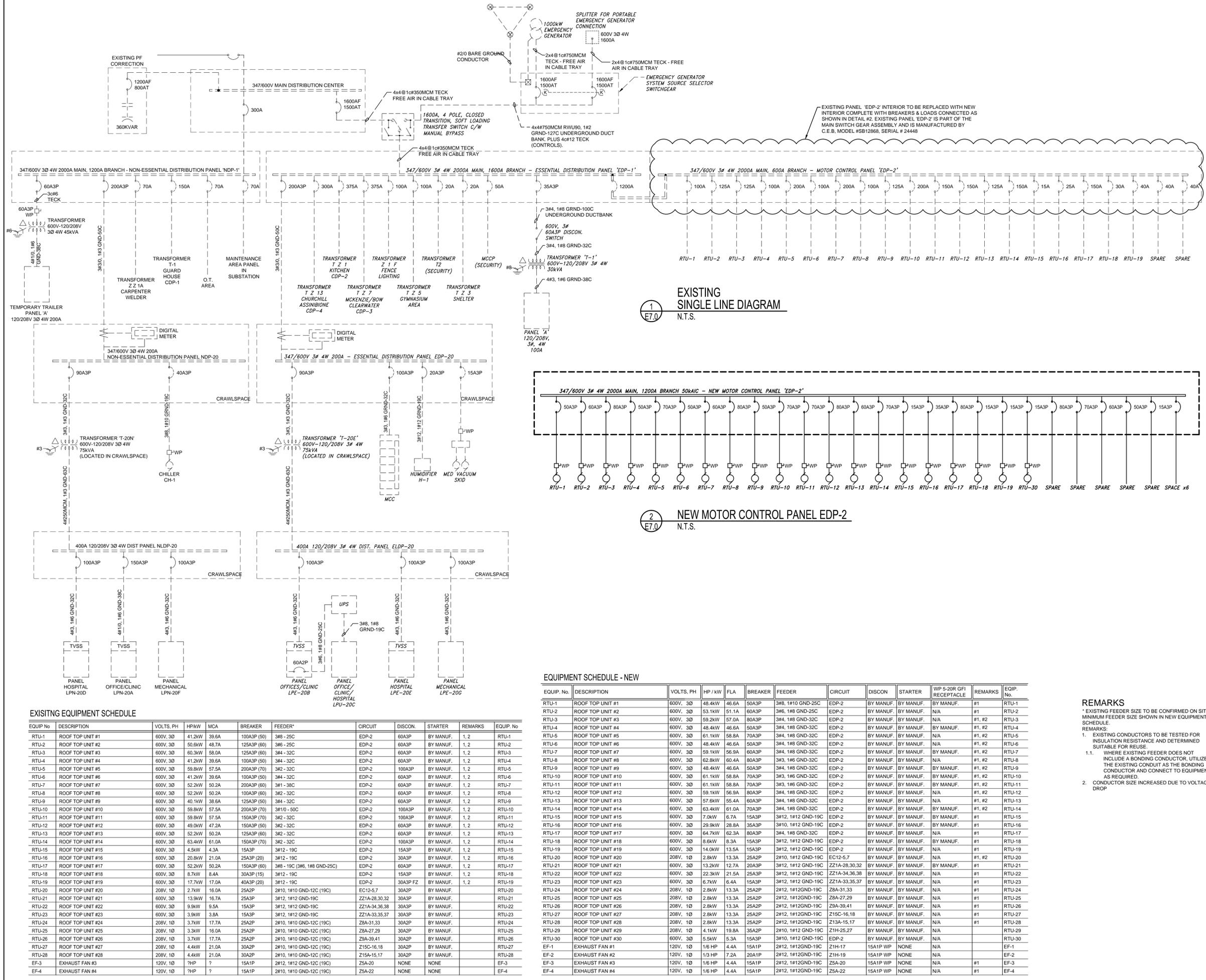




203 WELLMAN CRESCENT
SASKATOON SASKATCHEWAN CANADA S7T 6J1
TEL: 1-306-665-6223 FAX: 1-306-665-8589 | WWW.WSPGROUP.COM

PROFESSIONAL ENGINEER
B.K. BERGLOF
MEMBER 5369
17/08/22
TR MW DPT
SASKATCHEWAN

Association of Professional Engineers & Geoscientists of Saskatchewan
CERTIFICATE OF AUTHORIZATION
WSP Canada Inc.
Number 00868
Permission to Consult held by
Discipline ELECTRICAL
5369



1
E7.0
EXISTING SINGLE LINE DIAGRAM
N.T.S.

2
E7.0
NEW MOTOR CONTROL PANEL EDP-2
N.T.S.

EQUIPMENT SCHEDULE - NEW

EQUIP. No.	DESCRIPTION	VOLTS, PH	HP/kW	FLA	BREAKER	FEEDER	CIRCUIT	DISCON	STARTER	WP 5-20R GFI RECEPTACLE	REMARKS	EQUIP. No.
RTU-1	ROOF TOP UNIT #1	600V, 3Ø	48.4kW	46.6A	50A3P	3Ø8, 1Ø10 GND-25C	EDP-2	BY MANUF.	BY MANUF.	BY MANUF.	#1	RTU-1
RTU-2	ROOF TOP UNIT #2	600V, 3Ø	53.1kW	51.1A	60A3P	3Ø6, 1Ø8 GND-25C	EDP-2	BY MANUF.	BY MANUF.	N/A	#1	RTU-2
RTU-3	ROOF TOP UNIT #3	600V, 3Ø	59.2kW	57.0A	80A3P	3Ø4, 1Ø8 GND-32C	EDP-2	BY MANUF.	BY MANUF.	N/A	#1, #2	RTU-3
RTU-4	ROOF TOP UNIT #4	600V, 3Ø	48.4kW	46.6A	50A3P	3Ø4, 1Ø8 GND-32C	EDP-2	BY MANUF.	BY MANUF.	BY MANUF.	#1, #2	RTU-4
RTU-5	ROOF TOP UNIT #5	600V, 3Ø	61.1kW	58.8A	70A3P	3Ø4, 1Ø8 GND-32C	EDP-2	BY MANUF.	BY MANUF.	N/A	#1, #2	RTU-5
RTU-6	ROOF TOP UNIT #6	600V, 3Ø	48.4kW	46.6A	50A3P	3Ø4, 1Ø8 GND-32C	EDP-2	BY MANUF.	BY MANUF.	N/A	#1, #2	RTU-6
RTU-7	ROOF TOP UNIT #7	600V, 3Ø	59.1kW	56.9A	80A3P	3Ø4, 1Ø8 GND-32C	EDP-2	BY MANUF.	BY MANUF.	BY MANUF.	#1, #2	RTU-7
RTU-8	ROOF TOP UNIT #8	600V, 3Ø	62.8kW	60.4A	80A3P	3Ø3, 1Ø8 GND-32C	EDP-2	BY MANUF.	BY MANUF.	N/A	#1, #2	RTU-8
RTU-9	ROOF TOP UNIT #9	600V, 3Ø	48.4kW	46.6A	50A3P	3Ø4, 1Ø8 GND-32C	EDP-2	BY MANUF.	BY MANUF.	BY MANUF.	#1, #2	RTU-9
RTU-10	ROOF TOP UNIT #10	600V, 3Ø	61.1kW	58.8A	70A3P	3Ø3, 1Ø8 GND-32C	EDP-2	BY MANUF.	BY MANUF.	BY MANUF.	#1, #2	RTU-10
RTU-11	ROOF TOP UNIT #11	600V, 3Ø	61.1kW	58.8A	70A3P	3Ø3, 1Ø8 GND-32C	EDP-2	BY MANUF.	BY MANUF.	BY MANUF.	#1, #2	RTU-11
RTU-12	ROOF TOP UNIT #12	600V, 3Ø	59.1kW	56.9A	80A3P	3Ø4, 1Ø8 GND-32C	EDP-2	BY MANUF.	BY MANUF.	N/A	#1, #2	RTU-12
RTU-13	ROOF TOP UNIT #13	600V, 3Ø	57.8kW	55.4A	60A3P	3Ø4, 1Ø8 GND-32C	EDP-2	BY MANUF.	BY MANUF.	N/A	#1, #2	RTU-13
RTU-14	ROOF TOP UNIT #14	600V, 3Ø	63.4kW	61.0A	70A3P	3Ø4, 1Ø8 GND-32C	EDP-2	BY MANUF.	BY MANUF.	BY MANUF.	#1, #2	RTU-14
RTU-15	ROOF TOP UNIT #15	600V, 3Ø	7.0kW	6.7A	15A3P	3Ø12, 1Ø12 GND-19C	EDP-2	BY MANUF.	BY MANUF.	BY MANUF.	#1	RTU-15
RTU-16	ROOF TOP UNIT #16	600V, 3Ø	29.9kW	28.8A	30A3P	3Ø10, 1Ø12 GND-19C	EDP-2	BY MANUF.	BY MANUF.	BY MANUF.	#1	RTU-16
RTU-17	ROOF TOP UNIT #17	600V, 3Ø	64.7kW	62.3A	80A3P	3Ø4, 1Ø8 GND-32C	EDP-2	BY MANUF.	BY MANUF.	N/A	#1	RTU-17
RTU-18	ROOF TOP UNIT #18	600V, 3Ø	8.6kW	8.3A	15A3P	3Ø12, 1Ø12 GND-19C	EDP-2	BY MANUF.	BY MANUF.	BY MANUF.	#1	RTU-18
RTU-19	ROOF TOP UNIT #19	600V, 3Ø	14.0kW	13.5A	15A3P	3Ø12, 1Ø12 GND-19C	EDP-2	BY MANUF.	BY MANUF.	N/A	#1	RTU-19
RTU-20	ROOF TOP UNIT #20	208V, 1Ø	2.8kW	13.3A	25A2P	2Ø10, 1Ø12 GND-19C	EC12-5.7	BY MANUF.	BY MANUF.	N/A	#1, #2	RTU-20
RTU-21	ROOF TOP UNIT #21	600V, 3Ø	13.2kW	12.7A	20A3P	3Ø12, 1Ø12 GND-19C	Z21A-28.30.32	BY MANUF.	BY MANUF.	BY MANUF.	#1	RTU-21
RTU-22	ROOF TOP UNIT #22	600V, 3Ø	22.3kW	21.5A	20A3P	3Ø12, 1Ø12 GND-19C	Z21A-34.36.38	BY MANUF.	BY MANUF.	N/A	#1	RTU-22
RTU-23	ROOF TOP UNIT #23	600V, 3Ø	6.7kW	6.4A	15A3P	3Ø12, 1Ø12 GND-19C	Z21A-33.35.37	BY MANUF.	BY MANUF.	N/A	#1	RTU-23
RTU-24	ROOF TOP UNIT #24	208V, 1Ø	2.8kW	13.3A	25A2P	2Ø12, 1Ø12GND-19C	Z8A-31.33	BY MANUF.	BY MANUF.	N/A	#1	RTU-24
RTU-25	ROOF TOP UNIT #25	208V, 1Ø	2.8kW	13.3A	25A2P	2Ø12, 1Ø12GND-19C	Z8A-27.29	BY MANUF.	BY MANUF.	N/A	#1	RTU-25
RTU-26	ROOF TOP UNIT #26	208V, 1Ø	2.8kW	13.3A	25A2P	2Ø12, 1Ø12GND-19C	Z9A-39.41	BY MANUF.	BY MANUF.	N/A	#1	RTU-26
RTU-27	ROOF TOP UNIT #27	208V, 1Ø	2.8kW	13.3A	25A2P	2Ø12, 1Ø12GND-19C	Z15C-16.18	BY MANUF.	BY MANUF.	N/A	#1	RTU-27
RTU-28	ROOF TOP UNIT #28	208V, 1Ø	2.8kW	13.3A	25A2P	2Ø12, 1Ø12GND-19C	Z13A-15.17	BY MANUF.	BY MANUF.	N/A	#1	RTU-28
RTU-29	ROOF TOP UNIT #29	208V, 1Ø	4.1kW	19.8A	35A2P	2Ø10, 1Ø12 GND-19C	Z1H-25.27	BY MANUF.	BY MANUF.	N/A	#1	RTU-29
RTU-30	ROOF TOP UNIT #30	600V, 3Ø	5.5kW	5.3A	15A3P	3Ø10, 1Ø12 GND-19C	EDP-2	BY MANUF.	BY MANUF.	N/A	#1	RTU-30
EF-1	EXHAUST FAN #1	120V, 1Ø	1/6 HP	4.4A	15A1P	2Ø12, 1Ø12GND-19C	Z1H-17	15A1P WP	NONE	N/A	#1	EF-1
EF-2	EXHAUST FAN #2	120V, 1Ø	1/3 HP	7.2A	20A1P	2Ø12, 1Ø12GND-19C	Z1H-19	15A1P WP	NONE	N/A	#1	EF-2
EF-3	EXHAUST FAN #3	120V, 1Ø	1/6 HP	4.4A	15A1P	2Ø12, 1Ø12GND-19C	Z5A-20	15A1P WP	NONE	N/A	#1	EF-3
EF-4	EXHAUST FAN #4	120V, 1Ø	1/6 HP	4.4A	15A1P	2Ø12, 1Ø12GND-19C	Z5A-22	15A1P WP	NONE	N/A	#1	EF-4

REMARKS
* EXISTING FEEDER SIZE TO BE CONFIRMED ON SITE. MINIMUM FEEDER SIZE SHOWN IN NEW EQUIPMENT SCHEDULE.
REMARKS:
1. EXISTING CONDUCTORS TO BE TESTED FOR INSULATION RESISTANCE AND DETERMINED SUITABLE FOR REUSE.
1.1. WHERE EXISTING FEEDER DOES NOT INCLUDE A BONDING CONDUCTOR, UTILIZE THE EXISTING CONDUIT AS THE BONDING CONDUCTOR AND CONNECT TO EQUIPMENT AS REQUIRED.
2. CONDUCTOR SIZE INCREASED DUE TO VOLTAGE DROP

EXISTING EQUIPMENT SCHEDULE

EQUIP. No.	DESCRIPTION	VOLTS, PH	HP/kW	MCA	BREAKER	FEEDER*	CIRCUIT	DISCON	STARTER	REMARKS	EQUIP. No.	
RTU-1	ROOF TOP UNIT #1	600V, 3Ø	41.2kW	39.6A	100A3P (50)	3Ø8 - 25C	EDP-2	60A3P	BY MANUF.	1, 2	RTU-1	
RTU-2	ROOF TOP UNIT #2	600V, 3Ø	50.6kW	48.7A	125A3P (60)	3Ø6 - 25C	EDP-2	60A3P	BY MANUF.	1, 2	RTU-2	
RTU-3	ROOF TOP UNIT #3	600V, 3Ø	60.3kW	58.0A	125A3P (60)	3Ø4 - 32C	EDP-2	60A3P	BY MANUF.	1, 2	RTU-3	
RTU-4	ROOF TOP UNIT #4	600V, 3Ø	41.2kW	39.6A	100A3P (50)	3Ø4 - 32C	EDP-2	60A3P	BY MANUF.	1, 2	RTU-4	
RTU-5	ROOF TOP UNIT #5	600V, 3Ø	59.8kW	57.5A	200A3P (70)	3Ø2 - 32C	EDP-2	100A3P	BY MANUF.	1, 2	RTU-5	
RTU-6	ROOF TOP UNIT #6	600V, 3Ø	41.2kW	39.6A	100A3P (50)	3Ø4 - 32C	EDP-2	60A3P	BY MANUF.	1, 2	RTU-6	
RTU-7	ROOF TOP UNIT #7	600V, 3Ø	52.2kW	50.2A	200A3P (60)	3Ø1 - 38C	EDP-2	60A3P	BY MANUF.	1, 2	RTU-7	
RTU-8	ROOF TOP UNIT #8	600V, 3Ø	52.2kW	50.2A	200A3P (60)	3Ø2 - 32C	EDP-2	60A3P	BY MANUF.	1, 2	RTU-8	
RTU-9	ROOF TOP UNIT #9	600V, 3Ø	40.1kW	38.6A	125A3P (60)	3Ø4 - 32C	EDP-2	60A3P	BY MANUF.	1, 2	RTU-9	
RTU-10	ROOF TOP UNIT #10	600V, 3Ø	59.8kW	57.5A	200A3P (70)	3Ø10 - 50C	EDP-2	100A3P	BY MANUF.	1, 2	RTU-10	
RTU-11	ROOF TOP UNIT #11	600V, 3Ø	59.8kW	57.5A	150A3P (70)	3Ø2 - 32C	EDP-2	100A3P	BY MANUF.	1, 2	RTU-11	
RTU-12	ROOF TOP UNIT #12	600V, 3Ø	49.0kW	47.2A	150A3P (60)	3Ø2 - 32C	EDP-2	60A3P	BY MANUF.	1, 2	RTU-12	
RTU-13	ROOF TOP UNIT #13	600V, 3Ø	52.2kW	50.2A	125A3P (60)	3Ø2 - 32C	EDP-2	60A3P	BY MANUF.	1, 2	RTU-13	
RTU-14	ROOF TOP UNIT #14	600V, 3Ø	63.4kW	61.0A	150A3P (70)	3Ø2 - 32C	EDP-2	100A3P	BY MANUF.	1, 2	RTU-14	
RTU-15	ROOF TOP UNIT #15	600V, 3Ø	4.5kW	4.3A	15A3P	3Ø12 - 19C	EDP-2	15A3P	BY MANUF.	1, 2	RTU-15	
RTU-16	ROOF TOP UNIT #16	600V, 3Ø	20.8kW	21.0A	25A3P (20)	3Ø12 - 19C	EDP-2	30A3P	BY MANUF.	1, 2	RTU-16	
RTU-17	ROOF TOP UNIT #17	600V, 3Ø	52.2kW	50.2A	150A3P (60)	3Ø8 - 19C (3Ø8, 1Ø8 GND-25C)	EDP-2	60A3P	BY MANUF.	1, 2	RTU-17	
RTU-18	ROOF TOP UNIT #18	600V, 3Ø	8.7kW	8.4A	30A3P (15)	3Ø12 - 19C	EDP-2	15A3P	BY MANUF.	1, 2	RTU-18	
RTU-19	ROOF TOP UNIT #19	600V, 3Ø	17.7kW	17.0A	40A3P (20)	3Ø12 - 19C	EDP-2	30A3P FZ	BY MANUF.	1, 2	RTU-19	
RTU-20	ROOF TOP UNIT #20	208V, 1Ø	2.7kW	16.0A	25A2P	2Ø10, 1Ø10 GND-12C (19C)	EC12-5.7	30A2P	BY MANUF.			RTU-20
RTU-21	ROOF TOP UNIT #21	600V, 3Ø	13.9kW	16.7A	25A3P	3Ø12, 1Ø12 GND-19C	Z21A-28.30.32	30A3P	BY MANUF.			RTU-21
RTU-22	ROOF TOP UNIT #22	600V, 3Ø	9.9kW	9.5A	15A3P	3Ø12, 1Ø12 GND-19C	Z21A-34.36.38	30A3P	BY MANUF.			RTU-22
RTU-23	ROOF TOP UNIT #23	600V, 3Ø	3.9kW	3.8A	15A3P	3Ø12, 1Ø12 GND-19C	Z21A-33.35.37	30A3P	BY MANUF.			RTU-23
RTU-24	ROOF TOP UNIT #24	208V, 1Ø	3.7kW	17.7A	25A2P	2Ø10, 1Ø10 GND-12C (19C)	Z8A-31.33	30A2P	BY MANUF.			RTU-24
RTU-25	ROOF TOP UNIT #25	208V, 1Ø	3.3kW	16.0A	25A2P	2Ø10, 1Ø10 GND-12C (19C)	Z8A-27.29	30A2P	BY MANUF.			RTU-25
RTU-26	ROOF TOP UNIT #26	208V, 1Ø	3.7kW	17.7A	25A2P	2Ø10, 1Ø10 GND-12C (19C)	Z9A-39.41	30A2P	BY MANUF.			RTU-26
RTU-27	ROOF TOP UNIT #27	208V, 1Ø	4.4kW	21.0A	30A2P	2Ø10, 1Ø10 GND-12C (19C)	Z15C-16.18	30A2P	BY MANUF.			RTU-27
RTU-28	ROOF TOP UNIT #28	208V, 1Ø	4.4kW	21.0A	30A2P	2Ø10, 1Ø10 GND-12C (19C)	Z13A-15.17	30A2P	BY MANUF.			RTU-28
EF-3	EXHAUST FAN #3	120V, 1Ø	?HP	?A	15A1P	2Ø12, 1Ø12 GND-12C (19C)	Z5A-20	NONE	NONE			EF-3
EF-4	EXHAUST FAN #4	120V, 1Ø	?HP	?A	15A1P	2Ø10, 1Ø10 GND-12C (19C)	Z5A-22	NONE	NONE			EF-4

