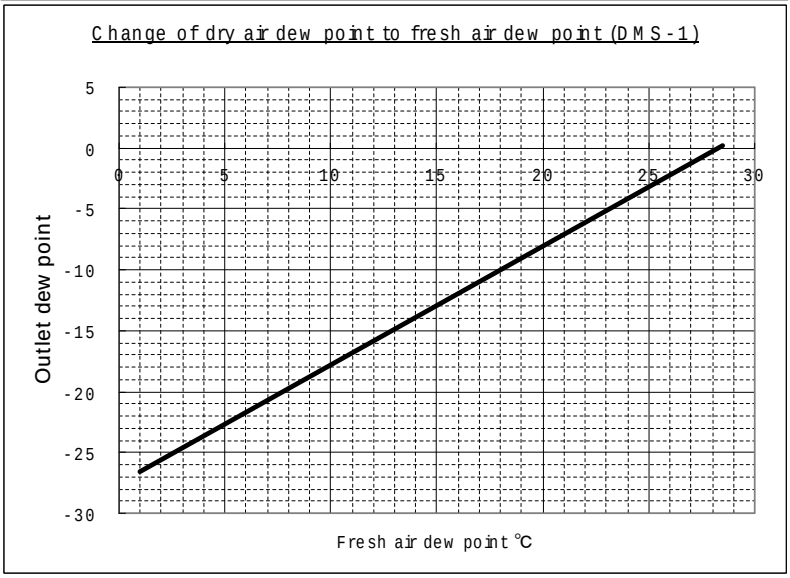
Name of resin	Necessity of gas compatible	Name of resin	Necessity of gas compatible	Name of resin	Necessity of gas compatible
ABS	×	PAR		PPO	×
ABS+PBT		PBT	○	PPS	○
APEL		PBT+PC		PSF	
A-PET		PBT+PET		PTFE	
AS	×	PC	×	PU	○
BTP		PC+ABS		PUR	
CA		PC+PET		PVC Special grade	○
CAB		PCT+PET		SPS	
CAP		PCTFE		TPE	
CN		PC Optical grade	×	TPO	
COP		PDAP		TPX	
CP		PEEK		Reinforcement PET	○
DL		PEI		Flame resisting ABS	○
EC		PES			
EVA		PETG			
EVOH		PET Bottle grade	×		
LCP		PET Fiber grade	×		
MTPA		PFA			
PA+POM		PMMA	×		
PA+Carbon fiber		PMMA Optical	×		
PA6,66	×	POAM			
PA6,66+G	○	POLYSUL			
PA612		POM	×		
PAMXD6		PP+ Filler	○		
PAN		PPE			

4. Relation between the dry air dew point and the fresh air condition

Relation between the fresh air condition and the dry air dew point is shown.

The dry air dew point undergoes influence by the fresh air condition (Dew point).
Be careful because there is possibility that the dry air dew point becomes wrong with the fresh air condition.
The following graph shows how the change of fresh air dew point of DMZ and DMS that is our typical model changes the dry air dew point.





Chapter 10. Consumable Parts List

1.MJ3-10A

Name	Manufacturer	Model Number	Amount
Drying blower fan	He Xin Company, Taiwan	RB20-520	1
Discharging blower fan	He Xin Company, Taiwan	RB40-620	1
Regenerative blower fan	Suzhou Telecommunication Motor Factory Co., Ltd.	170FLJ2-6AS	1
Drying heater	Changcheng Matsui Machinery Co., Ltd.	1.43kW,AC415V	1
Regenerative heater	Changcheng Matsui Machinery Co., Ltd.	1.43kW,AC415V	1
Drying filter	Changcheng Matsui Machinery Co., Ltd.	MXF-16SP-G1(ϕ145×158)	1
Discharging filter	Changcheng Matsui Machinery Co., Ltd.	MXF-16SP-G1(ϕ145×158)	1
Regenerative filter	Changcheng Matsui Machinery Co., Ltd.	ϕ150×t10 PS/150	1
PVC hose	Weifang Shidai,China	ϕ38×10m	1
PVC hose	Weifang Shidai,China	ϕ38×5m	1
Cooling fan upper	OMRON	R87F-A4A13H	1
Cooling fan down	OMRON	R87T-A4A05H	1

2.MJ3-15A　MJ3-25A

Name	Manufacturer	Model Number	Amount
Drying blower fan	He Xin Company, Taiwan	RB30-520	1
Discharging blower fan	He Xin Company, Taiwan	RB40-620	1
Regenerative blower fan	Suzhou Telecommunication Motor Factory Co., Ltd.	170FLJ2-6AS	1
Drying heater	Changcheng Matsui Machinery Co., Ltd.	2.1kW	1
Regenerative heater	Changcheng Matsui Machinery Co., Ltd.	2.01kW,AC415V	1
Drying filter	Changcheng Matsui Machinery Co., Ltd.	MXF-16SP-G1(ϕ145×158)	1
Discharging filter	Changcheng Matsui Machinery Co., Ltd.	MXF-16SP-G1(ϕ145×158)	1
Regenerative filter	Changcheng Matsui Machinery Co., Ltd.	ϕ150×t10 PS/150	1
PVC hose	Weifang Shidai,China	ϕ38×10m	1
PVC hose	Weifang Shidai,China	ϕ38×5m	1
Cooling fan upper	OMRON	R87F-A4A13H	1
Cooling fan down	OMRON	R87T-A4A05H	1

3.MJ3-50A MJ3-75A

Name	Manufacturer	Model Number	Amount
Drying blower fan	He Xin Company, Taiwan	RB40-520	1
Discharging blower fan	He Xin Company, Taiwan	RB40-620	1
Regenerative blower fan	Suzhou Telecommunication Motor Factory Co., Ltd.	170FLJ2-6CS	1
Drying heater	Changcheng Matsui Machinery Co., Ltd.	4.0kW	1
Regenerative heater	Changcheng Matsui Machinery Co., Ltd.	2.4kW	1
Drying filter	Changcheng Matsui Machinery Co., Ltd.	ϕ200×250	1
Discharging filter	Changcheng Matsui Machinery Co., Ltd.	MXF-16SP-G1(ϕ145×158)	1
Regenerative filter	Changcheng Matsui Machinery Co., Ltd.	ϕ150×t10 PS/150	1
PVC hose	Weifang Shidai,China	ϕ38×10m	1
PVC hose	Weifang Shidai,China	ϕ38×5m	1
Cooling fan upper	OMRON	R87F-A4A13H	1
Cooling fan down	OMRON	R87T-A4A05H	1

4.MJ3-100A MJ3-150A

Name	Manufacturer	Model Number	Amount
Drying blower fan	He Xin Company, Taiwan	RB50-520	1
Discharging blower fan	He Xin Company, Taiwan	RB40-620	1
Regenerative blower fan	Suzhou Telecommunication Motor Factory Co., Ltd.	170FLJ2-6CS	1
Drying heater	Changcheng Matsui Machinery Co., Ltd.	6.0kW	1
Regenerative heater	Changcheng Matsui Machinery Co., Ltd.	3.1kW	1
Drying filter	Changcheng Matsui Machinery Co., Ltd.	ϕ200×250	1
Discharging filter	Changcheng Matsui Machinery Co., Ltd.	MXF-16SP-G1(ϕ145×158)	1
Regenerative filter	Changcheng Matsui Machinery Co., Ltd.	ϕ150×t10 PS/150	1
PVC hose	Weifang Shidai,China	ϕ38×10m	1
PVC hose	Weifang Shidai,China	ϕ38×5m	1

5.MJ3-200A

Name	Manufacturer	Model Number	Amount
Drying blower fan(50Hz)	He Xin Company, Taiwan	RB60-520	1
Drying blower fan(60Hz)	He Xin Company, Taiwan	RB50-520	1
Discharging blower fan(50Hz)	He Xin Company, Taiwan	RB60-620	1
Discharging blower fan(60Hz)	He Xin Company, Taiwan	RB50-620	1
Regenerative blower fan	CHISONG	RS-301P	1
Drying heater	Changcheng Matsui Machinery Co., Ltd.	10.9kW,AC415V	1
Regenerative heater	Changcheng Matsui Machinery Co., Ltd.	8.3kW,AC415V	1
Drying filter	Changcheng Matsui Machinery Co., Ltd.	ϕ200×250	1
Discharging filter	Changcheng Matsui Machinery Co., Ltd.	ϕ200×250	1
Regenerative filter	Changcheng Matsui Machinery Co., Ltd.	ϕ150×t10 PS/150	1
PVC hose	Weifang Shidai,China	ϕ50.8×10m	1

6.MJ3-250A　MJ3-300A

Name	Manufacturer	Model Number	Amount
Drying blower fan(50Hz)	Wuteng	MI-10X/5	1
Drying blower fan(60Hz)	Wuteng	MI-10X/6	1
Discharging blower fan(50Hz)	He Xin Company, Taiwan	RB60-620	1
Discharging blower fan(60Hz)	He Xin Company, Taiwan	RB50-620	1
Regenerative blower fan	CHISONG	RS-301P	1
Drying heater	Changcheng Matsui Machinery Co., Ltd.	17.9kW,AC415V	1
Regenerative heater	Changcheng Matsui Machinery Co., Ltd.	13.0kW,AC415V	1
Drying filter	Changcheng Matsui Machinery Co., Ltd.	ϕ200×350	1
Discharging filter	Changcheng Matsui Machinery Co., Ltd.	ϕ200×250	1
Regenerative filter	Changcheng Matsui Machinery Co., Ltd.	ϕ150×t10 PS/150	1
PVC hose	Weifang Shidai,China	ϕ50.8×10m	1

Chapter 11 Options

1. The short circuit breaker

Install a short circuit breaker on the power breaker.

Then, protect earth fault, overload, and short circuit and prevent from a short circuit.

Symbol	Name	Maker	Model
ELB-1	Short circuit breaker	Mitsubishi Electric.	Refer to Drawing

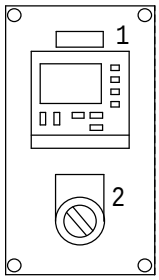
※No fuse breaker (NFB-1) isn't installed in the installation of the short circuit breaker.

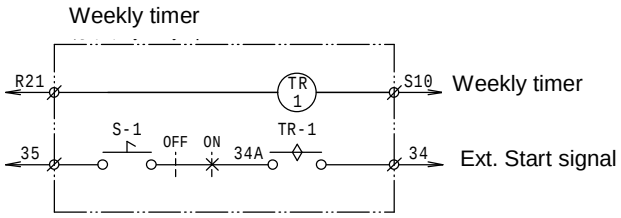
2. The weekly timer

By setting of a weekly timer, this dryer does "Automatic start " or "Automatic stop ". When making a selection switch in "ON" by the weekly timer setting, it does "Start" and "Stop " in automatically. As for the weekly timer, refer to the manufacturer instruction manual (OMRON, H5S-WA time switch).

NOTE

When not using a weekly timer, make the selection switch (S-1) in “OFF”.





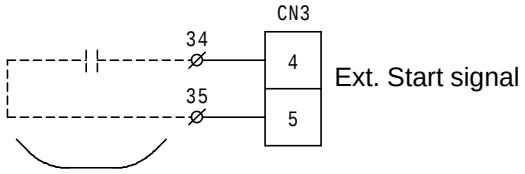
Symbol	Name	Maker	Model
TR-1	Weekly timer	OMRON	H5S-WA2
S-1	Select switch	Taiwan Tiande	T3SSR1B-1a1b

3. The extension starting stop

Performed to do this dryer in "Operation-Stop" by the extension signal.

(The extension start signal prepare A breaker points of voltage less)

The extension start signal connects a signal line to the terminal board in the control panel.
The extension start signal starts in "ON" and stops at "OFF".



Your application range

NOTE

During extension start input, can not to do the stop of the dryer with the control panel.

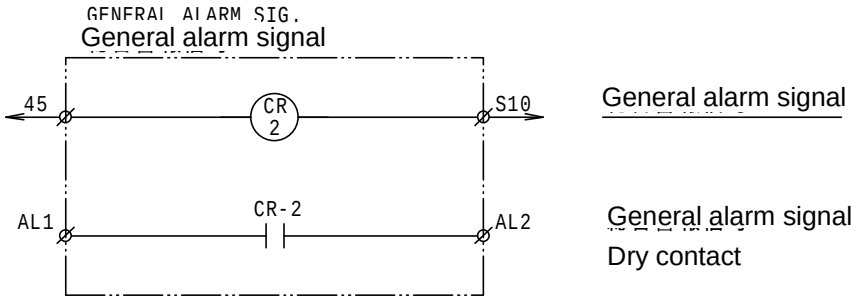
(Make the extension start signal in "OFF" and stop the dryer)

4. The general alarm output

Output the general alarm from terminal board in the control panel.

As for the breaker points, the alarm output time becomes in "ON" condition.

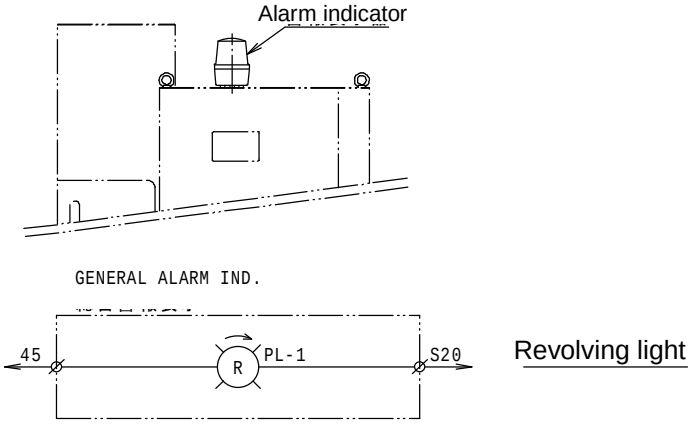
(No voltage relay output, Resistance load 250 V 5A Max.)



5. The alarm indicator

1) Revolving light

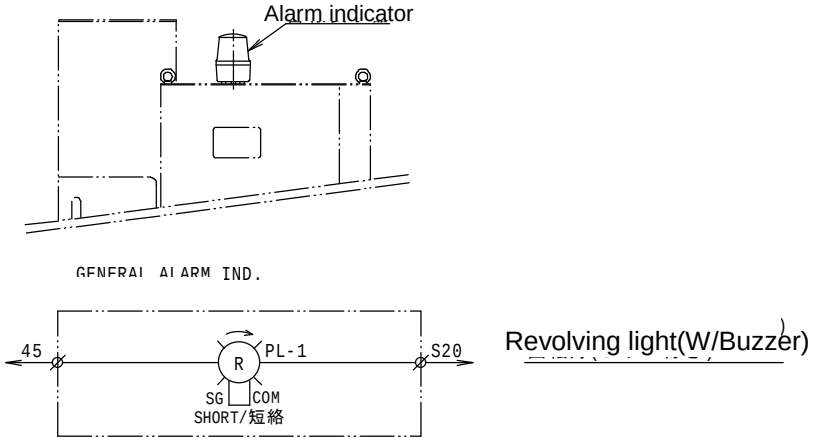
Possible to confirm in the wide range by lighting up at all alarms operating.



Symbol	Name	Maker	Model
PL-1	Revolving light	Q.light, Korea	S100UA-220-R

2) Stack type light

Possible to confirm in the wide range by lighting up at all alarms operating.
More than two kinds of individual displays of the special order are possible.



Symbol	Name	Maker	Model
PL-1	Revolving light (W/Buzzer)	Q.light, Korea	S100UA-BZ-220-R

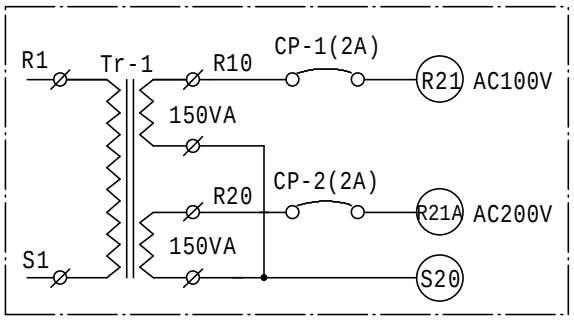
6. Difference voltage compatible

This dryer can do compatible with difference voltage in the option.

(You consult, being special about compatible in orders and the remodeling of the delivery number).

7. The operating power 100V

This dryer can correspond to 100 V of operating powers with the option.

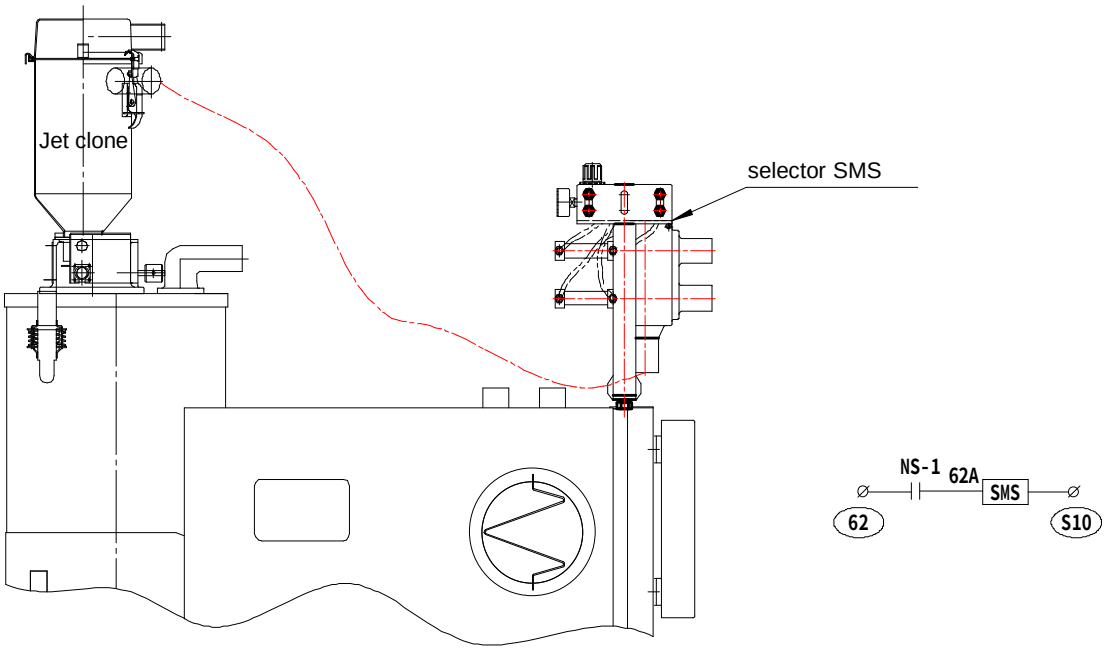


Symbol	Name	Maker	Model
Tr-1	Trans	WuXi Diwujichuang	AC415，380，220，200V/100V 150VA

8. The primary convey: Jet selector connection

Use the jet selector (available separately) for feeding (primary convey) to the dryer by the combination and mixes principal material and shattering material simply.

.

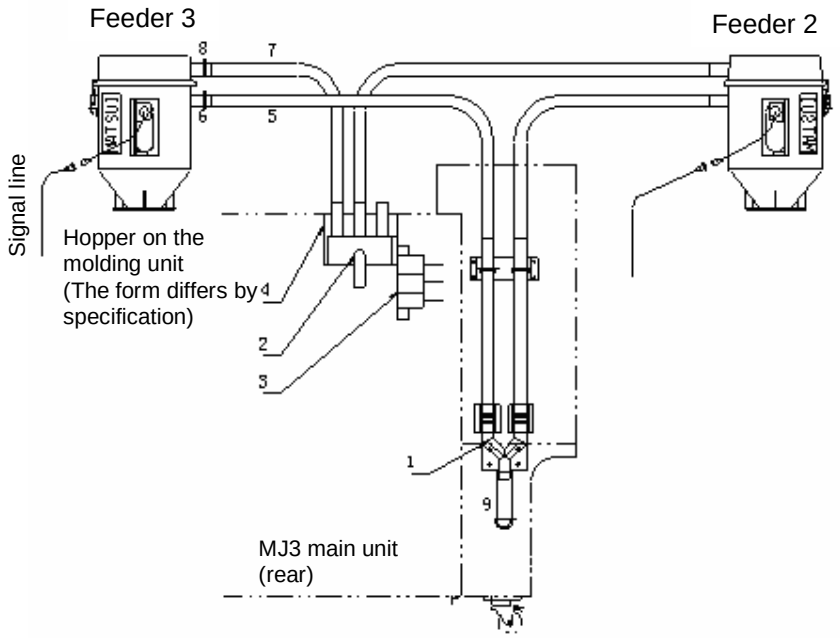


No.	Name	Maker	Model	Q'ty
1	SMS mount ball	Changcheng Matsui	For mounting SMSΦ38	1
2	PVC hose	Changcheng Matsui	PVC ϕ 38×1m	1
3	Hose band	Changcheng Matsui	35-51	2
4	Metal plug	Guangdong WeiPu	WS20J2TQ+WS20K2ZQ	1

9. The secondary convey: 2 directions

The molding unit with 2 units can be supplied with the material from the dryer with 1 unit.

Connect a hose as following figure. Connect a hose with the convey port position of "Feeder2", "Feeder3" of the control panel correctly.



No.	Name	Maker	Model	Q'ty
1	2 direction branch unit	Matsui Mfg.	-	1unit
			-	1unit
2	3 direction select valve	Matsui Mfg.	3VN-ϕ38（MJ3-10～150）	1
			3VN-ϕ63（MJ3-200～300）	1
3	Manifold electromagnetism valve	Matsui Mfg.	For 3VN	1
4	3 direction valve mounting bracket	Matsui Mfg.	3VN-ϕ38（MJ3-10～150）	1
			3VN-ϕ63（MJ3-200～300）	1
5	PVC hose	Changcheng Matsui	PVC-ϕ38×5m（MJ3-10～150）	1
			PVC-ϕ50×10m（MJ3-200～300）	1
6	Hose band (For PVC hose)	Changcheng Matsui	35-51（MJ3-10～150）	4
			57-76（MJ3-200～300）	4
7	PVC hose	Changcheng Matsui	PVC-ϕ38×5m（MJ3-10～150）	1
			PVC-ϕ65×10m（MJ3-200～300）	1
8	Hose band (For PVC hose)	Changcheng Matsui	35-51（MJ3-10～150）	4
			57-76（MJ3-200～300）	4
9	PVC hose	Changcheng Matsui	PVC-ϕ38×1m（MJ3-10～150）	1
			PVC-ϕ65×1m（MJ3-200～300）	1

※Change the hose length by specification.

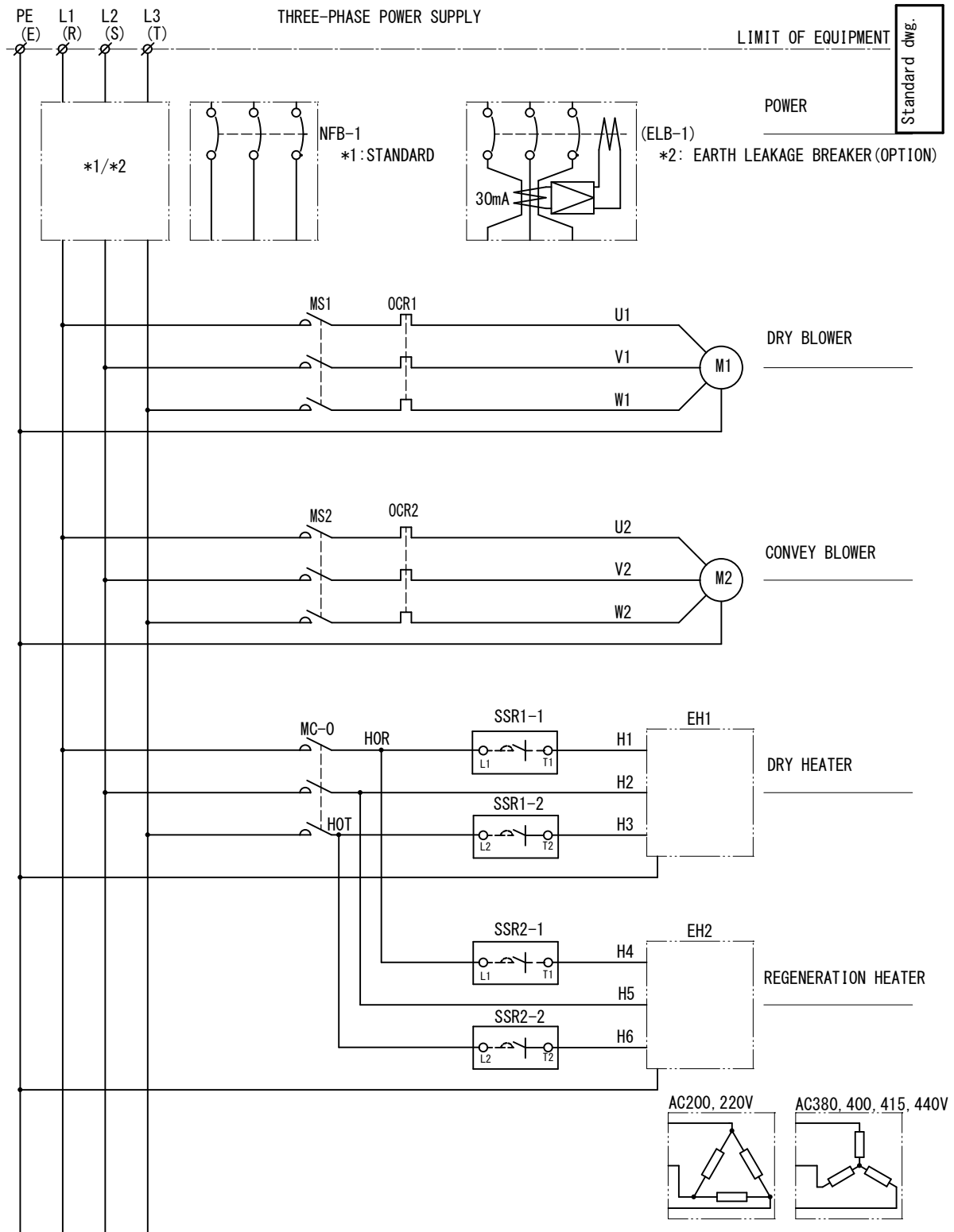
Chapter 12. Specifications

Model Number		10A	15A	25A	50A	75A	100A	150A
Drying bunker	L kg/BD:0.6 kg/BD:0.8	17 10 14	28 16 22	44 26 35	90 54 72	125 75 100	170 102 136	250 150 200
	Heat preservation	Cut off heat with glass wool+ Outer board						
Condensation point of dry air	Air conditions outdoors: 30℃ Relative Humidity 75% (DP+25℃) Estimation of blending of outdoor air 10%	-40℃ （Condensation point of dry air changes according to operating conditions.）						
Blast volume of dryness	m^3/h	20	40		80		120	
Drying temperature	℃	80～160						
Blower fan of dryness	Model number	RB20-520	RB30-520		RB40-520		RB50-520	
	Output of electromotor Kw	0.22/0.28	0.38/0.42		0.90/1.15		1.5/1.75	
Regenerative blower fan	Model number	170FLJ2-6AS			170FLJ2-6CS			
	Output of electromotor W	65/60			85/110			
Drying heater	Capacity Kw (415V/380V/220V/200V)	1.43/1.20/ 1.21/1.0	2.1/1.76/ 2.1/2.1		4.77/4.0/ 4.0/4.0		7.16/6.0/ 6.0/6.0	
Regenerative heater	Capacity Kw (415V/380V/220V/200V)	1.43/1.20/ 1.21/1.0	2.01/1.71/ 1.71/1.41		2.9/2.4/ 2.9/2.4		3.7/3.1/ 3.7/3.1	
Adsorption Column	Name	Dehumidifing rotor						
	External diameter mm	ϕ200			ϕ250			
	Height mm	100	200		200		300	
Electromotor of adsorption column	Output of electromotor W	25						
	Ratio of reduction drive	1/1800						
Drying filter	Model number	MXF-16S			ϕ200×250			
	Filter area ㎡	0.5			0.6			
Transporting filter	Model number	MXF-16SP-G1						
	Filter area ㎡	0.5						
Regenerative filter	Model number	FILEDON						
	Filter area ㎡	0.015						
Tube diameter	Dryness mm	ϕ38/ϕ50			ϕ50			
	Cooling mm	ϕ20						
	Regeneration mm	ϕ38						
Rotatory cooler	Model number	Air cooling type					Water cooling type	
	Area of heat conduction ㎡	-					0.3	
	Cooling water temperature ℃	-					5~32	
	Flow volume L/min	-					10	
	Joint caliber B	-					1/2"	

Model Number			10A	15A	25A	50A	75A	100A	150A
Compressed air	Pressure MPa		0.5						
	Flow capacity L/h		10						
	Joint caliber mm		ϕ6						
Discharging	Primary side m		10						
	Secondary side m		5						
Discharging tubing			ϕ38PVC hose						
Discharging blower fan	Model number 50/60Hz		RB40-620						
	Output of electric motor Kw		1.1/1.5						
Control	Regulator of drying temperature		PID control						
	Regulator of regenerative temperature		PID control						
	Auto-starting timer of dryness		Set time range 10 minutes～99 hours and 50 minutes						
	Alarm, protective circuit		Excess temperature(dryness、regeneration)						
			Overload of electromotor						
			Avoiding back turn of electromotor						
			Cooling delay when stop						
	Power 50Hz/60Hz		AC200V~460V,3P						
	Electric pressure of operating circuit		AC200V,1P						
	Capacity of air switch （A）	200V~240V	32			40		50	
		380V~460V	16			20		32	
Responding options			Weekly timer						
			Short circuit breaker						
			Indicator of condensation point						
			Dust catcher of discharging whirlwind						
			Twice-side and double direction discharging						
Shape and size	W mm		960			1158		1285	
	D mm		564			639		639	
	H mm		1326	1334	1584	1550	1850	1733	2123
			Hmm Doesn’t include primary feeding hopper.						
Gross weight	kg		219	224	233	299	309	331	346
Electric capacitance	KVA		6.24	7.85		11.07		15.14	

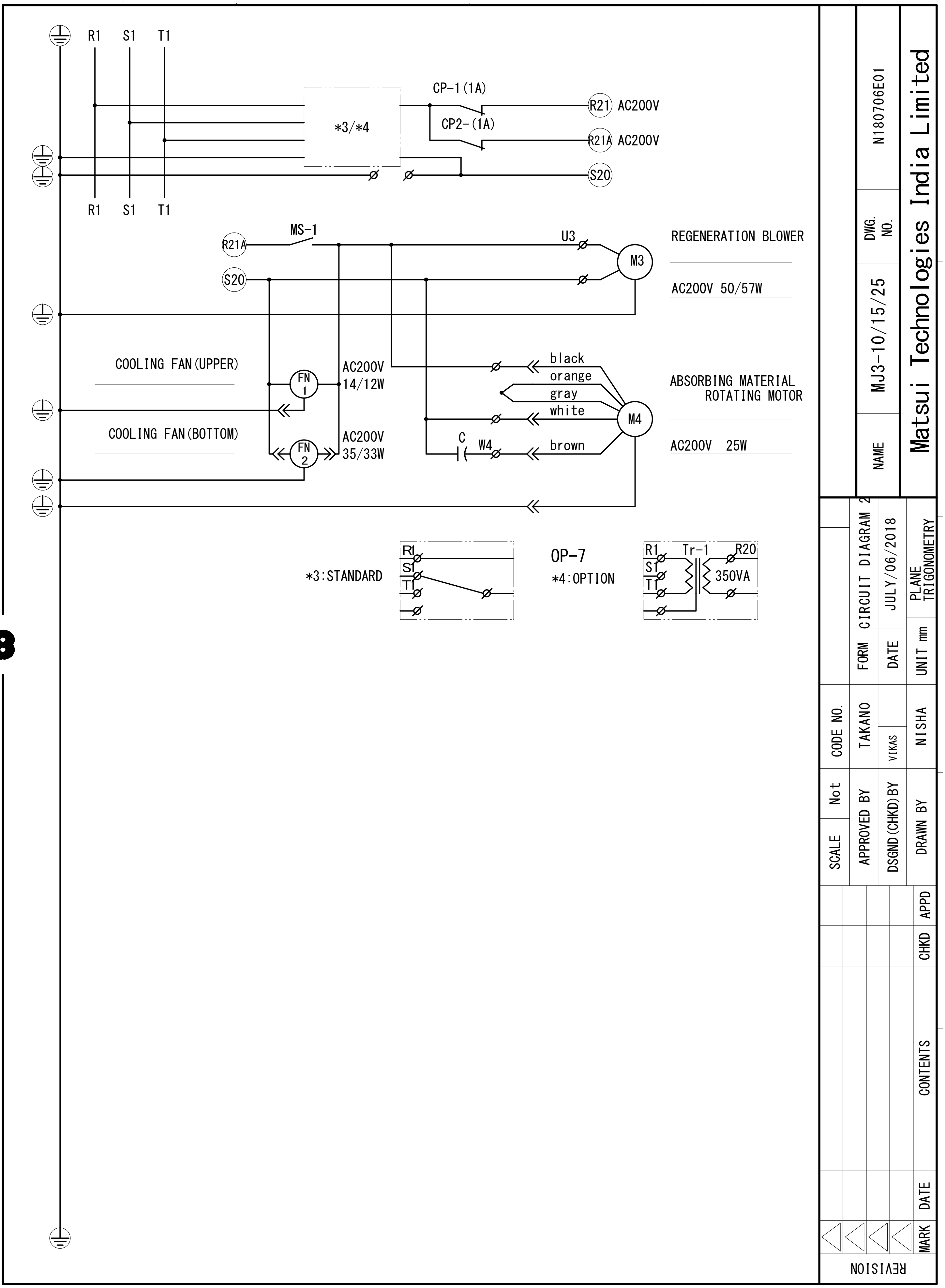
Model Number		200A	250A	300A
Drying bunker	L	350	425	500
	kg/BD:0.6	210	255	300
	kg/BD:0.8	280	340	400
	Heat preservation	Cut off heat with glass wool+ Outer board		
Condensation point of dry air	Air conditions outdoors:：30℃ Relative Humidity 75％ (DP+25℃) Estimation of blending of outdoor air 10%	-40℃ （Condensation point of dry air changes according to operating conditions.）		
Blast volume of dryness	m^3/hr	180	280	
Drying temperature	℃	80～160		
Blower fan of dryness	Model number 50Hz/60Hz	RB60-520	MI-10X/5	
		RB50-520	MI-10X/6	
	Output of electromotor Kw 50Hz/60Hz	2.2/1.75	1.5	
Regenerative blower fan	Model number	RS-301P		
	Output of electromotor W	130/200		
Drying heater	Capacity Kw (415V/380V/220V/200V)	8.95/7.5/7.5/7.5	14.8/12.4/15.0/12.4	
Regenerative heater	Capacity Kw (415V/380V/220V/200V)	6.9/5.8/7.0/5.8	10.7/9.0/9.0/9.0	
Adsorption Column	Name	Dehumidifing rotor		
	External diameter mm	ϕ300	ϕ350	
	Height mm	300	300	
Electromotor of adsorption column	Output of electromotor W	25	40	
Drying filter	Model number	ϕ200×250	ϕ200×350	
	Filter area ㎡	0.6	0.84	
Transporting filter	Model number	ϕ200×250		
	Filter area ㎡	0.6		
Regenerative filter	Model number	FILEDON		
	Filter area ㎡	0.015		
Tube diameter	Dryness mm	ϕ90/ϕ65	ϕ90	
	Cooling mm	ϕ38		
	Regeneration mm	ϕ65	ϕ90	
Rotatory cooler	Model number	Water cooling type		
	Area of heat conduction ㎡	0.35	0.70	
	Cooling water temperature ℃	5~32		
	Flow volume L/min	20		
	Joint caliber B	1/2″		

Model Number			200A	250A	300A
Compressed air	Pressure MPa		0.5		
	Flow capacity L/h		20		
	Joint caliber mm		ϕ6		
Discharging	Primary side m		10		
	Secondary side m		10		
Discharging tubing			ϕ50PVC tube		
Discharging blower fan	Model number 50/60Hz		RB60-620/RB50-620		
	Output of electric motor Kw		3.0/2.55		
Control	Regulator of drying temperature		PID control		
	Regulator of regenerative temperature		PID control		
	Auto-starting timer of dryness		Set time range 10 minutes～99 hours and 50 minutes		
	Alarm, protective circuit		Excess temperature(dryness、regeneration)		
			Overload of electromotor		
			Avoiding back turn of electromotor		
			Cooling delay when stop		
	Power	50Hz	AC200V,AC380V,AC415V,3P		
		60Hz	AC200/220V,3P		
	Electric pressure of operating circuit		AC200V,1P		
	Capacity of air switch(A)	200V~240V	80	100	
		380V~460V	40	50	
Responding options			Weekly timer		
			Short circuit breaker		
			Indicator of condensation point		
			Dust catcher of discharging whirlwind		
			Twice-side and double direction discharging		
Shape and size	W mm		1460	1710	
	D mm		740	900	
	H mm		2036	1887	2037
			Hmm Doesn't include primary feeding hopper.		
Gross weight	kg		500	685	700
Electric capacitance	KVA		28.82	39.59	

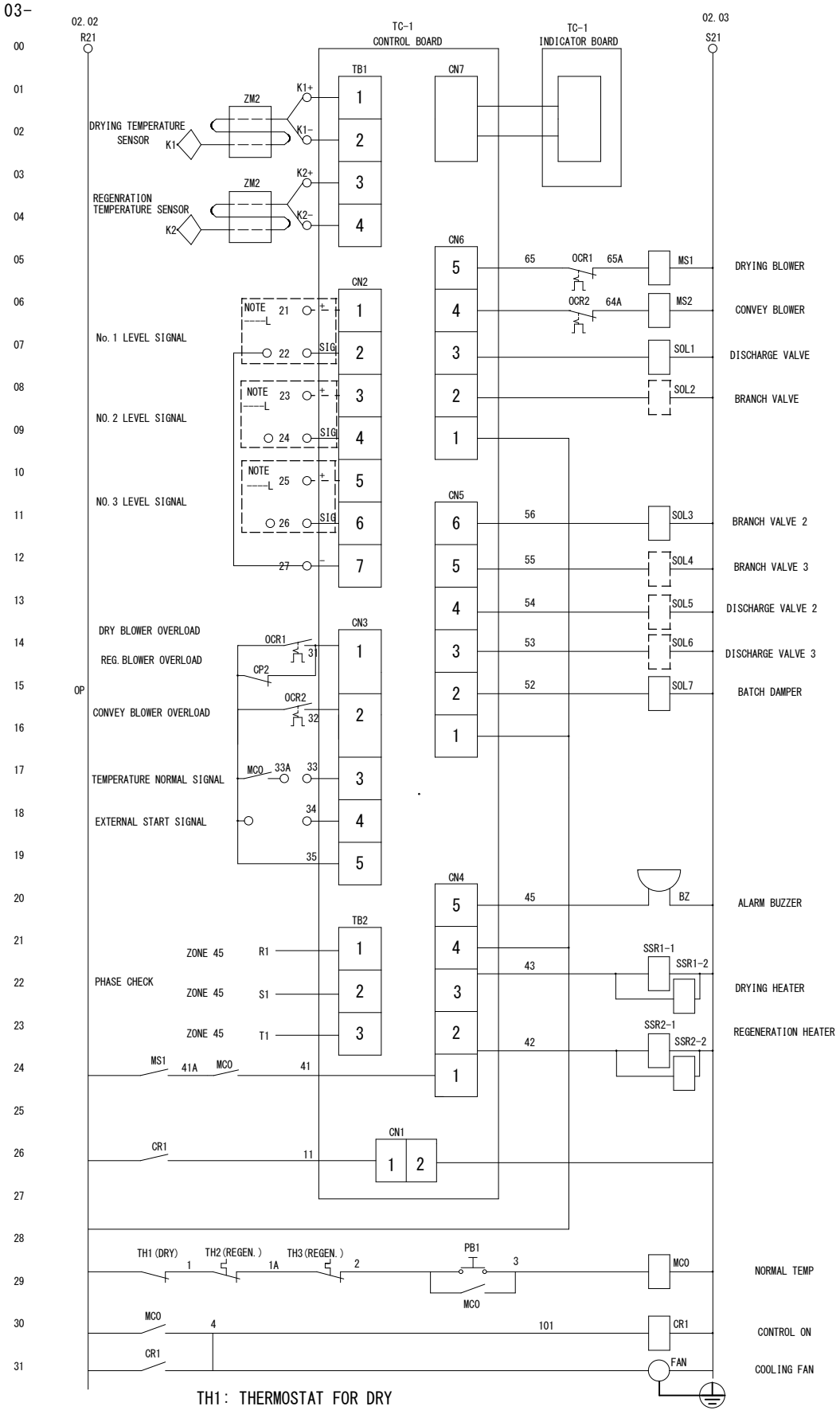


POWER		NFB-1 (ELB-1)	M1 OCR-1	M2 OCR-2	EH1	EH2
AC200V	50/60Hz	30AF/20AT (30AF/20AT 30mA)	0.22/0.28kW 0.8/1.0A	1.10/1.50kW 4.8/6.0A	1.0kW	1.0kW
AC220V	60Hz	30AF/20AT (30AF/20AT 30mA)	0.28kW 0.9A	1.50kW 5.8A	1.21kW	1.21kW
AC380V	50Hz	30AF/15AT (30AF/15AT 30mA)	0.22kW 0.4A	1.10kW 2.8A	1.2kW	1.2kW
AC400V	50Hz	30AF/15AT (30AF/15AT 30mA)	0.22kW 0.5A	1.10kW 2.9A	1.33kW	1.33kW
AC415V	50Hz	30AF/15AT (30AF/15AT 30mA)	0.22kW 0.5A	1.10kW 3.1A	1.43kW	1.43kW
AC440V	60Hz	30AF/15AT (30AF/15AT 30mA)	0.28kW 0.5A	1.50kW 3.1A	1.61kW	1.61kW

NAME	Matsui Technology India Limited
DWG. NO.	N180705E00
	MJ3-10
CIRCUIT DIAGRAM (1)	
FORM	
DATE	JULY/05/2018
UNIT mm	
PLANE TRIGONOMETRY	
CODE NO.	
VIKAS	
NISHA	
SCALE	
APPROVED BY	
DSGND(CHKD)BY	
DRAWN BY	
CONTENTS	
APPD	
CHKD	
DATE	
MARK	
REVISION	


R1 S1 T1
CP-1(1A)
CP2-(1A)
*3/*4
R21 AC200V
R21A AC200V
S20
MS-1
U3
M3
REGENERATION BLOWER
AC200V 50/57W
COOLING FAN(UPPER)
FN 1
AC200V 14/12W
COOLING FAN(BOTTOM)
FN 2
AC200V 35/33W
black
orange
gray
white
brown
C
W4
M4
ABSORBING MATERIAL ROTATING MOTOR
AC200V 25W
*3:STANDARD
OP-7
*4:OPTION
Tr-1
R20
350VA
Matsui Technologies India Limited
NAME MJ3-10/15/25
DWG. NO. N180706E01
FORM CIRCUIT DIAGRAM 2
DATE JULY/06/2018
UNIT mm PLANE TRIGONOMETRY
SCALE Not
CODE NO.
APPROVED BY TAKANO
DSGND(CHKD)BY VIKAS
DRAWN BY NISHA
APPD
CHKD
CONTENTS
DATE
MARK
REVISION

8

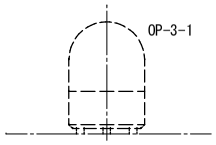


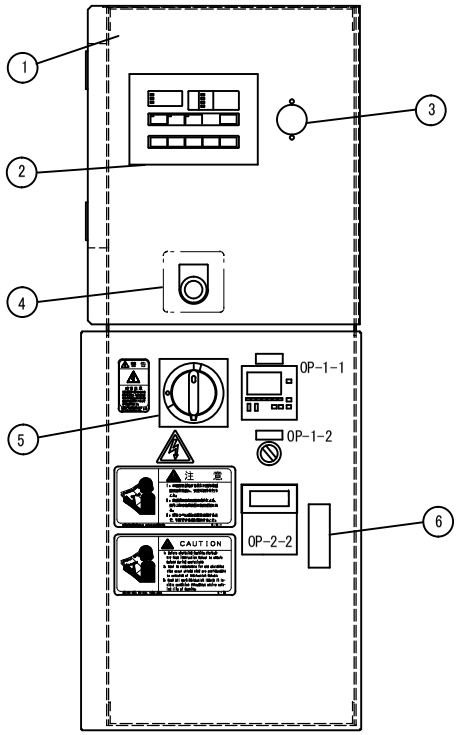
TH1: THERMOSTAT FOR DRY

TH2-2,3: THERMOSTAT FOR REGENERATION

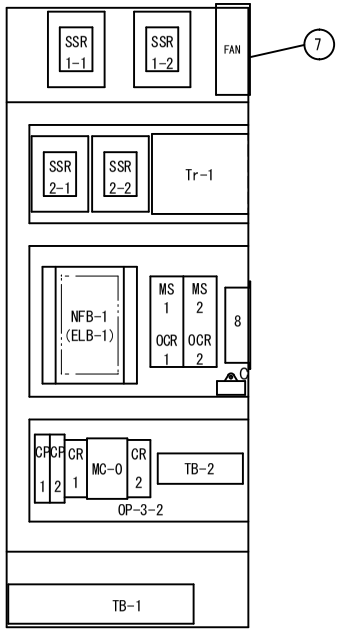
ITEM NO.	
DESCRIPTION	
REQ. D	
MATERIAL	
REFERENCE	

NAME	Matsui Technologies India Limited
	MJ3-10
DWG. NO.	N180706E02
FORM	CIRCUIT DIAGRAM 3
DATE	JULY/06/2018
UNIT mm	PLANE TRIGONOMETRY
CODE NO.	
VIKAS	NISHA
SCALE Not	
APPROVED BY	
DSGND (CHKD) BY	
DRAWN BY	
APPD	
CHKD	
CONTENTS	
DATE	
MARK	
REVISION	





EXTERNAL PANEL VIEW



INTERNAL PANEL VIEW

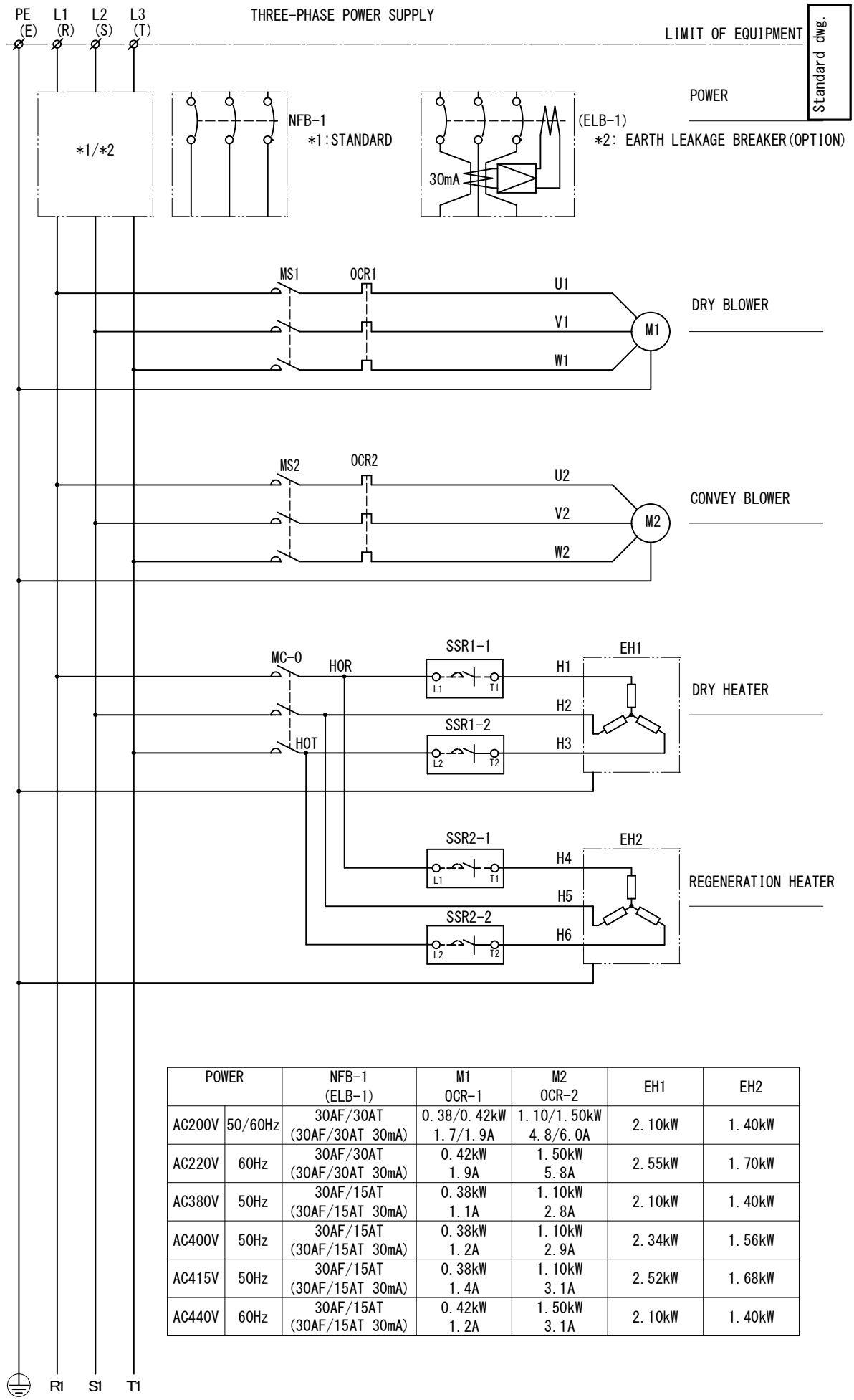
ITEM NO.		DESCRIPTION	REQ. D	MATERIAL	REFERENCE
1		CONTROL BOX	1	MATSUI	
2	TC-1	CONTROLLER	1	MATSUI	G2422
3	BZ	BUZZER	1	PANASONIC	EA4202 (200V)
4	PB-1	PUSH BUTTON	1	FUJI ELECTRIC	AR30G1R-10W
		NAME PLATE	1	MATSUI	CONTROL ON
5		V STYLE HANDLE	1	SCHNEIDER	EZAROTDS
	NFB-1 (ELB-1)	CIRCUIT BREAKER (OR LEAKAGE)	1	SCHNEIDER	NKS100R032AC3P
		TERMINAL COVER	1	MITSUBISHI	*1
6		HANDLE	1	TAKIGEN	
7	FAN	FAN	1	OMRON	22038 B2 220
		CORD	1	OMRON	R87F-PCJT
		FINGER GUARD	2	OMRON	R87F-FG120
8		THERMOSTAT	1	MATSUI	TR711/N220 M12P1L900
	Tr-1	TRANSFORMER	(1)	MATSUI	350VA
	MS-1	MOTOR STARTER	1	SCHNEIDER	LC1E0910M5
	OCR-1	OVERLOAD RELAY		SCHNEIDER	LRD06
		AUXILIARY CONTACT	1	SCHNEIDER	LAEN20
	MS-2	MOTOR STARTER	1	SCHNEIDER	LC1E0910M5
	OCR-2	OVERLOAD RELAY		SCHNEIDER	LRD08
	MC-0	MAGNETIC CONTACTOR	1	SCHNEIDER	LC1E1810M5
		AUXILIARY CONTACT	1	SCHNEIDER	LADN40
	SSR1-1 1-2	SOLID STATE RELAY HEAT SINK	2	HONYOUNG	HSR2A204Z
	SSR2-1 2-2	SOLID STATE RELAY HEAT SINK	2	HONYOUNG	HSR20104Z
	C	CONDENSER	1	SUMITOMO	DMF45155 1.5uF(450VAC)
	CP-1	CIRCUIT PROTECTOR AUXILAIRY CONTACT	1	SCHNEIDER	A9N1P01C A9N26924
	CP-2	CIRCUIT PROTECTOR	1	SCHNEIDER	A9N1P02C
	CR-1	POWER RELAY	1	IDEC	RU2S-A200
		SOCKET	1	IDEC	SM2S-05D
	TB-1,2	TERMINAL BOARD	2	WAGO WAGO	
		INSTALLATION RAIL	2	WAGO WAGO	
		POWER SUPPLY MARK 3-31	2	MATSUI	CODE No. 14591

ITEM NO.		DESCRIPTION	REQ. D	MATERIAL	REFERENCE
OP-1-1	TR-1	WEEKLY TIMER	1	OMRON	H5S-WA2
OP-1-2	S-1	WEEKLY TIMER ON-OFF SW	1	FUJI ELECTRIC	AR30PR-211B
OP-2-2	DP-1	DEWPOINT METER	1	ORION	03109166010/03092690030
OP-3-1	PL-1	REVOLVING LIGHT	1	AUTONICS	ASGB-FF-R MEANICS
OP-3-2	CR-2	RELAY SOCKET	1	IDEC IDEC	RU2S-A220 SM2S-05D

Standard dwg.

NAME	MJ3-10	FORM	CONTROL PANEL
APPROVED BY		CODE NO.	700201 ··
DSGND (CHKD) BY	VIKAS	DATE	JULY/06/18
DRAWN BY	NISHA	UNIT mm	PLANE TRIGONOMETRY
SCALE	1/5	DWG. NO.	N180706E03

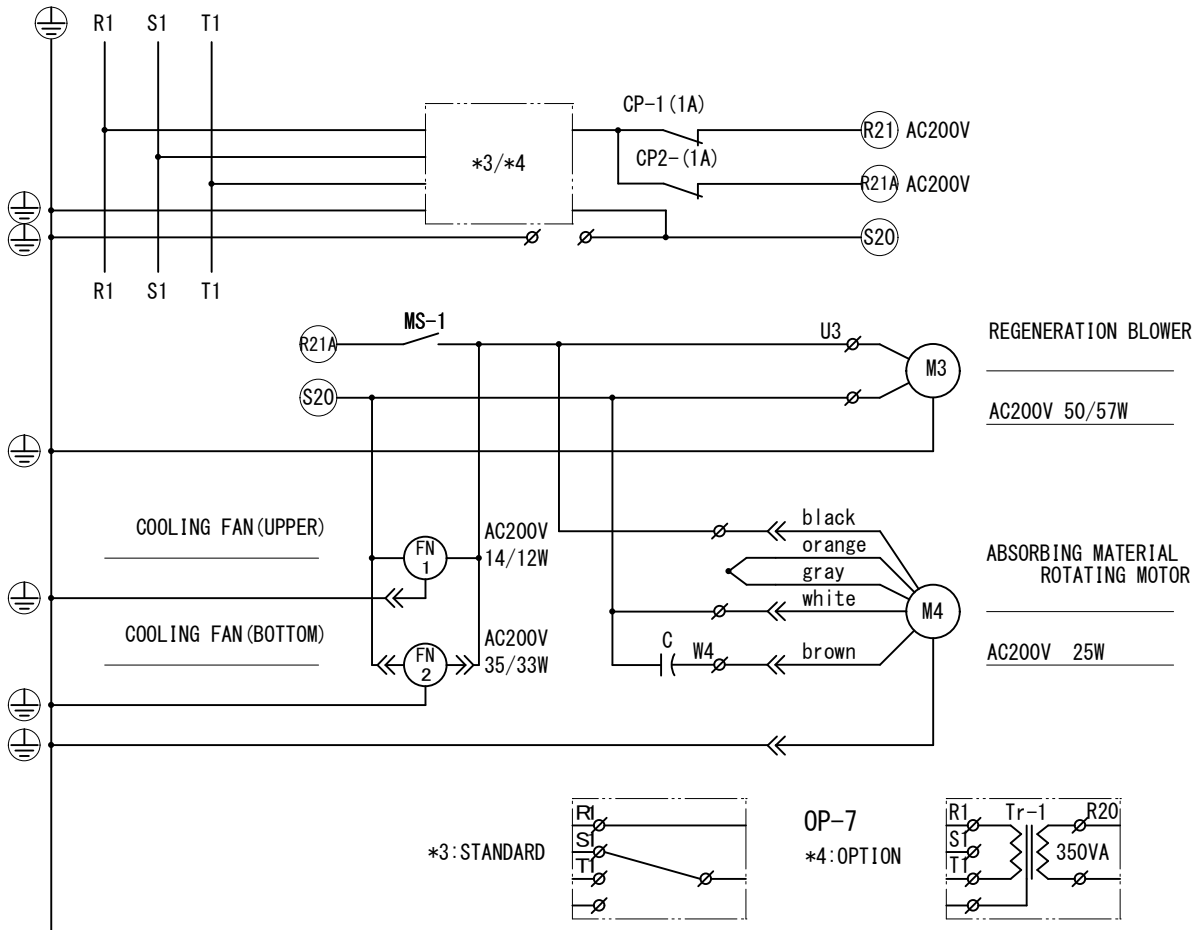
Matsui Technology India Limited



POWER		NFB-1 (ELB-1)	M1 OCR-1	M2 OCR-2	EH1	EH2
AC200V	50/60Hz	30AF/30AT (30AF/30AT 30mA)	0.38/0.42kW 1.7/1.9A	1.10/1.50kW 4.8/6.0A	2.10kW	1.40kW
AC220V	60Hz	30AF/30AT (30AF/30AT 30mA)	0.42kW 1.9A	1.50kW 5.8A	2.55kW	1.70kW
AC380V	50Hz	30AF/15AT (30AF/15AT 30mA)	0.38kW 1.1A	1.10kW 2.8A	2.10kW	1.40kW
AC400V	50Hz	30AF/15AT (30AF/15AT 30mA)	0.38kW 1.2A	1.10kW 2.9A	2.34kW	1.56kW
AC415V	50Hz	30AF/15AT (30AF/15AT 30mA)	0.38kW 1.4A	1.10kW 3.1A	2.52kW	1.68kW
AC440V	60Hz	30AF/15AT (30AF/15AT 30mA)	0.42kW 1.2A	1.50kW 3.1A	2.10kW	1.40kW

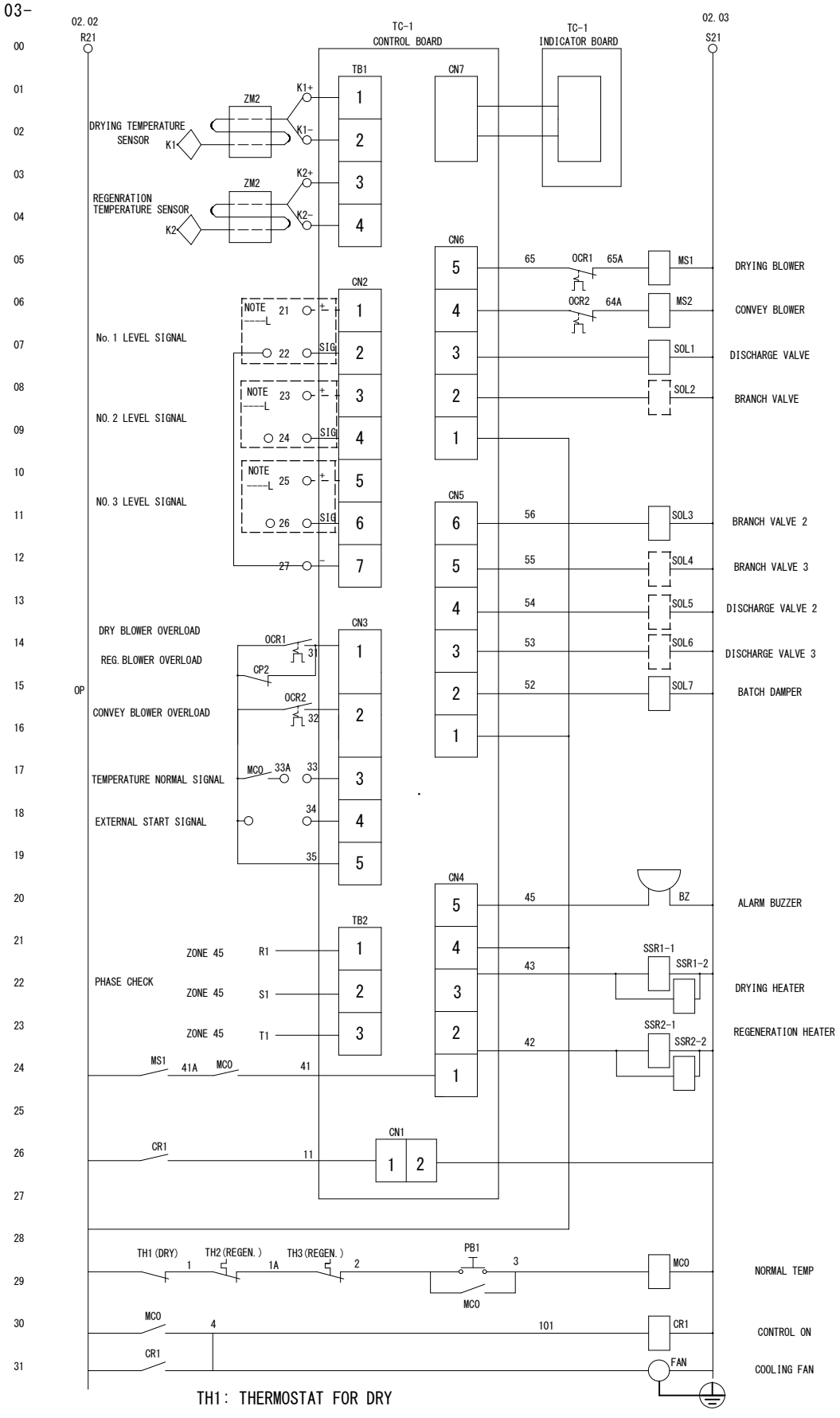
NAME	Matsui Technology India Limited		
DWG. NO.	N180704E10		
	MJ3-15/25		
FORM	CIRCUIT DIAGRAM (1)	DATE	JULY/04/2018
UNIT mm	PLANE TRIGONOMETRY		
CODE NO.			
SCALE			
APPROVED BY		VIKAS	NISHA
DSGND(CHKD)BY			
DRAWN BY			

MARK	DATE	REVISION
		CONTENTS
		CHKD
		APPD



NAME	MJ3-10/15/25	DWG. NO.	N180704E11	Matsui Technologies India Limited		
SCALE	Not	CODE NO.		FORM	CIRCUIT DIAGRAM 2	
APPROVED BY	TAKANO			DATE	JULY/04/2018	
DSGND(CHKD)BY	VIKAS			UNIT mm	PLANE TRIGONOMETRY	
DRAWN BY	NISHA					
CONTENTS						

REVISION				
MARK	DATE	CHKD	APPD	

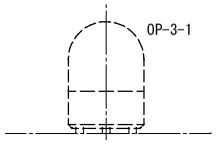


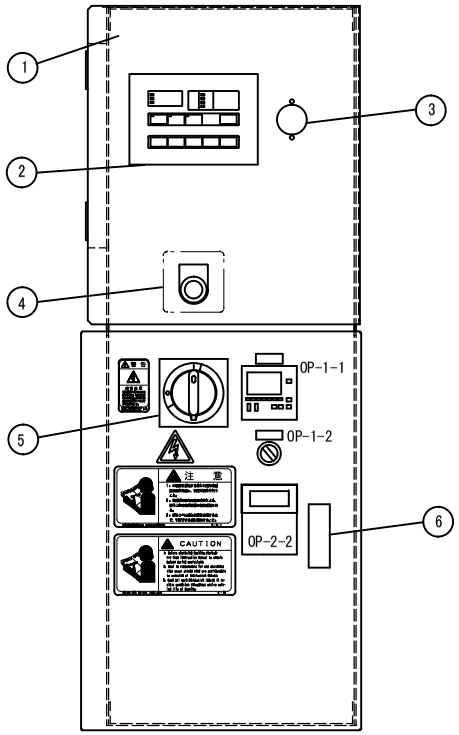
TH1: THERMOSTAT FOR DRY

TH2-2,3: THERMOSTAT FOR REGENERATION

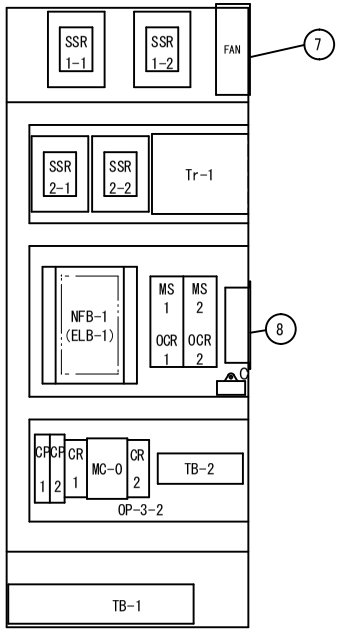
ITEM NO.	
DESCRIPTION	
REQ. D	
MATERIAL	
REFERENCE	

NAME	Matsui Technologies India Limited
MJ3-15/25	
DWG. NO.	N180704E12
FORM	CIRCUIT DIAGRAM 3
DATE	JULY/04/2018
UNIT mm	PLANE TRIGONOMETRY
CODE NO.	
VIKAS	NISHA
SCALE Not	
APPROVED BY	
DSGND(CHKD)BY	
DRAWN BY	
APPD	
CHKD	
CONTENTS	
DATE	
MARK	
REVISION	





EXTERNAL PANEL VIEW



INTERNAL PANEL VIEW

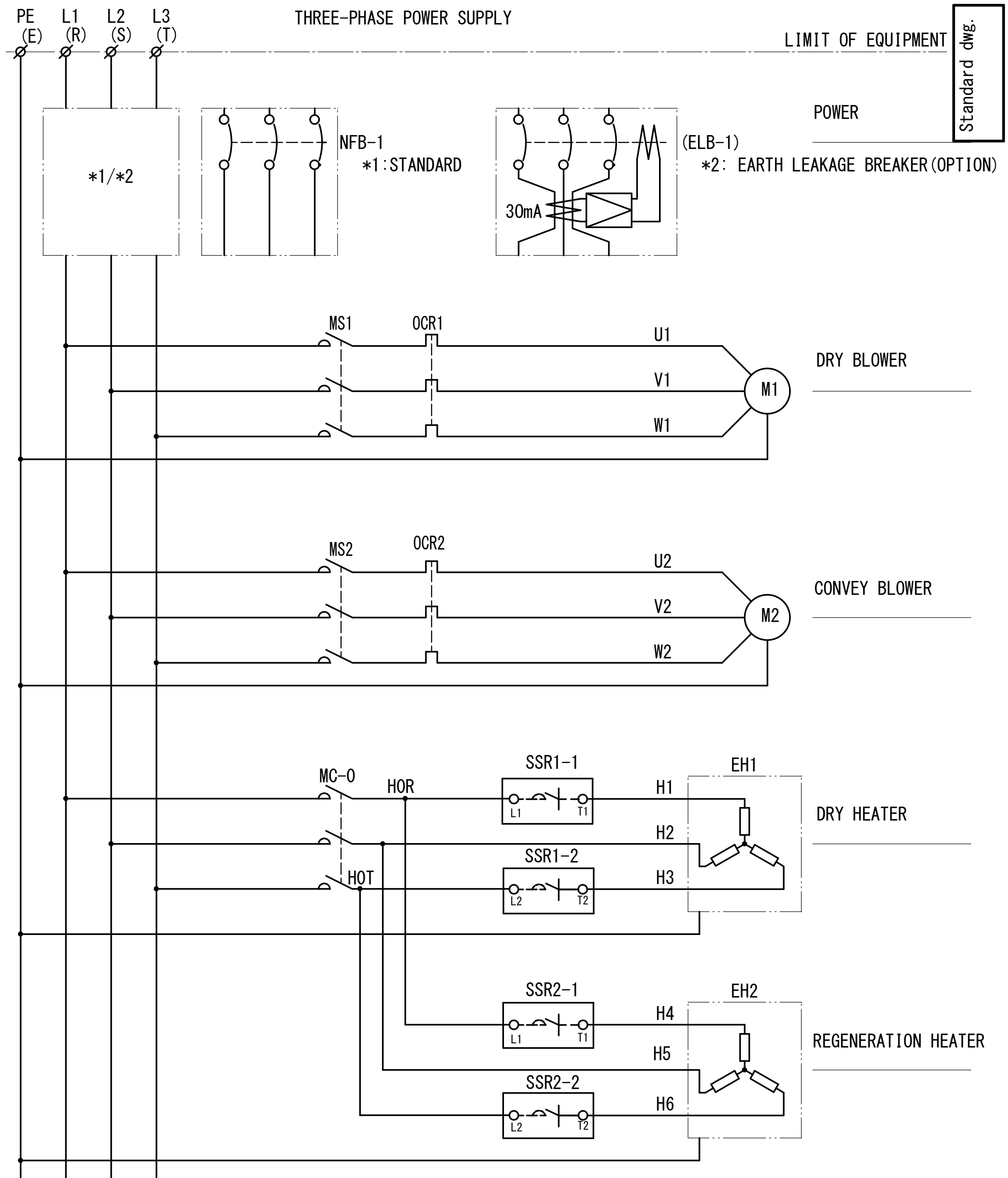
ITEM NO.		DESCRIPTION	REQ. D	MATERIAL	REFERENCE
1		CONTROL BOX	1	MATSUI	
2	TC-1	CONTROLLER	1	MATSUI	G2422
3	BZ	BUZZER	1	PANASONIC	EA4202 (200V)
4	PB-1	PUSH BUTTON	1	FUJI ELECTRIC	AR30G1R-10W
		NAME PLATE	1	MATSUI	CONTROL ON
5		V STYLE HANDLE	1	SCHNEIDER	EZAROTDS
	NFB-1 (ELB-1)	CIRCUIT BREAKER (OR LEAKAGE)	1	SCHNEIDER	NKS100R032AC3P
		TERMINAL COVER	1	MITSUBISHI	*1
6		HANDLE	1	TAKIGEN	
7	FAN	FAN	1	OMRON	22038 B2 220
		CORD	1	OMRON	R87F-PCJT
		FINGURE GUARD	2	OMRON	R87F-FG120
8		THERMOSTAT	1	MATSUI	TR711/N220 M12P1L900
	Tr-1	TRANSFORMER	(1)	MATSUI	350VA
	MS-1	MOTOR STARTER	1	SCHNEIDER	LC1E0910M5
	OCR-1	OVERLOAD RELAY		SCHNEIDER	LRD06
		AUXILIARY CONTACT	1	SCHNEIDER	LAEN20
	MS-2	MOTOR STARTER	1	SCHNEIDER	LC1E0910M5
	OCR-2	OVERLOAD RELAY		SCHNEIDER	LRD08
	MC-0	MAGNETIC CONTACTOR	1	SCHNEIDER	LC1E1810M5
		AUXILIARY CONTACT	1	SCHNEIDER	LADN40
	SSR1-1 1-2	SOLID STATE RELAY	2	HONYOUNG	HSR2A204Z
	SSR2-1 2-2	SOLID STATE RELAY	2	HONYOUNG	HSR20104Z
	C	CONDENSER	1	SUMITOMO	DMF45155 1.5・千(450VAC)
	CP-1	CIRCUIT PROTECTOR	1	SCHNEIDER	A9N1P01C
		AUXILAIRY CONTACT			A9N26924
	CP-2	CIRCUIT PROTECTOR	1	SCHNEIDER	A9N1P02C
	CR-1	POWER RELAY	1	IDEC	RU2S-A220
		SOCKET	1	IDEC	SM2S-05D
	TB-1, 2	TERMINAL BOARD	2	WAGO WAGO	BN15MW (BNH15MW)
		INSTALLATION RAIL	2	WAGO WAGO	BNS4
		POWER SUPPLY MARK 3-31	2	MATSUI	CODE No. 14591

ITEM NO.		DESCRIPTION	REQ. D	MATERIAL	REFERENCE
OP-1-1	TR-1	WEEKLY TIMER	1	OMRON	H5S-WA2
OP-1-2	S-1	WEEKLY TIMER ON-OFF SW	1	FUJI ELECTRIC	AR30PR-211B
OP-2-2	DP-1	DEWPOINT METER	1	ORION	0310916601O/0309269003O
OP-3-1	PL-1	REVOLVING LIGHT	1	AUTONICS	ASGR-FF-R AC200/100V
OP-3-2	CR-2	RELAY SOCKET	1	IDEC IDEC	RU2S-A220 SM2S-05D

Standard dwg.

NAME	MJ3-15/25	FORM	CONTROL PANEL
APPROVED BY		CODE NO.	700201 ‥
DSGND (CHKD) BY	VIKAS	DATE	JULY/06/18
DRAWN BY	NISHA	UNIT mm	PLANE TRIGONOMETRY
SCALE	1/5	DWG. NO.	N180706E13

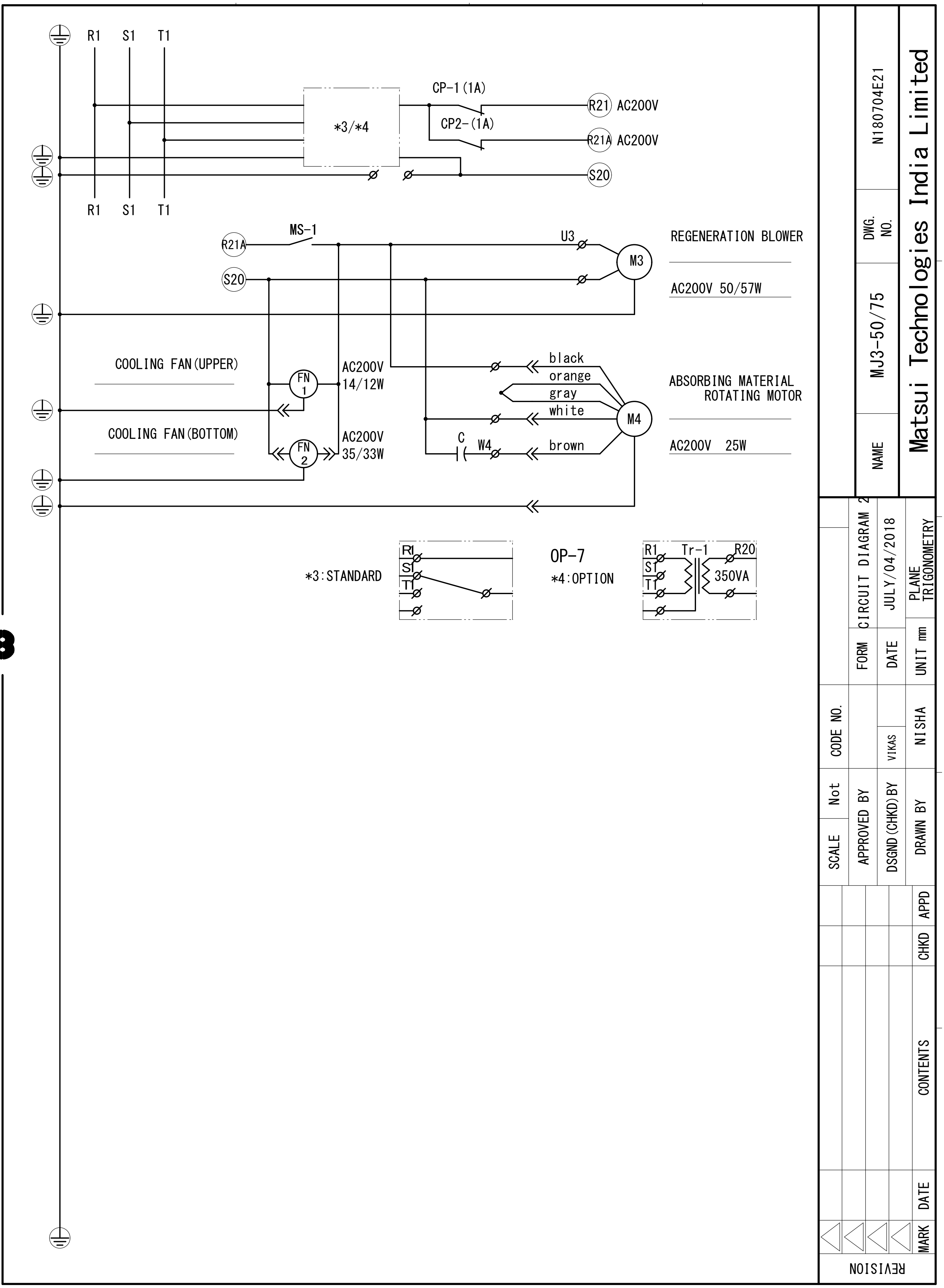
Matsui Technology India Limited



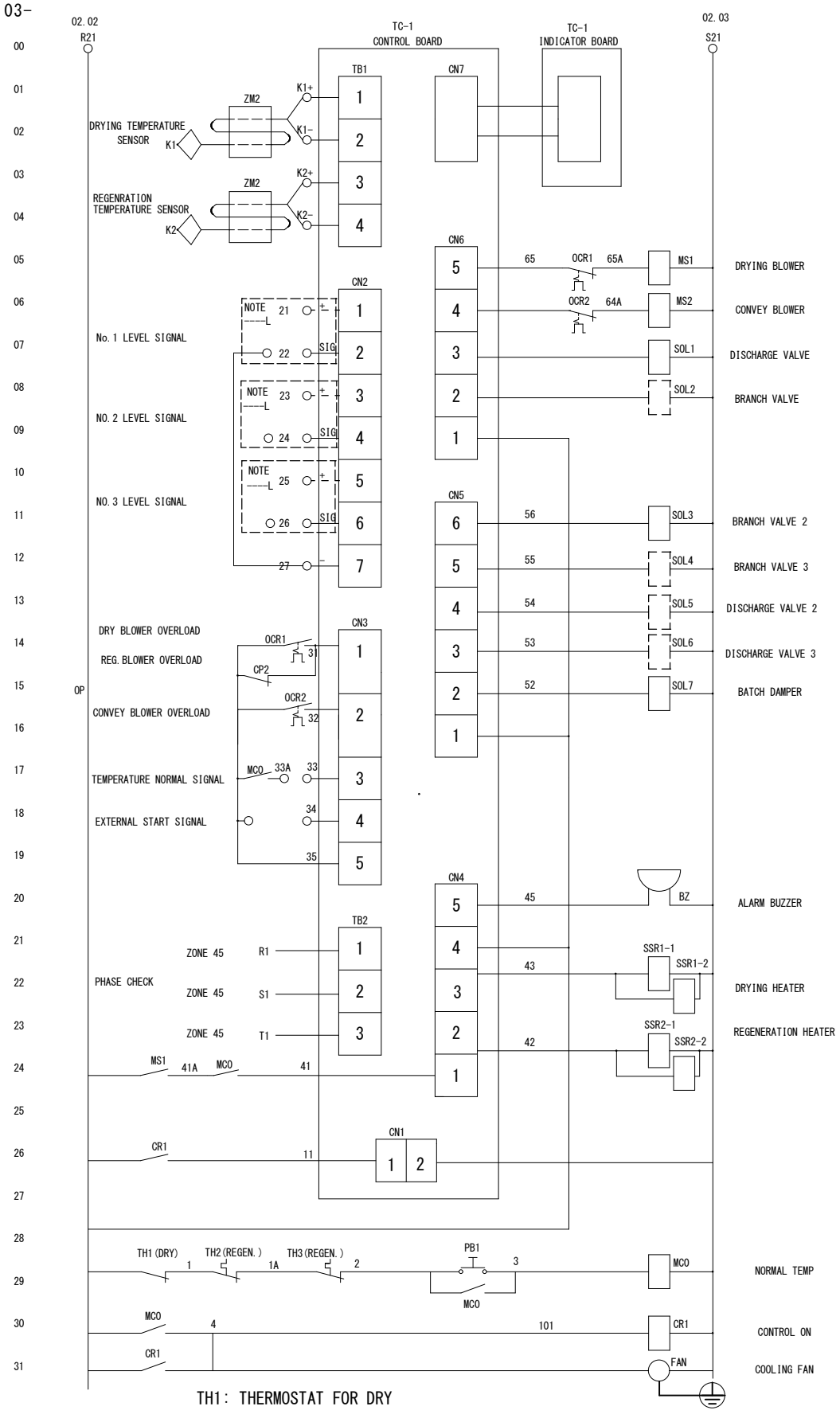
POWER		NFB-1 (ELB-1)	M1 OCR-1	M2 OCR-2	EH1	EH2
AC200V	50/60Hz	50AF/40AT (50AF/40AT 30mA)	0.90/1.15kW 4.3/5.0A	1.10/1.50kW 4.8/6.0A	4.00kW	2.40kW
AC220V	60Hz	50AF/40AT (50AF/40AT 30mA)	1.15kW 4.6A	1.50kW 5.8A	4.85kW	2.91kW
AC380V	50Hz	30AF/20AT (30AF/20AT 30mA)	0.90kW 2.5A	1.10kW 2.8A	4.00kW	2.40kW
AC400V	50Hz	30AF/20AT (30AF/20AT 30mA)	0.90kW 2.6A	1.10kW 2.9A	4.44kW	2.67kW
AC415V	50Hz	30AF/20AT (30AF/20AT 30mA)	0.90kW 2.8A	1.10kW 3.1A	4.78kW	2.87kW
AC440V	60Hz	30AF/20AT (30AF/20AT 30mA)	1.15kW 2.5A	1.50kW 3.1A	4.00kW	2.40kW

Matsui Technology India Limited
NAME MJ3-50/75
DWG. NO. N180704E20
FORM CIRCUIT DIAGRAM (1)
DATE JULY/04/2018
UNIT mm
PLANE TRIGONOMETRY
CODE NO.
SCALE
APPROVED BY
DSGND(CHKD)BY VIKAS
DRAWN BY NISHA
MARK DATE CONTENTS CHKD APPD
REVISION

8



R1 S1 T1
*3/*4
CP-1 (1A)
CP2-(1A)
R21 AC200V
R21A AC200V
S20
MS-1
U3
M3
REGENERATION BLOWER
AC200V 50/57W
COOLING FAN (UPPER)
FN 1
AC200V 14/12W
COOLING FAN (BOTTOM)
FN 2
AC200V 35/33W
black
orange
gray
white
brown
C
W4
M4
ABSORBING MATERIAL ROTATING MOTOR
AC200V 25W
*3:STANDARD
OP-7
*4:OPTION
Tr-1
R20
350VA
Matsui Technologies India Limited
NAME
MJ3-50/75
DWG. NO.
N180704E21
FORM
CIRCUIT DIAGRAM 2
DATE
JULY/04/2018
UNIT mm
PLANE TRIGONOMETRY
CODE NO.
SCALE
Not
APPROVED BY
DSGND (CHKD) BY
VIKAS
DRAWN BY
NISHA
APPD
CHKD
CONTENTS
DATE
MARK
REVISION

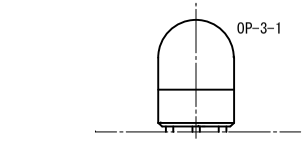


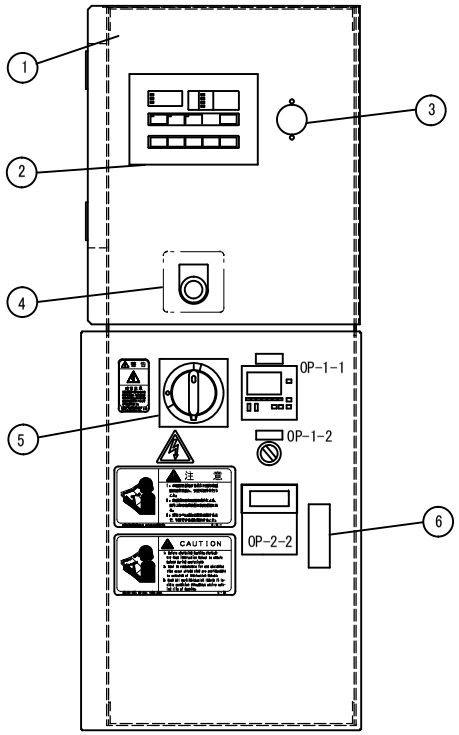
TH1: THERMOSTAT FOR DRY

TH2-2,3: THERMOSTAT FOR REGENERATION

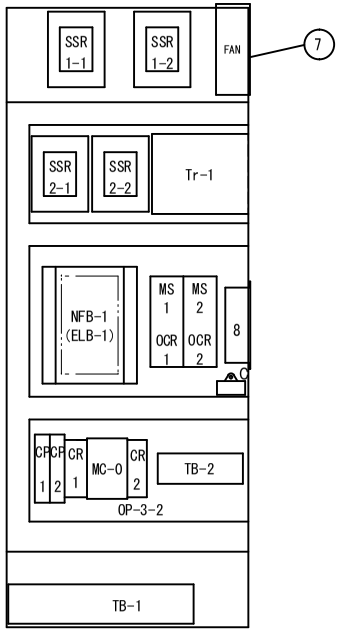
ITEM NO.	
DESCRIPTION	
REQ. D	
MATERIAL	
REFERENCE	

NAME	Matsui Technologies India Limited
	MJ3-50/75
DWG. NO.	N180704E22
FORM	CIRCUIT DIAGRAM 3
DATE	JULY/04/2018
UNIT mm	PLANE TRIGONOMETRY
CODE NO.	
VIKAS	NISHA
SCALE Not	
APPROVED BY	
DSGND (CHKD) BY	
DRAWN BY	
APPD	
CHKD	
CONTENTS	
DATE	
MARK	
REVISION	





EXTERNAL PANEL VIEW



INTERNAL PANEL VIEW

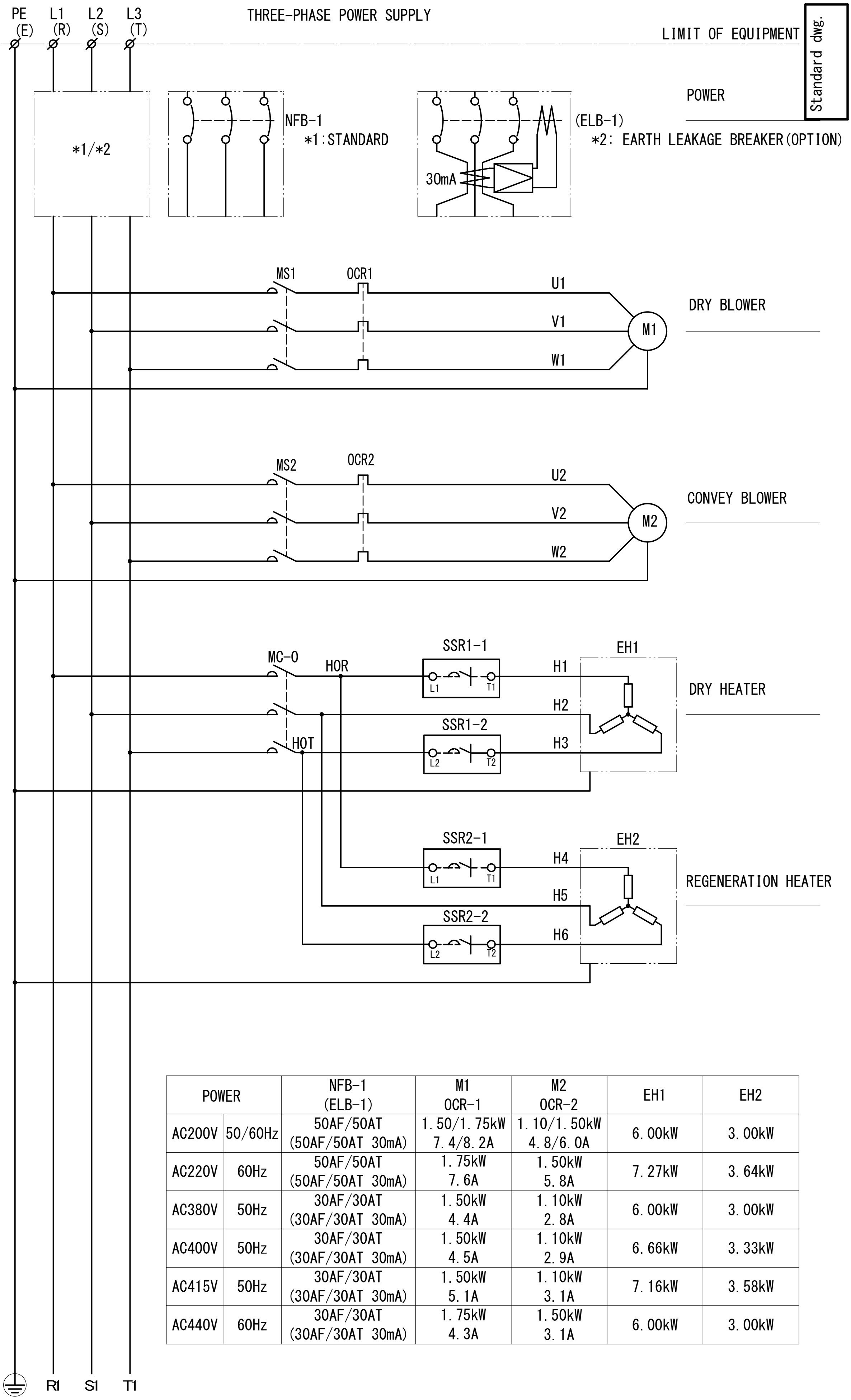
ITEM NO.		DESCRIPTION	REQ. D	MATERIAL	REFERENCE
1		CONTROL BOX	1	MATSUI	
2	TC-1	CONTROLLER	1	MATSUI	G2422
3	BZ	BUZZER	1	PANASONIC	EA4201 (100V)
4	PB-1	PUSH BUTTON	1	FUJI ELECTRIC	AR30G1R-10W
		NAME PLATE	1	MATSUI	CONTROL ON
5		V STYLE HANDLE	1	SCHNEIDER	EZAROTDS
	NFB-1 (ELB-1)	CIRCUIT BREAKER (OR LEAKAGE)	1	SCHNEIDER	NKS100R020AC3P
		TERMINAL COVER	1	MITSUBISHI	*1
6		HANDLE	1	TAKIGEN	
7	FAN	FAN	1	OMRON	22038A1M T W
		CORD	1	OMRON	R87F-PCJT
		FINGURE GUARD	2	OMRON	R87F-FG120
8		THERMOSTAT	1	MATSUI	TR711/N220 M12P1L900
	Tr-1	TRANSFORMER	(1)	MATSUI	350VA
	MS-1	MOTOR STARTER	1	SCHNEIDER	LC1D09F7
	OCR-1	OVERLOAD RELAY		SCHNEIDER	LRD08
		AUXILIARY CONTACT	1	SCHNEIDER	LAEN20
	MS-2	MOTOR STARTER	1	SCHNEIDER	LC1D09F7
	OCR-2	OVERLOAD RELAY		SCHNEIDER	LRD08
	MC-0	MAGNETIC CONTACTOR	1	SCHNEIDER	LC1D38F7
		AUXILIARY CONTACT	1	SCHNEIDER	LADN40
	SSR1-1 1-2	SOLID STATE RELAY	2	AUTONICS	SRC-14420 SLIM 20AMP
	SSR2-1 2-2	SOLID STATE RELAY	2	AUTONICS	SRC-14420 SLIM 20AMP
	C	CONDENSER	1	SUMITOMO	DMF45155 1.5・千(450VAC)
	CP-1	CIRCUIT PROTECTOR	1	SCHNEIDER	A9N1P01C A9N26924
	CP-2	CIRCUIT PROTECTOR	1	SCHNEIDER	A9N1P02C
	CR-1	POWER RELAY	1	IDEC	RU2S-A220
		SOCKET	1	IDEC	SM2S-05D
	TB-1,2	TERMINAL BOARD	2	WAGO WAGO	BN15MW (BNH15MW)
		INSTALLATION RAIL	2	WAGO WAGO	BNS4
		POWER SUPPLY MARK 3-31	2	MATSUI	CODE No. 14591

ITEM NO.		DESCRIPTION	REQ. D	MATERIAL	REFERENCE
OP-1-1	TR-1	WEEKLY TIMER	1	OMRON	H5S-WA2
OP-1-2	S-1	WEEKLY TIMER ON-OFF SW	1	FUJI ELECTRIC	AR30PR-211B
OP-2-2	DP-1	DEWPOINT METER	1	ORION	03109166010/03092690030
			1	TOYOZUMI	2H-1603 (200V)
					HT-1603 (100V)
OP-3-1	PL-1	REVOLVING LIGHT	1	AUTONICS	ASGB-FF-R AC200/100V
OP-3-2	CR-2	RELAY	1	IDEC	RU2S-A220
		SOCKET		IDEC	SM2S-05D

Standard dwg.

NAME	MJ3-50/75	FORM	CONTROL PANEL
APPROVED BY		CODE NO.	700201 ‥
DSGND (CHKD) BY	VIKAS	DATE	JULY/02/2018
DRAWN BY	NISHA	UNIT mm	PLANE TRIGONOMETRY
SCALE	1/5	DWG. NO.	N180704E23

Matsui Technology India Limited



POWER		NFB-1 (ELB-1)	M1 OCR-1	M2 OCR-2	EH1	EH2
AC200V	50/60Hz	50AF/50AT (50AF/50AT 30mA)	1.50/1.75kW 7.4/8.2A	1.10/1.50kW 4.8/6.0A	6.00kW	3.00kW
AC220V	60Hz	50AF/50AT (50AF/50AT 30mA)	1.75kW 7.6A	1.50kW 5.8A	7.27kW	3.64kW
AC380V	50Hz	30AF/30AT (30AF/30AT 30mA)	1.50kW 4.4A	1.10kW 2.8A	6.00kW	3.00kW
AC400V	50Hz	30AF/30AT (30AF/30AT 30mA)	1.50kW 4.5A	1.10kW 2.9A	6.66kW	3.33kW
AC415V	50Hz	30AF/30AT (30AF/30AT 30mA)	1.50kW 5.1A	1.10kW 3.1A	7.16kW	3.58kW
AC440V	60Hz	30AF/30AT (30AF/30AT 30mA)	1.75kW 4.3A	1.50kW 3.1A	6.00kW	3.00kW

Matsui Technology India Limited

NAME: MJ3-100/150

DWG. NO.: N180704E30

FORM: CIRCUIT DIAGRAM (1)

DATE: JULY/04/2018

UNIT mm: PLANE TRIGONOMETRY

CODE NO.

SCALE

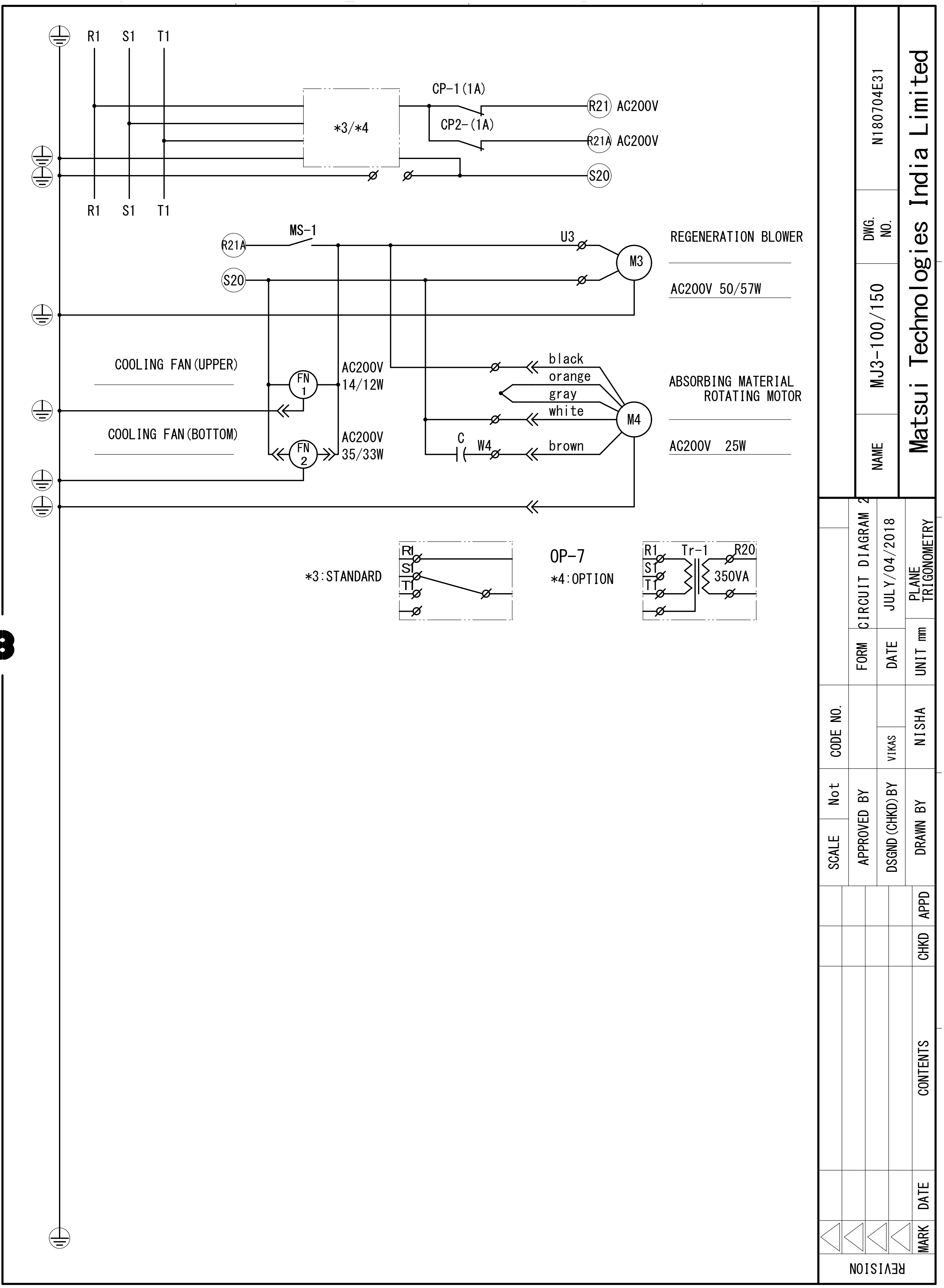
APPROVED BY

DSGND(CHKD) BY: VIKAS

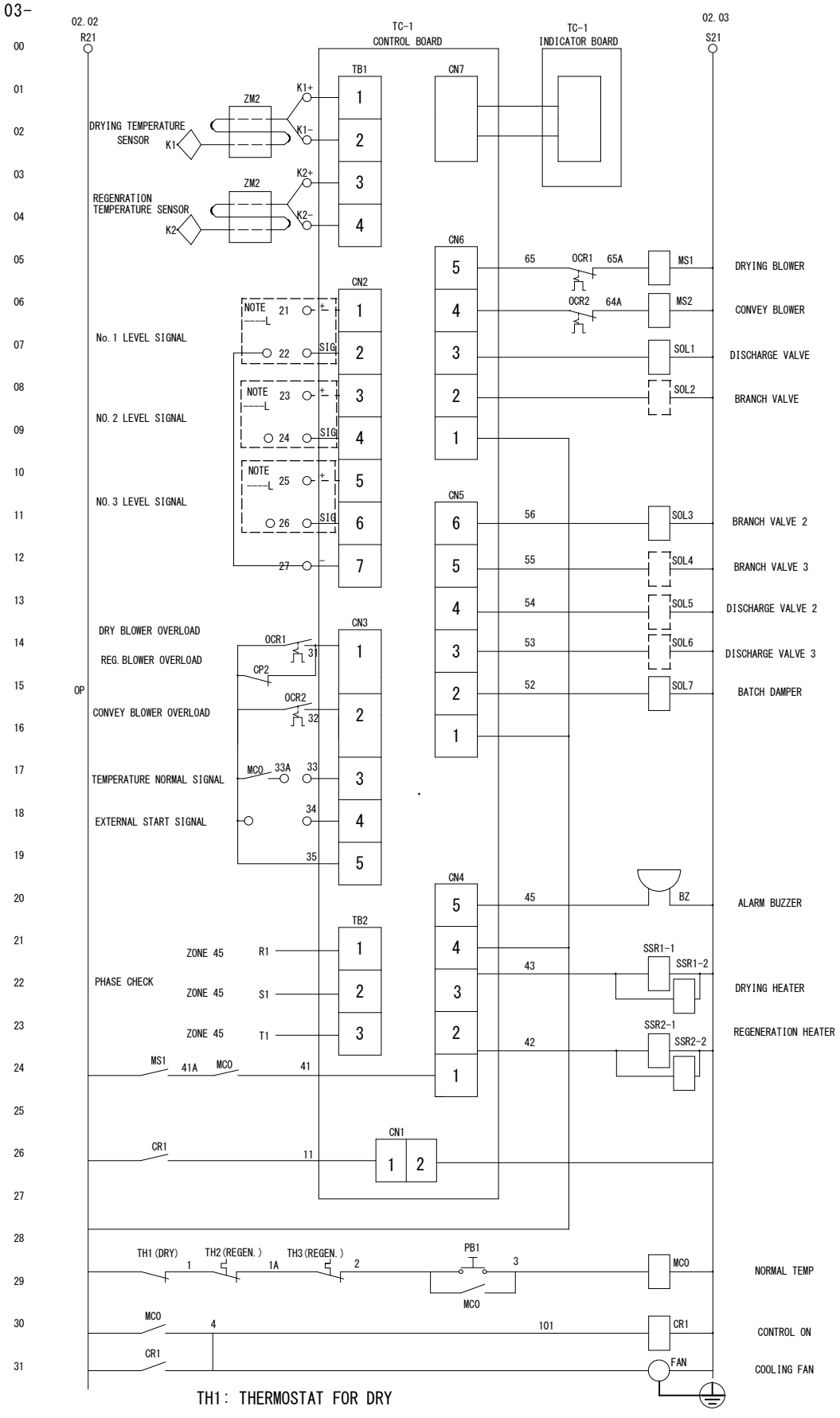
DRAWN BY: NISHA

MARK | DATE | CONTENTS | CHKD | APPD

REVISION



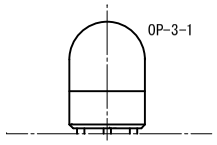
R1 S1 T1
*3/*4
CP-1(1A)
CP2-(1A)
R21 AC200V
R21A AC200V
S20
R1 S1 T1
MS-1
R21A
S20
U3
M3
REGENERATION BLOWER
AC200V 50/57W
COOLING FAN(UPPER)
FN 1
AC200V 14/12W
COOLING FAN(BOTTOM)
FN 2
AC200V 35/33W
black
orange
gray
white
brown
C
W4
M4
ABSORBING MATERIAL ROTATING MOTOR
AC200V 25W
*3:STANDARD
R S T
OP-7
*4:OPTION
R1 S T Tr-1 R20
350VA
N180704E31
DWG. NO.
MJ3-100/150
NAME
Matsui Technologies India Limited
FORM CIRCUIT DIAGRAM 2
DATE JULY/04/2018
UNIT mm PLANE TRIGONOMETRY
SCALE Not
CODE NO.
APPROVED BY
DSGND(CHKD)BY VIKAS
DRAWN BY NISHA
MARK DATE CONTENTS CHKD APPD
REVISION

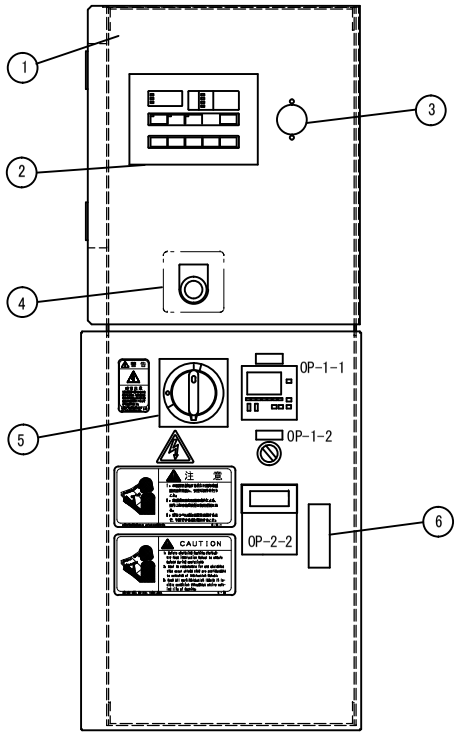


TH1: THERMOSTAT FOR DRY

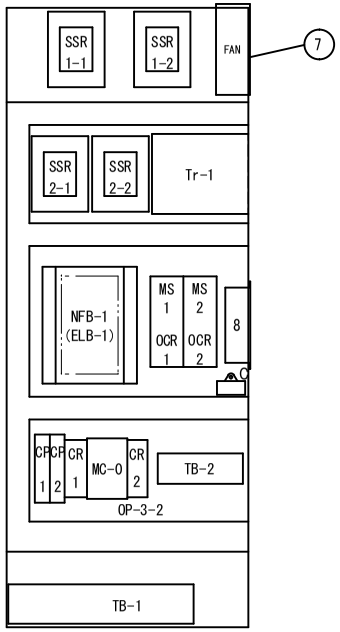
TH2-2,3: THERMOSTAT FOR REGENERATION

NAME	MJ3-100/150
DWG. NO.	N180704E32
	Matsui Technologies India Limited
FORM	CIRCUIT DIAGRAM 3
DATE	JULY/04/2018
UNIT mm	PLANE TRIGONOMETRY
CODE NO.	
VIKAS	NISHA
SCALE Not	APPROVED BY
DSGND (CHKD) BY	DRAWN BY
CONTENTS	
CHKD	APPD
DATE	
MARK	
REVISION	





EXTERNAL PANEL VIEW



INTERNAL PANEL VIEW

ITEM NO.		DESCRIPTION	REQ. D	MATERIAL	REFERENCE
1		CONTROL BOX	1	MATSUI	
2	TC-1	CONTROLLER	1	MATSUI	G2422
3	BZ	BUZZER	1	PANASONIC	EA4201 (100V)
4	PB-1	PUSH BUTTON	1	FUJI ELECTRIC	AR30G1R-10W
		NAME PLATE	1	MATSUI	CONTROL ON
5		V STYLE HANDLE	1	SCHNEIDER	EZAR0TDS
	NFB-1 (ELB-1)	CIRCUIT BREAKER (OR LEAKAGE)	1	SCHNEIDER	NKS100R032AC3P
		TERMINAL COVER	1	MITSUBISHI	*1
6		HANDLE	1	TAKIGEN	A-240-A-3-1
7	FAN	FAN	1	OMRON	22038B2 220
		CORD	1	OMRON	R87F-PCJT
		FINGURE GUARD	2	OMRON	R87F-FG120
8		THERMOSTAT	1	MATSUI	TR711/N220 M12P1L900
	Tr-1	TRANSFORMER	(1)	MATSUI	350VA
	MS-1	MOTOR STARTER	1	SCHNEIDER	LC1E0910M5
	OCR-1	OVERLOAD RELAY		SCHNEIDER	LRD08
		AUXILIARY CONTACT	1	SCHNEIDER	LAEN20
	MS-2	MOTOR STARTER	1	SCHNEIDER	LC1E0910M5
	OCR-2	OVERLOAD RELAY		SCHNEIDER	LRD10
	MC-0	MAGNETIC CONTACTOR	1	SCHNEIDER	LC1E2510M5
		AUXILIARY CONTACT	1	SCHNEIDER	LADN40
	SSR1-1 1-2	SOLID STATE RELAY	2	HONYOUNG	HSR2A104Z
	SSR2-1 2-2	SOLID STATE RELAY	2	HONYOUNG	HSR2A204Z
	C	CONDENSER	1	SUMITOMO	DMF45155 1.5・千(450VAC)
	CP-1	CIRCUIT PROTECTOR	1	SCHNEIDER	A9N1P01C A9N26924
	CP-2	CIRCUIT PROTECTOR	1	SCHNEIDER	A9N1P02C
	CR-1	POWER RELAY	1	IDEC	RU2S-A220
		SOCKET	1	IDEC	SM2S-05D
	TB-1,2	TERMINAL BOARD	2	WAGO WAGO	BN15MW (BNH15MW)
		INSTALLATION RAIL	2	WAGO WAGO	BNS4
		POWER SUPPLY MARK 3-31	2	MATSUI	CODE No. 14591

ITEM NO.		DESCRIPTION	REQ. D	MATERIAL	REFERENCE
OP-1-1	TR-1	WEEKLY TIMER	1	OMRON	H5S-WA2
OP-1-2	S-1	WEEKLY TIMER ON-OFF SW	1	FUJI ELECTRIC	AR30PR-211B
OP-2-2	DP-1	DEWPOINT METER	1	ORION	0310916601O/0309269003O
OP-3-1	PL-1	REVOLVING LIGHT	1	AUTONICS	ASGR-FF-R AC200/100V
OP-3-2	CR-2	RELAY SOCKET	1	IDEC IDEC	RU2S-A220 SM2S-05D

Standard dwg.

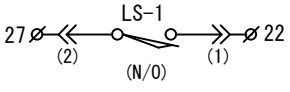
NAME	MJ3-100/150	FORM	CONTROL PANEL
APPROVED BY		CODE NO.	700201 ‥
DSGND (CHKD) BY	VIKAS	DATE	JULY/06/2018
DRAWN BY	NISHA	UNIT mm	PLANE TRIGONOMETRY
SCALE	1/5	DWG. NO.	N180706E33

Matsui Technology India Limited

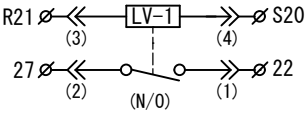
Standard dwg.

NO.1 DIRECTION
NO.1

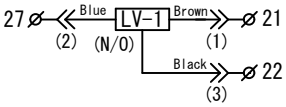
LIMIT SWITCH CONTROL TYPE



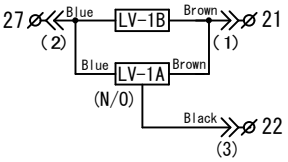
LEVEL SWITCH CONTROL TYPE



PROXIMITY SWITCH CONTROL TYPE

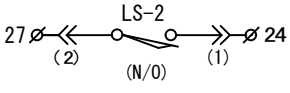


PHOTOTUBE CONTROL TYPE

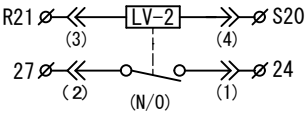


NO.2 DIRECTION
NO.2

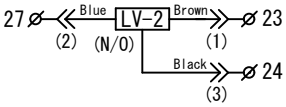
LIMIT SWITCH CONTROL TYPE



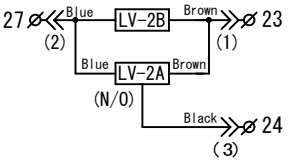
LEVEL SWITCH CONTROL TYPE



PROXIMITY SWITCH CONTROL TYPE

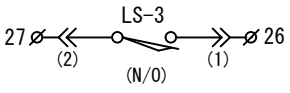


PHOTOTUBE CONTROL TYPE

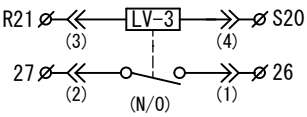


NO.3 DIRECTION
NO.3

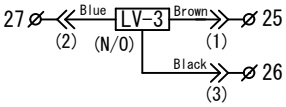
LIMIT SWITCH CONTROL TYPE



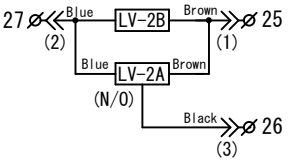
LEVEL SWITCH CONTROL TYPE



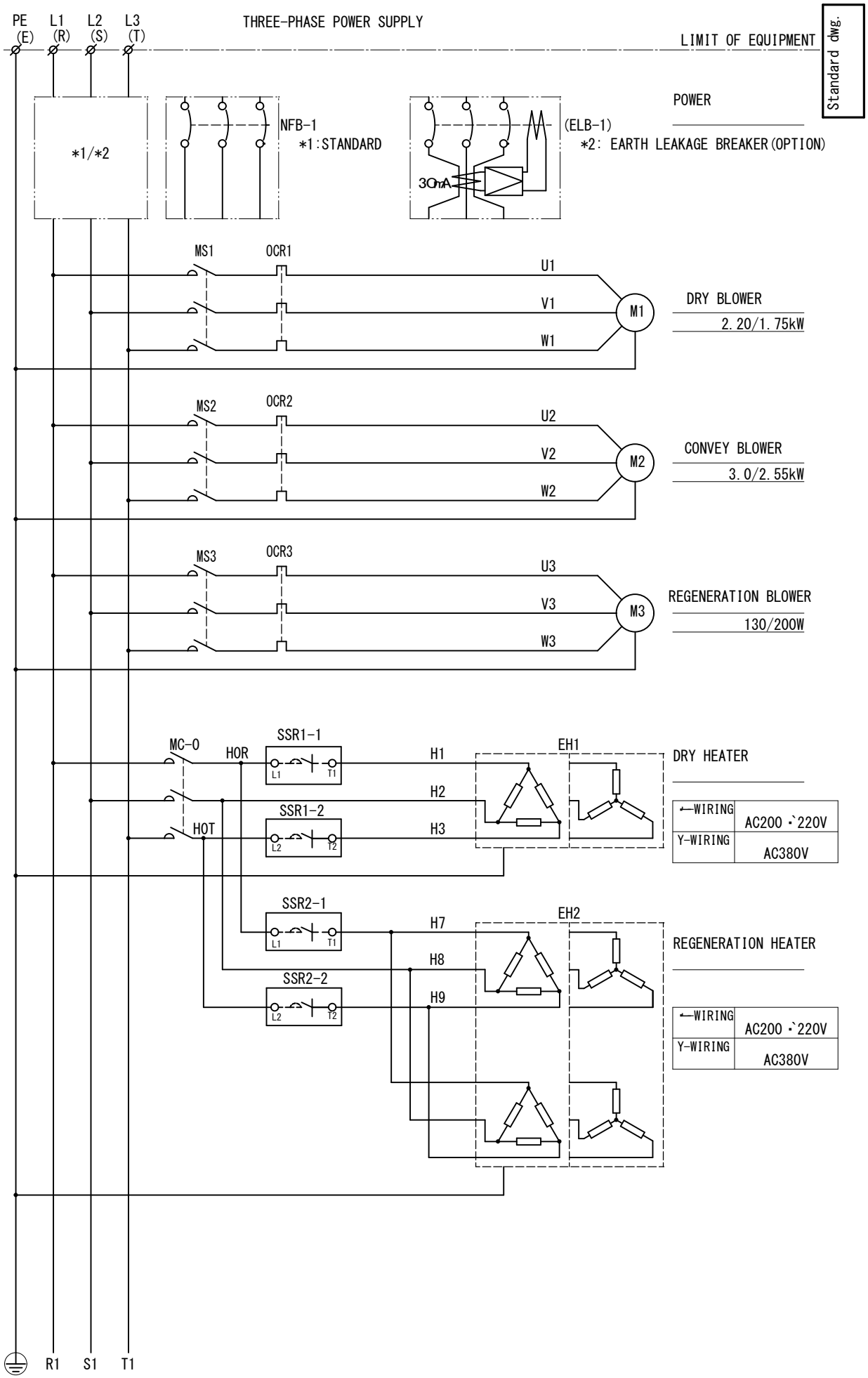
PROXIMITY SWITCH CONTROL TYPE



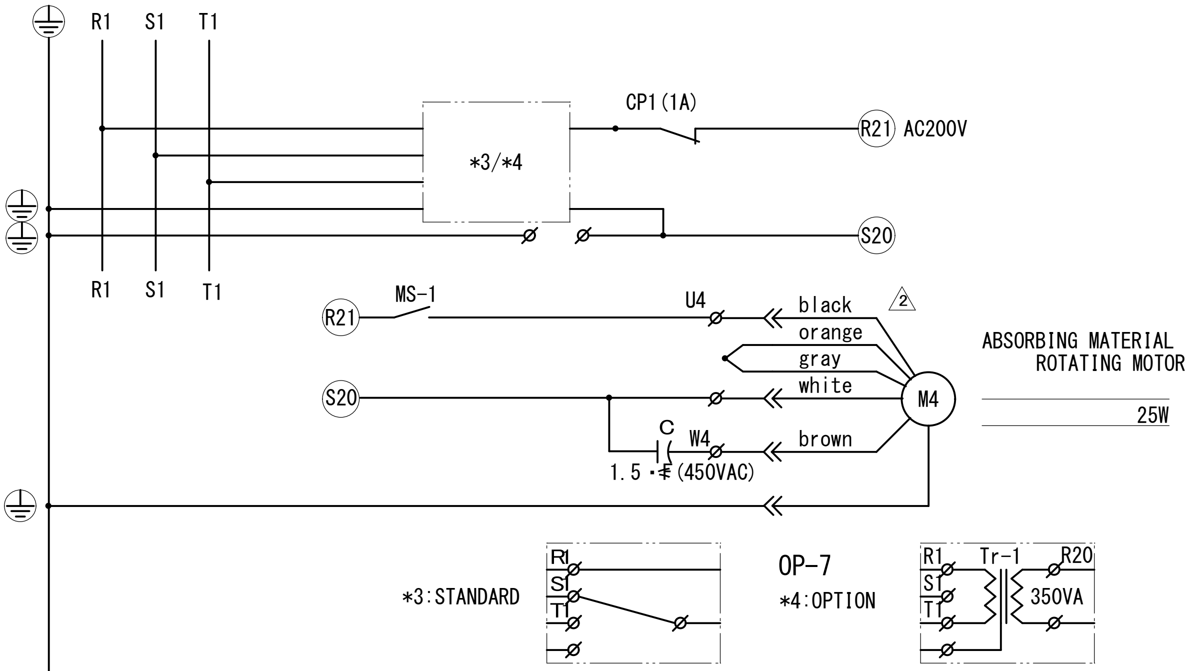
PHOTOTUBE CONTROL TYPE



NAME	MJ3-10~150	DWG. NO.	N180707E05	Matsui Technology India Limited		
CODE NO.		FORM	CIRCUIT DIAGRAM (4)			
SCALE		DATE	JULY/07/18	UNIT mm	PLANE TRIGONOMETRY	
APPROVED BY		VIKAS		NISHA		
DSGND(CHKD)BY		DRAWN BY				
CONTENTS		CHKD		APPD		
REVISION						
MARK	DATE					



NAME	MJ3-200
DWG.	N180704E40
	Matsui Technology India Limited
CIRCUIT DIAGRAM (1)	PLANE TRIGONOMETRY
FORM / DATE	JULY/04/2018
UNIT mm	
CODE NO. / VIKAS	NISHA
SCALE / APPROVED BY / DSGND(CHKD)BY	DRAWN BY
CONTENTS	
MARK / DATE / CHKD / APPD	
REVISION	



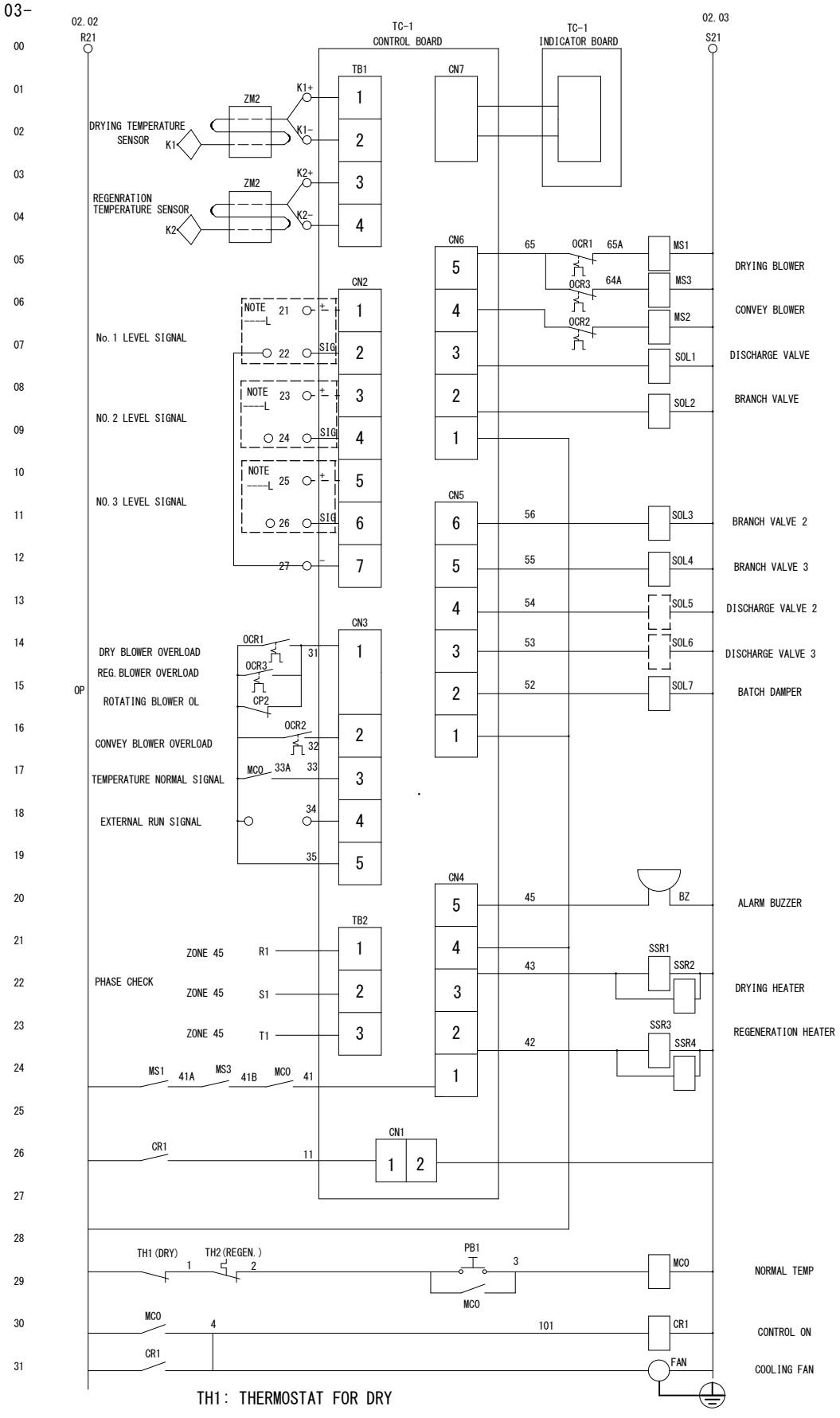
POWER		NFB-1 (ELB-1)	M1 OCR-1	M2 OCR-2	M3 OCR-3	EH1	EH2
AC200V	50/60Hz	100AF/75AT (100AF/75AT 30mA)	2.20/1.75kW 10.8/8.2A	3.00/2.55kW 13.1/10.0A	0.13/0.2kW 0.70/0.75A	7.5kW (2.5kWx3)	5.8kW (0.967kWx6)
AC220V	60Hz	100AF/75AT (100AF/75AT 30mA)	1.75kW 7.6A	2.55kW 9.2A	0.2kW 0.78A	9.075kW (3.025kWx3)	7.02kW (1.17kWx6)
AC380V	50Hz	50AF/40AT (50AF/40AT 30mA)	2.20kW 5.8A	3.00kW 7.3A	0.13kW 0.4A	9.0kW (3.0kWx3)	6.936kW (1.156kWx6)

Matsui Technologies India Limited

NAME MJ3-200
DWG. NO. N180704E41

FORM CIRCUIT DIAGRAM 2
DATE JULY/04/2018
UNIT mm PLANE TRIGONOMETRY
SCALE Not
CODE NO.
APPROVED BY
DSGND(CHKD)BY VIKAS
DRAWN BY NISHA

REVISION
MARK DATE CONTENTS CHKD APPD



TH1: THERMOSTAT FOR DRY

TH2: THERMOSTAT FOR REGENERATION

ITEM NO.	DESCRIPTION	REQ. D	MATERIAL	REFERENCE

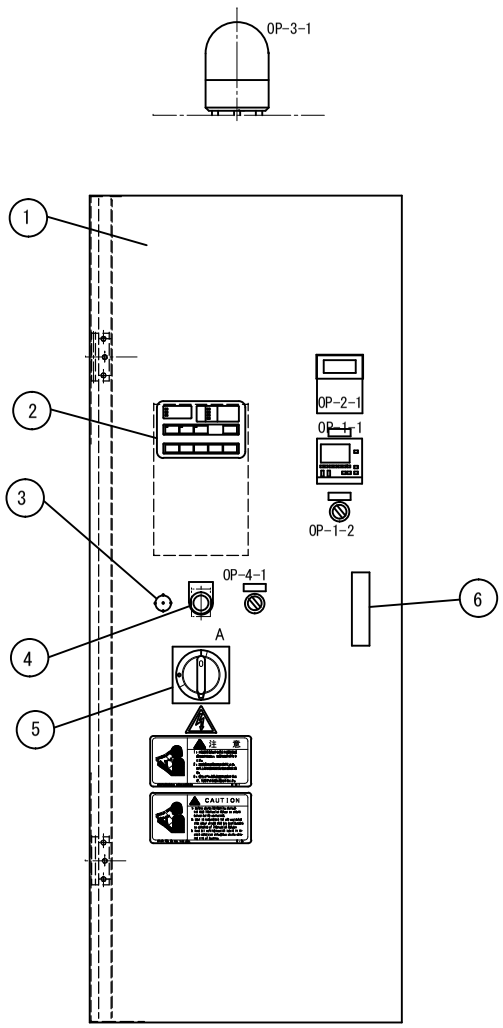
NAME	DWG. NO.
MJ3-200	N180704E42

Matsui Technologies India Limited

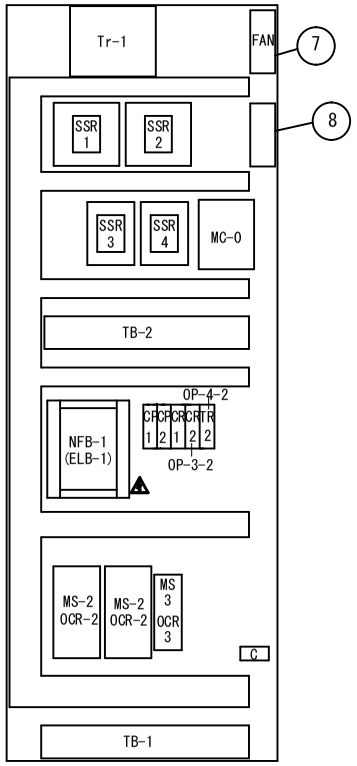
SCALE	Not	CODE NO.	FORM	CIRCUIT DIAGRAM 3	PLANE TRIGONOMETRY
APPROVED BY			DATE	JULY/04/2018	UNIT mm
DSGND (CHKD) BY		VIKAS			NISHA
DRAWN BY					

MARK	DATE	REVISION	CHKD	APPD

CONTENTS



EXTERNAL PANEL VIEW



INTERNAL PANEL VIEW

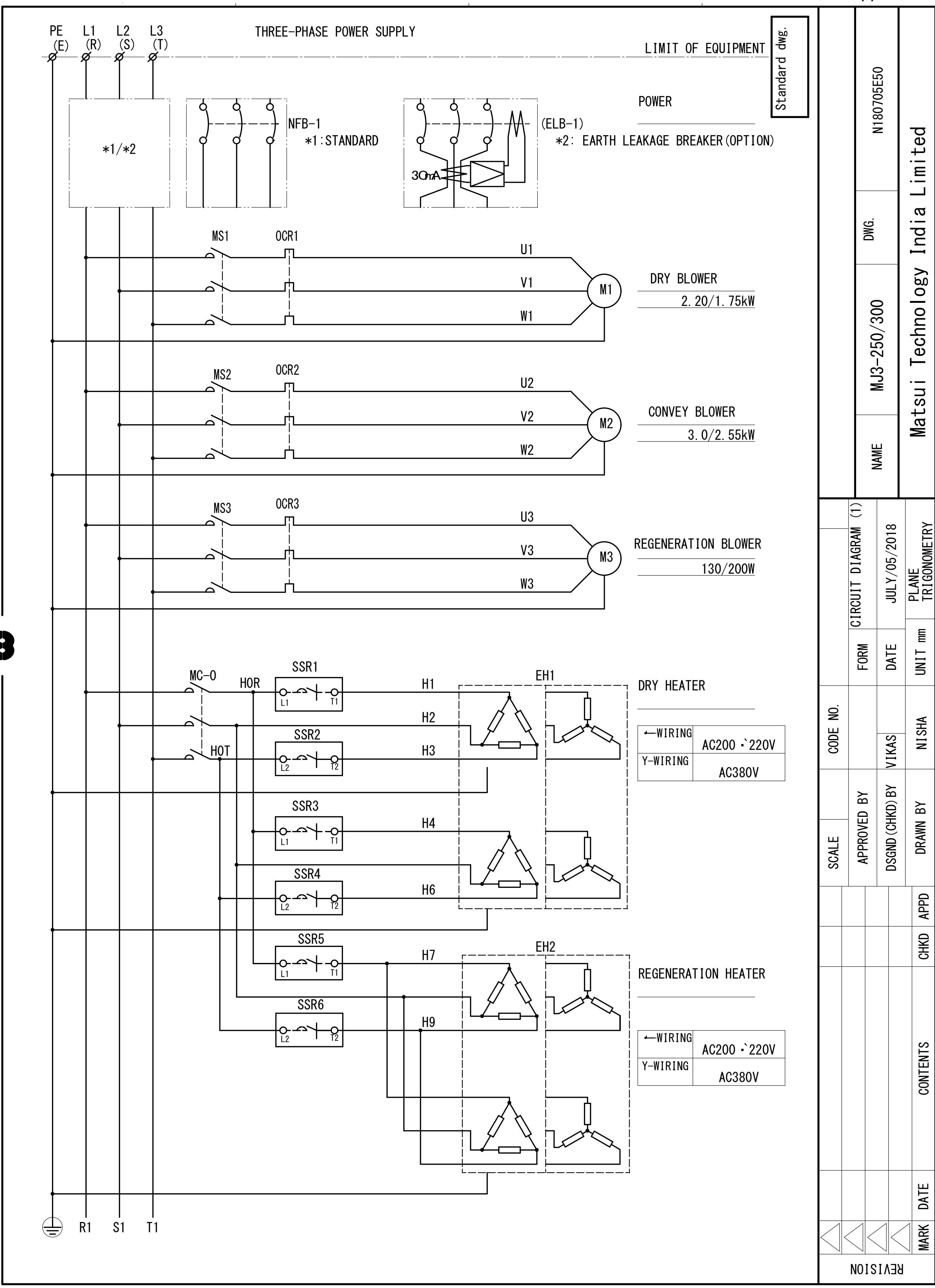
ITEM NO.		DESCRIPTION	REQ.D	MATERIAL	REFERENCE
1		CONTROL BOX	1	MATSUI	
2	TC-1	CONTROLLER	1	MATSUI	G2422 (19298)
3	BZ	BUZZER	1	PANASONIC	EA4202 (200V)
4	PB-1	PUSH BUTTON	1	FUJI ELECTRIC	AR30G1R-10W
		NAME PLATE	1	MATSUI	CONTROL ON
5		V STYLE HANDLE	1	SCHNEIDER	EZAROTDS
	NFB-1 (ELB-1)	CIRCUIT BREAKER (OR LEAKAGE)	1	SCHNEIDER	NKS100R05QAC3P
6		HANDLE	1	TAKIGEN	A-240-A-2-1
7	FAN	FAN	1	OMRON	REC-22038B2220
		CORD	1	OMRON	R87F-PCJT
		FINGER GUARD	2	OMRON	R87F-FG120
8		THERMOSTAT	1	MATSUI	TR711/N220 M12P1L900
	Tr-1	TRANSFORMER	(1)	MATSUI	350VA
	CP-2	CIRCUIT PROTECTOR	(1)	SCHNEIDER	A9N1P02C
	MS-1 OCR-1	MOTOR STARTER	1	SCHNEIDER	LC1E0910M5 LRE10
		AUXILIARY CONTACT	1	SCHNEIDER	LAEN20
	MS-2 OCR-2	MOTOR STARTER	1	SCHNEIDER	LC1E1810M5 LRE12
	MS-3 OCR-3	MOTOR STARTER	1	SCHNEIDER	LC1E0910M5 LRE04
	MC-0	MAGNETIC CONTACTOR	1	SCHNEIDER	LC1E3810M5
		AUXILIARY CONTACT		SCHNEIDER	LAEN20
	SSR-1, 2	SOLID STATE RELAY	2	HONYOUNG	HSR-2A204Z
	SSR-3, 4	SOLID STATE RELAY	2	HONYOUNG	HSR-2A204Z
	C	CONDENSER	1	SUMITOMO	DMF45255 2.5・∓(450VAC)
	CP-1	CIRCUIT PROTECTOR	1	SCHNEIDER	A9N1P01C A9N26924
	CR-1	POWER RELAY	1	IDEC	RU2S-A220
		SOCKET	1	IDEC	SM2S-05D
	TB-1, 2	TERMINAL BOARD		WAGO	BN15MW
				WAGO	(BNH15MW)
		INSTALLATION RAIL	2	WAGO	BNS4
				WAGO	
		POWER SUPPLY MARK 3-31	2	MATSUI	CODE No. 14591

ITEM NO.		DESCRIPTION	REQ.D	MATERIAL	REFERENCE
OP-1-1	TR-1	WEEKLY TIMER	1	OMRON	H5S-WA2
OP-1-2	S-1	WEEKLY TIMER ON-OFF SW	1	FUJI ELECTRIC	AR30PR-211B
OP-2-1	DP-1	DEWPOINT METER	1	ORION	0310916601O/0309269003O
OP-3-1	PL-1	REVOLVING LIGHT	1	AUOTICS	ASGB-FF-R AC200/100V
OP-3-2	CR-2	RELAY	1	IDEC	RU2S-A220
		SOCKET		IDEC	SM2S-05D
OP-4-1	S-2	MATERIAL LOW TIMER ON-OFF	1	FUJI ELECTRIC	AR30PR-211B
OP-4-2	TR-2	TIMER	1	OMRON	H3Y-2 60s

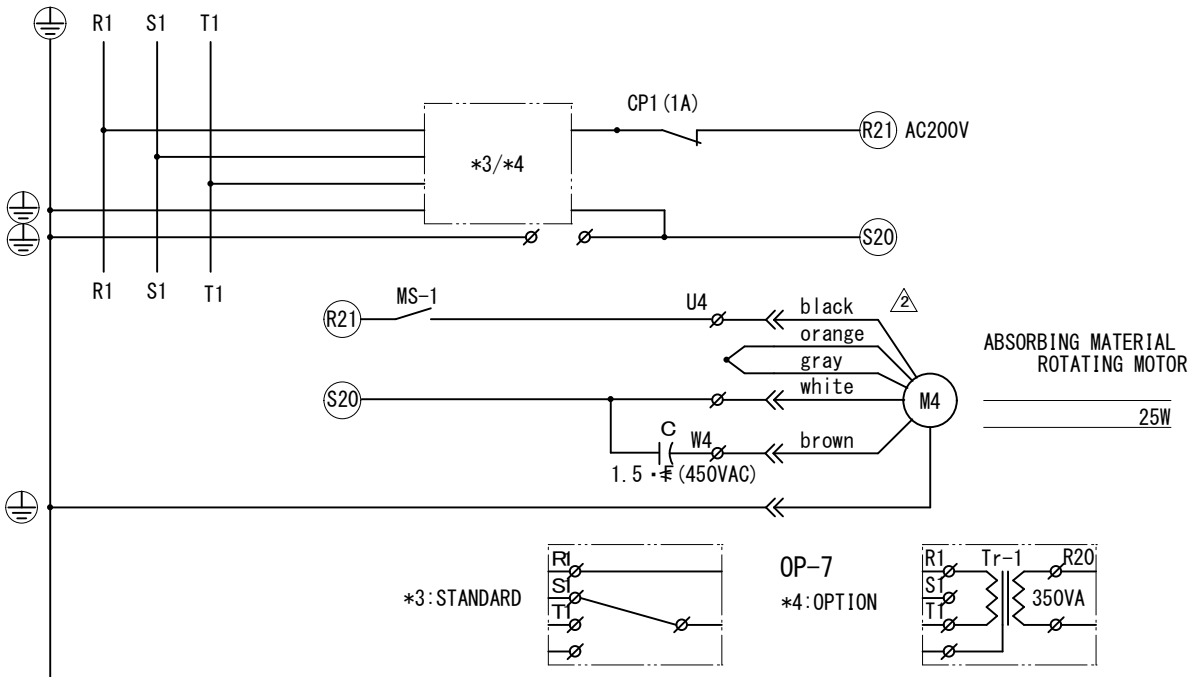
Standard dwg.

NAME	MJ3-200	FORM	CONTROL PANEL
APPROVED BY		CODE NO.	700201 ‥
DSGND (CHKD) BY	VIKAS	DATE	JULY/07/2018
DRAWN BY	NISHA	UNIT mm	PLANE TRIGONOMETRY
SCALE	1/6	DWG. NO.	N180707E43

Matsui Technology India Limited

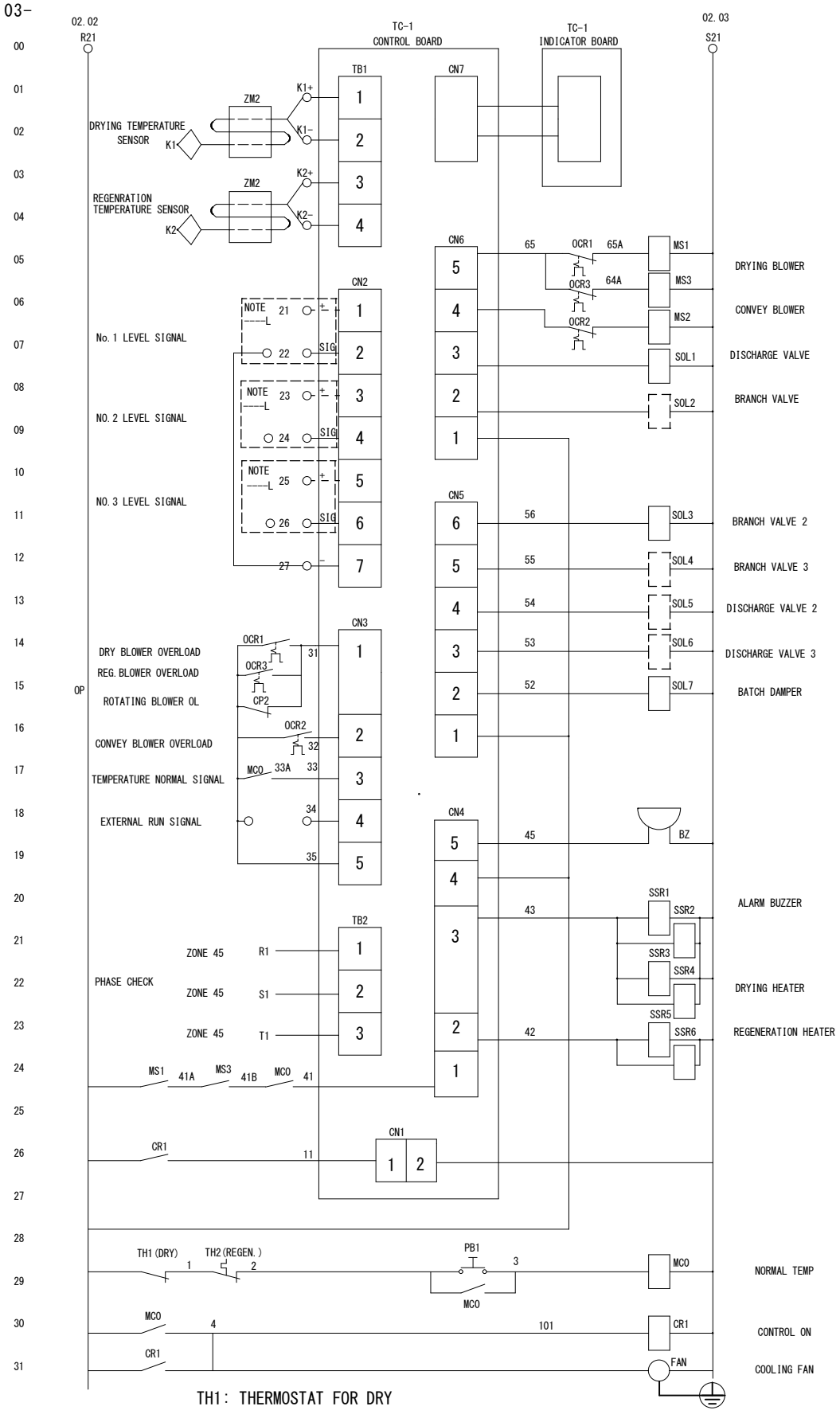

PE (E) L1 (R) L2 (S) L3 (T)
THREE-PHASE POWER SUPPLY
LIMIT OF EQUIPMENT
Standard dwg.
POWER
*1/*2
NFB-1
*1:STANDARD
(ELB-1)
*2: EARTH LEAKAGE BREAKER(OPTION)
30mA
MS1 OCR1
U1 V1 W1
M1
DRY BLOWER
2.20/1.75kW
MS2 OCR2
U2 V2 W2
M2
CONVEY BLOWER
3.0/2.55kW
MS3 OCR3
U3 V3 W3
M3
REGENERATION BLOWER
130/200W
MC-0
HOR
HOT
SSR1 SSR2 SSR3 SSR4 SSR5 SSR6
L1 T1 L2 T2
H1 H2 H3 H4 H6 H7 H9
EH1
DRY HEATER
⊿-WIRING AC200 - 220V
Y-WIRING AC380V
EH2
REGENERATION HEATER
⊿-WIRING AC200 - 220V
Y-WIRING AC380V
R1 S1 T1
N180705E50
DWG.
MJ3-250/300
NAME
Matsui Technology India Limited
CIRCUIT DIAGRAM (1)
FORM
JULY/05/2018
DATE
PLANE TRIGONOMETRY
UNIT mm
CODE NO.
VIKAS
NISHA
SCALE
APPROVED BY
DSGND(CHKD)BY
DRAWN BY
APPD
CHKD
CONTENTS
DATE
MARK
REVISION

8



POWER		NFB-1 (ELB-1)	M1 OCR-1	M2 OCR-2	M3 OCR-3	EH1	EH2
AC200V	50/60Hz	100AF/100AT (100AF/100AT 30mA)	1.5/1.5kW 6.9/6.5A	3.0/2.55kW 13.1/10.0A	0.13/0.2kW 0.70/0.75A	12.4kW (2.07kWx6)	9.0kW (1.5kWx6)
AC220V	60Hz	100AF/100AT (100AF/100AT 30mA)	1.5kW 6.0A	2.55kW 9.2A	0.2kW 0.78A	15.06kW (2.51kWx6)	10.9kW (1.816kWx6)
AC380V	50Hz	50AF/50AT (50AF/50AT 30mA)	1.5kW 3.3A	3.00kW 7.3A	0.13kW 0.4A	14.9kW (2.49kWx6)	10.7kW (1.783kWx6)

NAME	Matsui Technologies India Limited
DWG. NO.	N180705E51
	MJ3-250/300
CONTENTS	CIRCUIT DIAGRAM 2
DATE	JULY/05/2018
UNIT mm	PLANE TRIGONOMETRY
FORM	
CODE NO.	
SCALE	Not
APPROVED BY	
DSGND(CHKD)BY	VIKAS
DRAWN BY	NISHA
APPD	
CHKD	
DATE	
MARK	
REVISION	

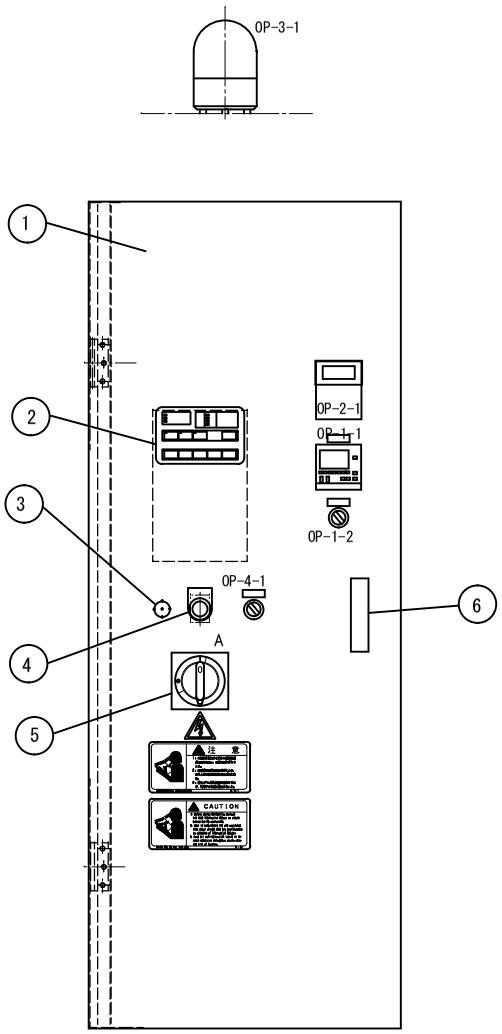


TH1: THERMOSTAT FOR DRY

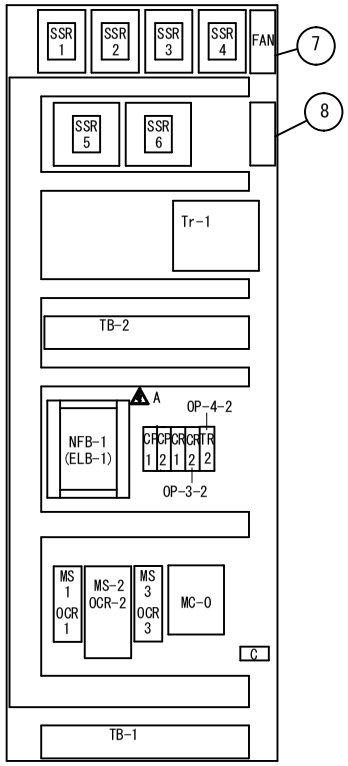
TH2: THERMOSTAT FOR REGENERATION

ITEM NO.	
DESCRIPTION	
REQ. D	
MATERIAL	
REFERENCE	

NAME	MJ3-250/300
DWG. NO.	N180705E52
Matsui Technologies India Limited	
FORM	CIRCUIT DIAGRAM 3
DATE	JULY/05/2018
UNIT mm	PLANE TRIGONOMETRY
CODE NO.	
VIKAS	NISHA
SCALE Not	
APPROVED BY	
DSGND(CHKD)BY	
DRAWN BY	
APPD	
CHKD	
CONTENTS	
DATE	
MARK	
REVISION	



EXTERNAL PANEL VIEW



INTERNAL PANEL VIEW

ITEM NO.		DESCRIPTION	REQ.D	MATERIAL	REFERENCE
1		CONTROL BOX	1	MATSUI	
2	TC-1	CONTROLLER	1	MATSUI	G2422 (19298)
3	BZ	BUZZER	1	PANASONIC	EA4202 (200V) EA4201 (100V)
4	PB-1	PUSH BUTTON	1	FUJI ELECTRIC	AR30G1R-10W
		NAME PLATE	1	MATSUI	CONTROL ON
5		V STYLE HANDLE	1	SCHNEIDER	EZAROTDS
	NFB-1 (ELB-1)	CIRCUIT BREAKER (OR LEAKAGE)	1	SCHNEIDER	NKS100R050AC3P
6		HANDLE	1	TAKIGEN	A-240-A-2-1
7	FAN	FAN	1	OMRON	REC-22038B2220
		CORD	1	OMRON	R87F-PCJT
		FINGER GUARD	2	OMRON	R87F-FG120
8		THERMOSTAT	1	MATSUI	TR711/N220 M12P1L900
	Tr-1	TRANSFORMER	(1)	MATSUI	350VA
	CP-2	CIRCUIT PROTECTOR	(1)	SCHNEIDER	A9N1P02C
	MS-1 OCR-1	MOTOR STARTER	1	SCHNEIDER	LC1E0910M5 LRE04
		AUXILIARY CONTACT	1	SCHNEIDER	LAEN20
	MS-2 OCR-2	MOTOR STARTER	1	SCHNEIDER	LC1E0910M5 LRE08
	MS-3 OCR-3	MOTOR STARTER	1	SCHNEIDER	LC1E1810M5 LRE14
	MC-0	MAGNETIC CONTACTOR	1	SCHNEIDER	LC1E3810M5
		AUXILIARY CONTACT		SCHNEIDER	LADN40
	SSR-1-4	SOLID STATE RELAY	4	HONYOUNG	HSR-2A204Z
	SSR-5,6	SOLID STATE RELAY	2	HONYOUNG	HSR-2A204Z
	C	CONDENSER	1	SUMITOMO	DMF45255 2.5・∓(450VAC)
	CP-1	CIRCUIT PROTECTOR	1	SCHNEIDER	A9N1P01C
		AUXILAIRY CONTACT			A9N26924
	CR-1	POWER RELAY	1	IDEC	RU2S-A220
		SOCKET	1	IDEC	SM2S-OSD
	TB-1,2	TERMINAL BOARD	2	WAGO	BN15MW
				WAGO	(BNH15MW)
		INSTALLATION RAIL	2	WAGO	BNS4
				WAGO	
		POWER SUPPLY MARK 3-31	2	MATSUI	CODE No.14591

ITEM NO.		DESCRIPTION	REQ.D	MATERIAL	REFERENCE
OP-1-1	TR-1	WEEKLY TIMER	1	OMRON	H5S-WA2
OP-1-2	S-1	WEEKLY TIMER ON-OFF SW	1	FUJI ELECTRIC	AR30PR-211B
OP-2-1	DP-1	DEWPOINT METER	1	ORION	0310166010/0309269003O
OP-3-1	PL-1	REVOLVING LIGHT	1	AUTONICS	ASGB-FF-R AC200/100V
OP-3-2	CR-2	RELAY SOCKET	1	IDEC IDEC	RU2S-A220 SM2S-05D
OP-4-1	S-2	MATERIAL LOW TIMER ON-OFF	1	FUJI ELECTRIC	AR30PR-211B
OP-4-2	TR-2	TIMER	1	OMRON	H3Y-2 60s

Standard dwg.

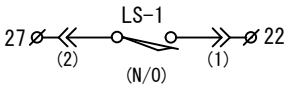
NAME	MJ3-250/300	FORM	CONTROL PANEL
APPROVED BY		CODE NO.	700201 ··
DSGND (CHKD) BY	VIKAS	DATE	JULY/05/2018
DRAWN BY	NISHA	UNIT mm	PLANE TRIGONOMETRY
SCALE	1/6	DWG. NO.	N180705E53

Matsui Technology India Limited

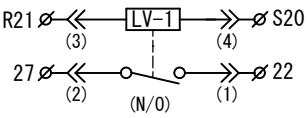
Standard dwg.

NO.1 DIRECTION
NO.1

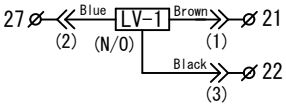
LIMIT SWITCH CONTROL TYPE



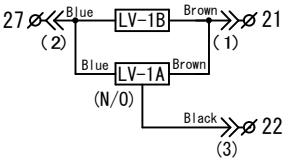
LEVEL SWITCH CONTROL TYPE



PROXIMITY SWITCH CONTROL TYPE

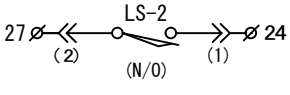


PHOTOTUBE CONTROL TYPE

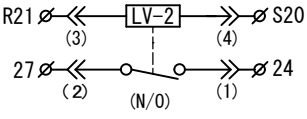


NO.2 DIRECTION
NO.2

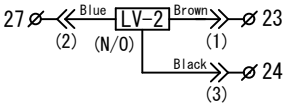
LIMIT SWITCH CONTROL TYPE



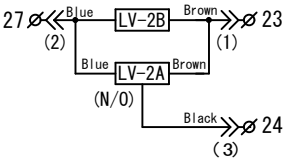
LEVEL SWITCH CONTROL TYPE



PROXIMITY SWITCH CONTROL TYPE

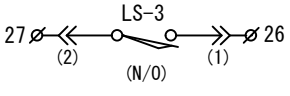


PHOTOTUBE CONTROL TYPE

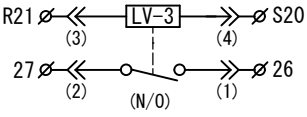


NO.3 DIRECTION
NO.3

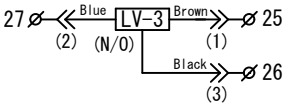
LIMIT SWITCH CONTROL TYPE



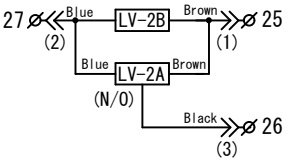
LEVEL SWITCH CONTROL TYPE



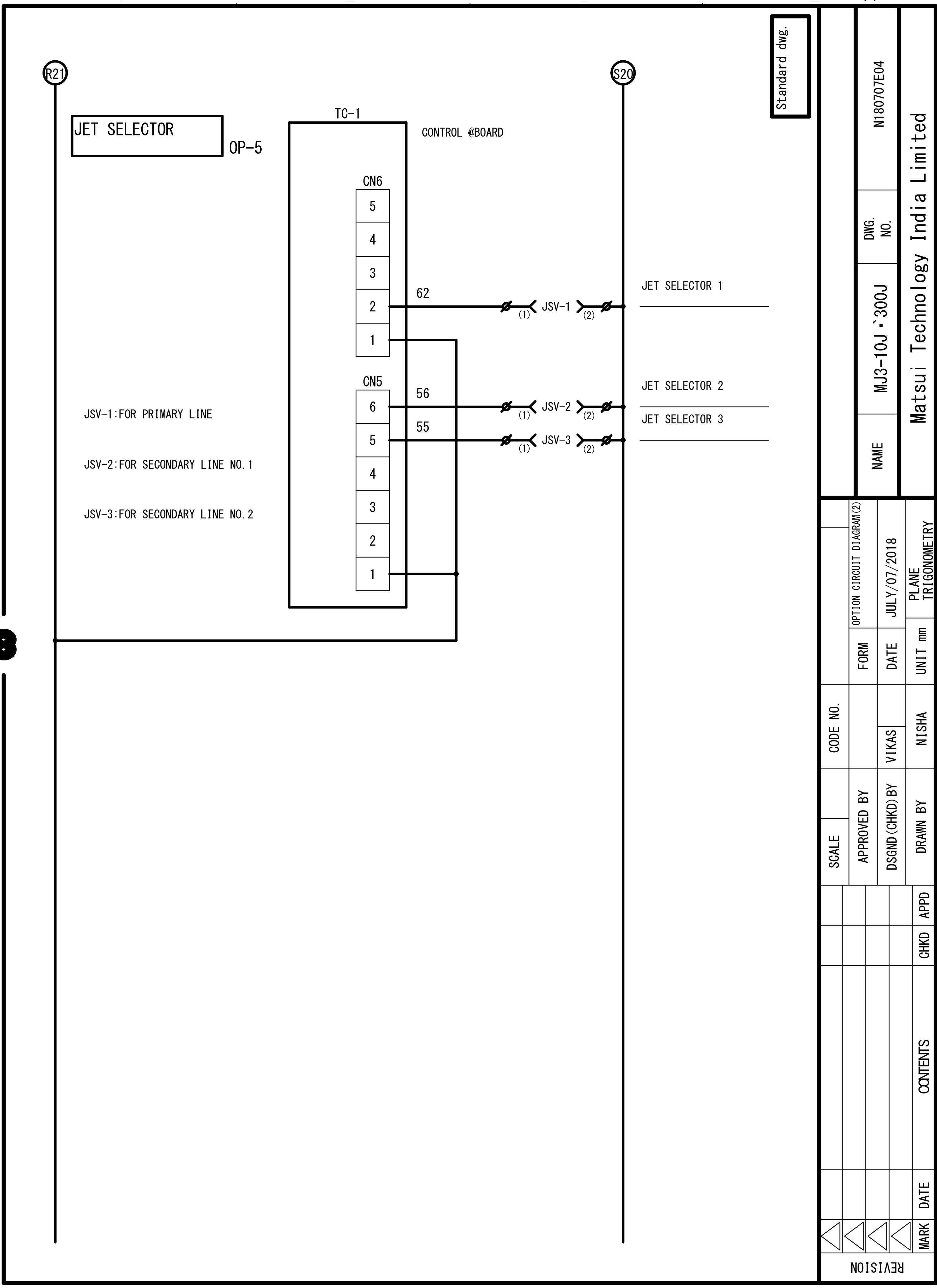
PROXIMITY SWITCH CONTROL TYPE

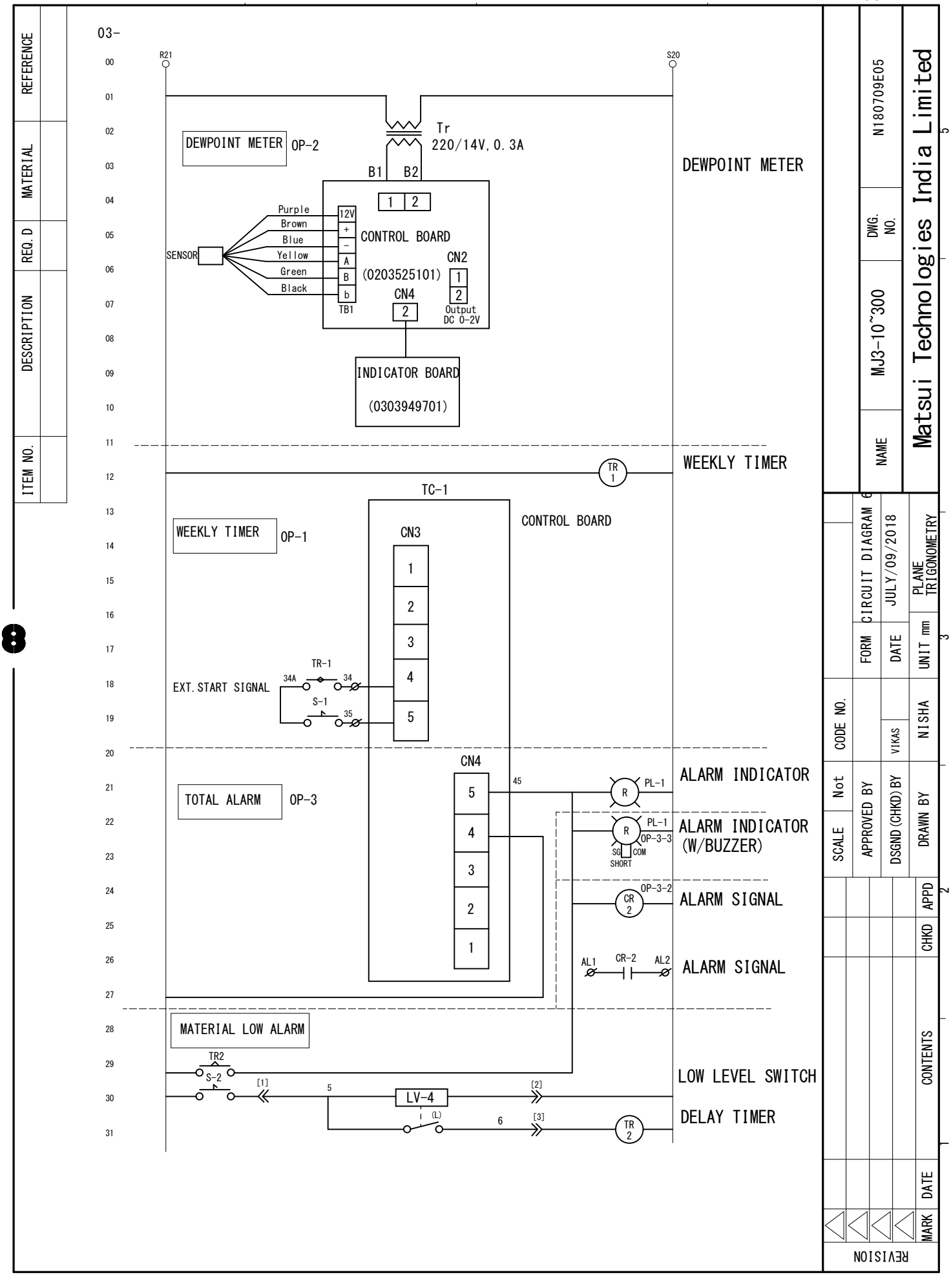


PHOTOTUBE CONTROL TYPE



NAME	Matsui Technology India Limited				
DWG. NO.	N180707E45				
	MJ3-200~300				
CIRCUIT DIAGRAM (4)	JULY/07/18	PLANE TRIGONOMETRY			
FORM	DATE	UNIT mm			
CODE NO.		VIKAS	NISHA		
SCALE	APPROVED BY	DSGND(CHKD)BY	DRAWN BY		
				APPD	2
				CHKD	
				CONTENTS	
				DATE	1
				MARK	
REVISION					


JET SELECTOR
OP-5
R21
S20
TC-1
CONTROL @BOARD
CN6
5
4
3
2
1
62
JSV-1
(1)
(2)
JET SELECTOR 1
CN5
6
5
4
3
2
1
56
55
JSV-2
JSV-3
JET SELECTOR 2
JET SELECTOR 3
JSV-1:FOR PRIMARY LINE
JSV-2:FOR SECONDARY LINE NO.1
JSV-3:FOR SECONDARY LINE NO.2
Standard dwg.
Matsui Technology India Limited
DWG. NO. N180707E04
NAME MJ3-10J・`300J
FORM OPTION CIRCUIT DIAGRAM(2)
DATE JULY/07/2018
UNIT mm
PLANE TRIGONOMETRY
CODE NO.
SCALE
APPROVED BY
DSGND(CHKD)BY VIKAS
DRAWN BY NISHA
APPD
CHKD
CONTENTS
DATE
MARK
REVISION


03-
R21
S20
DEWPOINT METER OP-2
Tr
220/14V, 0.3A
B1
B2
DEWPOINT METER
1 2
Purple
Brown
Blue
Yellow
Green
Black
SENSOR
12V
+
−
A
B
b
TB1
CONTROL BOARD
(0203525101)
CN2
1
2
CN4
2
Output
DC 0-2V
INDICATOR BOARD
(0303949701)
WEEKLY TIMER
TR
1
TC-1
CONTROL BOARD
WEEKLY TIMER OP-1
CN3
1
2
3
4
5
TR-1
34A
34
EXT.START SIGNAL
S-1
35
CN4
5
4
3
2
1
45
ALARM INDICATOR
TOTAL ALARM OP-3
R
PL-1
OP-3-3
SG
COM
SHORT
ALARM INDICATOR
(W/BUZZER)
OP-3-2
CR
2
ALARM SIGNAL
AL1
CR-2
AL2
ALARM SIGNAL
MATERIAL LOW ALARM
TR2
S-2
[1]
5
LV-4
(L)
[2]
6
[3]
LOW LEVEL SWITCH
DELAY TIMER
TR
2
REFERENCE
MATERIAL
REQ. D
DESCRIPTION
ITEM NO.
NAME
DWG. NO.
N180709E05
MJ3-10~300
Matsui Technologies India Limited
FORM
CIRCUIT DIAGRAM 6
DATE
JULY/09/2018
UNIT mm
PLANE TRIGONOMETRY
CODE NO.
VIKAS
NISHA
SCALE
Not
APPROVED BY
DSGND(CHKD)BY
DRAWN BY
CONTENTS
APPD
CHKD
DATE
MARK
REVISION

ELECTRICAL PART LIST

MJ3-15/25

PART CODE	ITEM DESCRIPTION	QTY	UOM
30000000880	ELECTRICAL ITEMS FOR MJ3-15-25-200V	1	SET
20000000590	V STYLE HANDLE EZAROTDS(SCHNEIDER)	1	NOS
20000000594	CIRCUIT BREAKER A9N1P01C(SCHNEIDER)	1	NOS
20000000600	AUXILAIRY CONTACT A9N26924	1	NOS
20000000601	CIRCUIT BREAKER A9N1P02C(SCHNEIDER)	1	NOS
20000000605	AUXILAIRY CONTACT LADN40(SCHNEIDER)	1	NOS
20000000646	OVERLOAD RELAY LRE10(4-6A)	1	NOS
20000000652	Overload Relay LRE08(2.5-4A)	1	NOS
20000000658	Magnetic Contactor LC1E0910M5	2	NOS
20000000659	Magnetic Contactor LC1E1810M5	1	NOS
20000000663	Aux. Contact LAEN20(SCHNEIDER)	1	NOS
20000000669	HEAT SINK(1 PHASE)	4	NOS
20000000735	RELAY DPDT IDEC RU2S-A220	1	NOS
20000000736	RELAY BASE DPDT IDEC SM2S-05D	1	NOS
30000000102	FINGER GUARD R87F-FG 120	2	NOS
30000000103	CONTROLLER G2422(19298)	1	NOS
30000000104	BUZZER EA4202(CODE-8411)	1	NOS
30000000105	PUSH BUTTON AR30GIR(CODE-19299)	1	NOS
30000000106	NAME PLATE (FOR CONTROL ON)	1	NOS
30000000221	PLUG CORD R87F	1	NOS
30000000254	THERMOCOUPLE DIA3.2X100X3MTR(10851)	2	NOS
30000000305	THERMOSTAT CAP (ALUMINA CERAMIC)	2	NOS
30000000459	THERMOSTAT TR711/N220 M12XP1XL900	1	NOS
30000000616	Solid State Relay HSR-2A104Z	2	NOS
30000000617	Solid State Relay HSR-2A204Z	2	NOS
30000000648	COOLING FAN 4 INCH REC 22038 B2 220	1	NOS
30000000820	MCCB - NKS100R032AC3P	1	NOS

ELECTRICAL ITEMS

MJ3-50/75

ITEM CODE	ITEM DESCRIPTION	QTY	UOM
30000000883	ELECTRICAL ITEMS FOR MJ3-50-75-200V	1	SET
20000000590	V STYLE HANDLE EZAROTDS(SCHNEIDER)	1	NOS
20000000594	CIRCUIT BREAKER A9N1P01C(SCHNEIDER)	1	NOS
20000000600	AUXILAIRY CONTACT A9N26924	1	NOS
20000000601	CIRCUIT BREAKER A9N1P02C(SCHNEIDER)	1	NOS
20000000605	AUXILAIRY CONTACT LADN40(SCHNEIDER)	1	NOS
20000000644	CONTACTOR LC1E2510M5(SCHNEIDER)	1	NOS
20000000646	OVERLOAD RELAY LRE10(4-6A)	2	NOS
20000000658	Magnetic Contactor LC1E0910M5	2	NOS
20000000663	Aux. Contact LAEN20(SCHNEIDER)	1	NOS
20000000669	HEAT SINK(1 PHASE)	4	NOS
20000000735	RELAY DPDT IDEC RU2S-A220	1	NOS
20000000736	RELAY BASE DPDT IDEC SM2S-05D	1	NOS
30000000102	FINGER GUARD R87F-FG 120	2	NOS
30000000103	CONTROLLER G2422(19298)	1	NOS
30000000104	BUZZER EA4202(CODE-8411)	1	NOS
30000000105	PUSH BUTTON AR30GIR(CODE-19299)	1	NOS
30000000106	NAME PLATE (FOR CONTROL ON)	1	NOS
30000000221	PLUG CORD R87F	1	NOS
30000000254	THERMOCOUPLE DIA3.2X100X3MTR(10851)	2	NOS
30000000305	THERMOSTAT CAP (ALUMINA CERAMIC)	2	NOS
30000000459	THERMOSTAT TR711/N220 M12XP1XL900	1	NOS
30000000617	Solid State Relay HSR-2A204Z	4	NOS
30000000648	COOLING FAN 4 INCH REC 22038 B2 220	1	NOS

ELECTRICAL ITEMS

MJ3-100/150

ITEM CODE	ITEM DESCRIPTION	QTY	UOM
30000000884	ELEC ITEMS FOR MJ3-100-150-AC200V	1	SET
20000000590	V STYLE HANDLE EZAROTDS(SCHNEIDER)	1	NOS
20000000594	CIRCUIT BREAKER A9N1P01C(SCHNEIDER)	1	NOS
20000000600	AUXILAIRY CONTACT A9N26924	1	NOS
20000000601	CIRCUIT BREAKER A9N1P02C(SCHNEIDER)	1	NOS
20000000605	AUXILAIRY CONTACT LADN40(SCHNEIDER)	1	NOS
20000000644	CONTACTOR LC1E2510M5(SCHNEIDER)	1	NOS
20000000646	OVERLOAD RELAY LRE10(4-6A)	1	NOS
20000000654	Overload Relay LRE14(7-10A)	1	NOS
20000000658	Magnetic Contactor LC1E0910M5	1	NOS
20000000659	Magnetic Contactor LC1E1810M5	1	NOS
20000000663	Aux. Contact LAEN20(SCHNEIDER)	1	NOS
20000000669	HEAT SINK(1 PHASE)	4	NOS
20000000735	RELAY DPDT IDEC RU2S-A220	1	NOS
20000000736	RELAY BASE DPDT IDEC SM2S-05D	1	NOS
30000000102	FINGER GUARD R87F-FG 120	2	NOS
30000000103	CONTROLLER G2422(19298)	1	NOS
30000000104	BUZZER EA4202(CODE-8411)	1	NOS
30000000105	PUSH BUTTON AR30GIR(CODE-19299)	1	NOS
30000000106	NAME PLATE (FOR CONTROL ON)	1	NOS
30000000221	PLUG CORD R87F	1	NOS
30000000254	THERMOCOUPLE DIA3.2X100X3MTR(10851)	2	NOS
30000000305	THERMOSTAT CAP (ALUMINA CERAMIC)	2	NOS
30000000459	THERMOSTAT TR711/N220 M12XP1XL900	1	NOS
30000000617	Solid State Relay HSR-2A204Z	2	NOS
30000000648	COOLING FAN 4 INCH REC 22038 B2 220	1	NOS
30000000704	Solid State Relay HSR-2A404Z	2	NOS
30000000822	MCCB - NKS100R050AC3P	1	NOS

ELECTRICAL ITEMS

MJ3-200

ITEM CODE	ITEM DESCRIPTION	QTY	UOM
30000000867	Electrical items for MJ3-200	1	SET
20000000589	CIRCUIT BREAKER EZC100F3040	1	NOS
20000000590	V STYLE HANDLE EZAROTDS(SCHNEIDER)	1	NOS
20000000594	CIRCUIT BREAKER A9N1P01C(SCHNEIDER)	1	NOS
20000000600	AUXILAIRY CONTACT A9N26924	1	NOS
20000000601	CIRCUIT BREAKER A9N1P02C(SCHNEIDER)	1	NOS
20000000605	AUXILAIRY CONTACT LADN40(SCHNEIDER)	1	NOS
20000000646	OVERLOAD RELAY LRE10(4-6A)	1	NOS
20000000653	Overload Relay LRE12(5.5-8A)	1	NOS
20000000658	Magnetic Contactor LC1E0910M5	2	NOS
20000000659	Magnetic Contactor LC1E1810M5	1	NOS
20000000660	Magnetic Contactor LC1E3210M5	1	NOS
20000000663	Aux. Contact LAEN20(SCHNEIDER)	1	NOS
20000000669	HEAT SINK(1 PHASE)	4	NOS
20000000672	Overload Relay LRE04(0.4-0.63 A)	1	NOS
20000000735	RELAY DPDT IDEC RU2S-A220	1	NOS
20000000736	RELAY BASE DPDT IDEC SM2S-05D	1	NOS
30000000102	FINGER GUARD R87F-FG 120	2	NOS
30000000103	CONTROLLER G2422(19298)	1	NOS
30000000104	BUZZER EA4202(CODE-8411)	1	NOS
30000000105	PUSH BUTTON AR30GIR(CODE-19299)	1	NOS
30000000106	NAME PLATE (FOR CONTROL ON)	1	NOS
30000000221	PLUG CORD R87F	1	NOS
30000000254	THERMOCOUPLE DIA3.2X100X3MTR(10851)	2	NOS
30000000305	THERMOSTAT CAP (ALUMINA CERAMIC)	2	NOS
30000000459	THERMOSTAT TR711/N220 M12XP1XL900	1	NOS
30000000567	Transformer 380 415/100 200V 350VA	1	NOS
30000000617	Solid State Relay HSR-2A204Z	4	NOS
30000000648	COOLING FAN 4 INCH REC 22038 B2 220	1	NOS

ELECTRICAL ITEMS

MJ3-250/300

ITEM CODE	ITEM DESCRIPTION	QTY	UOM
30000000868	ELECTRICAL ITEMS FOR MJ3-250-300	1	SET
20000000590	V STYLE HANDLE EZAROTDS(SCHNEIDER)	1	NOS
20000000594	CIRCUIT BREAKER A9N1P01C(SCHNEIDER)	1	NOS
20000000600	AUXILAIRY CONTACT A9N26924	1	NOS
20000000601	CIRCUIT BREAKER A9N1P02C(SCHNEIDER)	1	NOS
20000000605	AUXILAIRY CONTACT LADN40(SCHNEIDER)	1	NOS
20000000652	Overload Relay LRE08(2.5-4A)	1	NOS
20000000654	Overload Relay LRE14(7-10A)	1	NOS
20000000658	Magnetic Contactor LC1E0910M5	2	NOS
20000000659	Magnetic Contactor LC1E1810M5	1	NOS
20000000663	Aux. Contact LAEN20(SCHNEIDER)	1	NOS
20000000669	HEAT SINK(1 PHASE)	6	NOS
20000000672	Overload Relay LRE04(0.4-0.63 A)	1	NOS
20000000674	Magnetic Contactor LC1E3810M5(38A)	1	NOS
30000000102	FINGER GUARD R87F-FG 120	2	NOS
30000000103	CONTROLLER G2422(19298)	1	NOS
30000000104	BUZZER EA4202(CODE-8411)	1	NOS
30000000105	PUSH BUTTON AR30GIR(CODE-19299)	1	NOS
30000000106	NAME PLATE (FOR CONTROL ON)	1	NOS
30000000221	PLUG CORD R87F	1	NOS
30000000254	THERMOCOUPLE DIA3.2X100X3MTR(10851)	2	NOS
30000000305	THERMOSTAT CAP (ALUMINA CERAMIC)	2	NOS
30000000459	THERMOSTAT TR711/N220 M12XP1XL900	1	NOS
30000000567	Transformer 380 415/100 200V 350VA	1	NOS
30000000617	Solid State Relay HSR-2A204Z	6	NOS
30000000648	COOLING FAN 4 INCH REC 22038 B2 220	1	NOS
30000000822	MCCB - NKS100R050AC3P	1	NOS