

Part 1 General**1.1 RELATED SECTIONS**

- .1 Section 01 00 10 – General Instructions.
- .2 Section 26 05 00 - Common Work Results for Electrical.
- .3 Section 26 28 16.02 - Moulded-Case Circuit Breakers.

1.2 REFERENCES

- .1 Canadian Standards Association (CSA International).
 - .1 CSA C22.2 No. 29-M1989 (R2004), Panelboards and Enclosed Panelboards.

1.3 SHOP DRAWINGS

- .1 Refer to Section 01 00 10 – General Instructions.
- .2 Drawings to include electrical detail of panel, branch breaker type, quantity, ampacity provisions, enclosure dimension, and panel locking.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 00 10 – General Instructions.
- .2 Remove from site and dispose of all packaging materials at appropriate recycling facilities.
- .3 Collect and separate for disposal all packaging material in appropriate on-site bins for recycling in accordance with Waste Management Plan.
- .4 Divert unused metal and wiring materials from landfill to metal recycling facility as approved by Departmental Representative.

Part 2 Products**2.1 PANELBOARDS**

- .1 Panelboards: to CSA C22.2 No. 29 and product of one manufacturer.
 - .1 Install circuit breakers in panelboards before shipment.
 - .2 In addition to CSA requirements manufacturer's nameplate must show fault current that panel including breakers has been build to withstand.
- .2 250 and 600 volt panelboards: bus and breakers rated for symmetrical interrupting capacity as follows:
 - .1 240 volt 10,000 amps.
 - .2 600 volt 42 kA RMS symmetrical..

- .3 Sequence phase bus with odd numbered breakers on left and even on right, with each breaker identified by permanent number of identification as to circuit number.
- .4 Panelboards: mains, number of circuits, and number and size of branch circuit breakers as indicated.
- .5 Copper bus with full size neutral.
- .6 Mains suitable for bolt-on breakers.
- .7 Finish trim and door baked grey enamel, with hinged cover.
- .8 Supply two (2) keys for each panelboard and key panelboards alike.

2.2 BREAKERS

- .1 Breakers to Section 26 28 16.02 – Moulded Case Circuit Breakers.
- .2 Main breaker: separately mounted on top or bottom of the panel to suit the cable entry.
- .3 Panelboards shall be supplied with breakers as described on drawings.

2.3 EQUIPMENT IDENTIFICATION

- .1 Provide equipment identification in accordance with Section 26 05 00 – Common Work Results for Electrical.
- .2 Nameplate for each panelboard Size 4 engraved as indicated.
- .3 Nameplate for each circuit in distribution panelboards Size 2 engraved as indicated.
- .4 Complete circuit directory with a type-written legend showing location and load of each circuit.

2.4 MATERIALS

- .1 Panelboards to be the product of one manufacturer.

Part 3 Execution

3.1 INSTALLATION

- .1 Locate panelboards as indicated and mount securely, plumb true and square, to adjoining surfaces.
- .2 Install surface- and recessed-mounted panelboards as indicated. Provide steel channel. Use masonry anchors to attach panelboards to interior wall partitions. Perforated steel channel not acceptable.
- .3 Mount panelboards to height given in Section 26 05 00 – Common Work Results for Electrical or as indicated.
- .4 Connect loads to circuits as indicated.
- .5 All breakers shall be tested and test reports submitted.

3.2 PANELBOARD DIRECTORY SHEETS

- .1 Complete a new panelboard directory sheet for each distribution and each branch circuit panelboard.
- .2 Panelboard directory sheets are to be completed in English only.
- .3 Using a laser jet printer, print all complete electronic panelboard directory sheets and panelboard cards, as described later herein, on quality white bond paper. Provide a sample of the paper and printing process to the Departmental Representative for review and approval.
- .4 Use the template format designated for this purpose. Refer to the sample form in this section.
- .5 As work progresses, bring any anomalies to the attention of the Departmental Representative and seek written clarification.
- .6 The template will be provided to the Contractor in electronic format in MS WORD, or as approved by the Departmental Representative.
- .7 Complete all fields of the panelboard directory sheet in typewritten form. Properly centre and align the information entered.
- .8 Adjust the template to suit the number of spaces in the panelboard.
- .9 Fill in the fields as the information becomes available.
- .10 Enter specific descriptive information with regard to the type of device(s), room location(s), etc. Vague terminology is not acceptable.
- .11 Enter the information on spare circuit breakers and empty spaces. Differentiate between the two.
- .12 Make corrections to the directory sheets as directed by the Departmental Representative where the descriptive information is found to be inadequate.

3.3 PANELBOARD DIRECTORY CARDS

- .1 Complete a new directory card for each panelboard in the format shown on the samples in this section.
- .2 Panelboard directory cards are to be completed in English only.
- .3 The template will be provided to the Contractor in electronic format in MS WORD, or as approved by the Departmental Representative.
- .4 Insert a copy of the directory card in a plastic pocket on the inside face of its door, or as applicable, on the face of the branch panels and CDP. Supply and install the plastic pockets of a quality acceptable to the Departmental Representative. Cut the printed panelboard directory sheets to fit in the plastic sleeve.

PANELBOARD DIRECTORY SHEET

PANEL DESIGNATION.....

PANEL LOCATION.....

NUMBER OF POLES.....

MOUNTING.....

SYSTEM VOLTAGE.....

MAINS CAPACITY.....

DESCRIPTION	BREAKER AMP POLE	NO.		NO.	BREAKER AMP POLE	LOAD	DESCRIPTION
		1	A	2			
		3	B	4			
		5	C	6			
		7	A	8			
		9	B	10			
		11	C	12			
		13	A	14			
		15	B	16			
		17	C	18			
		19	A	20			
		21	B	22			
		23	C	24			
		25	A	26			
		27	B	28			
		29	C	30			
		31	A	32			
		33	B	34			
		35	C	36			
		37	A	38			
		39	B	40			
		41	C	42			
		43	A	44			
		45	B	46			
		47	C	48			
		49	A	50			
		51	B	52			
		53	C	54			
		55	A	56			
		57	B	58			
		59	C	60			

END OF SECTION