

**Cable Connection chart of Auxiliary Cubicle HB1 for WAP7/WAG9/WAP5**

**supposed to be Included in CLW Spec no. CLW/ES/3/0191**

**4 PIN /8 GRADE XK32A:02**

Sl. No.	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	1137A	XK32A:02-1	55.1/1-2
2	2.5	1138A	XK32A:02-2	55.1/1-4
3	2.5	1139A	XK32A:02-3	55.1/1-6

**\* 4 PIN /8 GRADE XK32A:05**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	1218	XK32A:05-1	XB32A-2
2	2.5	1201A	XK32A:05-2	54.1/1-2
3	2.5	1202A	XK32A:05-3	54.5/1-Q2 (For WAG 9 only)
3A	2.5	1202A	XK32A:05-3	XB32A-9 (WAP 7 & 5 only)
3B	2.5	1202A	54.5/1-Q2	Low panel TB (WAP 7 & 5 only)

**4 PIN /8 GRADE XK32A:05**

**(Modified Connection for inverter fed MR Blower )**

Sl. No.	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	1201A	XK32A:05 -1	54.1/1-2
2	2.5	1202A	XK32A:05 -2	54.1/1-4
3	2.5	1204A	XK32A:05 -3	54.1/1-6

**\* 4 PIN /8 GRADE XK32A:06**

Sl. No.	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	1218	XK32A:06-1	XB32A-2
2	2.5	1211A	XK32A:06-2	56.1/1-2

**4 PIN /8 GRADE XK32A:06**

**(Modified Connection for inverter fed ScMR Blower )**

Sl. No.	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	1211A	XK32A:06-1	56.1/1-2
2	2.5	1212A	XK32A:06-2	56.1/1-4
3	2.5	1213A	XK32A:06-3	56.1/1-6

**4 PIN /8 GRADE XK32P:01**

Sl. No.	Cable Cross Section	Cable no.	Connection From	Connection To
1	6	1157A	XK32P:01-1	62.1/1-2
2	6	1158A	XK32P:01-2	62.1/1-4
3	6	1159A	XK32P:01-3	62.1/1-6

**7 PIN /12 GRADE XK32C:01**

Sl. No.	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	1218	XK32C:01-1	XB32A-2
2	2.5	1218	XK32C:01-2	XB32A-2
3	2.5	6501	XK32C:01-3	XB32A-3
4	2.5	6510	XK32C:01-4	XB32A-4
5	2.5	6503	XK32C:01-6	XB32A-8

**7 PIN /12 GRADE XK32C:02**

Sl. No.	Cable Cross Section	Cable no.	Connection From	Connection To
1	6	1218	XK32C:02-1	XB32A-1
2	2.5	6501	XK32C:02-3	XB32A-3
3	2.5	6510	XK32C:02-4	XB32A-4
4	6	1200	XK32C:02-5	XB32A-7
5	2.5	6503	XK32C:02-6	XB32A-8

**35 PIN /12 GRADE XK32S**

Sl. No.	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	2050	XK32S-1	47.2/1-A2

2	2.5	2050	XK32S-1	XK32F-2
3	1.5	2050	XK32S-2	XK32F-2
4	1.5	2808	XK32S-3	52/5-61
5	1.5	2809	XK32S-4	52/4-71
6	2.5	2817	XK32S-5	52.3/4-A1
7	1.5	2817	XK32S-5	XK32F-11
8	1.5	2819	XK32S-6	52/4-61
9	1.5	2854	XK32S-7	41-2
10	1.5	2859	XK32S-8	89.5-B
11	1.5	2874	XK32S-9	52.3/4-A2
12	2.5	2874	XK32S-9	XK32F-10
13	1.5	2894	XK32S-10	52/4-54
14	2.5	2894	XK32S-10	XK32F-9
15	1.5	5091	XK32S-11	52.3/5-A1
16	2.5	5091	XK32S-11	XK32F-1
17	1.5	5092	XK32S-12	52/4-62
18	2.5	2098	XK32S-13	XK32F-3
19	1.5	2801A	XK32S-14	41-1
20	1.5	2850A	XK32S-15	53.1/1-24
21	1.5	2851A	XK32S-16	55.1/1-24
22	1.5	2852A	XK32S-17	56.1/1-24
23	1.5	2853A	XK32S-18	54.1/1-24
24	1.5	2855A	XK32S-19	59.1/1-24
25	1.5	2856A	XK32S-20	62.1/1-24
26	1.5	2857A	XK32S-21	63.1/1-24
27	1.5	3037A	XK32S-22	47.2A/1-2+
28	1.5	2840A	XK32S-23	47.1/1-14
29*	1.5	2890	XK32S-24	54.2/1-A1
30*	1.5	2896	XK32S-25	54.2/1-4
31	1.5	2876B	XK32S-26	52/5-13
32	1.5	2877B	XK32S-27	52/5-14
33	1.5	2877A	XK32S-28	52/4-13
34	1.5	5094	XK32S-29	52/4-14

**13 PIN /12 GRADE XK32F**

<b>Sl. No.</b>	<b>Cable Cross Section</b>	<b>Cable no.</b>	<b>Connection From</b>	<b>Connection To</b>
1	2.5	5091	XK32F-12	XK32F-1
2	1.5	2875	XK32F-7	52.3/5-A2
3	1.5	2895	XK32F-8	52/5-54
4	2.5	5091	XK32F-1	XK32S-11
5	1.5	2050	XK32F-2	XK32S-1
6	1.5	2050	XK32F-2	XK32S-2
7	2.5	2098	XK32F-3	XK32S-13
8	2.5	2894	XK32F-9	XK32S-10
9	2.5	2874	XK32F-10	XK32S-9

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10	2.5	2817	XK32F-11	XK32S-5
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**4 PIN XK32B**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	25	1121B	XK32B-1	52/4-2
2	25	1122B	XK32B-2	52/4-4
3	25	1123B	XK32B-3	52/4-6

**4 PIN /8 GRADE XK32D**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	25	1131	XK32D-1	XH32A-4
2	25	1132	XK32D-2	XH32A-5
3	25	1133	XK32D-3	XH32A-6

**4 PIN /8 GRADE XK32E**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	50	1114A	XK32E-1	52/5-1
2	50	1115A	XK32E-2	52/5-3
3	50	1116A	XK32E-3	52/5-5

**41, FUSE 40 A**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	6	1103	41-Q1	XI32A-1
2	6	1203	41-Q2	67-U1 (For WAG 9 only)
2A	6	1203	41-Q2	XB32A-13 For WAP 7 & 5 only)
2B	6	1203	67-U1	Lower panel TB (For WAP 7 & 5 only)
3	1.5	2801A	41-1	XK32S-14
4	1.5	2801A	41-1	47.1/1-13
5	1.5	2854	41-2	XK32S-7

**47.2/1 , Contactor For Main Compressor**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	10	1131	47.2/1-1	XH32A-4
2	10	1132	47.2/1-3	XH32A-5
3	10	1133	47.2/1-5	XH32A-6
4	10	1141A	47.2/1-2	47.1/1-1
5	10	1142A	47.2/1-4	47.1/1-3
6	10	1143A	47.2/1-6	47.1/1-5
7	1.5	3037A	47.2/1-A1	47.2A/1-1+
8	1.5	2050	47.2/1-A2	47.2A/1-4-
9	2.5	2050	47.2/1-A2	XK32S-1

**47.2A/1, Snubber Circuit**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	1.5	3037A	47.2A/1-1+	47.2/1-A1
2	1.5	3037A	47.2A/1-2+	XK32S-22
3*	1.5	2050	47.2A/1-3-	54.2/1-A2
4	1.5	2050	47.2A/1-3-	52.3/4-2
5	1.5	2050	47.2A/1-4-	47.2/1-A2

**52.3/4 Auxiliary Contactor Type-6**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	1.5	2884	52.3/4-1+	52/4-A2
2	1.5	2050	52.3/4-2	47.2A/1-3-
3	1.5	2050	52.3/4-2	52.3/5-2
4	1.5	2817	52.3/4-A1	52/4-53
5	1.5	2817	52.3/4-A1	XK32S-5
6	1.5	2874	52.3/4-A2	XK32S-9

**52.3/5 Auxiliary Contactor Type-6**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	1.5	2885	52.3/5-1+	52/5-A2
2	1.5	2050	52.3/5-2	52.3/4-2
3	1.5	5091	52.3/5-A1	52/4-72
4	1.5	5091	52.3/5-A1	XK32S-11

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5	1.5	2875	52.3/5-A2	XK32F-7
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### **89.5 Earth Fault Relay**

<b>Sl. No</b>	<b>Cable Cross Section</b>	<b>Cable no.</b>	<b>Connection From</b>	<b>Connection To</b>
1	2.5	1217	89.5-U	90.42-Q-1 (For WAG 7 & 5)
1A	2.5	1217	89.5-U	XB32A-10 (For WAP 7 & 5 only)
1B	2.5	1217		Lower panel TB (For WAP 7 & 5 only)
2	2.5	0	89.5-V	MASSEM
3	1.5	2801A	89.5-A	47.1/1-13
4	1.5	2801A	89.5-A	62.1/1-23
5	1.8	2859	89.5-B	XK32S-8

### **\* 54.2/1 Auxiliary Contactor to Time Relay**

<b>Sl. No</b>	<b>Cable Cross Section</b>	<b>Cable no.</b>	<b>Connection From</b>	<b>Connection To</b>
1	1.5	2890	54.2/1-A1	XK32S-24
2	1.5	2890	54.2/1-3	54.2/1-A1-T
3	1.5	2890	54.2/1-16-T	54.2/1-A1
4	1.5	2050	54.2/1T-A2	54.2/1-A2
5	1.5	2050	54.2/1-A2	47.2A/1-3
6	1.5	2896	54.2/1-4	XK32S-25
7	2.5	1201A	54.2/1-R1	XB32A-05
8	2.5	1201A	54.2/1-R3	XB32A-05
9	2.5	1204A	54.2/1-R-2	54.8/1-Q-1 (WAG 9 only )
9A	2.5	1204A	54.2/1-R-2	XB32A-12 (WAP 7 & 5 only)
9B	2.5	1204A	54.8/1-Q-1	Lower panel TB (WAP 7 & 5 only)
10	2.5	1204A	54.2/1-R4	54.8/1-Q-1 (WAG 9 only)
10A	2.5	1204A	54.2/1-R4	XB32A-12 (WAP 7 & 5 only)
10B	2.5	1204A	54.8/1-Q-1	Lower panel TB (WAP 7 & 5 only)

### **62.1/1 ,Circuit Breaker 16A 3 Pole for Oil Pump Transformer**

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Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	10	1134	62.1/1-1	XB32U:03-1
2	10	1135	62.1/1-3	XB32U:03-2
3	10	1136	62.1/1-5	XB32U:03-3
4	6	1157A	62.1/1-2	XK32P:01-1
5	6	1158A	62.1/1-4	XK32P:01-2
6	6	1159A	62.1/1-6	XK32P:01-3
7	1.5	2801A	62.1/1-23	89.5-A
8	1.5	2801A	62.1/1-23	63.1/1-23
9	1.5	2856A	62.1/1-24	XK32S-20

**63.1/1 ,Circuit Breaker Oil Pump Converter**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	<b><u>DELETED</u></b>	1134	63.1/1-1	XB32U:03-1
2		1135	63.1/1-3	XB32U:03-2
3		1136	63.1/1-5	XB32U:03-3
4		1167A	63.1/1-2	XB32P:02-1
5		1168A	63.1/1-4	XB32P:02-2
6		1169A	63.1/1-6	XB32P:02-3
7		2801A	63.1/1-23	62.1/1-23
8		2801A	63.1/1-23	53.1/1-23
9		2857A	63.1/1-24	XK32S-21

**47.1/1 , Circuit Breaker 40A 3POLE for Main Compressor**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	10	1141A	47.1/1-1	47.2/1-2
2	10	1142A	47.1/1-3	47.2/1-4
3	10	1143A	47.1/1-5	47.2/1-6
4	10	1187A	47.1/1-2	XB32A:04-1
5	10	1188A	47.1/1-4	XB32A:04-2
6	10	1189A	47.1/1-6	XB32A:04-3
7	1.5	2801A	47.1/1-13	41-1
8	1.5	2801A	47.1/1-13	89.5-A
9	1.5	2840A	47.1/1-14	XK32S-23

**53.1/1 ,Circuit Breaker 63A 3 POLE Traction Motor Blower-1**

Sl. No	Cable Cross	Cable no.	Connection From	Connection To
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	Section			
1	10	1121B	53.1/1-1	52/4-2
2	10	1122B	53.1/1-3	52/4-4
3	10	1123B	53.1/1-5	52/4-6
4	16	1127A	53.1/1-2	XB32A:01-1(MOD)
5	16	1128A	53.1/1-4	XB32A:01-2 (MOD)
6	16	1129A	53.1/1-6	XB32A:01-3 (MOD)
7	1.5	2801A	53.1/1-23	63.1/1-23
8	1.5	2801A	53.1/1-23	55.1/1-23
9	1.5	2850A	63.1/1-24	XK32S-15

**55.1/1 ,Circuit Breaker 10A 3POLE Scavage Blower**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	10	1124	55.1/1-1	XB32U:02-1
2	10	1125	55.1/1-3	XB32U:02-2
3	10	1126	55.1/1-5	XB32U:02-3
4	2.5	1137A	55.1/1-2	XK32A:02-1
5	2.5	1138A	55.1/1-4	XK32A:02-2
6	2.5	1139A	55.1/1-6	XK32A:02-3
7	1.5	2801A	55.1/1-23	53.1/1-23
8	1.5	2801A	55.1/1-23	59.1/1-23
9	1.5	2851A	55.1/1-24	XK32S-16

**59.1/1 ,Circuit Breaker 63A 3POLE OCU-1**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	10	1121A	59.1/1-1	XH32A-1
2	10	1122A	59.1/1-3	XH32A-2
3	10	1123A	59.1/1-5	XH32A-3
4	16	1147A	59.1/1-2	XB32A:03-1 (MOD)
5	16	1148A	59.1/1-4	XB32A:03-2 (MOD)
6	16	1149A	59.1/1-6	XB32A:03-3 (MOD)
7	1.5	2801A	59.1/1-23	55.1/1-23
8	1.5	2801A	59.1/1-23	54.1/1-23
9	1.5	2855A	59.1/1-24	XK32S-19

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**\* 54.1/1 ,Circuit Breaker 20A 1 POLE MR Blower**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	1200	54.1/1-1	69.62-1
2	6	1200	54.1/1-1	56.1/1-1
3	2.5	1201A	54.1/1-2	XB32A-05
4	2.5	1201A	54.1/1-2	XK32A:05-2
5	1.5	2801A	54.1/1-23	59.1/1-23
6	1.5	2801A	54.1/1-23	56.1/1-23
7	1.5	2853A	54.1/1-24	XK32S-18

**54.1/1 ,Circuit Breaker 10A 3 POLE MR Blower**

**(Modified Connection for inverter fed MR Blower )**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	5	1121B	54.1/1-1	53.1/1-2
2	6	1122B	54.1/1-3	53.1/1-4
3	6	1123B	54.1/1-5	53.1/1-6
4	1.5	2801A	54.1/1-23	59.1/1-23

**\* 56.1/1 ,Circuit Breaker 10 A 1 POLE Scavenge Blower**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	6	1200	56.1/1-1	XB32A-7
2	6	1200	56.1/1-1	54.1/1-1
3	2.5	1211A	56.1/1-2	XK32A:06-2
4	1.5	2801A	56.1/1-23	54.1/1-23
5	24	2852A	56.1/1-24	XK32S-17

**56.1/1 ,Circuit Breaker 10 A 3 POLE Scavenge Blower**

**(Modified Connection for inverter fed ScMR Blower )**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	1121B	56.1/1-1	54.1/1-1
2	2.5	1122B	56.1/1-3	54.1/1-3

3	2.5	1123B	56.1/1-5	54.1/1-5
4	1.5	2801A	56.1/1-23	54.1/1-23

**69.61/1 , Circuit Breaker 10A 1POLE for CAB Ventilation**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	6500	69.61-1	69.71-1
2	2.5	6500	69.61-1	67-U-3 (For WAG 9 only)
2A	2.5	6500	69.61-1	XB32A-13 (For WAP 7 & 5 only)
2A	2.5	6500	67-U-3	Lower panel TB (For WAP 7& 5 only)
3	2.5	6501	69.61-2	XB32A-3

**69.62/1 ,Circuit Breaker 10A 1POLE for CAB Heater**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	1200	69.62-1	54.1/1-1
2	2.5	6503	69.62-2	XB32A-8

**69.71/1 ,Circuit Breaker 10A 1POLE for Crew Fan**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	6500	69.71-1	69.61-1
2	2.5	6510	69.71-2	XB32A-4

**52/4 ,Contactor for Aux. Converter**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	25	1121A	52/4-1	52/5-2
2	25	1122A	52/4-3	52/5-4
3	25	1123A	52/4-5	52/5-6
4	25	1121B	52/4-2	XK32B-1
5	25	1122B	52/4-4	XK32B-2
6	25	1123B	52/4-6	XK32B-3
7	10	1121B	52/4-2	53.1/1-1

8	10	1122B	52/4-4	53.1/1-3
9	10	1123B	52/4-6	53.1/1-5
10	1.5	2808	52/4-A1	52/5-61
11	1.5	2884	52/4-A2	52.3/4-1+
12	1.5	2817	52/4-53	52/5-62
13	1.5	2817	52/4-53	52.3/4-A1
14	1.5	2894	52/4-54	XK32S-10
15	1.5	2819	52/4-61	52/5-71
16	1.5	2819	52/4-61	XK32S-6
17	1.5	5092	52/4-62	52/5-72
18	1.5	5092	52/4-62	XK32S-12
19	1.5	2809	52/4-71	XK32S-4
20	1.5	2809	52/4-71	52/5-A1
21	1.5	5091	52/4-72	52/5-53
22	1.5	5091	52/4-72	52.3/5-A1
23	1.5	2877A	52/4-13	XK32S-28
24	1.5	5094	52/4-14	XK32S-29

**52/5 . Contactor for Aux. Converter**

<b>Sl. No</b>	<b>Cable Cross Section</b>	<b>Cable no.</b>	<b>Connection From</b>	<b>Connection To</b>
1	50	1114A	52/5-1	XK32E-1
2	50	1115A	52/5-3	XK32E-2
3	50	1116A	52/5-5	XK32E-3
4	25	1121A	52/5-2	XH32A-1
5	25	1122A	52/5-4	XH32A-2
6	25	1123A	52/5-6	XH32A-3
7	25	1121A	52/5-2	52/4-1
8	25	1122A	52/5-4	52/4-3
9	25	1123A	52/5-6	52/4-5
10	1.5	2809	52/5-A1	52/4-71
11	1.5	2885	52/5-A2	52.3/5-1+
12	1.5	5091	52/5-53	52/4-72
13	1.5	2895	52/5-54	XK22F-8
14	1.5	2808	52/5-61	52/4-A1
15	1.5	2808	52/5-61	XK32S-3
16	1.5	2817	52/5-62	52/4-53
17	1.5	2819	52/5-71	52/4-61
18	1.5	5092	52/5-72	52/4-62
19	1.5	2876B	52/5-13	XK32S-26
20	1.5	2877B	52/4-14	XK32S-27

\* **Cap. Connection 54.5/1 22 MFD & 54.8/1 47 MFD**

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Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	1201A	54.5/1-Q-1	XB32A-5
2	2.5	1202A	54.5/1-Q-2	XK32A:05-3
3	2.5	1204A	54.8/1-Q-1	54.2/1-R-2
3A	2.5	1204A	54.2/1-R-2	XB32A-12 (WAP 7 & 5 only)
3B	2.5	1204A	54.8/1-Q-1	Lower panel TB (WAP 7 & 5 only)
4	2.5	1204A	54.8/1-Q-1	54.2/1-R-4
4A	2.5	1204A	54.2/1-R4	XB32A-12 (WAP 7 & 5 only)
4B	2.5	1204A	54.8/1-Q-1	Lower panel TB (WAP 7 & 5 only)
5	2.5	1202A	54.5/1-Q-2	54.8/1-Q-2

**90.41 & 90.42, Resistance 1.8 K Ohm**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	2.5	1200	90.41-Q-1	67-U2
2	2.5	1218	90.42-Q-2	XB32A-1 (For WAG 9 only)
2A	2.5	1218	90.42-Q-2	Lower panel TB (For WAP7 & 5 only)
3	2.5	1217	90.42-Q-1	89.5-U
3A	2.5	1217	90.42-Q-1	XB32A-10
3B	2.5	1217	89.5-U	Lower panel TB (For WAP7 & 5 only)
4	2.5	1217	90.41-Q-2	90.42-Q-1

**67, Auxiliary Transformer Connection**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	6	1203	67-U1	41-Q-2 (For WAG 9 only)
1A	6	1203	41-Q-2	XB32A-11 (For WAP 7 & 5 only)
1B	6	1203	67-U1	Lower panel TB (For WAP 7 & 5 only)
2	6	1117	67-V1	XI32A-2

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3	6	1218	67-V-2	XB32A-1 (For WAG 9 only)
3A	6	1218	67-V-2	Lower panel TB (For WAP 7 & 5 only)
4	2.5	6500	67-U-3	69.61-1
5	2.5	1200	67-U-2	90.41-Q-1
6	6	1200	67-U-2	XB32A-7 (For WAG 9 only)
6A	6	1200	67-U-2	Lower panel TB (For WAP 7 & 5 only)

**XH32A (TB-Top to Bottom)**

Sl. No	Cable Cross Section	Cable no.	Connection From	Connection To
1	16	1121A	XB32U:01-1	XH32A-1 (MOD)
2	16	1122A	XB32U:01-2	XH32A-2 (MOD)
3	16	1123A	XB32U:01-3	XH32A-3 (MOD)

\* In order to Drive MR Blower and ScMR Blower by three phase supply from BUR2 the connections should be treated as deleted

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