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63/20KV AIS S/S MAZANDARAN General Single Line Diagram


REFERENCE DOCUMENT & DWG

LEGENDS


NOTES

KEY PLAN

E	ACC TO LETTER NO:1403/178502/64489	DESIGNED	REVIEWED	APPROVED	DATE	1403.10.13	
D	ACC TO LETTER NO:1403/178502/61856	DESIGNED	REVIEWED	APPROVED	DATE	1403.11.10	
C	ACC TO LETTER NO:1403/178502/59763	DESIGNED	REVIEWED	APPROVED	DATE	1403.11.10	
B	ACC TO LETTER NO:1403/178502/54349	DESIGNED	REVIEWED	APPROVED	DATE	1403.10.10	
A	ACC TO LETTER NO:1403/178502/54349	DESIGNED	REVIEWED	APPROVED	DATE	1403.07.10	
O	FIRST ISSUE	DESIGNED	REVIEWED	APPROVED	DATE	1403.04.10	
Rev.	DESCRIPTION	DESIGNED	REVIEWED	CHG'D	HEAD	APPR.	DATE



Mazandaran
REGIONAL ELECTRIC
COMPANY
(M.R.E.C.)



GHODS NIROO
CONSULTING ENGINEERS

PROJECT: MAZANDARAN 63/20KV AIS SUBSTATION

TITLE: GENERAL SINGLE LINE DIAGRAM

OWNER'S DWG. NO.: MD1-BQ-06-SS-E-01-MGO-800

REV. NO.: E

SCALE: AS SHOWN


FORMAT: A3

FILE NO.:


SHEET: 0 OF 4

CONTRACT NO.:

DESIGN TYPE: BASIC DESIGN ☒ DETAIL DESIGN ☐



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REGIONAL ELECTRIC
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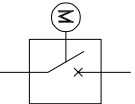
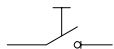
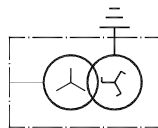

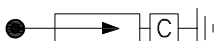

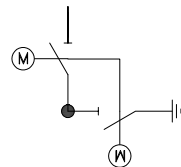
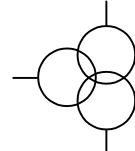
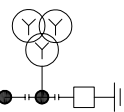
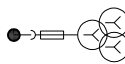

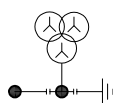
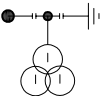
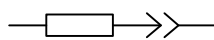
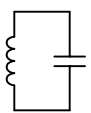
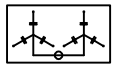

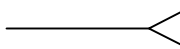
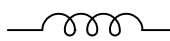

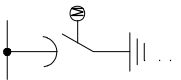


SUB-CONTRACTOR'S # 8000

DESIGNED	REVIEWED	CHG'D	HEAD	APPR.	DATE
MD1-BQ-06-SS-E-01-MGO-800	E				

SUB CONTRACTOR DWG. NO.: E





XXXX IN-HOUSE REVISION							
E	ACC TO LETTER NO:1403/178502/64489	DESIGNED	REVIEWED	APPROVED	APPROVED	APPROVED	1403.10.13
D	ACC TO LETTER NO:1403/178502/61856	DESIGNED	REVIEWED	APPROVED	APPROVED	APPROVED	1403.11.10
C	ACC TO LETTER NO:1403/178502/59763	DESIGNED	REVIEWED	APPROVED	APPROVED	APPROVED	1403.11.10
B	ACC TO LETTER NO:1403/178502/44757	DESIGNED	REVIEWED	APPROVED	APPROVED	APPROVED	1403.10.10
Rev.	DESCRIPTION	DESIGNED	REVIEWED	CHG'D	HEAD	APPR.	DATE

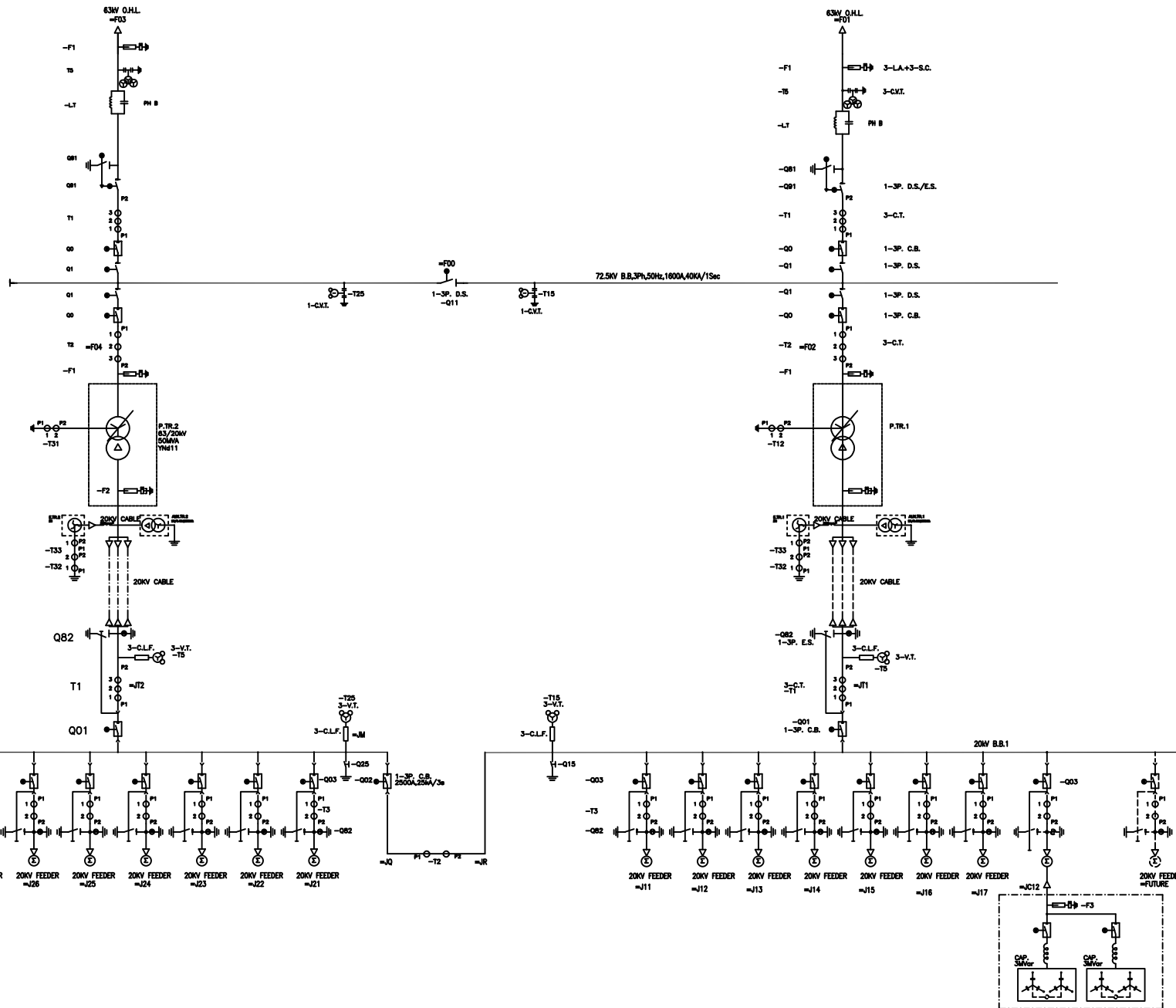
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SYMBOL	DESIGNATION	SYMBOL	DESIGNATION	SYMBOL	DESIGNATION
	CIRCUIT BREAKER		ON LOAD DISCONNECTING SWITCH		AUXILARY/EARTHING TRANSFORMER
	CURRENT TRANSFORMER		SURGE ARRESTER WITH SURGE COUNTER		
	MOTOR OPERATED DISCONNECTING SWITCH		MOTOR OPERATED DISCONNECTING SWITCH WITH MOTOR OPERATED EARTHING SWITCH		THREE WINDING TRANSFORMER
	3 PHASE CAPACITIVE VOLTAGE TRANSFORMER WITH LINE MATCHING UNIT		3 PHASE CAPACITIVE VOLTAGE OPEN DELTA SECONDRY		CORE BALANCE CURRENT TRANSFORMER
	3 PHASE CAPACITIVE VOLTAGE TRANSFORMER WITHOUT LINE MATCHING UNIT		SINGLE PHASE CAPACITIVE VOLTAGE TRANSFORMER		CURRENT LIMITING FUSE
	LINE TRAP		CAPACITOR BANK		INDICATING NEON LAMP
	CABLE SEALING END		DAMPING REACTOR		TO BE EXECUTED
	HIGH SPEED EARTHING SWITCH		OUT OF SCOPE		POWER TRANSFORMER

	Description(20KV SIDE)		
-F2	3—LA—24KV,10KA,CLASS 2	-Q15	1—3P. E.S.2000A,24KV,25KA/3s(RAISER,METERRING)
-E.TR/	1554A—Zn	-Q25	1—3P. E.S.2000A,24KV,25KA/3s(RAISER,METERRING)
-AUX.TR	20/0.4kv,250kVA—Dyn5	-Q02	1—3P. C.B.2000A,24KV,25KA/3s(COUPLER)
-T32	1—CT $\begin{cases} 2000-1500/1A,CLX \text{ UK}>500 \\ 2000-1500/1A,CL.5P20,20VA \end{cases}$	-Q03	1—3P. C.B.1250A,24KV,25KA/3s(OUTGOING)
		-Q20	FPS 36 25D
-T.33	1—CT 100/1A,10P10 10VA	-Q30	FPS 36 25D
-T.5	3—VT $\begin{cases} \frac{20KV}{\sqrt{3}}/\frac{110V}{\sqrt{3}}/\frac{110V}{\sqrt{3}} \\ W1:CL.0.2+3P,18VA \quad W2:CL.0.2+3P,18VA \end{cases}$	-F2	24KV,10KA,CLASS 2
		-Q01	1—3P. C.B.2000A,24KV,25KA/3s(INCOMING)
-T.1	3—CT $\begin{cases} \text{CORE 1: } 2000-1500-1000/1A,CL.X, \text{ UK}>500V \\ \text{CORE 2: } 2000-1500-1000/1A,CL.5P20,20VA \\ \text{CORE 3: } 2000-1500-1000/1A,CL.0.2FS5,10VA \end{cases}$	-Q82	1—3P. E.S.1250A,24KV,25KA/3s(INCOMING)
-T.2	3—C.T. $\begin{cases} \text{CORE1:}2000-1500-1000/1A,5P20,20VA \\ \text{CORE2:}2000-1500-1000/1A,CL0.2FS5,10VA \end{cases}$	Core Balance CT OUT/CAP	1—C.T. $\begin{cases} 50/1 \quad 10P10,3VA \end{cases}$
-T.3	3—CT $\begin{cases} \text{CORE 1:}400-200/1A,5P20,20VA \\ \text{CORE 2:}400-200/1A,CL0.2fs5,10VA \end{cases}$	Reactor capacitor Bank	L : 110 mH—200A ,24KV,25KA/1s
-T.4	3—CT $\begin{cases} \text{CORE 1:}400-200/1A,5P20,20VA \\ \text{CORE 2:}400-200/1A,CL0.2fs5,10VA \end{cases}$	20kv cable	S : 300mm ²
-T.15	3—VT $\begin{cases} \frac{20KV}{\sqrt{3}}/\frac{110V}{\sqrt{3}}/\frac{110V}{\sqrt{3}} \\ W1:CL.0.2+3P,18VA \quad W2:CL.0.2+3P,18VA \end{cases}$		
-T.25	3—VT $\begin{cases} \frac{20KV}{\sqrt{3}}/\frac{110V}{\sqrt{3}}/\frac{110V}{\sqrt{3}} \\ W1:CL.0.2+3P,18VA \quad W2:CL.0.2+3P,18VA \end{cases}$		
N-CT capacitor Bank (NUTRAL)	1—C.T. $\begin{cases} 10P10,3VA \end{cases}$		

NOTE:
-CT/VT/CVT CHARACTERISTICS WILL BE FINALIZED AFTER CALCULATION

 MAZANDARAN REGIONAL ELECTRIC COMPANY (M.R.E.C) MAPNA'S DWG. No. : MD1-BQ-06-SS-E-01-NG0-800	SUB-CONTRACTOR'S LOGO	E	NO:1403/179502/64499		MOHAJERIMOHJERI	ATAEI	ATAEI	1403.12.12	DWG./Doc. No. MD1-BQ-06-SS-E-01-NG0-800 DRAWING TITLE: LEGEND DESIGN STAGE : FILE No.	REV. NO. : E SHEET: 3 OF: 4 FORMAT : A3	 Mapna Power Plants Construction & Development Co(MD-1)	 MOHAM SHARGH CO.	 GHODS NIROO CONSULTING ENGINEERS
		D	NO:1403/179502/61585		MOHAJERIMOHJERI	ATAEI	ATAEI	1403.12.05					
		C	NO:1403/179502/59783		MOHAJERIMOHJERI	ATAEI	ATAEI	1403.11.20					
		B	NO:1403/179502/44757		MOHAJERIMOHJERI	ATAEI	ATAEI	1403.10.15					
MAPNA'S DWG. No. : MD1-BQ-06-SS-E-01-NG0-800 NIYAM'S LOGO	SUB CONTRACTOR DWG. NO.:	A	NO:1403/179502/34349		MOHAJERIMOHJERI	ATAEI	ATAEI	1403.07.15	PROJECT : MAZANDARAN 63/20KV AIS S/S				
		O	FIRST ISSUE		MOHAJERIMOHJERI	ATAEI	ATAEI	1403.04.10					
		REV.	DESCRIPTION	DESN	DWN	CHKD	APPR	DATE					



-CT/VT/CVT CHARACTERISTICS WILL BE FINALIZED AFTER CALCULATION



SUB-CONTRACTOR'S LOGO

SUB CONTRACTOR DWG. NO.:

NIYAM'S LOGO

E	NO:1403/179502/64499	MOHAJERIMOHJERI	ATAEI	ATAEI	1403.12.12
D	NO:1403/179502/61585	MOHAJERIMOHJERI	ATAEI	ATAEI	1403.12.05
C	NO:1403/179502/59783	MOHAJERIMOHJERI	ATAEI	ATAEI	1403.11.30
B	NO:1403/179502/44757	MOHAJERIMOHJERI	ATAEI	ATAEI	1403.10.15
A	NO:1403/179502/34349	MOHAJERIMOHJERI	ATAEI	ATAEI	1403.07.15
O	FIRST ISSUE	MOHAJERIMOHJERI	ATAEI	ATAEI	1403.04.10
REV.	DESCRIPTION	DESN	DWN	CHKD	APPR

DWG./Doc. No. MD1-BQ-06-SS-E-01-NG0-800

DRAWING TITLE:
GENERAL SINGLE LINE DIAGRAM

DESIGN STAGE :

FILE No.

REV. NO. : E

SHEET: 4 OF: 4

FORMAT : A3



PROJECT : MAZANDARAN 63/20KV AIS S/S

MOHAM
SHARGH
CO.



GHODS NIROO
CONSULTING ENGINEERS