

## PROJECT: M/S Supply of PANELS FOR AL KARAM TOWEL

## COMPONENTS COSTING AS PER PROVIDED DETAILS

S.No	DESCRIPTION	RATING		MAKE	QTY
		AMP	SC		
1	<b>SUPPLY OF NEW 3200A BREAKER, COPPER MAIN BUS AND LINKS IN EXISTING PANEL INCOMING FROM K.E 1</b>				
	ACB TP (ADJ.)	3200A	100kA	ABB	1
	MOTOR MECHANISM 220V AC			ABB	1
	UVT			ABB	1
	SHUNT OPENING			ABB	1
	SHUNT CLOSING			ABB	1
	CTs	3200/5A		METLEX	3
	PHASE INDICATION LIGHTS (R/Y/B)			S.A./CAMSCO	3
	CONTROL MCB / FUSE + BASE	2A		CAMSCO / HIMEL	6
	BUSBAR PER PHASE + NEUTRAL	1X100 X 5	SERVICES	LOVATA	4
	BUSBAR EARTH	80 X 05	SERVICES	LOVATA	1
2	<b>SUPPLY OF 3200A AUTO PHASE REVERSAL PANEL</b>				
	ACB TP(ADJ.)	3200A	100kA	ABB	2
	UVT	220VAC		ABB	2
	SHUNT OPENING	220VAC		ABB	2
	SHUNT CLOSING	220VAC		ABB	2
	MOTOR MECHANISM	220VAC		ABB	2
	CTs			FICO/METALEX	3
	ENERGY ANALYZER	220VAC	R/Y/B	CIRCUTOR / EQU	1
	PHASE INDICATION LIGHTS (R/Y/B)	2A		CAMSCO / HIMEL	3
	CONTROL MCB / FUSE + BASE	3200/5A		CAMSCO / HIMEL	3
	<b>CONTROL SECTION:</b>				
	EVR RELAY			INTER/EQU.	1
	TIMER WITH BASE			AUTONICS/ EQU.	2
	INDICATION LIGHTS (NORMAL G)	220VAC		CAMSCO / HIMEL	1
	INDICATION LIGHTS (ABNORMAL R)	220VAC		CAMSCO / HIMEL	1
	CONTROL MCB / FUSE + BASE	2A		CAMSCO / HIMEL	2
	PHASE SEQUENCE RELAY			EMIREL/EQU.	1
	CONTROL RELAY WITH BASE			PHOENIX	1
	THERMOSTATE RELAY			IMPORTED	1
	EXHAUST FAN WITH FILTER			IMPORTED	2
2	<b>SUPPLY OF 2000A CHANGE OVER PANEL</b>				
	ACB TP(ADJ.)	2000A	100kA	ABB	1
	UVT	220VAC		ABB	1
	SHUNT OPENING	220VAC		ABB	1
	SHUNT CLOSING	220VAC		ABB	1
	MOTOR MECHANISM	220VAC		ABB	1
	CTs			FICO/METALEX	3
	ENERGY ANALYZER	220VAC	R/Y/B	CIRCUTOR / EQU	1
	PHASE INDICATION LIGHTS (R/Y/B)	2A		CAMSCO / HIMEL	3
	CONTROL MCB / FUSE + BASE	3200/5A		CAMSCO / HIMEL	3
	<b>CONTROL SECTION:</b>				
	TIMER WITH BASE			AUTONICS/ EQU.	2
	INDICATION LIGHTS (NORMAL G)	220VAC		CAMSCO / HIMEL	1
	INDICATION LIGHTS (ABNORMAL R)	220VAC		CAMSCO / HIMEL	1
	CONTROL RELAY WITH BASE			PHOENIX	1
	CONTROL MCB / FUSE + BASE	2A		CAMSCO / HIMEL	2
	M-O-A SELECTOR SWITCH			CAMSCO / HIMEL	1
	THERMOSTATE RELAY			IMPORTED	1
	EXHAUST FAN WITH FILTER			IMPORTED	2
3	<b>SUPPLY &amp; INSTALLATION OF 900KVAR PFI</b>				
	ACB TP	1600A	100kA	OWNER PROVIDED	1
	CTs	3200/5A		METLEX	1
	12 STAGE PFI RELAY			OWNER PROVIDED	1
	<b>3 X 50KVAR = 150 KVAR ( 3 VARIABLE STAGE)</b>				
	POWER FACTOR CAPACITOR @ 415VAC	50KVAR		OWNER PROVIDED	3
	MAGNETIC CONTACTOR TP @ AC-3	105A		OWNER PROVIDED	3
	MCCB TP	100A	25kA	OWNER PROVIDED	3
	<b>6 X 25KVAR = 150 KVAR (3 VARIABLE STAGE)</b>				
	POWER FACTOR CAPACITOR @ 415VAC	25KVAR		OWNER PROVIDED	5
	POWER FACTOR CAPACITOR @ 415VAC	25KVAR		NOKIAN / EQU.	1
	MAGNETIC CONTACTOR TP @ AC-3	50A		FUJI / EQU.	3
	MCCB TP	50A	25kA	TERASAKI	3

**6x100KVAR=600KVAR (6 VARIABLE STAGE):**

POWER FACTOR CAPACITOR @ 415VAC	50KVAR		NOKIAN / EQU.	12
MAGNETIC CONTACTOR TP @ AC-3	105A		FUJI / EQU.	12
MCCB TP	100A	25kA	TERASAKI	12

MANUAL - OFF - AUTO SWITCH		G/R	CAMSCO	12
ON/OFF PUSH BUTTON (G/R)			S.A./CAMSCO	24
ON/OFF INDICATION LIGHT (G/R)	2A	2A/5	CAMSCO / HIMEL	24
CONTROL MCB / FUSE + BASE			EMAS	3