

ONE LINE DIAGRAM	ONE LINE DIAGRAM	ONE LINE DIAGRAM	ONE LINE DIAGRAM	CABLE TAG NUMBER
<p>• ELECTRICAL CONNECTION OR WIRING TERMINATION</p> <p>GAP RATING SURGE LIGHTNING CAP</p> <p>LIGHTNING ARRESTER VALVE OR FILM ELEMENT</p> <p>MULTICELL BATTERY</p> <p>CAPACITOR</p> <p>VARIABLE CAPACITOR</p> <p>CAPACITOR BUSHING FOR CIRCUIT BREAKER OR TRANSFORMER</p> <p>CIRCUIT BREAKER ACTUATED DEVICE * INDICATES DEVICE NO.</p> <p>FRAM SIZE TRIP SETTING LSI L = LONG TIME S = SHORT TIME I = INSTANTANEOUS</p> <p>AMP RATING VOLTAGE RATING CIRCUIT BREAKER DRAWOUT TYPE ABOVE 600 VOLTS * INDICATES DEVICE</p> <p>FRAME SIZE TRIP SETTING CIRCUIT BREAKER WITH MAGNETIC OVERLOADS</p> <p>FRAME SIZE TRIP SETTING CIRCUIT BREAKER WITH THERMAL AND MAGNETIC OVERLOADS</p> <p>HEATER SIZE HEATER</p> <p>WELDING RECEPTACLE</p> <p>INDICATING OR PILOT LIGHT * INDICATES COLOR BY LETTER</p> <p>METER * INDICATES TYPE</p> <p>QUANTITY MOTOR * INDICATES MOTOR HORSEPOWER</p> <p>EXCITER FIELD TLUUT SYNCHRONOUS MOTOR * INDICATES MOTOR HORSEPOWER</p> <p>THERMAL OVERLOAD CT_RATNG QUANTITY PT VOLTGE_RATING</p> <p>POLARITY MARK KVA_RATING EQUIP_NO.</p> <p>CABLE TERMINATOR ABOVE 600 VOLTS</p> <p>RECTIFIER</p> <p>QUANTITY RELAY * INDICATES TYPE</p> <p>QUANTITY DUAL FUNCTION RELAY * INDICATES TYPE 1 ** INDICATES TYPE 2</p>	<p>RESISTOR</p> <p>QUANTITY METER SWITCH * INDICATES SWITCH TYPE</p> <p>CT RATING QUANTITY CURRENT TRANSFORMER</p> <p>CT RATING QUANTITY GROUNDING ZERO SEQUENCE CURRENT TRANSFORMER</p> <p>SWITCH RATING FUSED CUT-OUT</p> <p>SWITCH RATING FUSED DISCONNECT SWITCH</p> <p>SWITCH RATING DISCONNECT SWITCH</p> <p>SIZE MAGNETIC CONTACTOR</p> <p>VACUUM CONTACTOR</p> <p>SIZE MAGNETIC STARTER</p> <p>MECHANICAL DISCONNECT</p> <p>MAGNETIC BLOWOUT COIL</p> <p>ONE TIME FUSE</p> <p>CURRENT LIMITING FUSE * INDICATES RATING</p> <p>TRANSDUCER</p> <p>GENERATOR, SINGLE PHASE</p> <p>GENERATOR, 3 PHASE DELTA</p> <p>GENERATOR, 3 PHASE WYE UNGROUNDED</p> <p>CT RATING QUANTITY MULTI-RATIO CURRENT TRANSFORMER BUSHING TYPE</p> <p>VOLTAGE RATING CPT QUANTITY POTENTIAL TRANSFORMER</p> <p>VOLTAGE RATING CPT POTENTIAL TRANSFORMER</p> <p>KVA RATING VOLTAGE RATING POWER TRANSFORMER * WINDING CONFIGURATION DESIGNATION</p> <p>KVA RATING VOLTAGE RATING DISTRIBUTION TRANSFORMER * WINDING CONFIGURATION DESIGNATION</p>	<p>TRANSFORMER DELTA WINDING CONFIGURATION</p> <p>TRANSFORMER WYE WINDING CONFIGURATION</p> <p>TRANSFORMER WYE WINDING CONFIGURATION RESISTANCE GROUND</p> <p>AMPERE RATING TIME RATING</p> <p>AC/DC CONVERTER</p> <p>DC/AC CONVERTER</p> <p>AC/DC REGENERATIVE DRIVE CONTROLS</p>	<p>DEVICE NO. FUNCTION DESCRIPTION Note 1</p> <p>1 MASTER ELEMENT</p> <p>2 TIME-DELAY STARTING OR CLOSING RELAY</p> <p>3 CHECKING OR INTELLOCKING RELAY</p> <p>4 MASTER CONTACTOR</p> <p>5 STOPPING DEVICE</p> <p>6 STARTING CIRCUIT BREAKER</p> <p>7 ANODE CIRCUIT BREAKER</p> <p>8 CONTROL POWER DISCONNECTING DEVICE</p> <p>9 REVERSING DEVICE</p> <p>10 UNIT SEQUENCE SWITCH</p> <p>11 MALFUNCTION DEVICE</p> <p>12 OVERSPEED DEVICE</p> <p>13 SYNCHRONOUS-SPEED DEVICE</p> <p>14 UNDERSPEED DEVICE</p> <p>15 SPEED OR FREQUENCY-MATCHING DEVICE</p> <p>16 RESERVED FOR FUTURE APPLICATION</p> <p>17 SHUNTING OR DISCHARGE SWITCH</p> <p>18 ACCELERATING OR DECELERATING DEVICE</p> <p>19 STARTING-TO-RUNNING TRANSITION CONTACTOR</p> <p>20 ELECTRICALLY OPERATED VALVE</p> <p>21 DISTANCE RELAY</p> <p>22 EQUILIZER CIRCUIT BREAKER</p> <p>23 TEMPERATURE CONTROL DEVICE</p> <p>24 VOLTS PER HERTZ RELAY</p> <p>25 SYNCHRONIZING OR SYNCHRONISM-CHECK DEVICE</p> <p>26 APPARATUS THERMAL DEVICE</p> <p>27 UNDERVOLTAGE RELAY</p> <p>28 FLAME DETECTOR</p> <p>29 ISOLATING CONTACTOR</p> <p>30 ANNUNCIATOR RELAY</p> <p>31 SEPARATE EXCITATION DEVICE</p> <p>32 DIRECTIONAL POWER RELAY</p> <p>33 POSITION SWITCH</p> <p>34 MASTER SEQUENCE DEVICE</p> <p>35 BRUSH-OPERATING OR SLIP-RING SHORT-CIRCUIT DEVICE</p> <p>36 POLARITY OF POLARIZING VOLTAGE DEVICE</p> <p>37 UNDERCURRENT OR UNDERPOWER RELAY</p> <p>38 BEARING PROTECTIVE DEVICE</p> <p>39 MECHANICAL CONDITION MONITOR</p> <p>40 FIELD RELAY</p> <p>41 FIELD CIRCUIT BREAKER</p> <p>42 RUNNING CIRCUIT BREAKER</p> <p>43 MANUAL TRANSFER OR SELECTOR DEVICE</p> <p>44 UNIT SEQUENCE STARTING RELAY</p> <p>45 ATMOSPHERIC CONDITION MONITOR</p> <p>46 REVERSE-PHASE OR PHASE-BALANCE CURRENT RELAY</p> <p>47 PHASE-SEQUENCE OR PHASE-BALANCE VOLTAGE RELAY</p> <p>48 INCOMPLETE SEQUENCE RELAY</p> <p>49 MACHINE OR TRANSFORMER THERMAL RELAY</p> <p>50 INSTANTANEOUS OVERCURRENT RELAY</p> <p>51 AC TIME OVERCURRENT RELAY</p> <p>52 AC CIRCUIT BREAKER</p> <p>53 EXCITER OR DC GENERATOR RELAY</p> <p>54 TURNING GEAR ENGAGING DEVICE</p> <p>55 POWER FACTOR RELAY</p> <p>56 FIELD APPLICATION RELAY</p> <p>57 SHORT-CIRCUITING OR GROUNDING DEVICE</p> <p>58 RECTIFICATION FAILURE RELAY</p> <p>59 OVERVOLTAGE RELAY</p> <p>60 VOLTAGE OR CURRENT BALANCE RELAY</p> <p>61 DENSITY SWITCH OR SENSOR</p> <p>62 TIME-DELAY STOPPING OR OPENING RELAY</p> <p>63 PRESSURE SWITCH</p> <p>64 GROUND DETECTOR RELAY</p> <p>65 GOVERNOR</p> <p>66 NOTCHING OR JOGGING DEVICE</p> <p>67 AC DIRECTIONAL OVERCURRENT RELAY</p> <p>68 BLOCKING RELAY</p> <p>69 PERMISSIVE CONTROL DEVICE</p> <p>70 RHEOSTAT</p> <p>71 LEVEL SWITCH</p> <p>72 DC CIRCUIT BREAKER</p> <p>73 LOAD-RESISTOR CONTACTOR</p> <p>74 ALARM RELAY</p> <p>75 POSITION CHANGING MECHANISM</p> <p>76 DC OVERCURRENT RELAY</p> <p>77 TELEMETERING DEVICE</p> <p>78 PHASE-ANGLE MEASURING OR OUT-OF-STEP PROTECTIVE RELAY</p> <p>79 AC RECLOSING RELAY</p> <p>80 FLOW SWITCH</p> <p>81 FREQUENCY RELAY</p> <p>82 DC LOAD-MEASURING RECLOSING RELAY</p> <p>83 AUTOMATIC SELECTIVE CONTROL OR TRANSFER RELAY</p> <p>84 OPERATING MECHANISM</p> <p>85 CARRIER OR PILOT-WIRE RECEIVER RELAY</p> <p>86 LOCKOUT RELAY</p> <p>87 DIFFERENTIAL PROTECTIVE RELAY</p> <p>88 AUXILIARY MOTOR OR MOTOR GENERATOR</p> <p>89 LINE SWITCH</p> <p>90 REGULATING DEVICE</p> <p>91 VOLTAGE DIRECTIONAL RELAY</p> <p>92 VOLTAGE AND POWER DIRECTIONAL RELAY</p> <p>93 FIELD-CHANGING CONTACTOR</p> <p>94 TRIPPING OR TRIP FREE RELAY</p> <p>95 TO 99 USED ONLY FOR SPECIFIC APPLICATIONS AND INDIVIDUAL INSTALLATIONS IF NONE OF THE FUNCTIONS ASSIGNED TO THE NUMBERS FROM 1 TO 94 ARE SUITABLE.</p>	<p>2300 VOLT MOTOR</p> <p>POWER</p> <p>M - XXX - MVS - XXX - XX MCC COMPT. NO. MCC NO. MEDIUM VOLTAGE STARTER SUBSTATION NO./AREA NO. MOTOR POWER CABLE</p> <p>CONTROL</p> <p>C - XXX - MVS - XXX - XX X SEQUENTIAL (1 THRU _____) IF REQUIRED MCC COMPT. NO. MCC NO. MEDIUM VOLTAGE STARTER SUBSTATION NO./AREA NO. CONTROL CABLE</p> <p>575 VOLT MOTOR</p> <p>POWER</p> <p>M - XXX - XXXX - XX COMPT. NO. MCC NO. SUBSTATION NO./AREA NO. MOTOR POWER CABLE</p> <p>CONTROL</p> <p>C - XXX - XXXX - XX X SEQUENTIAL (1 THRU _____) IF REQUIRED COMPT. NO. MCC NO. SUBSTATION NO./AREA NO. CONTROL CABLE</p>

NOTES:

1. STANDARD DEVICE FUNCTION NUMBERS FOR SWITCHGEAR APPLICATION ARE LISTED BELOW. FOR DETAILED DESCRIPTION OF EACH DEVICE AND FUNCTION, AND THE PROPER USE OF SUFFIX LETTERS AND NUMBERS, REFER TO ANSI STANDARD C37. 2-1970

No.	DATE	BY	DESCRIPTION	CHKD.
REVISIONS				

REFERENCE DRAWINGS

- PRELIMINARY - NOT FOR CONSTRUCTION
- APPROVED FOR CONSTRUCTION
- SUPERSEDES ALL PREVIOUS ISSUES

BY		DATE	
DESIGNED	DRAWN		
CHECKED	DATE		
DESIGN	DRAWING	SCALE	
PROJECT MANAGER	SPECIFICATION No.		
PROJECT TECHNICIAN			



AREA NAME

SYMBOLGY FOR ONE-LINE DIAGRAMS

JOB No. CONSULTANT DWG. No.

DWG. No. EI-STD-S-003