

06/2016

DU1020I Parts listing

Qty	Description
1	003883 3P 600V power dist block
1	004283 A50 belt
4	002453 3/8" tube x 1/8 npt ML str 18-187
1	002449 1/4-28 x 1/8" FNPT
1	004314 8" duplex thermocouple
1	004313 15" duplex thermocouple
1	004260 latch & striker for lower chamber
1	004209 Watlow instr CVC6HC00001250C(for fan)
2	004206 Watlow F4PHCAAA-01RG (not if programmable)
2	004515 Watlow hi limit PM6L1EJ-AAAAAAA
1	003930 XTCE025C10A contactor
1	004230 lid interlock microswitch E47BLS06
2	003932 C25BNB220A contactor
2	003936 C25DNF340A contactor
1	003917 Micron transformer B100BT213JK
2	003662 start switch
2	003663 stop switch
1	003770 1" 90 deg connector #7383
1	003771 1" str connector
1	003763 APP TWL50L 1/2 90d
1	401856 Thermocouple collar assm
1	402280 Door hinge bracket assm
1	402320 Hinge pin assm-6" bracket with 3 1/2" pin
1	402796 Lower door handle brkt 3/8 x 2 1/2 x 6 1/2
1	004265 AK 41 x 3/4 cast iron pulley
1	004266 AK 30 x 5/8 cast iron pulley
1	008613 Heat slinger fan-machined
2	002432 1" pillow block SL205-16
1	401316 Hearth plate 12 x 22 (not for atmosphere)
1	402340 Impeller assm
2	003906 Red light
2	003624 5 amp fuse
2	003600 fuse holder
1	401344 rear non-heating panel
1	401363 20 x 28 5/8 x 1/2" terminal backup bd (cut to size)
1	402537 door plug (will need cement)
1	008102 hearth brick 6 1/4 x 6 x 1
1	402560 Seal retaining ring for lower chamber
1	402580 Upper door seal ring

DU1020 cont.**If alarm bell**

Qty	Description
1	003894 alarm bell
1	004550 SSR-240-10A-DC1 solid state relay
1	003666 toggle switch

If programmable option #1:

1	004190 F4SH-CAAA-01RG programmable instr
---	--

460/3

1	004118 ½ hp 3450 RPM motor 230/460 3ph VM3537
6	301316 Tubulars 240V 8-32-206-22
1	003971 XTOB2F4CC1 overload relay
3	003612 L60030M3C fuseholder
2	004184 fuseholder box conn LFT600303C
3	003648 KLK005 600v fuse ATM5 or GGC5
3	003652 KLK 25 fuse
3	003653 KLKR030 fuse
4	003573 JLLS30 fuse 30A 600V class T
1	401341 Top panel 460/3
1	401342 Bottom panel 460/3
2	401343 Side panel 460/3
2	003585 SCR DC20-60C0-0000

230v/3ph- updated 6/2016

1	004118 ½ hp 3450 RPM motor 230/460 3ph P101 Marathon
1	003939 XTOB004CC1 overload relay
1	003910 LFT30060-2CR fuse holder
2	003606 LR25060-3CR fuse holder
6	003636 FLNR 40 ID fuse
3	003626 FLNR5 fuse
4	003574 JLLN045 fuse
6	301316 tubular elements 240 volt
1	401336 Top panel 230/3
1	401337 Bottom panel 230/3
2	401338 Side panel 230/3
2	003584 DC20-24C0-00000 SCR
1	003604 LR25030-3CR fuseholder

11/16/2016 **DU1224 PARTS LISTING**

1	004314 8" duplex thermocouple (upper chamber)
1	004313 15" duplex thermocouple (lower chamber)
1	004260 latch & striker
2	004515 Watlow high limit PM6L1EJ-AAAAAAAA
2	004206 Watlow instr F4PH-CAAA-01RG (only 1 if unit has programmable instr.option)
1	004209 Watlow instru CVC6HC00001250C for circulating fan
2	003932 2 pole contactor C25BNB220A
1	003930 XTCE025C10A contactor
1	004230 lid interlock microswitch E 47BLS06
2	003936 Contactor C25DNF340A
2	003662 start switch
2	003663 stop switch
3	003648 KLK005 fuse
1	004265 Pulley AK41 x ¾
1	004266 Pulley AK30 x 5/8
1	008613 Heat slinger fan-machined
2	002432 1" pillow blocks
1	401468 14 x 27 hearth plate
1	402340 Lower chamber circulating fan
1	004286 Belt A46
12	003774 kearny nut
2	003906 red indicator light
2	003624 5 amp fuse
2	003600 fuse holder
1	402734 rear non-heating panel
1	401624 25" x 30 ½" x ½" terminal backup bd

DU1224 cont.

1	401592 door plug- if atmosphere furnace see atmosphere section
4	008101 hearth brick 5 ½ x 4 1/2 x 1 ¼
1	402820 DU1224 lower seal retaining ring
1	402849 Lower chamber textoglass seal
1	402779 Upper chamber textoglass seal

If alarm bell

1	003894 alarm bell
1	004550 SSR-240-10A-DC1 solid state relay
1	003666 toggle switch

If programmable option 1

1	004190 F4SH-CAA0-01RG programmable
---	------------------------------------

If DU1224 is 230v, 3ph

1	402736 top panel 230/3
1	402737 bottom panel 230/3
2	402738 side panel 230/3
1	004118 ½ hp 3450 RPM motor 230/460 3ph 36-P102
2	003589 SCR DC21-24C0-0000
6	301320 tubulars 8-32-21-38
1	003939 XT0B004CC1 overload relay
4	003571 JLLS45 fuse
1	003917 B100BTZ13JK micron transformer
1	003883 Power dist block
2	003599 LT60060 2CR fuse block
6	003637 FLNR50ID 250v 50amp fuse
2	003606 LR25060 3CR fuse block
3	003626 FLNR5 fuse 250v 5 amp fuse
1	003604 LR25030-3CR fuse block
15	003691 copper lugs

If DU 1224 is 460v,3ph

1	402741 top panel 460/3
1	402742 bottom panel 460/3
2	402743 side panel 460/3
1	004118 ½ hp 3450 RPM motor 230/460 3ph P101
2	003585 DC20-60C0-0000 SCR
6	301320 tubulars 8-32-21-38
3	003612 L60030M3C fuse holder
1	003971 XTOB2P4CC1
6	003573 JLLS30 fuse
6	003653 KLKR30 fuses
2	004184 Fuseholder box connector LFT600303C
1	003883 power dist block
1	003917 transformer
15	003691 copper lugs

If atmosphere control DU1224

1	004211 ¼" gas solenoid valve
1	004315 12" duplex thermocouple
1	004190 Watlow instrument F4SH-CAA0-01RG prog.
1	004219 VFB-52-BV flowmeter
4	008106 6 ¼ x 4 ½ x 1 ¼ hearth brick
1	402700 muffle
1	402930-ATMOS Door plug with cement, braid and sealant

DU2020 parts list 06/20/15

1	004271 SPB1000NE x 1 1/2 Browning pillow block
1	004268 SPB1000E x 1 1/2 Browning pillow block
1	004317 Hammond 30 x 24 x 9 box
1	004318 Hammond filter fan kit
1	004319 Hammond exhaust filter kit
1	004199 H x 5/8 bushing (goes w/ BK5511)
1	004118 ½ HP 3 ph motor 3600 rpm
1	004119 ½ HP 3 ph motor 1800 rpm
1	004280 A 59 V belt
1	303200 ½ x 31 x 32 5/8 transite backboard
1	004313 15" type J duplex thermocouple
1	004315 12" type K duplex thermocouple
2	004209 Watlow CVC6HC-0000-1250-C for recirculating fan
1	004138 F4PH-FAAA-01RG Watlow
1	004206 F4PH-CAAA-01RG Watlow ** not with programmable control- use 004190
2	004515 97AO-DAAA00ORR hi limit Watlow instrument
2	003971 C316FNA3H overload relay
2	003936 3 pole contactor 40 amp C25DNF340A
2	003930 CE15ENS3AB contactor
1	004230 E47BLS06 switch
2	003932 C25BNB220A contactor
1	004190 F4SH-CAAA-01RG programmable instrument
1	003917 transformer B100BTZ13JK
1	004265 AK41 x ¾ C.I. FHP sheave
1	004267 1A62/B6.6-1610 TL Sheave 118206 (goes w/ 1610 bushing)
1	004307 BK 55H pulley
1	004266 AK 30 x 5/8
1	004260 latch & striker
1	004308 1610 1 ½ w/kw TL Bushing 117163
2	002432 SL205-16 FYN pillow block
1	004288 A 58 belt
1	303050 Door plug
1	301301 Rear non heating panel – set consists of 3 pc 1" DURABD (CUT 26 X 30)
2	002457 SC ¾" shaft collar
	003737 #4 ga high temp wire
5	008166 1 ½ x 12 x 12 brick
1	003763 ½ 90 deg comp emt dq
1	003809 ½ APP FFL50 mall fem/fem pull elbow

1	303125 Upper chamber fan with shaft
1	303120 Cooling fan

If DU2020 208v, 3ph

1	003918 208v transformer B100MG-15XK
1	003866 LR25100-3 fuseholder (lower chamber)
1	003867 LT30100-2 fuse holder (class T) (lower chamber)
1	003926 CE15JNS3AB contactor (lower chamber)
1	003589 DC2C-5624-C001 SCR (lower chamber)
1	003937 C25HNE3120 contactor (upper chamber)
1	003586 PC20-N25B-0000 (upper chamber) Watlow
2	003923 LT30200-1C fuse block (upper chamber)
3	003615 FLNR125ID fuse (upper chamber)
6	301314 208v tubulars RGN6910S-7
2	003939 C316FNA3K overload relay
1	003607 LR25200-3CR fuse block (upper chamber)
3	003898 FLNR70ID class rk 70a fuse (lower chamber)
2	003902 JLLN70 class T 70A fuse (lower chamber)
3	003927 JLLN125 fuse (upper chamber)
1	301312 208v top panel
2	301313 208v side panel
1	003924 Power distribution block OLD04013Z
1	NIA423012 42 x 30 x12 Hammond with panel

If DU 2020 240v/230V 3 ph

2	004513 DC10-24CO-OOOO scr
2	003939 C316FNA3K overload relay
2	003945 3 pole 65 amp contactor C25FNF350A
1	003910 Fuse block LT 30060-2CR
2	003604 LR25030 3CR fuse block
2	003606 F60A3B fuse holder
6	003626 FLNR 5 fuses
6	003637 FLNR S0ID fuses
4	003909 JLLN 50 fuses
6	301315 tubulars
1	301310 top panel 230/3
2	301311 side panel 230/3

If DU2020 480v, 3ph

6	301315 Lower chamber tubulars 480/3
1	301308 Top panel 460v
2	301309 Side panel 460v
2	003599 LT-60060-2CR600V
2	003612 Fuse holder 600V 30amp L60030M-3C
2	003613 LT60060-3CR fuseholder
10	003567 JLLS40 fuses
2	003585 SCR DC20-60CO-0000
1	003883 3P 600V power dist block
6	003648 KLK5 fuses

7/23/09 HTE46

Qty. Needed	Description
1	004089 ¼ type K 4" long with plug
1	004085 Watlow 96A0-DAAA-OORG
1	003959 Contactor C25BNB230A
1	003601 LH25030-1C
1	003634 FRNR 30 fuse
1	003878 1414PHM6 14x12x6
1	003877 9856P03 terminal block
1	401057 5 x8 hearth plate
1	003666 toggle switch
1	003906 red light
1	003667 Door interlock switch
1	003624 5 amp fuse
1	003600 HKPHH fuse holder
2	401048 top/bottom heating panel
2	401047 side heating panel
1	401049 Terminal backup panel ¼ x 9 ¼ x 14
1	040093 plastic handle
1	401050 rear non-heating panel 1" x 8" x 9 ½"
2	401045 outer lining top/bottom ½ x 9 x 9 ½
2	401046 outer lining sides ½ x 9 x 7

3/1/2017 HTE88I parts list

Qty	Description
1	004352 WM241608 NC Rittall enclosure
1	401174 hearth plate 8 x 17 1/4 L
1	004088 1/4" type K 6" thermocouple
2	004260 Latch and striker
1	004206 F4PH-CAAA-01RG instrument
1	004515 PM6L1EJ-AAAAAAA high limit instr
1	004230 lid interlock microswitch E47BLS06
1	003917 Transformer B100BTZ13JK
1	003877 Power block 985G P03
8	003773 BUR KSU177AWG Kearny nut
1	003666 toggle switch
1	003906 red light - round
1	003600 fuse holder
2	401168 Side panels
1	401173 rear non-heating panel
1	401169 16 x 21 7/8 x 1/2" terminal backup bd
1	401167 Top panel
1	401162 Bottom panel
1	401789 3" duraboard for 10x12 door
1	401769 Back screen- expanded metal
1	008100 hearth brick 5 1/4 x 5 3/4 x 1 1/4
1	401791 Door seal ring assm 1/4 x 3/4 material - 4 pcs
1	401795 Door seal assm- 4 pcs of textoglass material
1	Optional 004190 F4SH-CAAO-01RG programmable instrument

If 220 volt:

1	003587 SCR DB10-24C0-0000
2	003636 FLNR40ID
2	003574 JLLN45 45A fuse 300V
1	003936 Contactor 3 pole 40 amp C25DNF340A
1	003608 LFR250602CID fuse holder
1	003910 LT30060-2CR fuseholder

If 120 volt

1	003638 FLNR60ID
1	004513 SCR DC10-24C0-0000
1	003597 JLLN-60 300v fuse
1	003938 Contactor 50 amp 2 pole C25FNF250A

4/23/2009

HTE1212 parts

004352 Hammond box
004314 8" duplex thermocouple
004206 F4 std Watlow instrument
004515 Series 97 Watlow high limit instrument
003936 Contactor 3 pole C25DNF340A
004230 Lid interlock microswitch
003917 Transformer B100BTZ13JK
003877 Power block
401316 Hearth plate 12" x 22" L
401344 Rear non heating panel
401370 Door plug (new style)- includes cement
008102 Hearth brick 6 1/4 x 6 x 1
900976 Top panel (specify voltage/phase)
900977 Bottom panel (specify voltage/phase)
900978 Side panel (specify voltage/phase)- 2 required
401363 18 1/2 x 28 5/8 x 1/2" terminal backup board
401856 Thermocouple collar assm
004051 Polycoated extension lead wire
008012 Left hand top/bottom brick- 2 required
008021 Right hand top/bottom brick – 2 required
008023 Side door brick – 2 required
402580 Door seal ring assm- consists of 4 pcs of 1/4 x 3/4 hr matl
402568 Door seal assm – consists of 4 pcs of textoglass matl

12/29/16

HTE1414 (Formerly HTE1214) parts list

Qty

Needed

Description

1	004352 Rittal WM241608NC
1	004314 8" duplex thermocouple
1	004515 Watlow PM6L1EJ-AAAAAAA hi limit instrument
1	004206 F4PH-CAAA-01RG std instrument
1	003917 Transformer B100BTZ13JK
1	004230 lid interlock microswitch E47BLS06
1	003877 975GP03 terminal block
1	401468 hearth plate 14" x 27" L STAINLESS
1	402734 rear non-heating panel
1	401624 25" x 30 ½ x ½" terminal backup bd
1	401592 door plug
4	008101 hearth brick 5 ½ x 4 ½ x 1 ¼
4	003327 STLC BU501 ½ 105D plastic bushing
2	003763 ½" 90 deg comp. Elbow
1	003666 toggle switch
1	402859 1" x 21 ½" x 21 ¼" insulation board
1	003624 5 amp fuse
1	003600 fuse holder

Options:

1	004190 F4SH-CAAO-O1RG programmable Watlow controller
1	003894 Audible alarm bell
1	004550 SSR-240-10A-DC1 solid state relay
1	003875 Revolving alarm light

HTE1414 cont.

If 240v,3

1	004510 Dinamite SCR DC2V-5624-F001 (240/3)
1	003606 Fuse holder LR25060-3CR (230/3)
1	003910 LT 30060-2CR fuseblock (240/3)
3	003637 250 V 50A class fuse RK5 (240/3)
2	003909 JLLN50-50A fuse (240/3)
2	402738 side panel 230/3
1	402736 top panel 230/3
1	402737 bottom panel 230/3
1	003945 C25FNF350 contactor

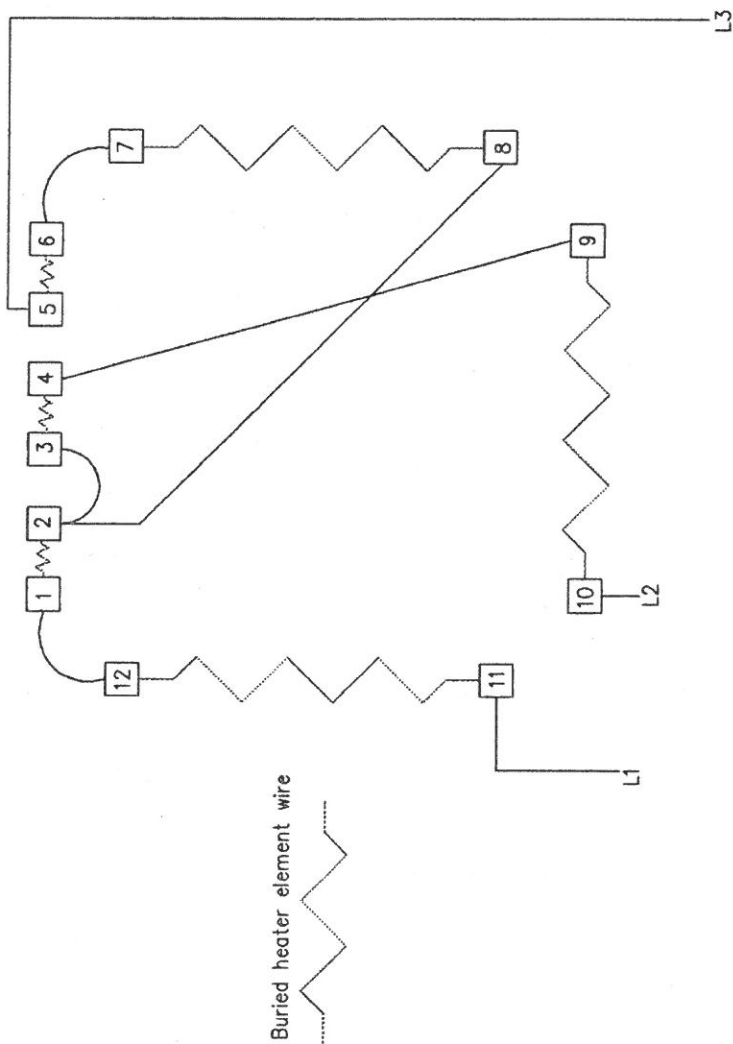
If 480v/3

1	004508 Dinamite SCR DC20-60F0-0000 (460/3)
1	003612 Fuse holder L60030H-3C (480/3)
1	004184 fuseholder box conn LFT600303C (480/3)
2	003573 JLLS30 fuse 30A 600V class T (480/3)
3	003653 KTKR30 600v fuse or GOU ATM30 (480/3)
1	402741 top panel 460/3
1	402742 bottom panel 460/3
2	402743 side panel 460/3
1	003936 Contactor 3 pole C25DNF340A

If 230v, 1ph

1	402731 top panel 230/1
1	402732 bottom panel 230/1
2	402733 side panel 230/1
1	003907 Contactor C52FNF375A
1	003591 SCR DC11-24FO-0000
2	003595 FLNR80 Fuses
1	003904 Fuseholder LT301002CR 300V
2	003874 JLLN80 250V Fuses
1	003560 Fuseholder FRZ21037R

HTE 1212 , DU-1020
HTE 1414 and DU1224 High Temperature
Terminal Connections For 460 Volt.,3Ph.



ED0081

Drawn By Bill Walter

Terminal Hook Up

HTE-1212 , HTE 1414 , DU-1020

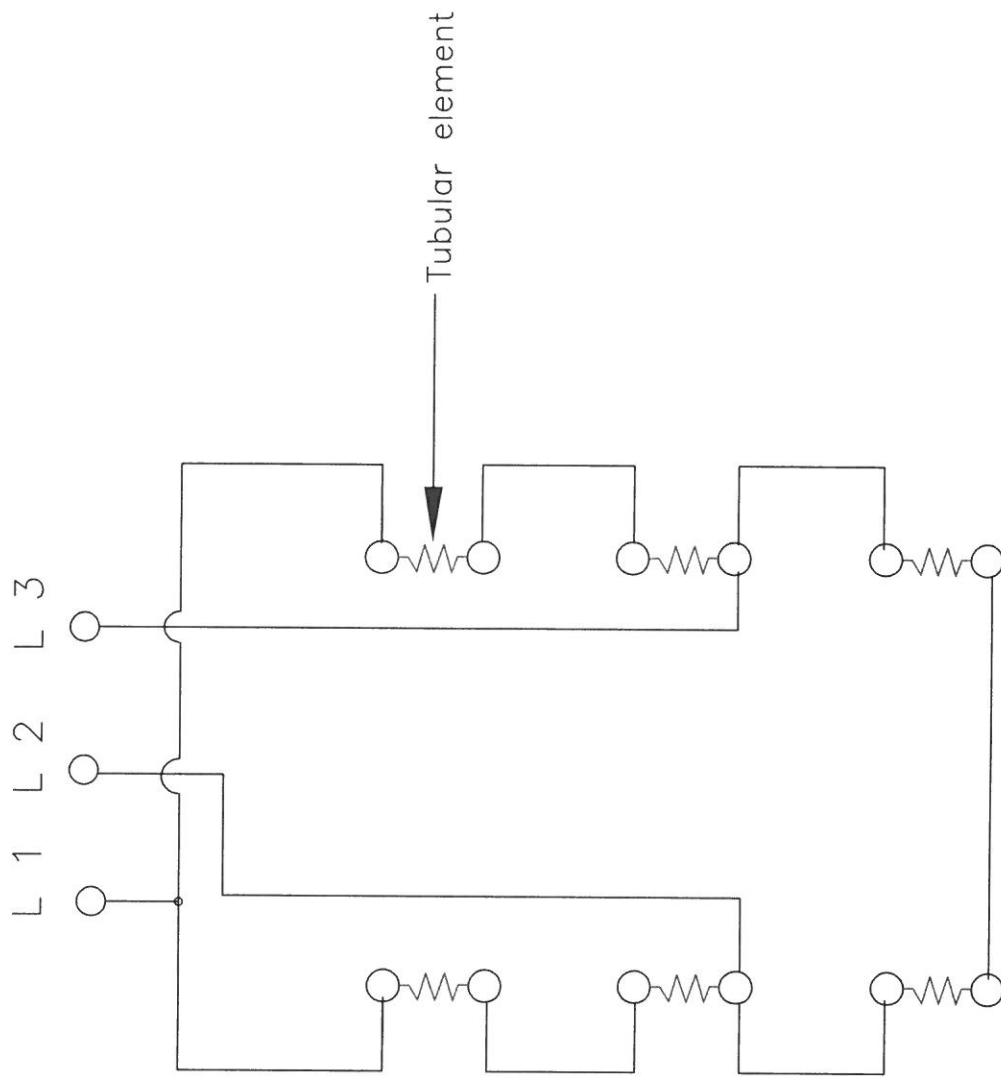
DU-1224 High Temperature Terminal

Conn for 480 V

Du 1020 Lower Chamber Heating Elements Du 1224 Lower Chamber Heating Elements

With Tubular Elements

460 V., 3 Ph



A:\0049

DU 1020 and DU1224

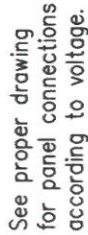
Lower Chamber Tubular Heating Element Connection

M I F C O

2/25/98

DUAL CHAMBER INDUSTRIAL UNIT

Equip. Grounding



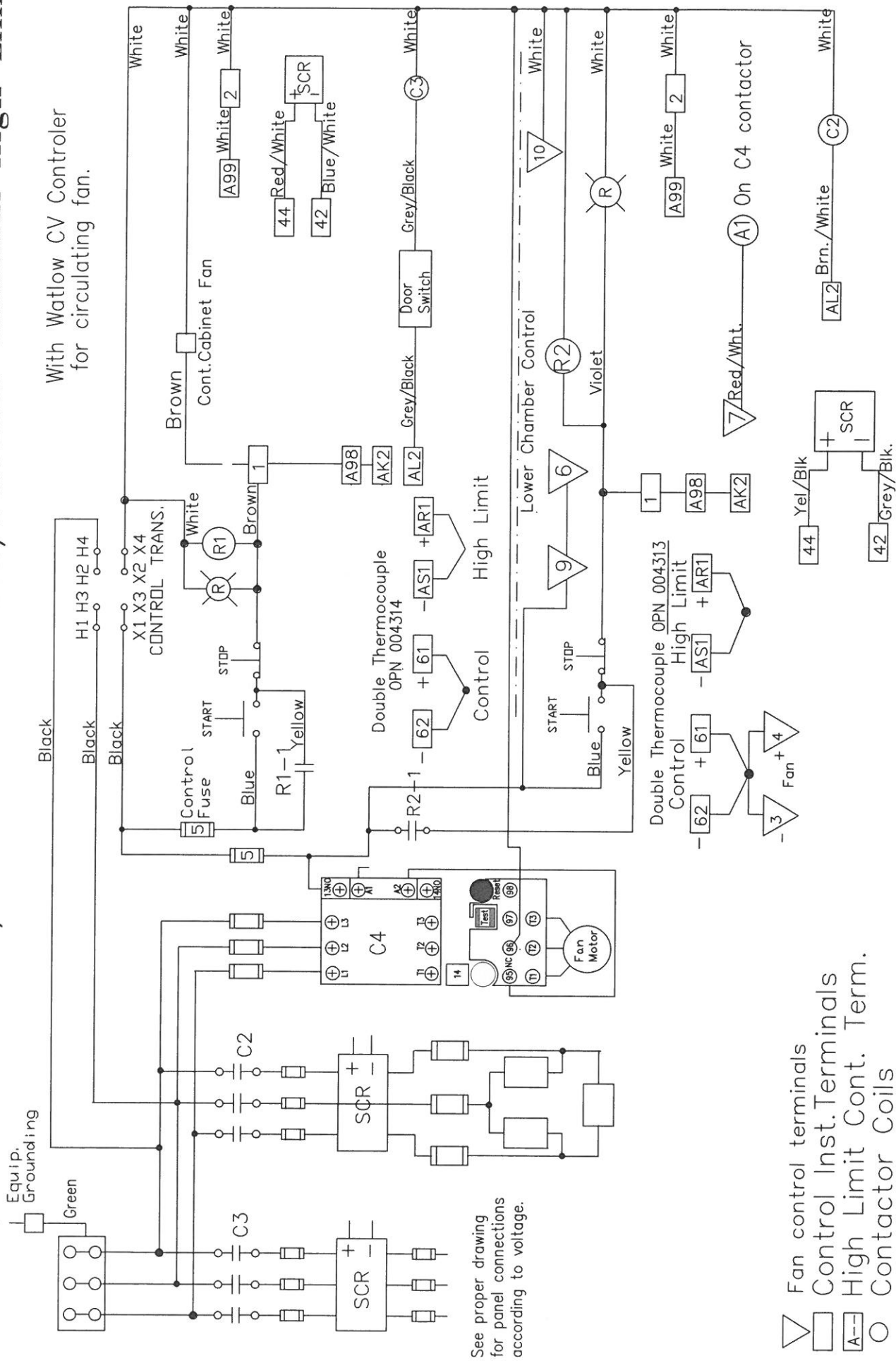
- | | |
|---|---------------------------|
|  | Fan control terminals |
|  | Control Inst. Terminals |
|  | High Limit Cont. Term. |
|  | Contactor Coils |
|  | Inst. Cabinet Cooling Fan |

DU Wiring Diagram
230/460 V, 60 HZ, 3 Ph.

6/13/2013

DUAL CHAMBER INDUSTRIAL UNIT

Power Supply 230V / 460V
3 Ph/60 Hz WatlowF4PH/F4SH Control Inst./PM6L1EJ-AAAAAA High Limit



ED0155

DU Wiring Diagram
230/460 V, 60 HZ, 3 Ph.

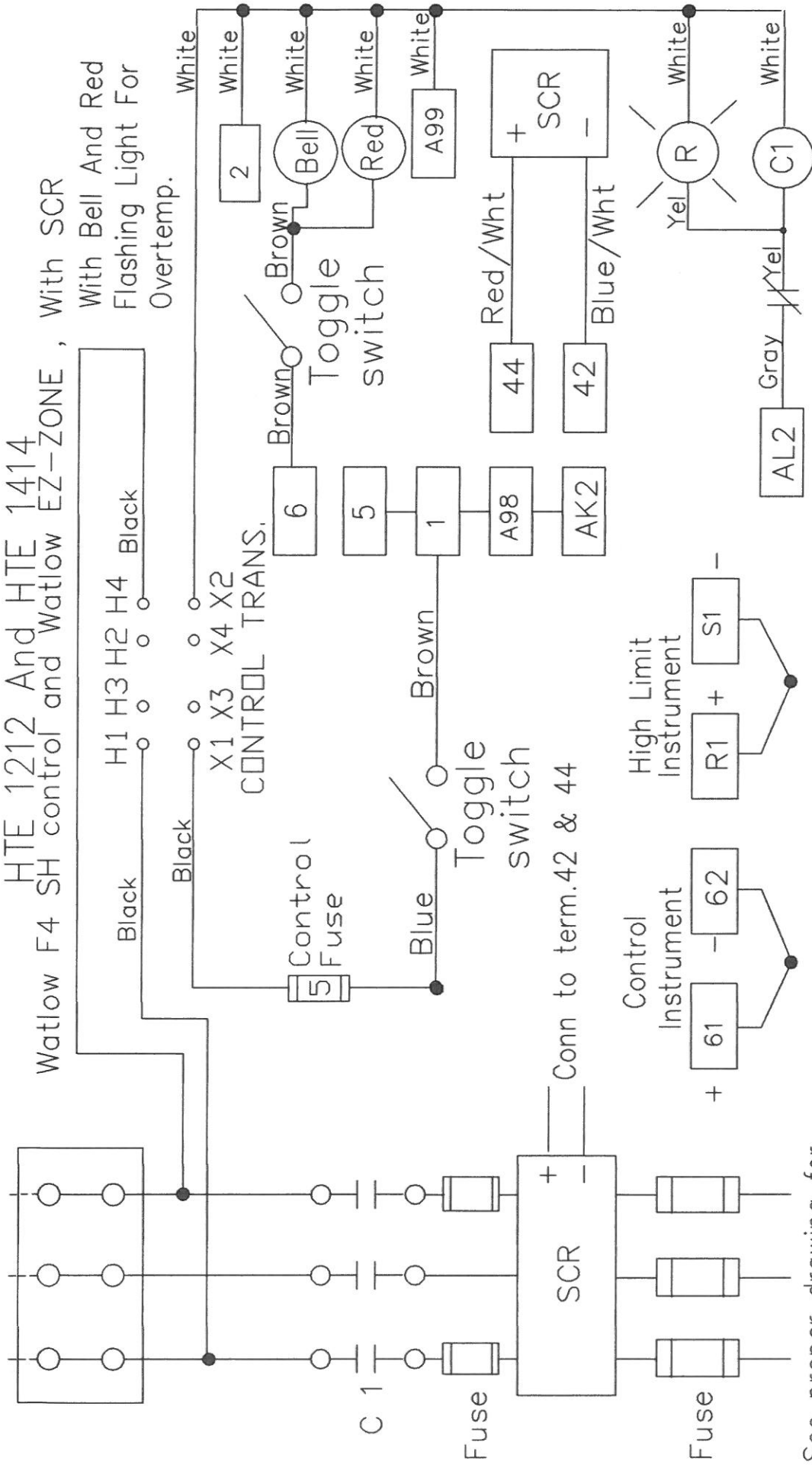
M I F C O

6/13/2013

HTE 1212 And HTE 1414

Watlow F4 SH control and Watlow EZ-ZONE, With SCR With Bell, Flashing L Overtemp.

Black H1 H3 H2 H4 Black



See proper drawing for panel connections according to voltage.

Heating Elements

☐ Control Inst. Term.

Contactor Coils

A High Limit Terminals

Heaters On Light

Equipment Grounding

Green

ED0159

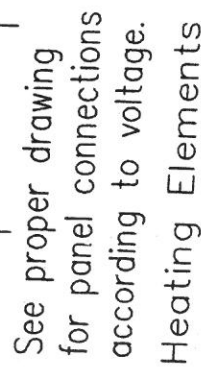
HTE-1212, HTE-1414 Wiring Diagram

240/480 volt - 3 phase

M I F C O

4/11/2002

HTE 88 and HTE 1212
With Watlow F4 Controller
And Watlow High Limit EZ-ZONE With SCR.



~~11~~ Door Switch

Green

MIFCO

10/08/13