

PART 1 - GENERAL

<u>1.1 SECTION INCLUDES</u>	.1	Materials and installation for manual load transfer equipment which can transfer loads from a normal power supply source to an alternate (emergency) power supply source through manual operation of contacts in a double-throw configuration.
<u>1.2 RELATED SECTIONS</u>	.1	Section 26 05 00 - Common Work Results - For Electrical.
<u>1.3 REFERENCES</u>	.1	Canadian Standards Association (CSA International) .1 CAN3-C13-M83(R1998), Instrument Transformers. .2 CSA C22.2 No.5-02, Moulded-Case Circuit Breakers, Molded-Case Switches and Circuit-Breaker Enclosures (Tri-national standard with UL 489, tenth edition, and the second edition of NMX-J-266-ANCE). .3 CSA C22.2 No. 178.1-07, Requirements for Transfer Switches.
	.2	ANSI/NEMA ICS2-2000(R2005), Controllers, Contactors and Overload Relays Rated 600 V.
<u>1.4 SYSTEM DESCRIPTION</u>	.1	Manual load transfer equipment to: .1 Manually transfer load from normal supply to standby unit. .2 Manually transfer load from standby unit to normal power supply.
<u>1.5 SHOP DRAWINGS</u>	.1	Submit shop drawings in accordance with Section 01 33 00.
	.2	Include: .1 Make, model and type. .2 Load classification:

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| 1.5 SHOP DRAWINGS
(Cont'd) | .2 | Include:(Cont'd) |
| | .3 | Single line diagram showing controls and relays. |
| | .4 | Description of equipment operation including: |
| | .1 | Load transfer. |
| | .2 | Instrument settings. |
| 1.6 CLOSEOUT
SUBMITTALS | .1 | Provide operation and maintenance data for load transfer equipment for incorporation into manual specified in Section 01 78 00. |
| | .2 | Detailed instructions to permit effective operation, maintenance and repair. |
| | .3 | Technical data: |
| | .1 | Schematic diagram of components, controls and relays. |
| | .2 | Illustrated parts lists with parts catalogue numbers. |
| | .3 | Certified copy of factory test results. |
| 1.7 WASTE
MANAGEMENT AND
DISPOSAL | .1 | Separate and recycle waste materials in accordance with Section 01 74 20. |
| | .2 | Remove from site and dispose of all packaging materials at appropriate recycling facilities. |
| | .3 | Collect and separate for disposal paper, plastic, polystyrene, corrugated cardboard and packaging material in appropriate on-site bins for recycling in accordance with Waste Management Plan. |
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PART 2 - PRODUCTS

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| <u>2.1 MATERIALS</u> | .1 | Instrument transformers: to CAN3-C13. |
| | .2 | Contactors: to ANSI/NEMA ICS2. |
| <u>2.2 CONTACTOR TYPE
TRANSFER EQUIPMENT</u> | .1 | Contact Type Transfer Equipment: to CSA C22.2
No. 178.1. |
| | .2 | Two- 3 phase contactors mounted on common
frame, in double throw arrangement, mechanically
interlocked, manual operated type with CSA 2
enclosure. |
| | .3 | Rated: Voltage and amperage as indicated, 60Hz. |
| | .4 | Main contacts: silver surfaced, protected by
arc disruption means. |
| | .5 | Switch and relay contacts, coils, spring and
control elements accessible for inspection and
maintenance from front of panel without removal
of switch panel or disconnection of drive
linkages and power conductors. |
| | .6 | Fault withstand rating: 65 kA symmetrical for 3
cycles with maximum peak value of 85 kA. |
| | .7 | Switchable neutral pole on circuit breaker type
equipment. |
| <u>2.3 CONTROLS</u> | .1 | Selector switch -two position "building power",
"remote generator" |
| | .2 | Solid state electronic in-phase monitor. |
| <u>2.4 ACCESSORIES</u> | .1 | Pilot lights to indicate power availability
normal and standby, switch position, green for
normal, red for standby, mounted in panel. |
| | .2 | Instruments: |
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<u>2.4 ACCESSORIES</u> <u>(Cont'd)</u>	.2	Instruments: (Cont'd)
	.1	Digital true rms, indicating type 2% accuracy, flush panel mounting:
	.1	Voltmeter: ac, scale 0 to 600V.
	.2	Ammeter: ac, scale 0 to 600A.
	.3	Frequency meter: scale 55 to 65 Hz.

<u>2.5 EQUIPMENT IDENTIFICATION</u>	.1	Provide equipment identification in accordance with Section 26 05 00.
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<u>2.6 SOURCE QUALITY CONTROL</u>	.1	Complete equipment, including transfer mechanism, controls, relays and accessories factory assembled and tested in presence of Departmental Representative.
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PART 3 - EXECUTION

<u>3.1 INSTALLATION</u>	.1	Locate, install and connect transfer equipment.
	.2	Install and connect remote alarms.

<u>3.2 FIELD QUALITY CONTROL</u>	.1	Perform tests in accordance with Section 26 05 00.
	.2	Energize transfer equipment from normal power supply.