UltraSecure™
Operations Manual

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INTRODUCTION

The contents of this manual are designed to help you operate and maintain the Rapid Roll™ high-speed doors. **DO NOT operate or perform maintenance on the high-speed door unless you have read through the instructions in this manual.**

The safety alert symbol is used to identify safety information about hazards that can result in personal injury. A signal word (DANGER, WARNING, or CAUTION) is used with the safety alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.

DANGER indicates a hazard that, if not avoided, will result in death or serious injury.

WARNING indicates a hazard that, if not avoided, could result in death or serious injury.

CAUTION indicates a hazard that, if not avoided, might result in minor or moderate injury.

CAUTION, when used without the alert symbol, indicates a situation that could result in damage to the door.

NOTICE is used to inform you of a method, reference, or procedure that could assist with specific operations or procedures.

Other symbols that may be used in this manual are:

Lock Out / Tag Out

Crushing

Fire

Shock

Read Manual

Your high-speed door is designed to provide years of reliable, low maintenance operation. All operation functions are controlled through the programmable UltraSmart™ control panel. The bottom edge of the door provides the safety capability of reversing the door if it strikes an object and is designed to break away from the side rails if the door is struck by a vehicle.

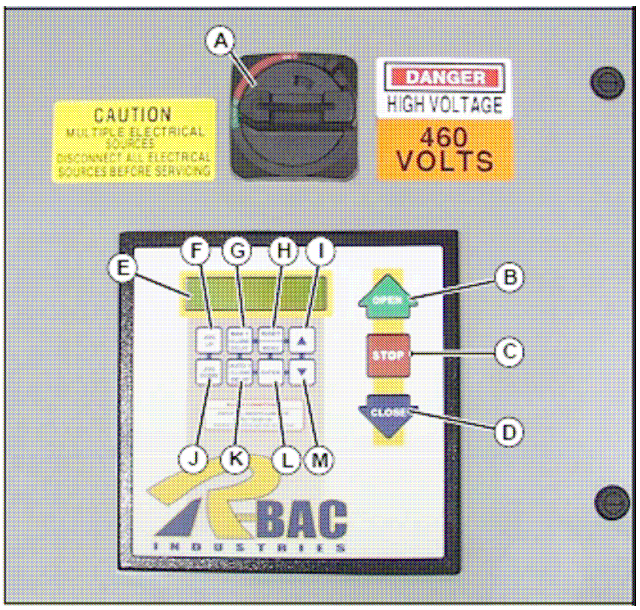
Switches in the side tabs of the bottom edge will stop door motion (up or down) if an impact occurs. If an impact occurs and the door is pushed out of the side rails. If an impact occurs and the door is pushed out of the side rails the BacFlap™ Auto-Reset System quickly and easily repairs the door. Pressing the Open keypad on the control panel will open the door and the door panel will automatically reset itself into the side rails.

Each door is equipped with the BacLight™ Safety System to prevent injury. Two separate sets of light strips function as safety controls to prevent the door from closing, or stop the door if it is closing, and any portion of the light beam is broken by a person or object.

TOC here.

RR3000 / 3000L/RR3000R

CONTROL PANEL



Control Panel Keypad

A.	Rotary Disconnect	H.	Reset / Menu
B.	Open	I.	Up Arrow
C.	Stop	J.	Jog Down
D.	Close	K.	Auto Close Delay
E.	Display	L.	Enter
F.	Jog Up	M.	Down Arrow
G.	Manual Close Delay		

Disconnect: This switch disconnects the supply power to the control panel.

Open: This keypad opens the door and stops the delay timer from closing the door. The timer is started by pressing the Reset / Menu keypad.

Stop: This keypad stops the opening or closing of the door.

Close: This keypad closes the door and stops the delay timer.

Display: The display shows operation, functions and error codes of the door operation. See “Control Panel Display” on page 4. It is also used when setting adjustments.

Jog Up: This keypad opens the door at a slower speed than normal door operation. The door will open as long as the keypad is pushed.

Jog Down: This keypad closes the door at a slower speed than normal door operation. The door will close as long as the keypad is pushed.

Manual Close Delay: This keypad sets the time delay of the door closing in manual mode. The time delay is changed (increased or decreased) in one-second intervals by pressing and releasing the keypad to display the time delay setting.

Press the Up Arrow or the Down Arrow keypad to change the delay time. If the time is set to **.00.**, the door will remain open until this activator is triggered. The display will remain on for four seconds after this button is released. The set value is maintained in memory.

Auto Close Delay: This keypad sets the time delay of the door closing once it has reached the selected open position in automatic mode. The time delay is changed (increased or decreased) in one second intervals by pressing and releasing the keypad to display the time delay setting.

Press the Up Arrow or the Down Arrow key to change the delay time. The display will remain on for four seconds after this button is released. The set value is maintained in memory.

Reset / Menu: This keypad resets error codes. This button is used while in the program mode to leave the present level and return to the previous program level. While in the main menu, this button will exit the program mode.

Enter: This keypad is used to select menu options while in the program mode.

Up Arrow : This keypad scrolls up in the menu.

Down Arrow : This keypad scrolls down in the menu.

CONTROL PANEL DISPLAY

The display on the front of the control panel shows two lines of information for the operator or service technician.

The top line displays system status and the second line displays details of the function or specifics of errors.

NORMAL OPERATION

During startup the display will show the software version programmed into the control panel and whether or not the door is ready for normal operation.

Once the software has booted the door is ready for operation the top line will display “Door Ready” unless there is a detected error.

During normal operation the top line will display “Door Ready”, “Opening -- Full”, “Opening -- Part”, “Closing”, and if a close door delay has been programmed “Auto1 Close Delay”, “Man1 Close Delay”, “Man2 Close Delay”, or “DTC Timer”.

The second line on the display will show the activator name for the function, or the safety device that triggered a re-open. The activator is the device or input that triggered an action. The activator can be a manual input, signal from the light curtain or reversing edge, or a breakaway switch input.

There can be normal operation with the top line displaying “Door Ready” and the display second line showing an warning.

The following tables are normal operation displays:

Table 1: Startup

Top Line	Bottom Line
Albany Door Systems	version.n.m
Door Not Ready	

Table 2: Normal Operation

Top Line	Bottom Line
Door Ready	**0000000** The zeros indicate the number of door operations. The counter will advance with each full or partial door opening. version n.m (shown until first cycle)

Table 3: Opening

Top Line	Bottom Line (Activator)
Opening – Full Opening – Part	Auto 1 Auto 2 Man 1 Man 2 Open PB Open On Panel Photo 1 (Front) Photo 2 (Rear) Reversing Edge Breakaway

The "Open: Delay Timer Active" display is shown when the door is open and a timer function is operating to delay the door from closing. A “preventer” code may be displayed if a condition exists to prevent the door from closing such as a disruption of the light curtain or a door bottom edge breakaway. The timer is re-armed if a “preventer” condition exists.

Table 4: Open Delay Timer Active

Top Line	Bottom Line (Activator)
Auto1 Close Delay	(Preventer) if any
Auto2 Close Delay	
Man1 Close Delay	
Man2 Close Delay	
DTC Timer	

The “DTO Timer” display is shown during a count-down of the timer.

Table 5: Open Commanded: Delay Timer Active

Top Line	Bottom Line
DTO Timer	

Table 6: Closing

Top Line	Bottom Line (Activator)
Closing	Auto 1
	Auto 2
	Man 1
	Man 2
	Close Pb
	Close on Panel

If any of the following warnings are displayed except for “RevEdge Was Tripped”, please contact Albany Door Systems for diagnosis and repair.

If the bottom line displays “RevEdge Was Tripped” it indicates that the door is open due to a reversing edge trip during the previous close cycle.

Table 7: Normal: Warning

Top Line	Bottom Line
Door Ready	Encoder Low Battery
	Module D Loop Open
	Module D Loop Short
	Module D Loop Error
	Module D Loop1 Open
	Module D Loop1 Short
	Module D Loop1 Error
	Module E Loop2 Open
	Module E Loop2 Short
	Module E Loop2 Error
	RevEdge Was Tripped

OPERATOR SERVICE

Changing the Door Closing Time Delay

In normal operation the Auto time delay selects the delay time before closing the door once it has reached the selected open position.

To increase the time that the door waits before closing:

- Press the Auto 1 Close Delay keypad. The time delay will be displayed in seconds at a flashing cursor. If no keypad is pressed the controller will automatically return to normal operation after approximately 4 seconds.
- Press the Up Arrow or Down Arrow keypad to change the time delay in one second intervals.

After 4 seconds the display will return to normal operation and the time will be stored in memory. If the timer is set to “**00**” with the Man 1 Close Delay the door will remain open until this activator is triggered.

Seating the Door in the Tracks

In the event that the door bottom bar separates from a side track, do not attempt to force the bottom bar end(s) back into the track. The BacFlap™ Auto-Reset System will reset the door for normal operation.

CAUTION

DO NOT reset the door until the break away flap(s) are out of the side rails on the side away from the wall.

- Pull the bottom rail of the door away from the wall so the break away flap or flaps are on the front of the side rails away from the wall.

Note: After the door bottom bar separates from a side track, when the Open keypad is pressed the door will open higher than normal operation. It will open to the break away limit setting.

- Press the Open keypad to automatically FULLY open the door; or, press and hold the Jog keypad to manually open the door high enough for the flaps to clear the guides at the top of the side rails. When using the Jog keypad DO NOT raise the door higher than necessary.
- Press the Close keypad to close the door. The bottom bar ends will automatically track behind the guides and back into the side rails.
- The door control will reset itself to the automatic mode.

ADJUSTMENTS

Door Limit Adjustments

Door limit adjustments are used to set four heights that the door opens and closes to. There are four heights that the operator can set; Closed Limit, Full Open Limit, Partial Open Limit, and BrkAway Reset Limit.

The Closed Limit should always be checked for correct height or set before the other limits are set. When any limit is set all of the limits should be checked or set.

Closed Limit: Used to set the fully closed position of the door. The door controller uses this position as the “zero” position to establish the height that the door

moves to for two open positions and the breakaway position.

The Open, Partial, and Break Away limits are all relative to the Closed Limit. If the Closed Limit is reset to a different position, all the other settings will change relative to the new Closed Limit setting.

Full Open Limit: Used to set the height that the door opens fully to.

Partial Open Limit: Used to set the height that the door opens to if it is programmed for a lower opening in addition to the fully open position.

Break Away Reset Limit: Used to set the height that the door will open to so the bottom rail can be seated in the side rails after it has been broken out of them. This height is set higher than the Full Open Limit.

SETTING DOOR LIMIT ADJUSTMENTS

Enter the Limit Setup menu by pressing and holding the Up Arrow and Down Arrow keypads simultaneously for approximately 5 seconds. The control display will show:

Limit Setup

Press the Enter keypad. The control display will show:

Closed Limit

CAUTION

Always set the Closed Limit before setting other limit positions.

If the door closes to the correct position and the Closed Limit does not need to be changed the Up Arrow keypad is used to display Full Open Limit, Partial Open Limit, and BrkAway Reset Limit. Pressing the Enter keypad when any of the limits are displayed will allow that limit to be set.

The Reset / Menu keypad can be pressed at any time to back out of the menu to the next higher level. When the Limit Setup is displayed pressing the Reset / Menu keypad will exit the program and return the door to normal operation.

To set the Closed Limit:

- Press the Enter keypad when Closed Limit is displayed;
- Use the Jog Up or Jog Down keypads to move the door up or down so the door lightly rests on the floor sealing the bottom but does not compact the bottom edge or allow the door fabric to lose tension;
- Press the Enter keypad to set the limit in memory. The display will show: Closed Limit.
- Press the Up Arrow keypad once to display: Full Open Limit.

To set the Full Open Limit:

NOTICE

The fully opened position should keep the door bottom rail slightly above the wall opening and in the side rails below the break away set height.

- Press the Enter keypad when Full Open Limit is displayed;
- Use the Jog Up keypad to move the door up so the door opens to the desired height. If necessary, use the Jog Up or Jog Down keypads for final adjustment;
- Press the Enter keypad to set the limit in memory. The display will show: Full Open Limit;
- Press the Up Arrow keypad once to display:

To set the Partial Open Limit:

NOTICE

The partial open position is typically used with optional opening switches such as pull cords and the door opening position is set to approximately 8 feet to allow human passage. It may or may not be used in normal operation.

If the partial open position is not used, press the Enter keypad to go to the next procedure to set the Break Away Limit.

- Press the Enter keypad when Partial Open Limit is displayed;
- Use the Jog Down keypad to move the door down to the desired height. If necessary, use the Jog Up or Jog Down keypads for final adjustment;
- Press the Enter keypad to set the limit in memory. The display will show: Partial Open Limit;

- Press the Up Arrow keypad once to display: BrkAway Limit

To set the Break Away Limit:

NOTICE

The break away opened position should raise the door bottom rail slightly above the flaps located at the top of the side rails. The bottom rail should be able to center itself in the side rails without reaching the door fabric drum.

- Press the Enter keypad when BrkAway Limit is displayed;
- Use the Jog Up keypad to move the door up to the desired height. If necessary, use the Jog Up or Jog Down keypads for final adjustment;
- Press the Enter keypad to set the limit in memory. The display will show: BrkAway Limit;
- Press the Reset / Menu keypad once to display: Limit Setup;
- Press the Reset / Menu keypad once to exit the menu and return to normal operation.

NAVIGATING THE ULTRASMART™ MENU

Once inside the menu of the UltraSmart™ controller, many options may be used with your door.

Following is a guide for the UltraSmart™ controller:

Limit Setup

- **Close Limit** – Sets the close limit
- **Full Open Limit** – Sets the open limit
- **Partial Open Limit** – Used if a separate activator will be used to open the door to a height lower than the Full Open Limit setting.
- **Breakaway Open Limit** – The Breakaway Open Limit should be set so that the breakaway tabs are just above the BacFlaps™.

Set Timers

- **Open Run Timer** – This timer is the backup in case the limit does not stop the door at the full open position. The door will go into a TIMER EXPIRED fault.
- **Close Run Timer** – This timer is the backup in case the limit does not stop the door at the close position. The door will go into a TIMER EXPIRED fault.
- **Reverse Delay Timer** – This timer will add a delay to reverse the door if reversed by an activator or safety device.
- **Close Delay, Auto 1** – This Auto Close delay is located on the front of the controller.
- **Close Delay, Auto 2** – This is the Auto 2 Auto Close used with Mod F (5 Input).
- **Close Delay, Man 1** – This is the Man 1 Close Delay located on the front of the controller.
- **Close Delay, Man 2** – This is the Man 2 Close Delay used with Mod F (5 Input).
- **Delay to Close, Out P1**
- **Delay to Open, Auto 1**
- **Delay to Open, Auto 2**
- **Door Open Alarm Timer**
- **Air Lock Timer** – This timer is used with Mod J (Air Lock).
- **Defrost Cycle On** – This sets how long the Tek heat lamps stay turned on (in seconds).
- **Defrost Cycle Off** – This sets how long the Tek heat lamps stay turned off (in seconds).

View Fault History

- Entering this menu will show the fault history of the door, up to the last 64 faults.
- Each fault will show the fault / out of how many total faults. The cycle count when the fault happened and the fault description.

System Options

- **Panel Open & Close Disable** – Changing the option from NO to YES will disable the Open/Close/Stop push buttons on the front of the control box.
- **PB & Panel Close Set to Jog only** – Changing the option from NO to YES will make the Close button on the front of the control box jog the door only.

- **PB & Panel Open Set to Jog only** – Changing the option from NO to YES will make the Open button on the front of the control box jog the door only.
- **RevEdge Auto Close** – Changing the option from NO to YES will allow the door to Auto Close when the reversing edge is tripped. If the reversing edge is tripped 4 times in a row, the door will stop in the open position and read "REV EDGE WAS TRIPPED." The AutoClose timer controls the AutoClose delay for this function.
- **Photo Eye Auto Close** – Changing this option from NO to YES will allow the door to AutoClose when the light curtain or photo-eye is tripped and the door is not in an AutoClose or Man1 Close Delay. The AutoClose timer controls the AutoClose delay for this function.
- **Panel Open Man1 Auto Close** – Changing this option from NO to YES will allow the door to close automatically using the MAN1 delay to close timer. If this option is YES, the STOP button will not work.

Module Configuration

- **Module A Activator** – This module controls the inputs for all activators except floor loops.
- **Module B Safety** – This module controls the light curtains and/or photo-eye inputs along with the reversing edge and breakaway switches.
- **Module C Drive** – This module controls the Variable Frequency Drive (VFD), which controls the motor. The Emergency Up and Emergency Down buttons bypass the UltraSmart™ Controller to operate the door. THESE BUTTONS WILL NOT STOP AT THE OPEN AND CLOSED LIMIT SETTINGS.
- **Module D Loop** – This module is an optional module used for loop detectors.
- **Module E Dual Loop** – This module is an optional module used if separate loop detectors are required for each side of the opening.
- **Module F 5 Input** – This is an optional module in case extra activator inputs are required.
- **Module G 4 Output** – This is an optional module used when output signals are needed (example: door is not closed; door is closed, etc…)
- **Module H Defrost** – This module is used with the standard freezer package and controls the heat lamps, blower and has one output terminal.
- **Module J Airlock** – This is an optional module used with the Airlock option for the door.

ERROR CODES

Error codes are displayed for diagnostic purposes. Errors fall into basic groups that can be easily repaired or reset by the operator or must be repaired by a factory technician.

Safety features designed into the door can typically be reset by the operator. These include the breakaway function and situations that prevent the door from closing. They also include some of the "soft" or "hard" errors.

Some of the "soft" or "hard" errors require a service technician for repair.

Breakaway

If a breakaway switch in the bottom rail has been activated the following errors and instructions will be displayed. The "Clear Door Request" will display when there is an input trigger.

To reset the error the bottom rail must be reset in the side rails. See "Seating the Door in the Tracks" on page 5 under the OPERATOR SERVICE heading.

Table 8: Breakaway

Top Line	Bottom Line
Clear Door Request	Breakaway
Bring Panel to Front	Press OPEN or JOG

Open: Prevented From Closing

One of the safety features of the door prevents the door from closing during normal operation if an unsafe condition occurs. Causes or "preventers" may

be an object breaking the light curtain or the reverse edge contacting an obstruction.

Table 9: Open: Prevented from Closing

Top Line	Bottom Line (Preventer)
Door Ready	Photo 1 (Front)
	Photo 2 (Rear)
	Reversing Edge
	Auto 1
	Auto 2

Soft Errors

The following soft errors are triggered by an activator. The door becomes ready when the condition no longer applies, but no door motion is allowed.

Table 10: "Soft" Errors

Top Line	Bottom Line (Preventer)
Clear Door Request	Auto 1
	Auto 2
	Man 1
	Man 2
	Open Pb
	Open On Panel

The following soft errors are specific to detected input signal errors. These errors require service repair. Contact Albany Door Systems.

Table 11: "Soft" Errors

Top Line	Bottom Line	Cause
Door Not Ready	Mod x No Response	I/O Module not responding
	Encoder – Com Loss	Encoder not responding
	Em Stop	Emergency Stop input triggered
Clear Door Request	Rev Edge – Lost Signal	Broken wire detected, reversing edge
	BrkAway – Lost Signal	Broken wire detected, breakaway
Door Not Ready	Locked at Closed	Lock input triggered
	Locked at Opened	

Hard Errors

The following hard errors require service diagnostics. Contact Albany Door Systems.

Table 12: "Hard" Errors

Top Line	Bottom Line	Cause
Opening "Full" Closing	Timer Expired	The RESET button must be pressed before door operation can continue
Correct and RESET	Motor Drive Fault Cycle Power OFF for 10 seconds	
	No Encoder Change	During commanded movement, no position change for several seconds
	Door Open Alarm	Door Open timer expired

PERIODIC MAINTENANCE

Albany Door Systems high speed doors are engineered for low maintenance operation. The door should be visually inspected daily for wear and tear, and operated to verify functions.

Quarterly maintenance should be performed to clean components and to check all safety functions and check for mechanical and electrical integrity.

Daily Inspection

1. Inspect the door fabric for wear or damage.
2. Operate the door through several openings and closings. Verify that the door seats against the floor and that the door fabric remains tight and does not wrinkle. Verify that the door opens fully, slightly beyond the wall opening, and does not open too far.
    - If the door does not seat against the floor properly opens to the wrong position refer to “Setting Door Limit Adjustments” on page 6.
    - If the door fabric has diagonal wrinkles the door fabric roll at the top of the door is not level and perpendicular to the side rails. Leveling adjustments should be made as soon as possible to prevent wear or damage. Refer to the installation instructions or contact R-Bac.
3. With the door closing, place an object through the light curtain, or photoeyes, on each side of the door. Verify that the door stops immediately.
4. If a multiple panel door is installed, check the pins at each end of the ribs to verify that they are in place and centered.
5. Inspect the coiled electrical wire for wear or damage.
6. Check the light curtain slots for dirt or dust accumulation and clean as necessary.

CAUTION

Do not stand under the door when performing the following inspection. If the bottom bar reversing switch are not functioning correctly injury can occur.

7. While the door is closing, tap the bottom of the door edge and verify that the door stops and reverses to a fully open position.

Quarterly Inspection

1. Perform daily inspection.
2. Check all mounting hardware and verify that all nuts and bolts are tight. Hardware includes: wall anchors, cover hardware, motor mounting hardware, and bearing bolt nuts.
3. Check the break away function by performing the following steps:
    - Stop the door so the bottom rail is between waist and chest high.
    - Push the bottom bar out of one of the side columns.
    - Press the Open keypad and verify that the door opens to the break away opening height and that the bottom bar centers in the side rails.
    - Press the Close keypad and verify that the bottom rail is centered and the door closes fully.
4. Inspect all side and top weather seals for wear or damage.

WARRANTY

STATEMENT OF WARRANTY
UltraSeries™

ONE-YEAR WARRANTY ON MECHANICAL AND ELECTRICAL COMPONENTS

- **Albany Door Systems** warrants to the original owner of the door that the mechanical and electrical components will be free from defects in material and workmanship for a period of **one (1) year** from date of shipment. The warranty does not cover fuses, bolts, heat lamps, sleeves, and seals. The warranty is void **twelve (12) months** following the shipment date of the door**.**
- Only defects brought to the attention of **Albany Door Systems** during the warranty period will be covered by this warranty.
- **Albany Door Systems** will replace component parts covered by this warranty, which are found to be defective upon inspection by an **Albany Door Systems** representative. Installation or use of parts other than those authorized by **Albany Door Systems** will void this warranty.
- This warranty covers material failure under normal wear conditions; it does not cover damage caused by collision or other abuse of the product. Adjustments made to the control panel or to the mechanical operation of the door without the authorization of **Albany Door Systems** will void this warranty.
- PARTS AND ASSEMBLIES sold separately by **Albany Door Systems** that fail due to defects in material or workmanship within **ninety (90) days** from the date of shipment will be replaced under warranty provided installation has been carried out in accordance with all **Albany Door Systems** procedures. This warranty is limited to providing a replacement part only. This warranty does not cover freight, special charges, or any costs associated with the installation of the replacement part.
- This warranty shall be void in its entirety if the failure of any product shall be caused by any installation, operation, or maintenance of the product which does not conform with the requirements set forth by the seller in the applicable product manuals or is the result of any cause other than a defect in the material or workmanship of the product.
- **Albany Door Systems** shall not be responsible for any other losses or damages due to the operation of any door or parts covered by this warranty.
- No other oral or written representations made by **Albany Door Systems** or its agents are a part of this warranty unless specifically set forth in writing by an authorized **Albany Door Systems** official.

THE ABOVE SET FORTH WARRANTY IS SELLER'S SOLE WARRANTY. SELLER MAKES NO OTHER WARRANTY OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED; AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE AFORESTATED OBLIGATION ARE HEREBY DISCLAIMED BY SELLER AND EXCLUDED FROM THIS AGREEMENT.

TROUBLESHOOTING

DISPLAY OR DOOR

Problem	Possible Cause	Corrective Action
No control Display or VFD display	Loss of main power	Check with meter across L1-L2, L2-L3, L1-L3.
	Blown fuse	Check with meter: across 1L1-1L2, 1L2-1L3, 1L1-1L3. across 2L1-2L2, 2L2-2L3, 2L1-2L3.
No display or LED's light on module panel	Loss of power	Check with meter across 1L1-1L2 at control transformer.
	Blown fuse	Check with meter across H1-H2 at control transformer across 1 and X2 at control transformer.
	E Stop Jumper loose or missing	Verify that jumper is between 1A and 1B on terminal strip of module board.
	If E stop button present	Check to see if E stop button activated.
Door will not open	No input signal at Module A	Check activation input by pressing corresponding test button, LED should light and door open. If door opens: faulty activator or wiring to module. If door does not open by test button: faulty module.
Door does not close	Held open by safety input or activator input	Check display readout. Check for lit LED on modules A and B. Remove corresponding wire on Module A. For lit LED -if door closes: faulty activator. If LED stays lit and door stays open: faulty module. Held open if loop installed. Check loop module for lit LED. Remove loop wires from module terminal strip. If door closes: faulty loop wire. If door remains open and LED stays lit after removal of loop wires: faulty module.
	Reversing edge activated	Check display reset. Check for bad wire connection. Check that edge is not pinched.
	Breakaway activated	Check display reset. Check for bad wire connection. Check that edge is not pinched.
Door does not open or close	Brake not disengaging	Check power at terminals 5 and 6 below module C for 24 VAC. Check power at terminals B1 and B2 for 3 phase power.
	No encoder change, no position change	Door jammed: clear jam. Broken drive shaft. Call manufacturer.
	Encoder com loss of signal	Check for loose connections or broken cable. Check encoder mounting. Call manufacturer.

LIGHT CURTAIN

Problem	Possible Cause	Corrective Action
Red alarm LED on	Transmitter disabled no synchronization signal	Check power supply and cable Green LED should be on at all times
Yellow LED flashing	Severe electrical interference	Remove cables from high voltage.
	High ambient light	Check and adjust alignment of transmitter and receiver.
Yellow LED always off	Receiver cannot see transmitter	Remove obstruction.
No Green LED	Loss of 24 VDC	Check across terminal 1 and 4 on Module B: Remove wires from terminal 1, 2, 3, 4. If 24 VDC present at terminal 1 and 4: isolate faulty light curtain. If 24 VDC not present at terminal 1 and 4 after removal of wires: faulty module.

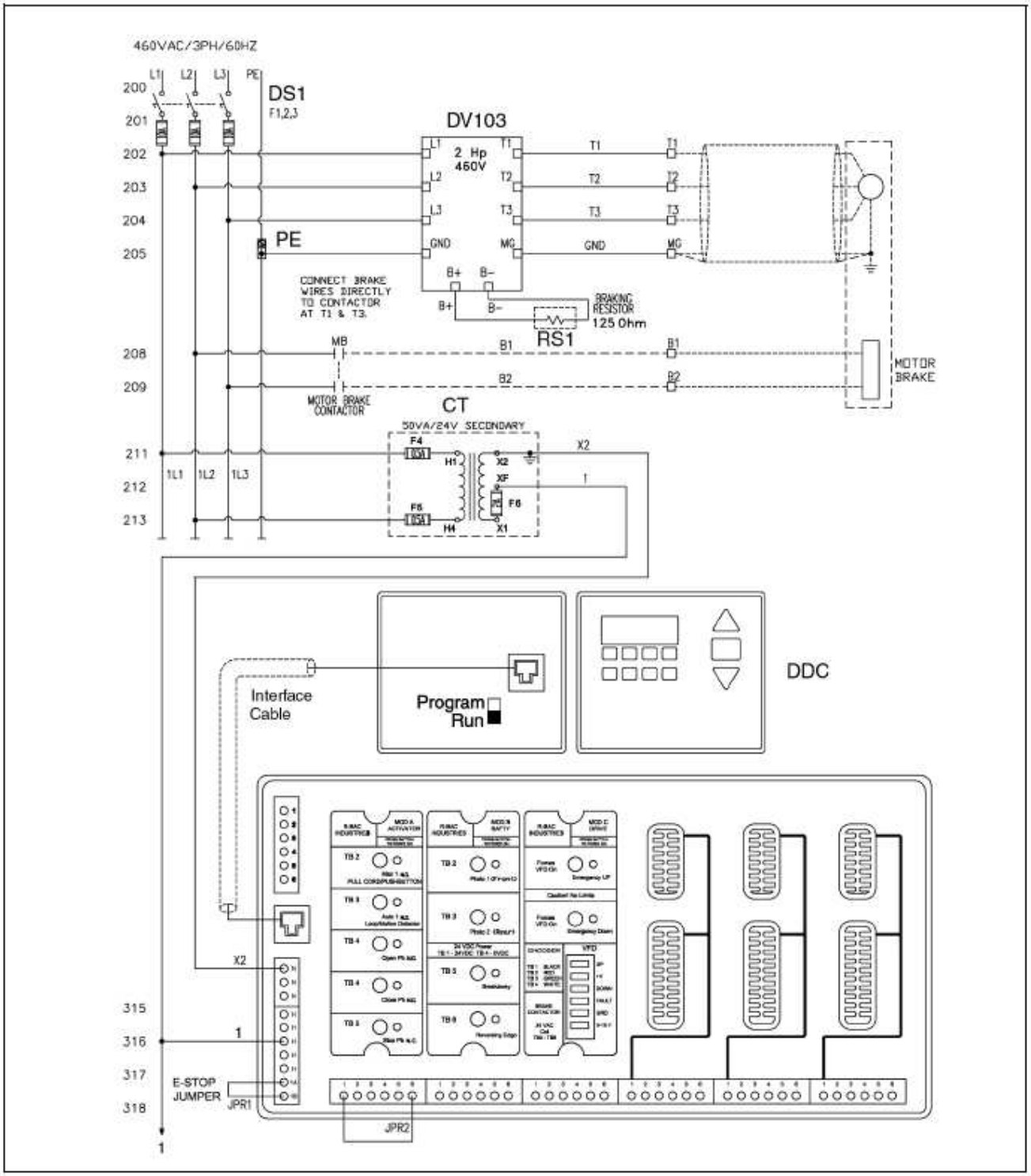
MOTOR DRIVE FAULT

To clear a fault press the Stop key, or cycle power.

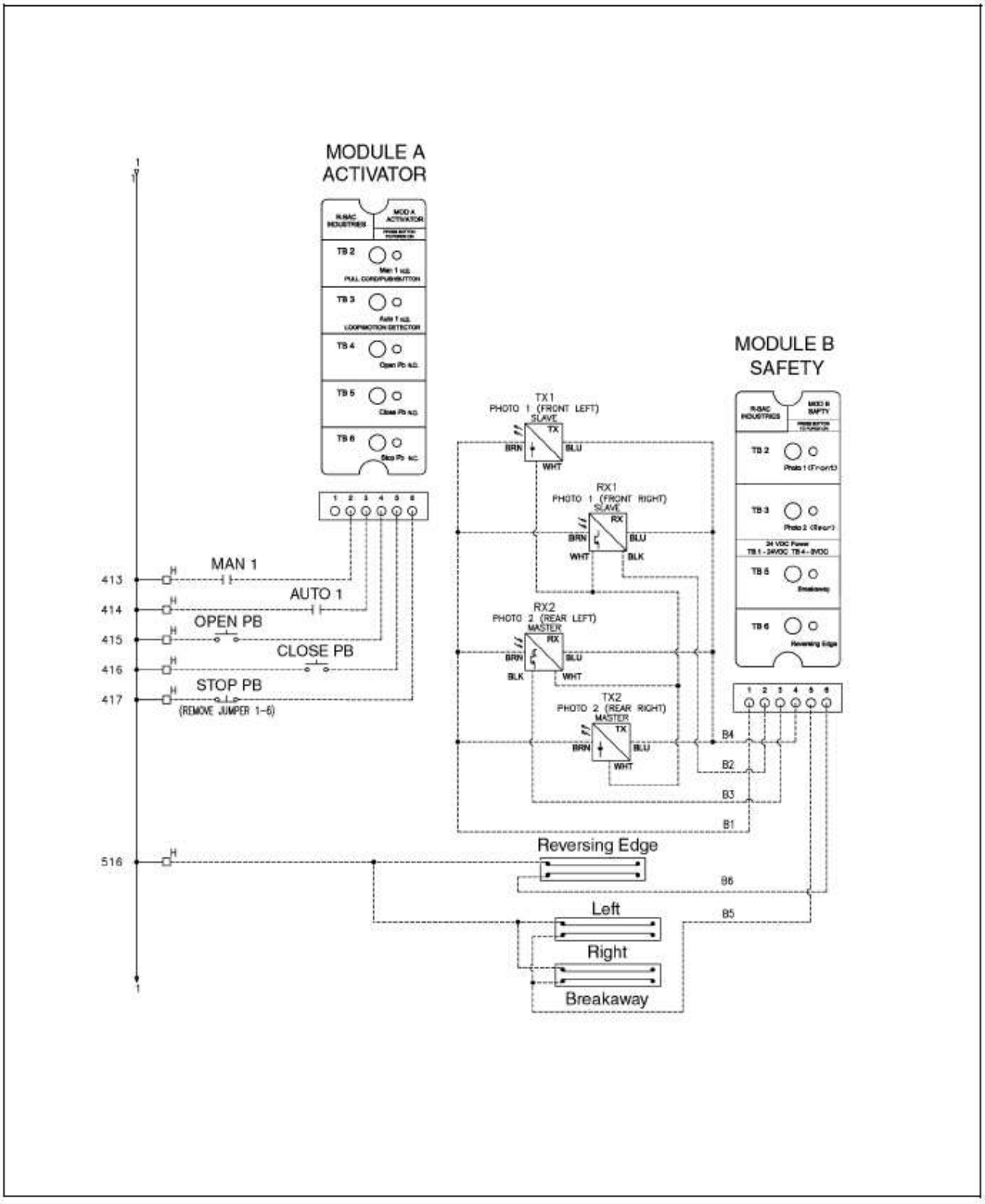
Problem	Possible Cause	Corrective Action
Motor Drive Fault	F3 power loss	Check incoming power.
	F4 Undervoltage	Check incoming power for low voltage or power interuptions.
	F5 Overvoltage	Check for high incoming power.
	F6 Motor stalled	Increase accel time or reduce load so drive does not exceed set current in A089.
	F8 Heatsink overheat	Check for blocked or dirty heat sink fins, check fan.
	F13 Ground Fault	Check the motor and external wiring for the drive output terminals for a grounded condition.
	F38 Phase U to Ground F39 Phase V to Ground F40 Phase W to Ground	Check wiring between drive and motor. Check motor grounded phase. Contact manufacturer.
	F41 Phase UV short F42 Phase UW short F43 Phase VW short	Check the motor and drive output terminal wiring for shorted condition. Contact manufacturer.
	F70 Power Unit	Recycle power. If fault does not clear, call manufacturer.

SCHEMATICS

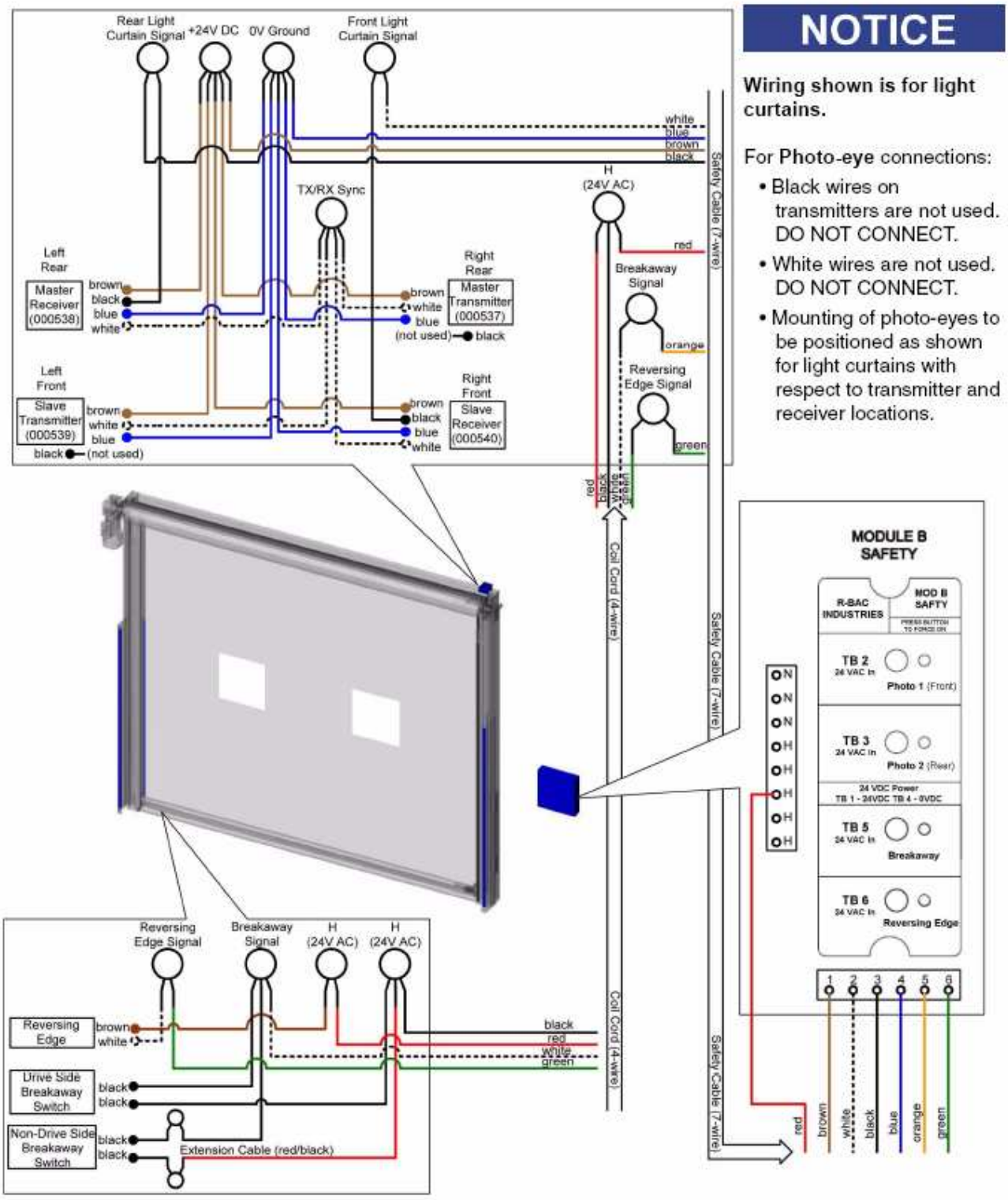
POWER CIRCUIT SCHEMATIC - STANDARD



ACTIVATOR/SAFETY SCHEMATIC



LIGHT CURTAIN WIRING DIAGRAM



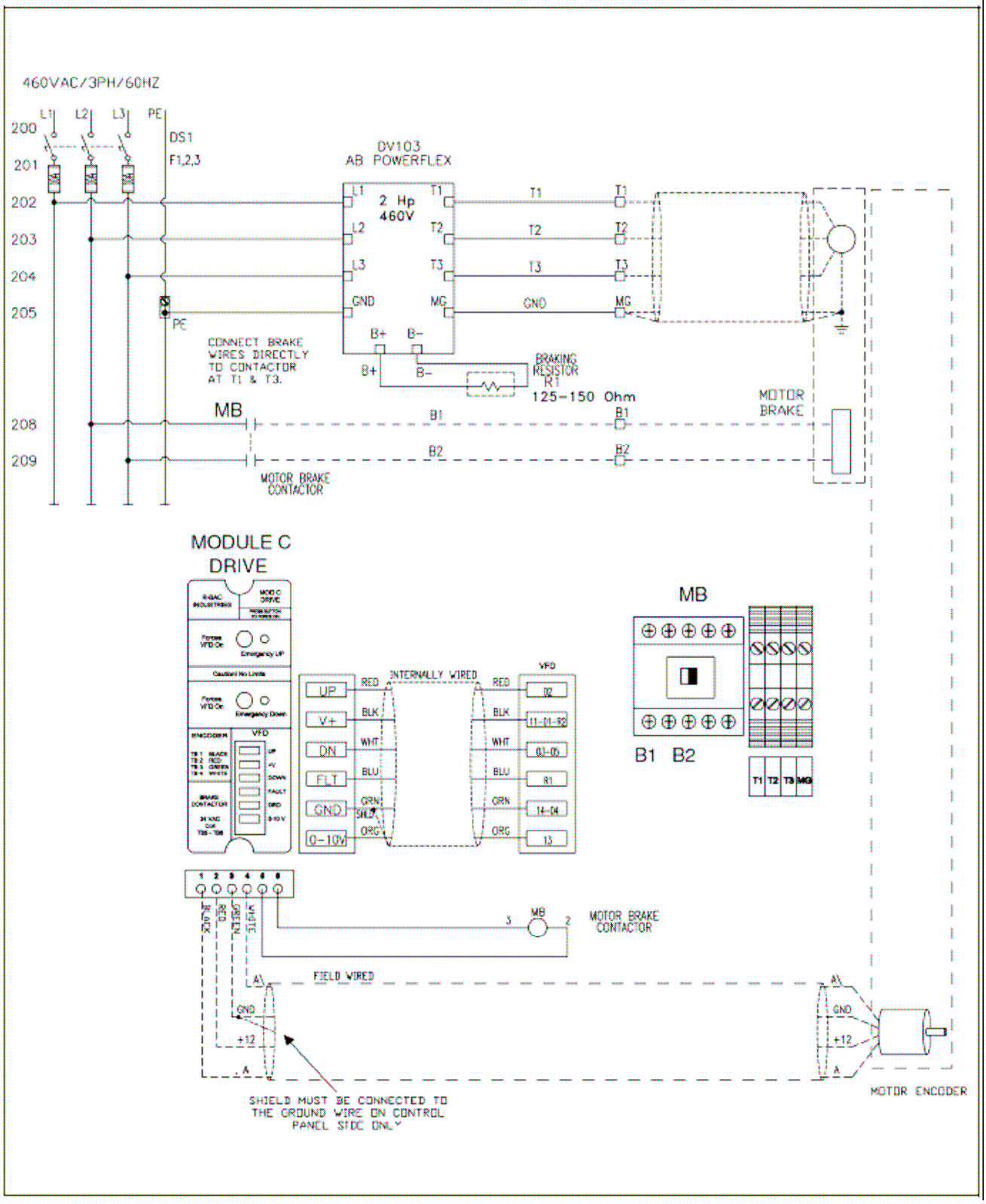
NOTICE

Wiring shown is for light curtains.

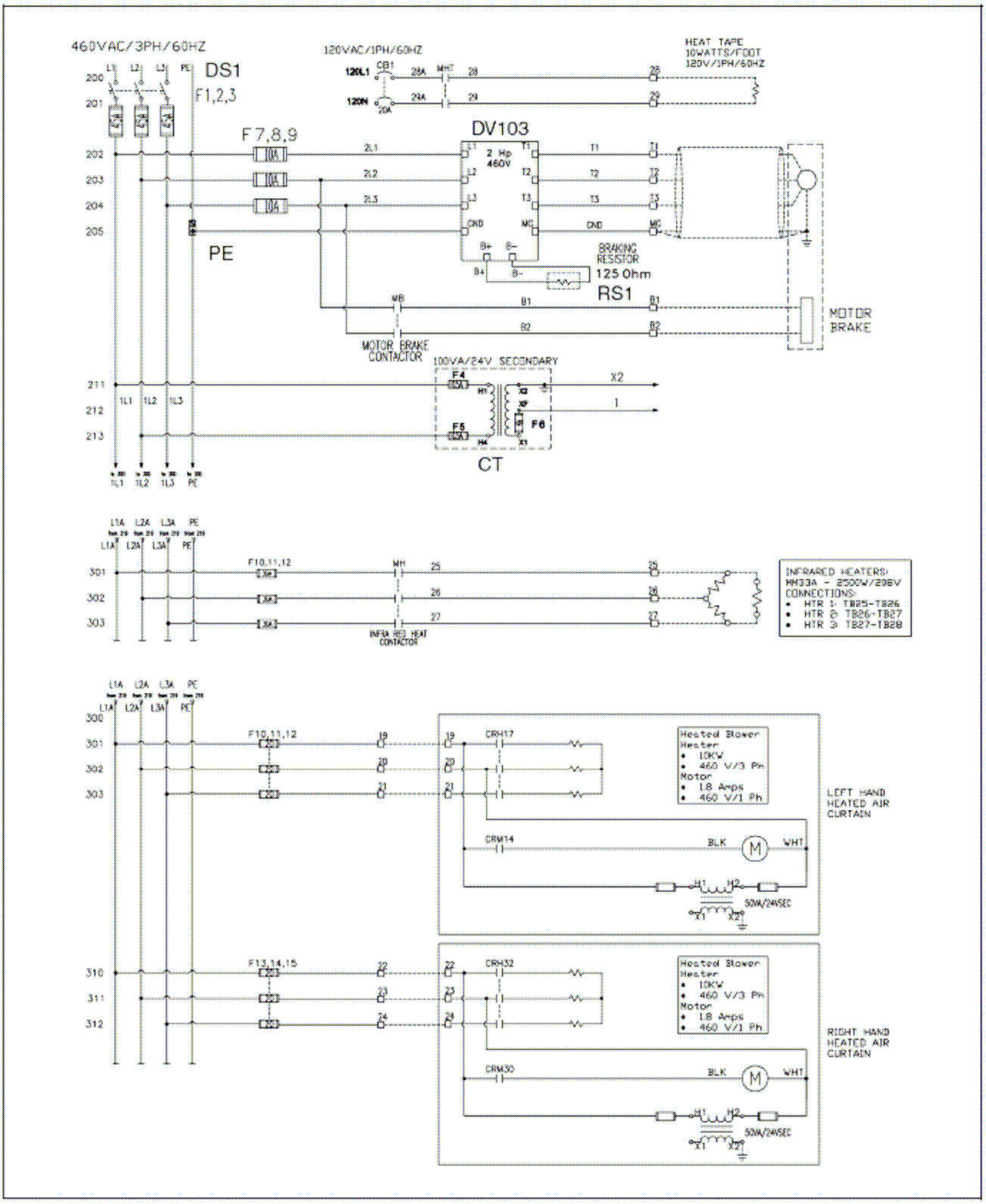
For **Photo-eye** connections:

- Black wires on transmitters are not used. DO NOT CONNECT.
- White wires are not used. DO NOT CONNECT.
- Mounting of photo-eyes to be positioned as shown for light curtains with respect to transmitter and receiver locations.

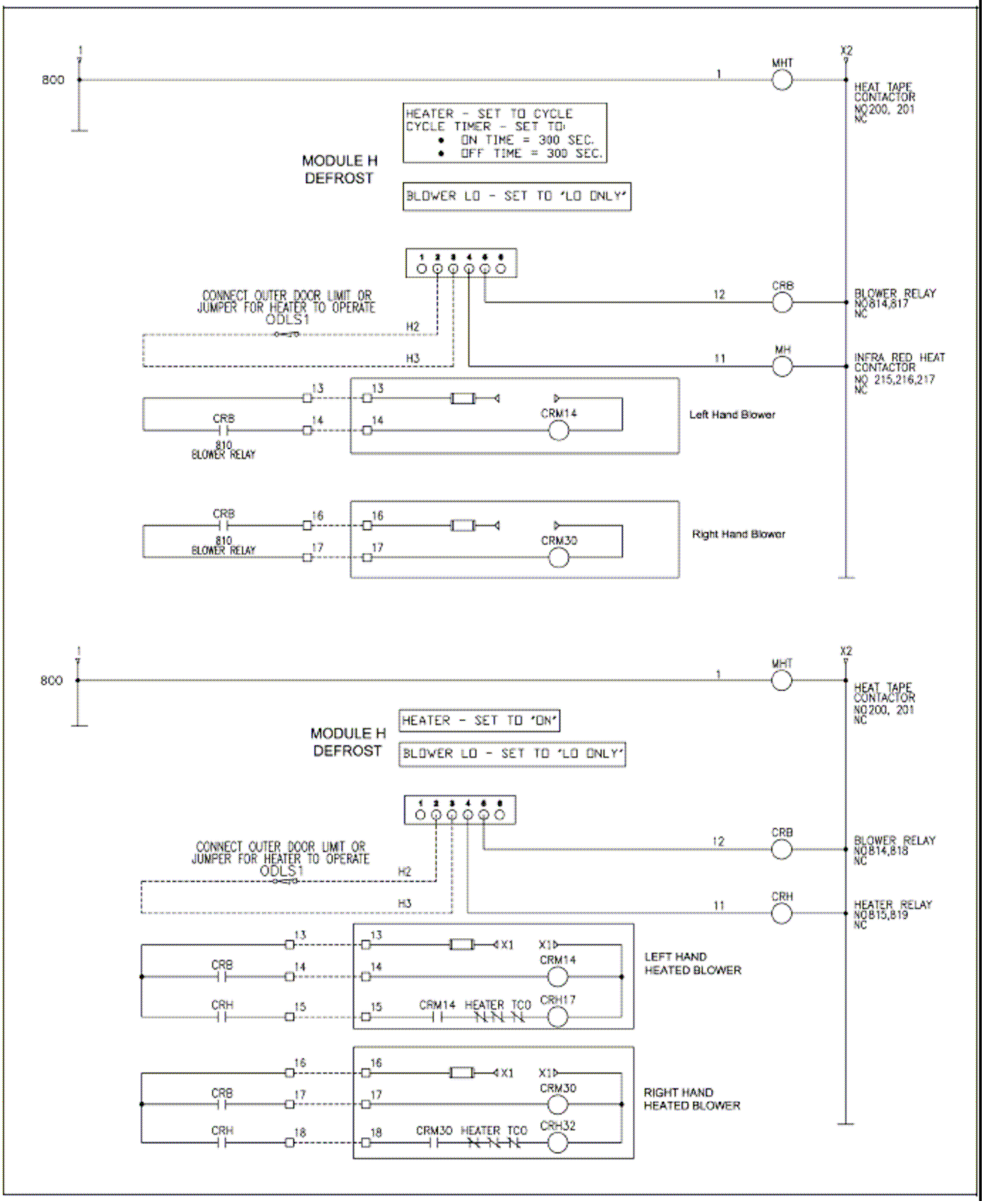
MOTOR DRIVE SCHEMATIC



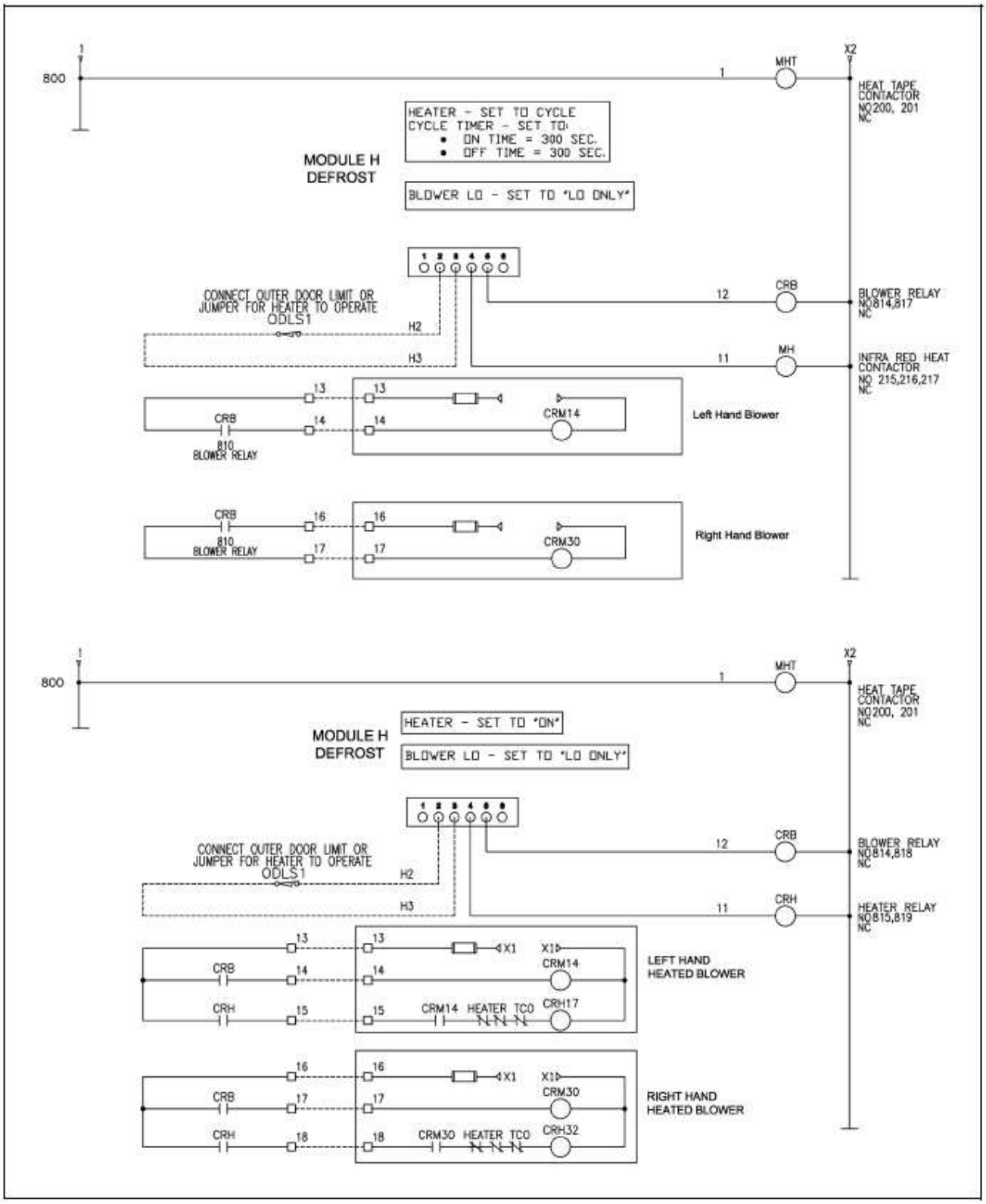
POWER CIRCUIT SCHEMATIC - BLOWER / IR HEATER



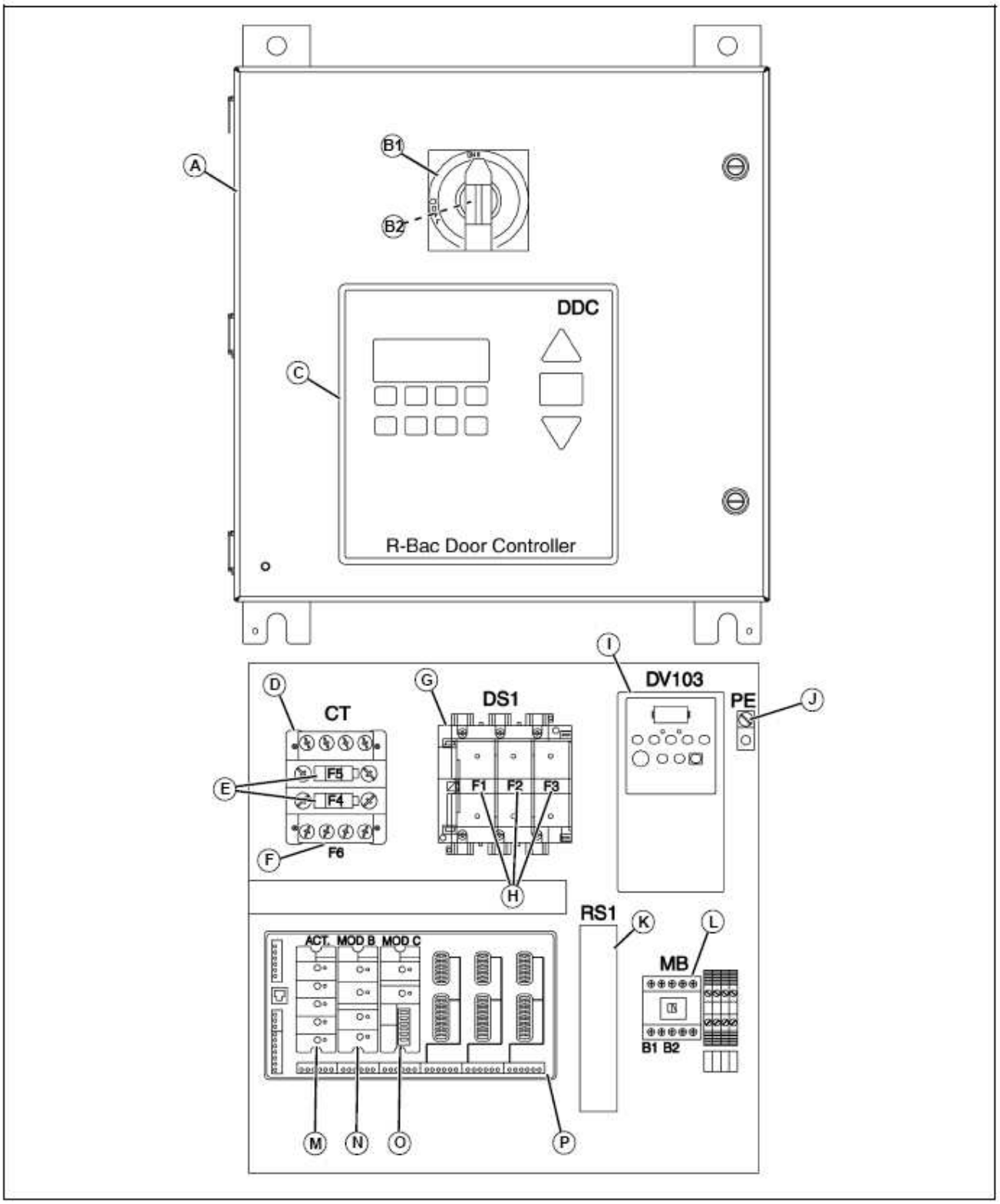
BLOWER / IR HEATER SCHEMATIC



BLOWER / IR HEATER SCHEMATIC



CONTROL PANEL - STANDARD



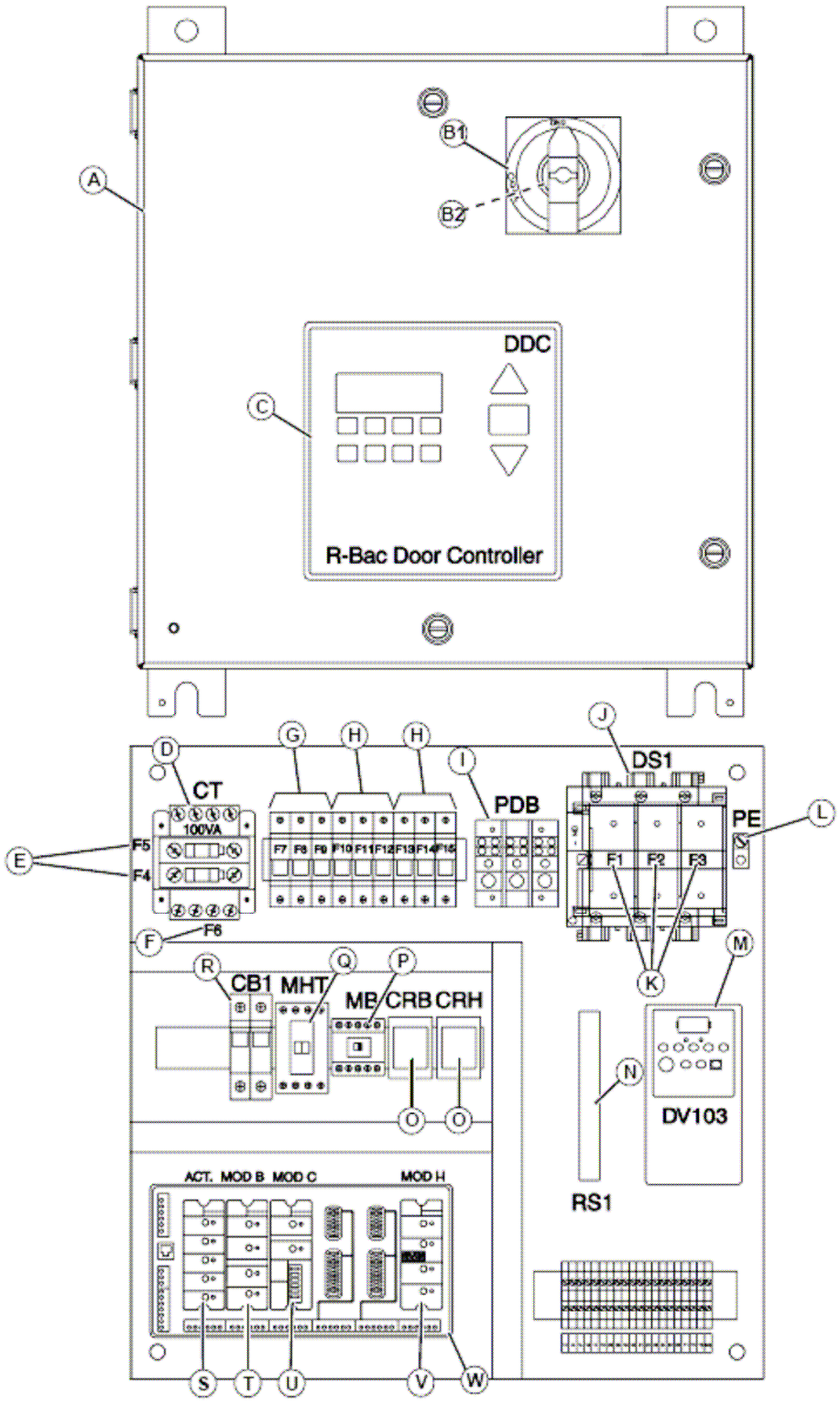
Control Panel - **Standard**

Item	Qty.	Part Number	Description
A	1	- - - - - - - - - -	Enclosure, NEMA Type 4 Sub-panel for Enclosure
B1	1	000581	Disconnect, Handle NEMA Type 4
B2	1	000710	Disconnect Shaft
C	1	000570	Operator Interface, Main Door Controller
D	1	000643	Transformer, 208/230/ 460 Volt, 24 VDC
E	1 ea	000587	Fuse, 600 Volt, 0.5 amp, Class CC
F	1	000585	Fuse, 250 Volt, 2 Amp, Class M
G	1	000709	Disconnect, Fusible 600 V/30A
H	1 ea	000582	Fuse, 600 Volt, 10 Amp, Class CC
I	1	000571	Variable Freq. Drive, 2HP, 460 Volt
J	1	000715	Lug, Ground
K	1	000580	Resistor, 125 Ohm, 100 Watt
L	1	000576	Contactor, 9 Amp, 24 VAC Coil
M	1	000561	Module A, Activator
N	1	000562	Module B, Safety
O	1	000563	Module C, Drive/ Encoder
P	1	000708	Backplane for Input/ Output Cards
- - -	1	000711	Interface Cable, 24 in. (not shown)
Opt.	1	000564	Module D, Loop Detector

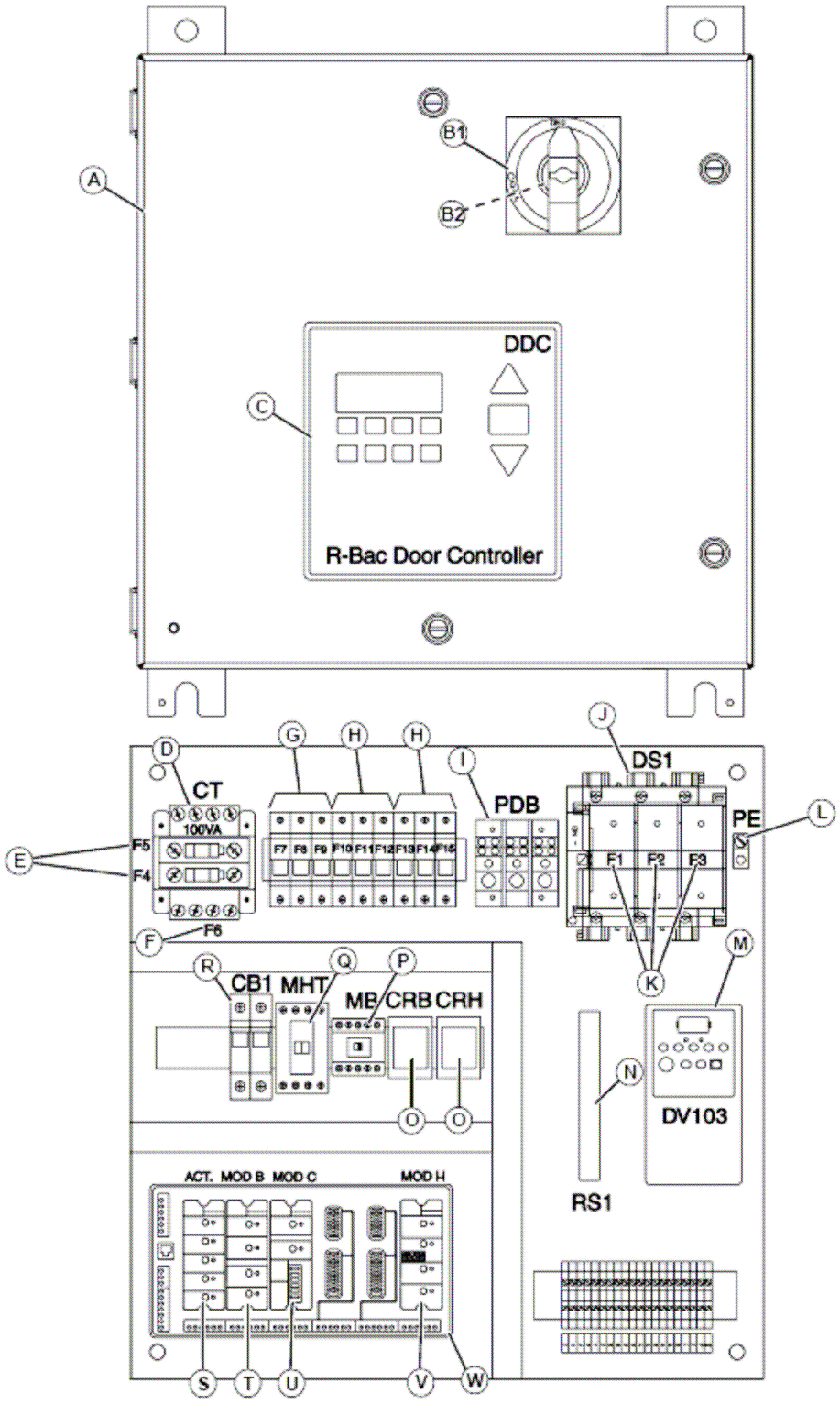
Control Panel - **Standard**

Item	Qty.	Part Number	Description
Opt.	1	000565	Module E, Dual Loop Detector
Opt.	1	000566	Module F, Input Activator
Opt.	1	000567	Module G, Output Signal
Opt.	1	000568	Module H, Defrost
Opt.	1	000569	Module J, Airlock

CONTROL PANEL - HEATED BLOWER



CONTROL PANEL - HEATED BLOWER



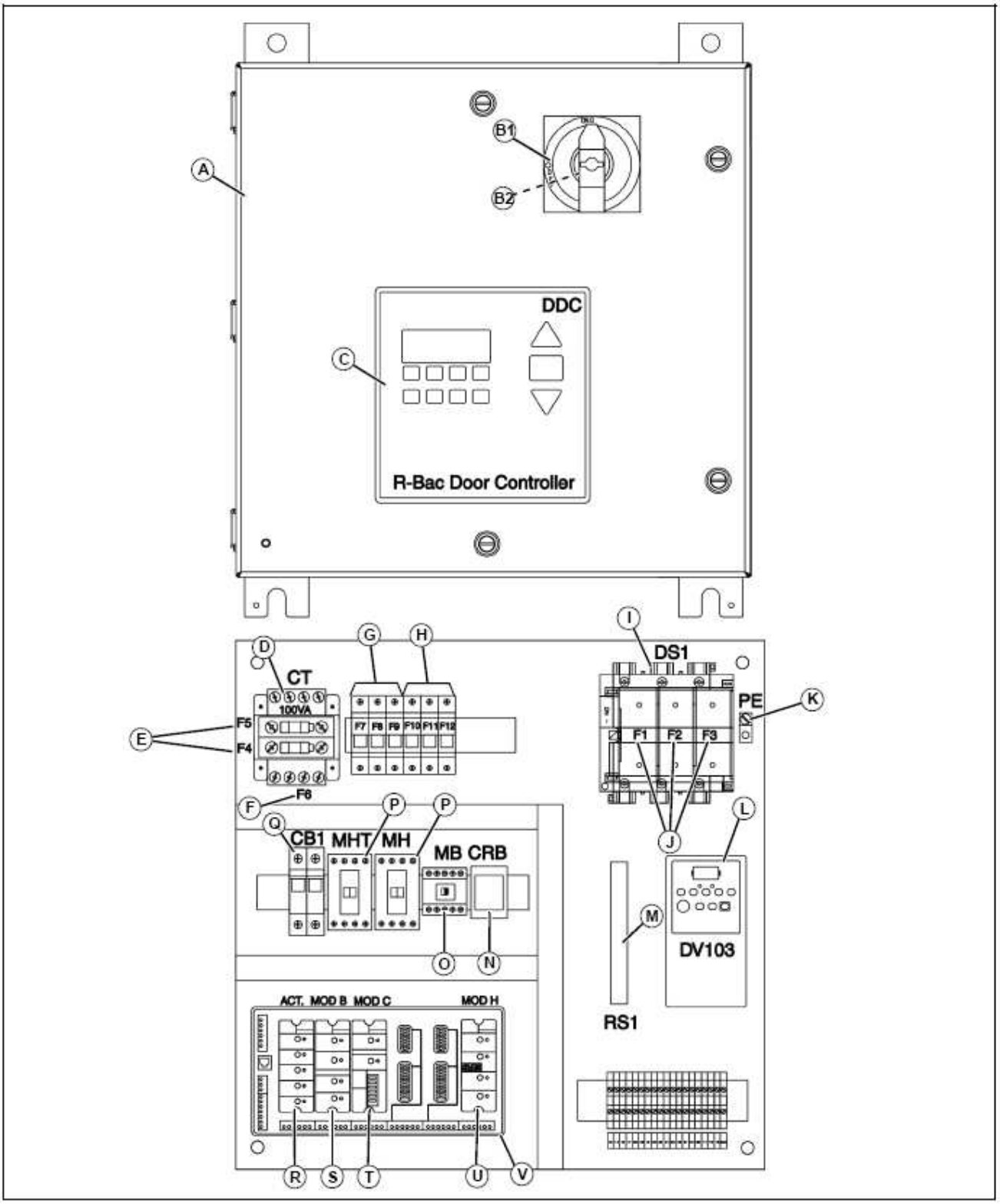
Control Panel - Heated Blower

Item	Qty.	Part Number	Description
A	1	- - - - - - - - - -	Enclosure, NEMA Type 4 Sub-panel for Enclosure
B1	1	000581	Disconnect, Handle NEMA Type 4
B2	1	000710	Disconnect Shaft
C	1	000570	Operator Interface, Main Door Controller
D	1	000643	Transformer, 208/230/ 460 Volt, 24 VDC
E	1 ea	000587	Fuse, 600 Volt, 0.5 amp, Class CC
F	1	000586	Fuse, 250 Volt, 4 Amp, Class M
G	1 ea	000582	Fuse, 600 Volt, 10 amp, Class CC
H	1 ea	000583	Fuse, 600 Volt, 20 amp, Class CC
I	1	000719	Power Distribution Block, 3 Phase
J	1	- - - - - -	Disconnect, Fusible 600 V/60A - contact manufacturer
K	1 ea	000584	Fuse, 600 Volt, 45 Amp, Class J
L	1	000715	Lug, Ground
M	1	000571	Variable Freq. Drive, 2HP, 460 Volt
N	1	000580	Resistor, 125 Ohm, 100 Watt
O	1 ea	000577 000578	Relay w/LED, DPDT, 24 VAC
P	1	000576	Contactor, 9 Amp, 24 VAC Coil
Q	1	000575	Contactor, 23 Amp, 24 VAC Coil

Control Panel - Heated Blower

Item	Qty.	Part Number	Description
R	1	000718	Circuit Breaker, 20 amp
S	1	000561	Module A, Activator
T	1	000562	Module B, Safety
U	1	000563	Module C, Drive/ Encoder
V	1	000568	Module H, Defrost
W	1	000708	Backplane for Input/ Output Cards
- - -	1	000711	Interface Cable, 24 in. (not shown)
Opt.	1	000564	Module D, Loop Detector
Opt.	1	000565	Module E, Dual Loop Detector
Opt.	1	000566	Module F, Input Activator
Opt.	1	000567	Module G, Output Signal
Opt.	1	000569	Module J, Airlock

CONTROL PANEL - IR HEAT & BLOWERS



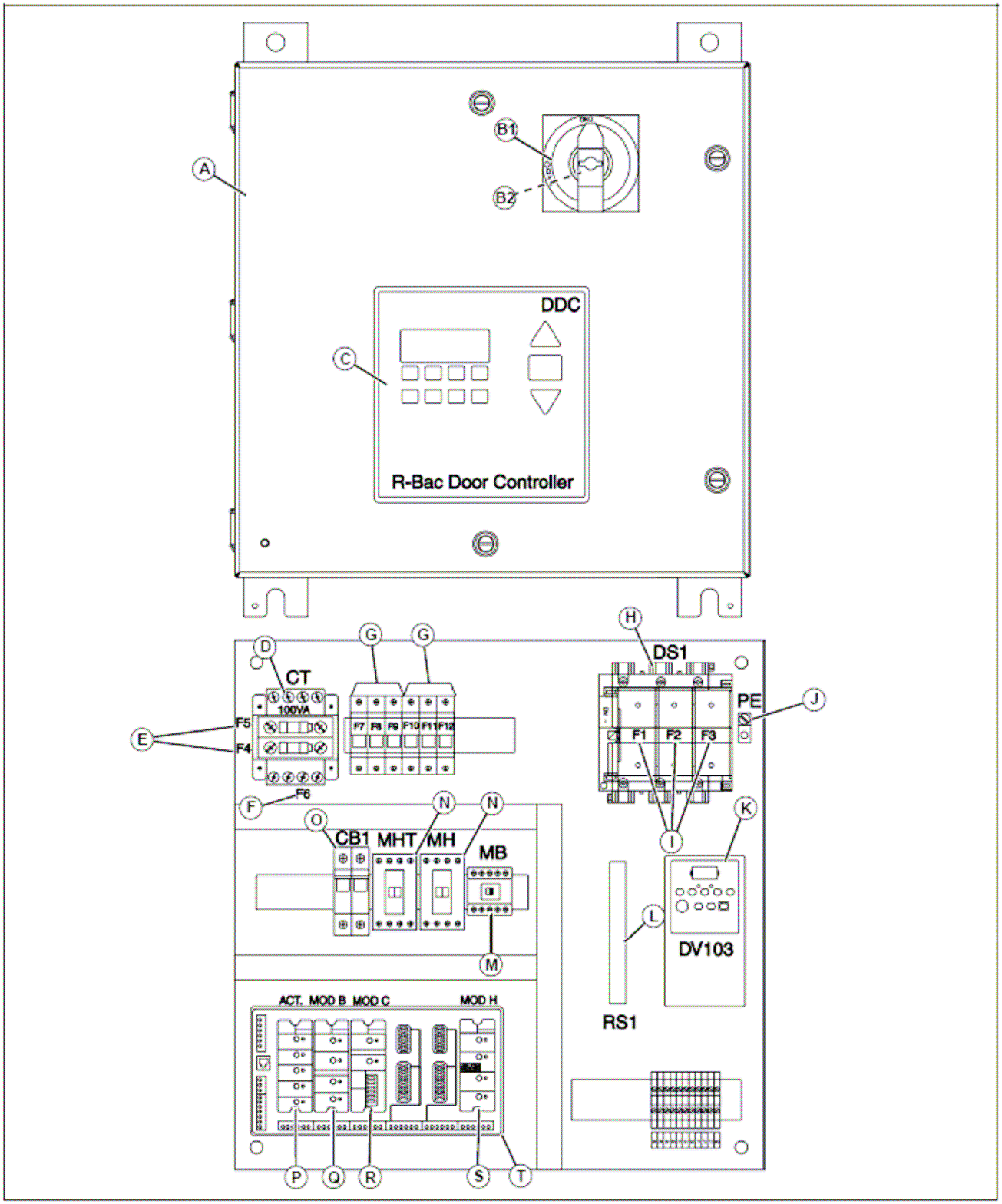
Control Panel - IR Heat & Blowers

Item	Qty.	Part Number	Description
A	1	- - - - - - - - - -	Enclosure, NEMA Type 4 Sub-panel for Enclosure
B1	1	000581	Disconnect, Handle NEMA Type 4
B2	1	000710	Disconnect Shaft
C	1	000570	Operator Interface, Main Door Controller
D	1	000643	Transformer, 208/230/ 460 Volt, 24 VDC
E	1 ea	000587	Fuse, 600 Volt, 0.5 amp, Class CC
F	1	000586	Fuse, 250 Volt, 4 Amp, Class M
G	1 ea	000582	Fuse, 600 Volt, 10 amp, Class CC
H	1 ea	000671	Fuse, 600 Volt, 6 amp, Class CC
I	1	000709	Disconnect, Fusible 600 V/30A
J	1 ea	000674	Fuse, 600 Volt, 25 Amp, Class J
K	1	000715	Lug, Ground
L	1	000571	Variable Freq. Drive, 2HP, 460 Volt
M	1	000580	Resistor, 125 Ohm, 100 Watt
N	1 ea	000578	Relay w/LED, DPDT, 24 VAC
O	1	000576	Contactor, 9 Amp, 24 VAC Coil
P	1	000575	Contactor, 23 Amp, 24 VAC Coil
Q	1	000718	Circuit Breaker, 20 amp
R	1	000561	Module A, Activator

Control Panel - IR Heat & Blowers

Item	Qty.	Part Number	Description
S	1	000562	Module B, Safety
T	1	000563	Module C, Drive/ Encoder
U	1	000568	Module H, Defrost
V	1	000708	Backplane for Input/ Output Cards
- - -	1	000711	Interface Cable, 24 in. (not shown)
Opt.	1	000564	Module D, Loop Detector
Opt.	1	000565	Module E, Dual Loop Detector
Opt.	1	000566	Module F, Input Activator
Opt.	1	000567	Module G, Output Signal
Opt.	1	000569	Module J, Airlock

CONTROL PANEL - DEFROST/IR HEATER



Control Panel - Defrost/IR Heater

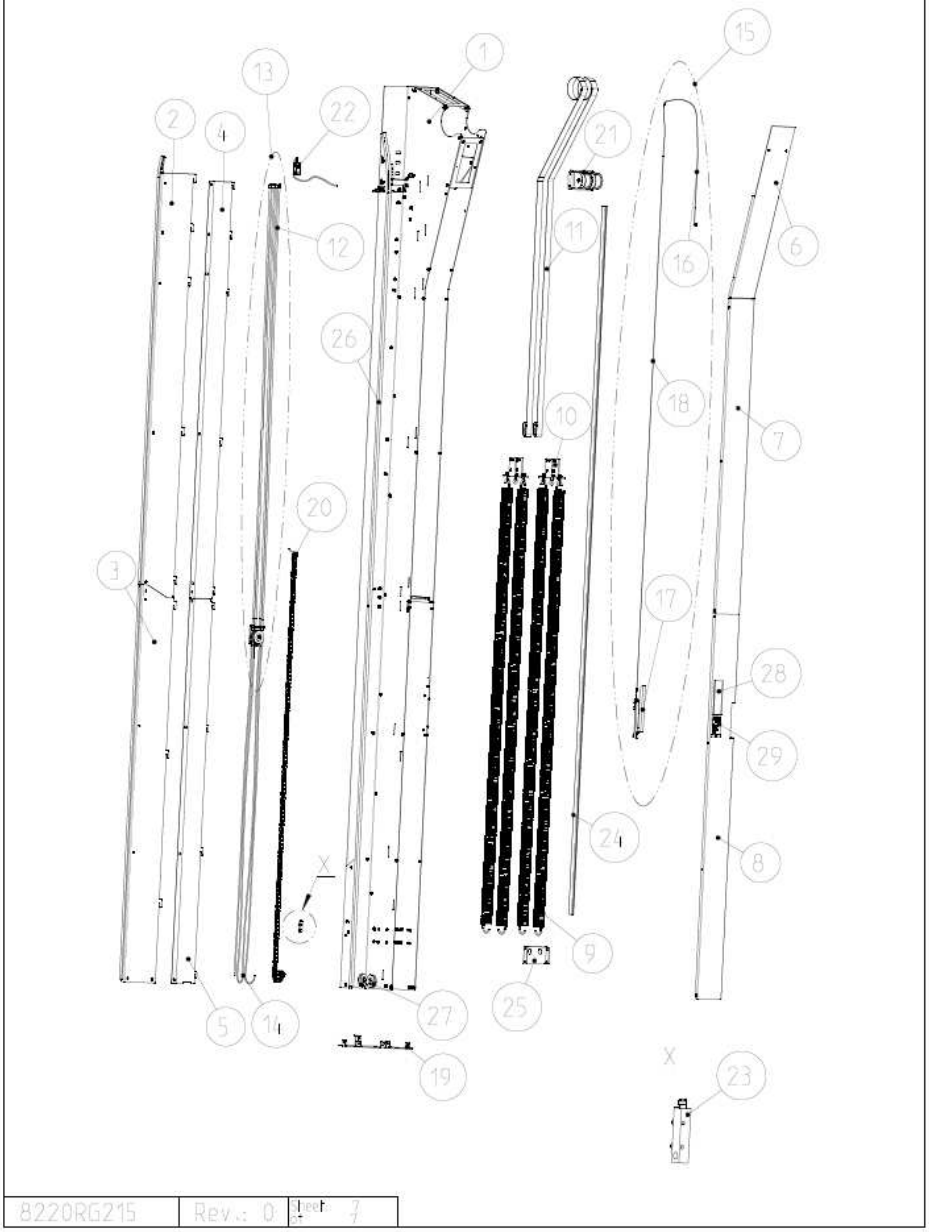
Item	Qty.	Part Number	Description
A	1	- - - - -	Enclosure, NEMA Type 4
		- - - - -	Sub-panel for Enclosure
B1	1	000581	Disconnect, Handle NEMA Type 4
B2	1	000710	Disconnect Shaft
C	1	000570	Operator Interface, Main Door Controller
D	1	000643	Transformer, 208/230/460 Volt, 24 VDC
E	1 ea	000587	Fuse, 600 Volt, 1 amp, Class CC
F	1	000586	Fuse, 250 Volt, 4 Amp, Class M
G	1 ea	000582	Fuse, 600 Volt, 10 Amp, Class CC
H	1	000709	Disconnect, Fusible 600 V/30A
I	1 ea	000674	Fuse, 600 Volt, 35 Amp, Class J
J	1	000715	Lug, Ground
K	1	000571	Variable Freq. Drive, 2HP, 460 Volt
L	1	000580	Resistor, 125 Ohm, 100 Watt
M	1	000576	Contactor, 9 Amp, 24 VAC Coil
N	1 ea	000575	Contactor, 23 Amp, 24 VAC Coil
O	1	000718	Circuit Breaker, 20 amp
P	1	000561	Module A, Activator
Q	1	000562	Module B, Safety
R	1	000563	Module C, Drive/ Encoder

Control Panel - Defrost/IR Heater

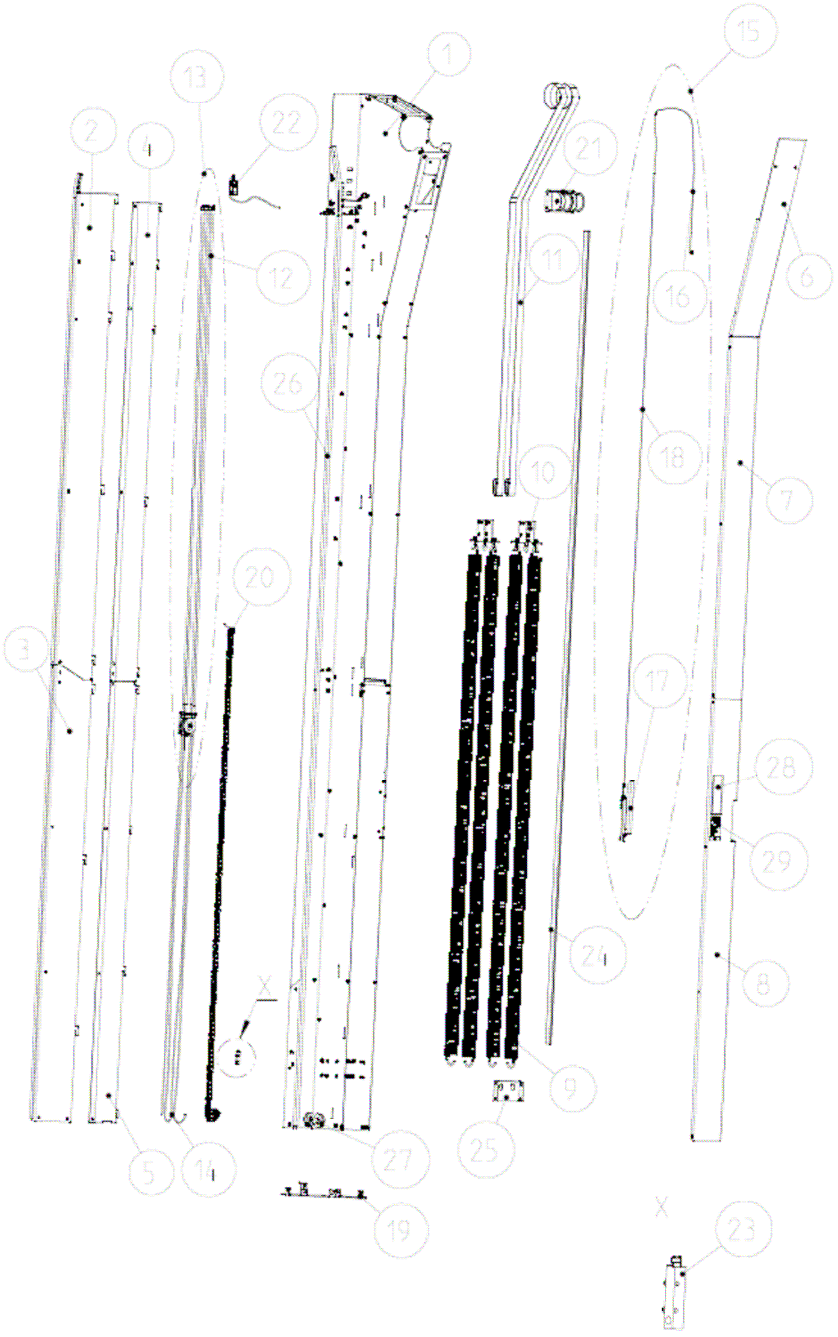
Item	Qty.	Part Number	Description
S	1	000568	Module H, Defrost
T	1	000708	Backplane for Input/ Output Cards
- - -	1	000711	Interface Cable, 24 i (not shown)
Opt.	1	000564	Module D, Loop Detector
Opt.	1	000565	Module E, Dual Loop Detector
Opt.	1	000566	Module F, Input Activator
Opt.	1	000567	Module G, Output Signal
Opt.	1	000569	Module J, Airlock

Parts Diagrams and Lists

Side frame right	
Seitenteil rechts	



Side frame built	
Sectional panels	



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RR3000, Version 22

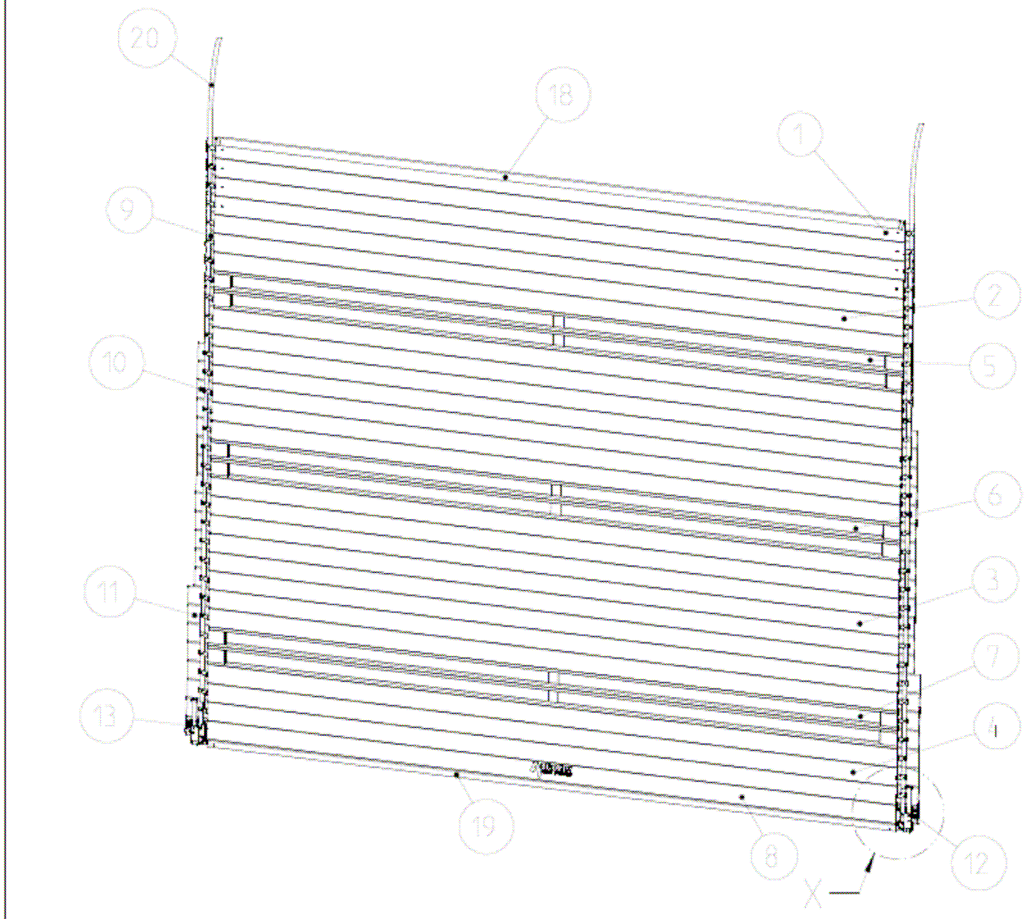
Pos. Item	Description	Bemerkung Note	gultig ab	Art-Nr. Item-No	1	Delivery time class	Elnehit Unit	Anzahl pro T or Quantity per door	Verschell Wear part/slitdetaijle
I	**Side frame right Side frame left (mirror image)**								
1	Side frame RH compl.			8220RG215	G	C	Stck./pc.	1	
	Side frame LH compl.			8220RG216	G	C	Stck./pc.	1	
2	Guide cover top RH			4521RG151		C	Stck./pc.	1	
	Guide cover top LH			4521RG152		C	Stck./pc.	1	
3	Guide cover bottom RH			4521R1101		C	Stck./pc.	1	
	Guide cover bottom LH			4521R1102		C	Stck./pc.	1	
	Guide cover RH	H<2375		4521RG159	G	C	Stck./pc.	1	
	Guide cover LH	H<2375		4521RG160	G	C	Stck./pc.	1	
4	Gusset cover top RH			4521RG149	G	C	Stck./pc.	1	
	Gusset cover top LH			4521RG150	G	C	Stck./pc.	1	
5	Gusset cover bottom RH			4521R1099		C	Stck./pc.	1	
	Gusset cover bottom LH			4521R1100		C	Stck./pc.	1	
	Gusset cover RH			4521RG163	G	C	Stck./pc.	1	
	Gusset cover LH			4521RG164	G	C	Stck./pc.	1	
6	Spring cover top			4521R0957		C	Stck./pc.	2	
7	Spring cover middle	H>3000		4521RG109	G	C	Stck./pc.	2	
8	Spring cover bottom (side of bearing)	H>3000		4521R0974		C	Stck./pc.	1	
	Spring cover bottom (side of bearing)	H<=3000		4521RG0111	G	C	Stck./pc.	1	
	Spring cover bottom RH (side of unit)	H>3000		4521R0972		C	Stck./pc.	1	
	Spring cover bottom LH (side of unit)	H>3000		4521R0973		C	Stck./pc.	1	
	Spring cover bottom RH (side of unit)	H<=3000		4521RG113	G	C	Stck./pc.	1	
	Spring cover bottom LH (side of unit)	H<=3000		4521RG115	G	C	Stck./pc.	1	
9	Tension spring short L=976mm	H<3000		4802R0009		A	Stck./pc.	max 12	X
	Tension spring middle L=1397mm	3000<=H<4000		4802R0007		A	Stck./pc.	max 12	X
	Tension spring long L=2193mm	H>=4000		4802R0008		A	Stck./pc.	max 12	X
10	Spring suspension top complete			8220R0050		A	Stck./pc.	4	
11	Belt (blue)	L=3600		5105R0045		A	mm	4 pc	
12	Rubber cable curtain tension	L=(H-200)x0,6		5105R0009		A	mm	8 pc	

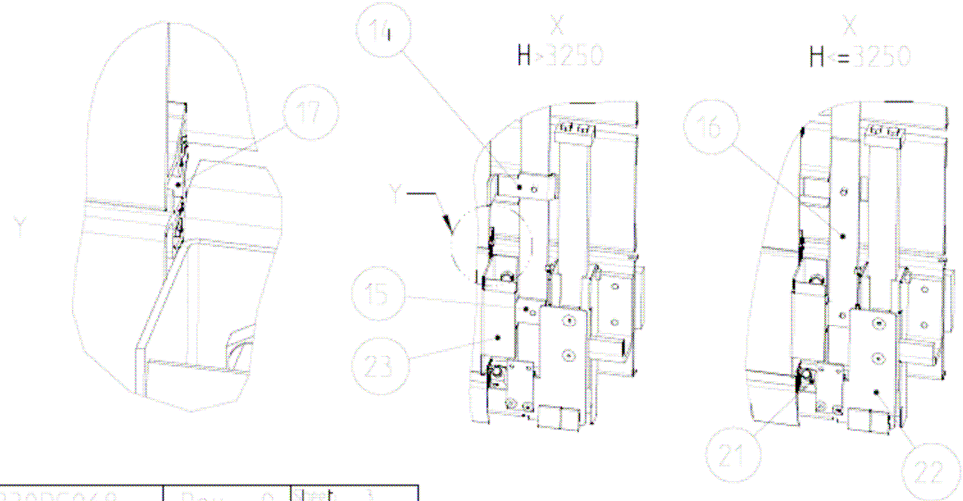
RR3000, Version 22

Pos. Item	Description	Bemerkung Note	gultig ab	Art-Nr. Item-No	1	Delivery time class	Elnehit Unit	Anzahl pro T or Quantity per door	Verschell Wear part/slitdetaijle
13	Redirection rope with cable			8120RG046	G	A	Stck./pc.	2	
14	Rope for curtain tension	L=H+850		5105R0037		A	mm	2 pc	
15	Emergency lever			8220RG218	G	B	Stck./pc.	1	
16	Bowdenhelix d=2,5	L=800		5006RG218		A	mm	1	
17	Brake lever			5005R0023		A	Stck./pc.	1	
18	Bowdencable d=1,5	L=H+500		5006R0007		A	mm	1	
19	Bottomplate RH			4521R1064		A	Stck./pc.	1	
	Bottomplate LH			4521R1065		A	Stck./pc.	1	
20	Cable Chain complete	(*)		8520RG002	G	B	Stck./pc.	2	
	Connecting cable 4m	drive side H<=2500		4907R0024		A	Stck./pc.	1	
	Connecting cable 6m	drive side 2500<H<=4500 non drive side (H+B)<=4500		4907R0029		A	Stck./pc.	1	
	Connecting cable 8m	drive side H>4500 non drive side 4500<(H+B)<=8500		4907R0030		A	Stck./pc.	1	
	Connecting cable 10m	non drive side 6500<(H+B)<=8500		4907R0032		A	Stck./pc.	1	
	Connecting cable 12m	non drive side 8500<(H+B)<=10500		4907R0023		A	Stck./pc.	1	
	Connecting cable 14m	non drive side 10500<(H+B)<=12500		4907R0031		A	Stck./pc.	1	
21	Belt receptacle			8120R0047		A	Stck./pc.	2	
22	Proximity switch M8 10E Plugconnector			4905R0082		A	Stck./pc.	1	
	Connecting cable 2m with 2 M8 plugs	Driveside		4907r0044		A	Stck./pc.	1	
23	Proximity switch M8 10E Plugconnector			4905R0082		A	Stck./pc.	1	
	Connecting cable 2m with 2 M8 plugs	Driveside		4907r0044		A	Stck./pc.	1	
24	Cable Duct complete	L=2000		8120R0049		B	Stck./pc.	4	
25	Spring Suspension			4521R1090		A	Stck./pc.	6	
26	Sliding rail 3000 mm long			4121R0335		A	Stck./pc.	18	
	Tapping screw 4,2x9,5			5406R0241		A	Stck./pc.	12	
27	Rope pulley			5003R0001		A	Stck./pc.	8	
28	Choise label emergency lever			6403R0009		A	Stck./pc.	1	
29	Door label			6403R0004		A	Stck./pc.	1	

(*) Data of W, H and drive side is necessary

Panel, Door, Blade, Type 1	
Paneelhelbang, Tyn 1	





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RR3000, Version 22

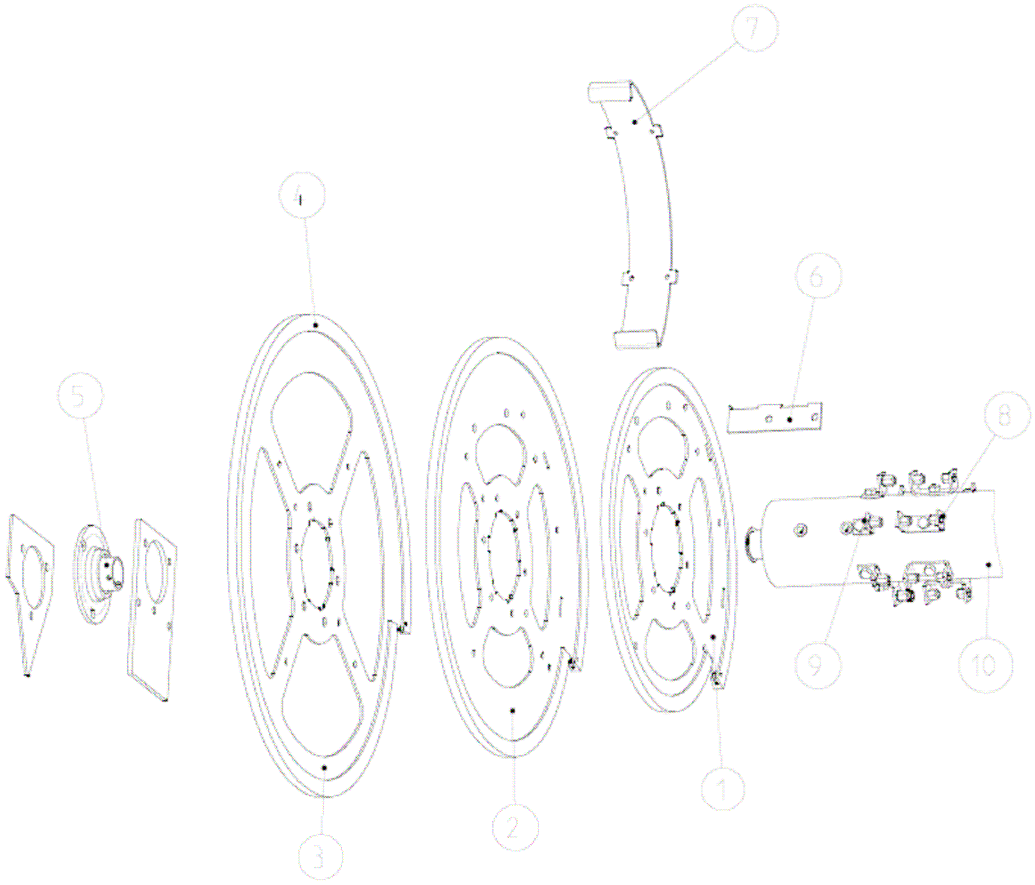
Pos. Item	Description	Bemerkung Note	gultig ab	Art-Nr. Item-No	1	Delivery time class	Elnehit Unit	Anzahl pro T or Quantity per door	Verschell Wear part/slitdetaijle
II	**Panel Door Blade Type 1**								
1	Top lamella, with intel sealing			8230RG032	G	B		1	
	without isolation						m		
	isolation with Polystyrol						m		
	isolation with mineral wool						m		
2	Lamella 1 with extension piece 1-short	H<=4000: n=10 H>4000: n=7		8230RG029	G	B		max 10	
	without isolation						m		
	isolation with Polystyrol						m		
	isolation with mineral wool						m		
3	Lamella 2 with extension piece 2-middle	H<=3125: n=(H-1500)/125 H>=3125: n=13		8230RG030	G	B		max 13	
	without isolation						m		
	isolation with Polystyrol						m		
	isolation with mineral wool						m		
4	Lamella 3 with extension piece 3-long	H>3250: n=(H-3125)/125		8230RG031	G	B		max 15	
	without isolation						m		
	isolation with Polystyrol						m		
	isolation with mineral wool						m		
5	Window lamella 1 with extension piece 1-short	H<=4000: n=10 H>4000: n=7		8230RG033	G	B	m	max 8	
6	Window lamella 2 with extension piece 2-middle	H<=3125: n=(H-1500)/125 H>=3125: n=13		8230RG034	G	B	m	max 8	
7	Window lamella 3 with extension piece 3-long	H>3250: n=(H-3125)/125		8230RG035	G	B	m	max 10	
8	Bottom lamella with rubber profile without extension piece 4			8230RG036	G	B		1	
	without isolation						m		
	isolation with Polystyrol						m		
	isolation with mineral wool						m		
9	Extension piece 1, short	H<=4000: n=10 H>4000: n=7		4521R1063		A	Stck./pc.	max 22	
10	Extension piece 2, middle	H<3125: n=(H-1500)/125 H>3125: n=13		4521R0878		A	Stck./pc.	max 26	
11	Extension piece 3, long	H>3250: n=(H-3125)/125		4521R0878		A	Stck./pc.	max 30	

RR3000, Version 22

Pos. Item	Description	Bemerkung Note	gultig ab	Art-Nr. Item-No	1	Delivery time class	Elnehit Unit	Anzahl pro T or Quantity per door	Verschell Wear part/slitdetaijle
12	Extension piece 4 re, for bottom lamella			8150R0064		A	Stck./pc.	1	
13	Extension piece 4 li, for bottom lamella			8150R0065		A	Stck./pc.	1	
14	Clamping lug standard			4521R0966		A	Stck./pc.	max 78	
15	Clamping lug extension piece 4	H>3250		4521R1028		A	Stck./pc.	max 2	
16	Connecting lug extension piece 4	H<=3250		4521R1069		A	Stck./pc.	max 2	
17	Lamella sealing			4402RG005		B	m	200	
18	Sealing top lamella			4421RG011		B	m	6	
19	Bottom rubber profile			4402RG006		B	m	6	
	Rubber profile extended sealing lip cut-to-size			4421RG016	G	C	m		
20	Flat belt L 6000 mm			4121R0299		B	Stck./pc.	max 2	
21	Photocell transmitter	LH		4904R0211		A	Stck./pc.	1	
	Photocell receiver			4904R0477		A	Stck./pc	1	
22	Bracket pre running photocell RH			4521R0943		A	Stck./pc	1	
	Bracket pre running photocell LH			4521R1023		A	Stck./pc	1	
23	Activator Proximity switch RH			4521R0981		A	Stck./pc	1	
	Activator Proximity switch LH			4521R0982		A	Stck./pc	1	
	Flat belt repair-kit			8130R0011		A	Stck./pc.		

(*) Inclusive lamella seal (position 17), without clamping plate (position 14-16)

Barrel complete	
Wickelwelle kompl.	
Vals kompletT	



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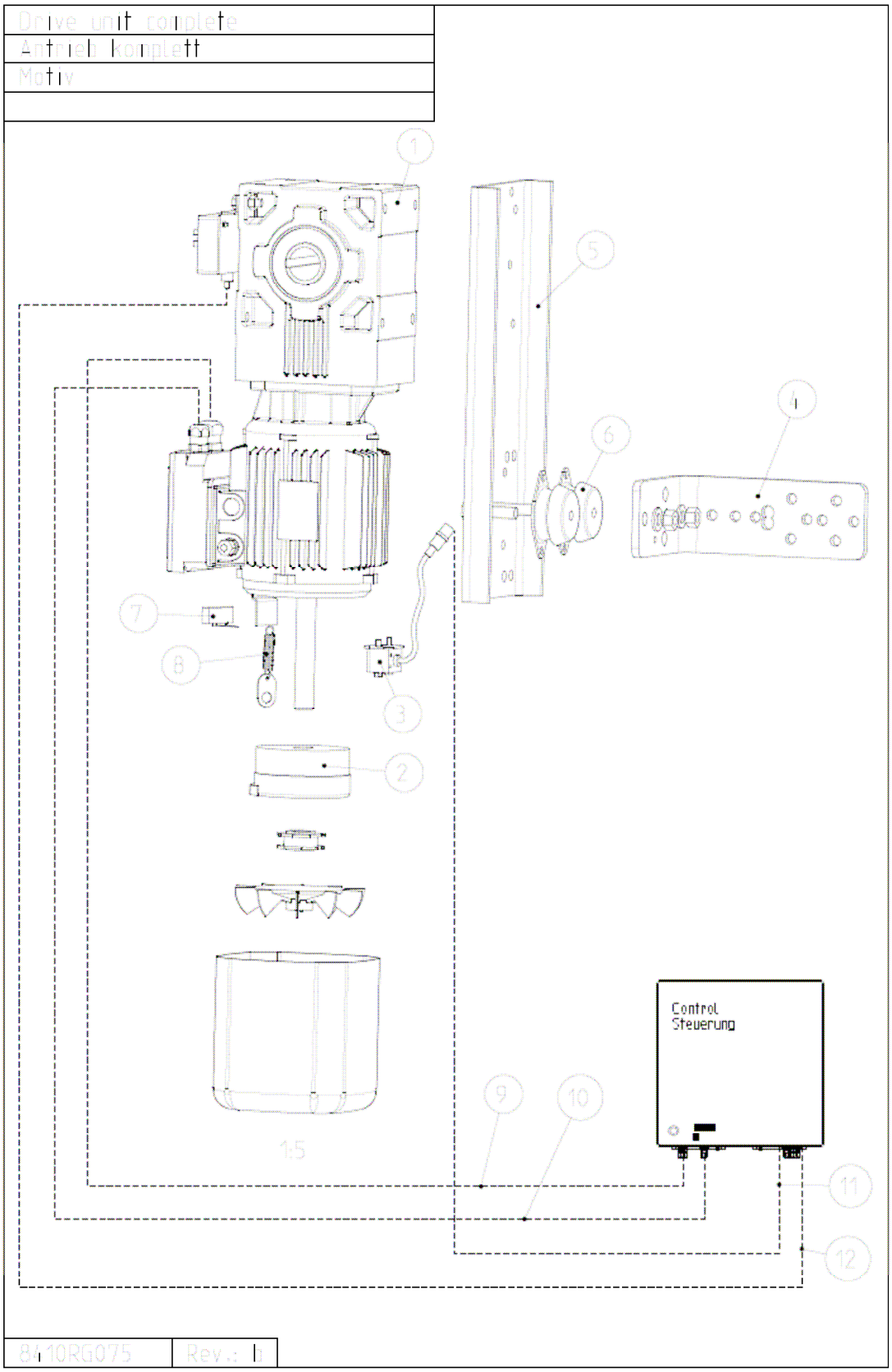
RR3000, Version 22

Pos. Item	Description	Bemerkung Note	gultig ab	Art-Nr. Item-No	1	Delivery time class	Elnehit Unit	Anzahl pro T or Quantity per door	Verschell Wear part/slitdetaijle
III	**Barrel complete**								
	Barrel complete	H<=3250		8240RG100	G	D	Stck./pc.	1	
		H>3250		8240RG100	G	D	Stck./pc.	1	
1	Spiral disk 1			4521R0940		A	Stck./pc.	2	
2	Spiral disk 2			4521R0939		A	Stck./pc.	2	
3	Spiral disk 3 LH	H>3250		4521R1048		A	Stck./pc	1	
	Spiral disk 3 RH	H>3250		4521R1047		A	Stck./pc	1	
4	Dampener disks	L=1850		4401R0002		A	m.	10	
5	Bearing d 35			8140R0060		A	Stck./pc.	2	
6	Bracket belt			4521R0953		A	Stck./pc.	2	
7	Winding plate			4521R0941		A	Stck./pc.	2	
8	U-Bracket			4521R1179		A	Stck./pc.	max 12	
9	Bracket cam			4521R1167		A	Stck./pc.	max 12	
10	Barrel without components			4521RG103	G	C	Stck./pc	1	

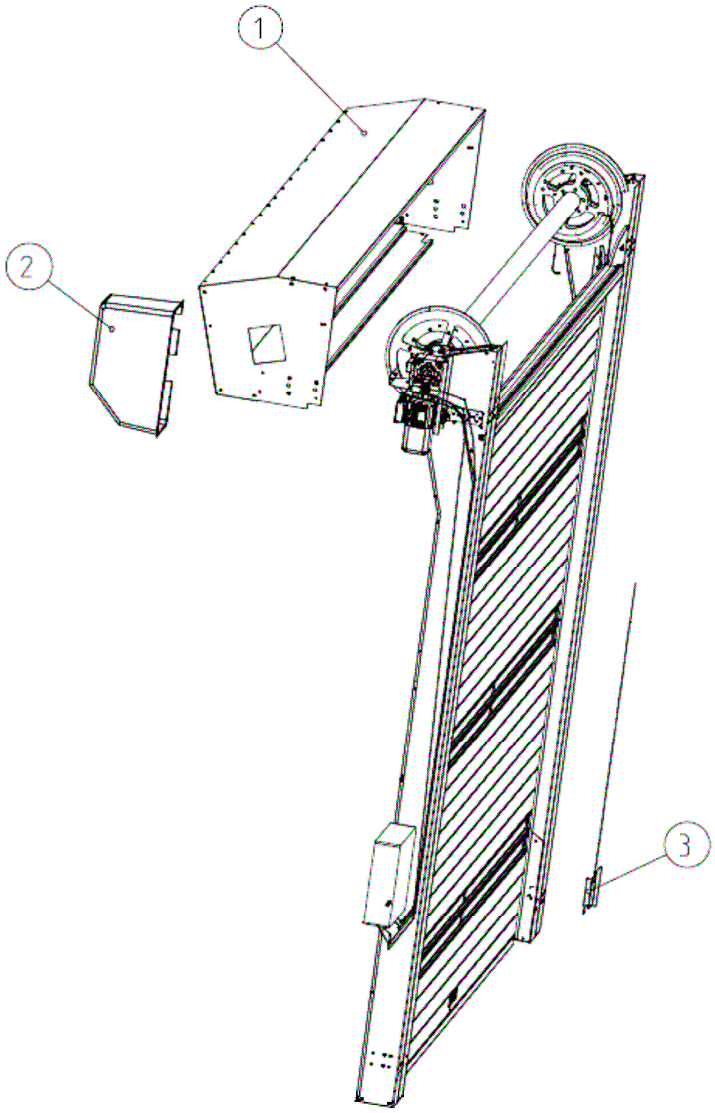
(*) Data of W, H and drive side is necessary


Drive unit complete
Antrieb komplett
Motiv
1
2
3
4
5
6
7
8
9
10
11
12
Control
Steuerung
1:5
8M10RG075
Rev.: 11

RR3000, Version 22

Pos. Item	Description	Bemerkung Note	gultig ab	Art-Nr. Item-No	1	Delivery time class	Elnehit Unit	Anzahl pro T or Quantity per door	Verschell Wear part/slitdetaijle
IV	**Drive Unit complete**								
1	Gear motor 220-230/400-415 V 50Hz	H>4000		6601R0083		B	Stck./pc.	1	
	Gear motor 220-230/400-415 V 60Hz	H<=4000		6601R0010		B	Stck./pc.	1	
2	Brake 15Nm 196V DC HL			6622R0018		A	Stck./pc.	1	
3	Double Proximity Switch			4905R0019		A	Stck./pc.	1	
4	Torque arm			4521R0776		A	Stck./pc.	1	
5	Motor plate			4521R1096		A	Stck./pc.	1	
6	Vibration absorber			5004R0041		A	Stck./pc.	2	
7	Microswitch			6621R0002		A	Stck./pc.	1	
8	Spring 2, 2x11x48			4802R0004		A	Stck./pc.	1	
9	No.-cable 4x1,5			4907R0020		A	mm	1 pc	
10	Cable 2x0,75			4907R0018		A	mm	1 pc	
11	Cable 4x0,25 11,5m GY	5m<SL<=10m		4907R0026		A	Stck./pc.	1	
	Cable 4x0,25 21,5m GY	10m<SL<=20m		4907R0027		A	Stck./pc.	1	
	Cable 4x0,25 31,5m GY	20m<SL<=30m		4907R0028		A	Stck./pc.	1	
	Cable 4x0,25 6,5m GY	SL<=5m		4907R0025		A	Stck./pc.	1	
12	Junctionbox 9plug 11,5m cable	5m<SL<=10m		4906R0028		A	Stck./pc.	1	
	Junctionbox 9plug 21,5m cable	10m<SL<=20m		4906R0029		A	Stck./pc.	1	
	Junctionbox 9plug 31,5m cable	20m<SL<=30m		4906R0030		A	Stck./pc.	1	
	Junctionbox 9plug 6,5m cable	SL<=5m		4906R0027		A	Stck./pc.	1	
13	Control cable	ACS 80		8830RG042		B		1	
		Base price					Stck./pc.		
		Upcharge					m		
	Control Cable	MCC		8830RG048		B	Stck./pc.	1	
14	Encoder 50 pulses for motor MW1100	MCC		4904R0448		A	Stck./pc.	1	
15	Encoder, electronic part	MCC		4904R0450		A	Stck./pc.	1	

RR 3000, RR 3000L	
RR 3000, RR 3000L	
RR 3000, RR 3000L	



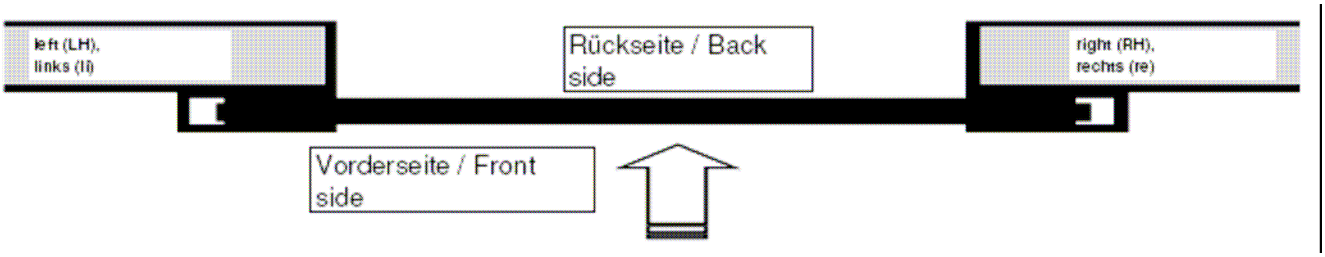
8300RG175	Rev.: b	Sheet: 3 of 3

RR3000, Version 22

Pos. Item	Description	Bemerkung Note	gultig ab	Art-Nr. Item-No	1	Delivery time class	Elnehit Unit	Anzahl pro T or Quantity per door	Verschell Wear part/slitdetaijle
V	**Options**								
1	Top roll cover			8260RG033	G			1	
		Base price					Stck./pc.		
		Upcharge					m/W		
2	Motor Cover RH	Plastic	>01/2007	8160R0036			Stck./pc.	1	
	Motor Cover LH			4907R0027			Stck./pc.	1	
	Motor Cover RH	Alu	02/2007>	8160R0071			Stck./pc.	1	
	Motor Cover LH			8160R0072			Stck./pc.	1	
3	2. emergency lever (option)			8170RG022	G		Stck./pc.	1	
	Transport pallet			8270RG031	G		Stck./pc.	1	

SL = control line
H, L => [mm]

	Legend
	1
G	Generic Item
	Delivery Time
A	Within 24 hours
B	2-3 workdays
C	5-8 workdays
D	10-14 workdays
	Wear Parts
x	Standard wear with time/use



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