A1 SIZE – 594mm x 841mm

600 VOLT MOTOR CONTROL CENTRE – MCC–B720

CONNECTED kW: 618
REMAND kW: 240

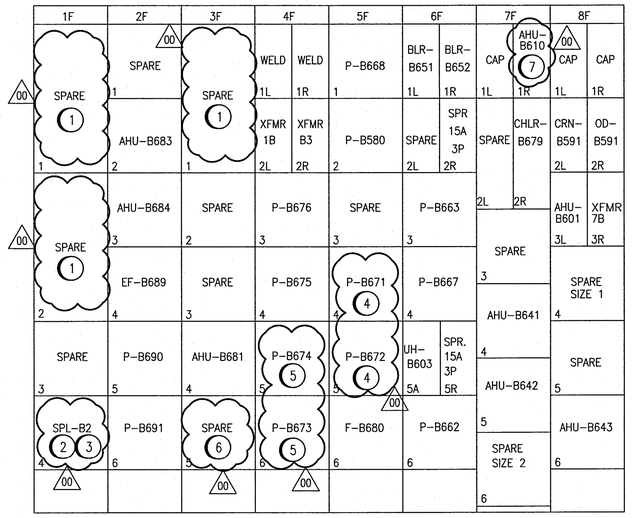
MCC NUMBER	EQUIP. NUMBER	LOAD DESCRIPTION	LOAD LOCATION	MOTOR HP	MOTOR KW	MOTOR FULL LOAD AMPS	STARTER EEMAC SIZE	STARTER TYPE	STARTER OVERLOAD	FEEDER CAP IN AMPS	FEEDER SIZE	FEEDER TYPE	CIRCUIT PROTECTION CONT. RATING (AMPS)	CIRCUIT PROTECTION FRAME TYPE	REMARKS
1F–1		SPARE (WAS B686–EF)					1	CMFVNR	FH38 & FH39				15	HMCP	
1F–2		SPARE (WAS B688–EF)					1	CMFVNR	FH38 & FH39				15	HMCP	
1F–3	B699–EF	EMERGENCY EXHAUST FAN – CHLORINE ROOM	ROOM B113	2	1.5	2.7	1	CMFVNR	–	20	#12	RW90	7	HMCP	
1F–4		SPL–B2	ROOM B107	–	–	–	–	–	–	170	#1/0	RW90	150A–3P	KD	LSI BREAKER
2F–1		SPARE (WAS B698–EF)		–	–	–	1	CMFVNR	–	–	–	–	3	HMCP	
2F–2	AHU–B683	AIR HANDLING UNIT – SHOP AREA	ROOM B113	5	3.7	5.6	1	CMFVNR	FH35	20	#12	RW90	15	HMCP	
2F–3	AHU–B684	AIR HANDLING UNIT – BOILER ROOM	ROOM B113	7.5	5.6	7.6	1	CMFVNR	FH38	20	#12	RW90	15	HMCP	
2F–4	EF–B689	EXHAUST FAN – GALLERY	ROOM B113	0.5	0.4	0.8	1	CMFVNR	FH13	20	#12	RW90	3	HMCP	
2F–5	P–B690	COOLING WATER PUMP – MOTOR ROOM COOLING	ROOM B103	7.5	5.6	7.5	1	CMFVNR	FH38	20	#12	RW90	15	HMCP	
2F–6	P–B691	COOLING WATER PUMP – MOTOR ROOM COOLING	ROOM B103	7.5	5.6	7.5	1	CMFVNR	FH38	20	#12	RW90	15	HMCP	
3F–1		SPARE (WAS B687–EF)					1	CMFVNR	FH38 & FH39				15	HMCP	
3F–2		SPARE (WAS B677–CP)		–	–	–	1	CMFVNR	–	–	–	–	3	HMCP	
3F–3		SPARE (WAS B678–CP)		–	–	–	1	CMFVNR	–	–	–	–	3	HMCP	
3F–4	AHU–B681	AIR HANDLING UNIT – GALLERY VENTILATION	ROOM B113	7.5	7.5	7.6	1	CMFVNR	FH39	20	#12	RW90	30	HMCP	
3F–5		SPARE (WAS B682–AHU)					1	CMFVNR	FH15				3	HMCP	
4F–1L		WELDING RECEPTACLES	RM. B111/B120	–	60	–	–	–	–	65	#6	RW90	60A–3P	HFD	
4F–1R		WELDING RECEPTACLES	RM. B103/B113	–	60	–	–	–	–	65	#6	RW90	60A–3P	HFD	
4F–2L		45 kVA 600–600/347 V XFMR–1B	ROOM B107	–	45kVA	–	–	–	–	65	#6	RW90	60A–3P	HFD	
4F–2R		45 kVA 600–208/120 V XFMR–B3	ROOM B107	–	45kVA	–	–	–	–	65	#6	RW90	60A–3P	HFD	
4F–3	P–B676	HOT WATER CIRCULATION PUMP – AREA 'B'	ROOM B103	1.5	1.1	2.0	1	CMFVNR	FH26	20	#12	RW90	7	HMCP	
4F–4	P–B675	HOT WATER CIRCULATION PUMP – AREA 'B'	ROOM G103	1.5	1.1	2.2	1	CMFVNR	FH25	20	#12	RW90	7	HMCP	
4F–5	P–B674	HOT WATER CIRCULATION PUMP – AREA 'P' & AREA 'S'	ROOM B103	25	18.6	–	2	CMFVNR	–	35	#10	RW90	50	HMCP	
4F–6	P–B673	HOT WATER CIRCULATION PUMP – AREA 'P' & AREA 'S'	ROOM G103	25	18.6	–	2	CMFVNR	–	35	#10	RW90	50	HMCP	
5F–1	P–B668	CHILLED WATER PUMP – SERVICE BUILDING COOLING	ROOM B103	7.5	5.6	9.1	1	CMFVNR	–	20	#12	RW90	15	HMCP	
5F–2	P–B580	BOILER ROOM FLOOD PUMP	ROOM G103	2.5	5.6	4.2	1	CMFVNR	–	20	12 AWG	RW90	15	HMCP	
5F–3		SPARE (WAS B670–CWP)		–	–	–	–	CMFVNR	–	–	–	–	15	HMCP	
5F–4	P–B671	HOT WATER CIRCULATION PUMP – AREA 'G' & AREA 'M'	ROOM B103	25	18.6	–	2	CMFVNR	–	35	#10	RW90	50	HMCP	
5F–5	P–B672	HOT WATER CIRCULATION PUMP – AREA 'G' & AREA 'M'	ROOM G103	25	18.6	–	2	CMFVNR	–	35	#10	RW90	50	HMCP	
5F–6	F–B680	COOLING TOWER FAN – MOTOR ROOM COOLING	OUTDOORS	7.5	5.6	7.6	1	CMFVNR	FH38	20	#12	RW90	15	HMCP	
6F–1L	BLR–B651	HOT WATER BOILER #1	ROOM B103	7.5	5.6	9	–	–	–	20	#12	RW90	20A–3P	HFD	
6F–1R	BLR–B652	HOT WATER BOILER #2	ROOM G103	7.5	5.6	9	–	–	–	20	#12	RW90	20A–3P	HFD	
6F–2L		SPARE (WAS B653–BLR)		–	–	–	–	–	–	–	–	–	15A–3P	HFD	
6F–2R		SPARE (WAS B696–EF)		–	–	–	–	–	–	–	–	–	15A–3P	HFD	
6F–3	P–B663	CHILLED WATER PUMP – MOTOR ROOM COOLING	ROOM B103	7.5	5.6	7.5	1	CMFVNR	FH38	20	#12	RW90	15	HMCP	
6F–4	P–B667	CHILLED WATER PUMP – SERVICE BUILDING COOLING	ROOM G103	7.5	5.6	9.1	1	CMFVNR	–	20	#12	RW90	15	HMCP	
6F–5L	UH–B603	CHEM. STORAGE BLDG. UNIT HEATER	CHEM. STORAGE	–	20	20	–	–	–	45	#8	RW90	30A–3P	HFD	PACKAGED AHU C/W CONTROLS
6F–5R		SPARE BREAKER	–	–	–	–	–	–	–	–	–	–	15A–3P	HFD	
6F–6	P–B662	CHILLED WATER PUMP – MOTOR ROOM COOLING	ROOM B103	7.5	5.6	7.5	1	CMFVNR	FH38	20	#12	RW90	15	HMCP	
7F–1L		CAPACITOR BREAKER	–	–	–	–	–	–	–	30	#10	RW90	30A–3P	HFD	20 kVAR CAPACITOR
7F–1R	AHU–B610	AIR HANDLING UNIT – CHLORINE ROOM	ROOM B113	–	1.49	–	–	–	–	–	#12	RW90	15A–3P	HFD	
7F–2L		SPARE (WAS B657–CH)		–	–	–	–	–	–	–	–	–	100–3P	HFD	PACKAGED CHILLER C/W CONTROLS
7F–2R	CHLR–B679	CHILLER – MOTOR ROOM COOLING	ROOM B103	100	75	120	–	–	–	155	#1/0	RW90	150A–3P	HFD	PACKAGED CHILLER C/W CONTROLS
7F–3		SPARE		–	–	–	1	CMFVNR	–	–	–	–	30	HMCP	
7F–4	AHU–B641	AIR HANDLING UNIT–SERVICE BLDG. EXTENSION	ROOM B124	0.75	0.56	1.2	1	CMFVNR	FH18	20	#12	RW90	3	HMCP	
7F–5	AHU–B642	INSTRUMENT RMS PRESSURIZATION UNIT	ROOM B124	0.75	0.56	3	1	CMFVNR	FH28	20	#12	RW90	7	HMCP	
7F–6		SPARE STARTER	–	–	–	–	2	CMFVNR	–	–	–	–	50	HMCP	
8F–1L		CAPACITOR BREAKER	–	–	–	–	–	–	–	30	#10	RW90	30A–3P	HFD	20 kVAR CAPACITOR
8F–1R		CAPACITOR BREAKER	–	–	–	–	–	–	–	30	#10	RW90	30A–3P	HFD	20 kVAR CAPACITOR
8F–2L	CRN–B591	MONORAIL	ROOM B111	3	2.2	3.9	–	–	–	20	#12	RW90	15A–3P	HFD	
8F–2R	OD–B594	TRUCK DOOR	ROOM B111	0.5	0.37	0.8	–	–	–	20	#12	RW90	15A–3P	HFD	
8F–3L	AHU–B601	AIR HANDLING UNIT – CHEMICAL STORAGE BUILDING	CHEM. ST. BLDG.	1	0.75	1.3	–	–	–	20	#12	RW90	15A–3P	HFD	PACKAGED AHU C/W CONTROLS
8F–3R		45 kVA 600–208/120 V TRANSFORMER '7B'	ROOM B107	–	45kVA	–	–	–	–	65	#6	RW90/TECK	60A–3P	HFD	LOCATED IN SERVICE BLDG. ELECT. RM.
8F–4		SPARE STARTER	–	–	–	–	1	CMFVNR	–	–	–	–	7	HMCP	
8F–5		SPARE (WAS B658–FN)		–	–	–	1	CMFVNR	–	–	–	–	30	HMCP	
8F–6	AHU–B643	INSTRUMENT ROOMS RECIRCULATION UNIT	ROOM B124	1.5	1.1	1.6	1	CMFVNR	FH21	20	#12	RW90	3	HMCP	

MCC DETAILS:

MANUFACTURER: WESTINGHOUSE
MODEL: FIVE STAR
ORDER NO.: 37B7140
MAIN BUS AMPACITY: 800A
VOLTAGE: 600V, 3ø, 3W
MINIMUM INTERRUPTING RATING: 25kA

MAIN BREAKER:

WESTINGHOUSE RD316TW
RD65K
RS SELECTRONIC TRIP UNIT
CAT16R508T
800A
RS3160OT
SHORT TIME PICK UP = 2IN



MCC–B720 – FRONT ELEVATION

GENERAL NOTES:

1. THIS DRAWING SUPERCEDES EXISTING DRAWING SEP–908. CLOUDED AREAS DENOTE NEW WORK. REFER TO SEP–908 FOR PREVIOUS EQUIPMENT IDENTIFIERS.
2. THE ELECTRICAL CONTRACTOR SHALL SITE CONFIRM ALL TAGS INDICATING 'MCC–2B' AND REPLACE WITH 'MCC–B720.'

SPECIFIC NOTES

1. REMOVE WIRING/CONDUIT TO GRIT TANK EXHAUST FANS B686–EF, B687–EF AND B688–EF AS EXHAUST FANS TO BE DEMOLISHED AND REPLACED WITH NEW FANS FED FROM MCC–G770 AND MCC–G780 IN GRIT AND SCREENING BUILDING. RETAIN EXISTING MOTOR CIRCUIT PROTECTORS AND STARTER. MARK AS 'SPARE'.
2. REMOVE EXISTING 150A THERMAL MAGNETIC BREAKER AND PROVIDE CUTLER HAMMER 250A FRAME KD OPTIM 550 BREAKER WITH 150A LSI TRIP UNIT FOR BETTER COORDINATION WITH DOWNSTREAM BREAKERS. PROVIDE ALL NECESSARY ACCESSORIES FOR MOUNTING.
3. REPLACE EXISTING MCC ENCLOSURE DOOR TO ACCOMMODATE NEW BREAKER.
4. REMOVE EXISTING MOTOR STARTER. PROVIDE NEW 50A, 3P MOTOR CIRCUIT PROTECTOR, OVERLOADS, WIRING AND CONDUIT TO SUIT MOTOR NAMEPLATE. REFER TO DRAWING SEP–910 FOR LOCATION OF PUMP.
5. PROVIDE NEW OVERLOADS, WIRING AND CONDUIT TO SUIT MOTOR NAMEPLATE. RETAIN EXISTING MOTOR CIRCUIT PROTECTOR AND STARTER. REFER TO DRAWING SEP–910 FOR LOCATION OF PUMP.
6. REMOVE WIRING/CONDUIT TO AIR HANDLING UNIT B682–AHU AS THIS EQUIPMENT WILL BE DEMOLISHED AND REPLACED WITH NEW UNIT. RETAIN EXISTING MOTOR CIRCUIT PROTECTORS AND STARTER. MARK AS 'SPARE'.
7. WIRE AND CONNECT NEW AHU–B610 LOCATED IN MECHANICAL ROOM B113. REFER TO SINGLE LINE DRAWING ESLD–B001 FOR DETAILS.

DRAWING NUMBER	REFERENCE DRAWINGS
1–0102–ESLD–B001	SINGLE LINE DIAGRAM, SERVICE BUILDING, MCC–B720

APEGM Certificate of Authorization
SNC-Lavalin Inc.
No. 4489

NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR CONSTRUCTION – 976–2016	2017/04/05	WE	DEB

CH2MHILL. SNC·LAVALIN KGS GROUP

DESIGNED BY: EXISTING
CHECKED BY: E. RYCZKOWSKI
DRAWN BY: MJ. PERSSON
APPROVED BY: D. BECKER
SCALE: NTS
ISSUED FOR CONSTRUCTION BY: J. SHUMKA
DATE: 2016/04/27
DATE: 2017/04/05
CONSULTANT NO.: 474248

ENGINEER'S SEAL: PROVINCE OF MANITOBA – D.E. BECKER – Member 23646 – REGISTERED PROFESSIONAL ENGINEER – April 5/2017

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
SEWPCC UPGRADING/EXPANSION PROJECT
ELECTRICAL – MCC/CABINETS DRAWING
SERVICE BUILDING
MCC–B720 LAYOUT AND SCHEDULE

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1–0102–ECBD–B001	001	00	A1

LAST SAVE: 2017/03/28 – 11:15am
PATH: C:\pw_workdir\ch2mhill_wbg\sh043264\d0416211 9\1–0102–ECBD–B001.dwg

PLOT DATE: Mar 28, 2017 – 11:15am
FILE NAME:1–0102–ECBD–B001.dwg