

Specification for APFC (Automatic Power Factor Correction) Panels

Item A: 250 KVAR APFC Panel			
Sl No.	Description and Specification	Compliance Matrix (to be filled by vendor)	Essential/ Desirable
1	APFC Panel : Supply of APFC Panel compact design (front side APFC relay, controls, MCCB, MCB, indicator and Push Button etc and rear side Capacitor) made out of 2mm thick MS sheet duly painted Siemens Gray color and comprising of switchgears, meters, 250KVAR (5 KVAR X 1 No + 10 KVAR X 1 No + 15KVAR X 1 No + 20 KVAR X 1 No + 25KVR X 2 Nos. + 50 KVAR X 3Nos.), 415+/-10% Volts 3 Phase APP Type heavy-duty power capacitors confirming to IS: 13585/1994 with latest amendments, Automatic power factor control relay in 12 stages , Cooling Fan, etc. as mentioned below:		Essential
	I. Incoming:		
	i. ACB 600 Ampere 4 pole EDO with static release Make: ABB/L&T/Schneider Electric/Havells	1 No.	Essential
	ii. Digital three phase Ampere meter Range 0-1500A, Make: AE/Nippon/Rishabh/Schneider electric	1 No	Essential
	iii. Digital three phase Volt Meter rage 0-500V Make: AE/Nippon/Rishabh/Schneider Electric	1 No	Essential
	iv. MCB SP 6 Amp for back up protection of indicating lamps Make: Havells/Schneider electric/L&T/Legrand	3 Nos.	Essential
	v. Indicator Make: Mimic/Hikson/L&T	3 Nos.	Essential
	vi. CT 1500/5A Make: AE/Niksan/Nippon	3 No.	Essential
	vii. 12 stage APFC Relay Make: Enercon/Epcos/L&T/ Havells	1 No.	Essential
	viii. Auto Manul Switch Make: Keycee/L&T/Vaishno	1 No.	Essential
	II. Capacitor Section:		
	i. MCCB 100A, 30KA, TP Make: Schneider Electric/Havells/L&T/Siemens	6 Nos.	Essential
	ii. Contactor for 5 KVAR, capacitor duty Make: ABB/Schneider Electric/Havells/L&T	1 Nos.	Essential
	iii. 5 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schneider Electric/Havells/L&T/Legrand	1 Nos.	Essential
	iv. Contactor for 10 KVAR capacitor duty Make: ABB/Schneider Electric/Havells/L&T	1 Nos.	Essential
	v. 10 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schneider Electric/Havells/L&T/Legrand	1 Nos.	Essential
	vi. Contactor for 15 KVAR capacitor duty Make: ABB/Schneider Electric/Havells/L&T	1 Nos.	Essential
	vii. 15 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schneider electric/Havells/L&T/Legrand	1 Nos.	Essential
	viii. Contactor for 20 KVAR capacitor duty Make: ABB/ Schneider Electric/ Havells/L&T	1 Nos.	Essential
	ix. 20 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schneider Electric/Havells/L&T/Legrand	1 Nos.	Essential
	x. Contactor for 25 KVAR capacitor duty Make: ABB/Schneider Electric/ Havells/L&T	2 Nos.	Essential
	xi. 25 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schneider Electric/Havells/L&T/Legrand	2 Nos.	Essential
	xii. MCCB 160A , 25KA, TP Make: Havells/Schneider Electric / L&T/Siemens	3 Nos.	Essential
	xiii. Contactor for 50 KVAR capacitor duty Make: ABB/Havells/Schneider electric/L&T	3 Nos.	Essential
	xiv. 50 KVAR, APP capacitor confirming to IS:13585 Part-1 (2012) Make: Unistar/Schneider Electric/Havells/L&T/Legrand	3 Nos.	Essential
	xv. Push button illuminated Make: Mimic/Hikson/Surdhi/L&T	20 Nos.	Essential
	xvi. Control contactor Make: ABB/L&T/Schneider Electric/Havells	2 Nos.	Essential
	xvii. Indicator Make: Mimic/Hikson/Surdhi/L&T	20 Nos.	Essential
	xviii. Fan Make: Almonard/GEC/Rexnord with MCB Control	2 No.	Essential
	xix. 600Amp. TPN(AL) Bus bar	1 Set	Essential
	III. Box Bus Bar wiring	1 Set	Essential
	IV. Installation, testing & commissioning of above sets of panel with cable 3.5 core 240 SQ MM Aluminium XLPE insulated Conductor Cable and connection/termination etc. approx distance between LT Panel and APFC Panel 30 Meter.	1 Job	Essential
	V. Minimum warranty from the date of commissioning.	2 Year	Essential
	VI. Operation and maintenance manuals along with electrical/Electronics control ckt diagrams should be supplied by the vendor for maintenance purpose.	2 Set	Essential
2	Spares required:		
	a) Digital three phase Ampere meter Range 0-1500A, Make: AE/Nippon/Rishabh/Schneider electric	1 Nos.	Essential
	b) Digital three phase Volt Meter rage 0-500V Make: AE/Nippon/Rishabh/Schneider Electric	1 Nos.	Essential
	c) Indicator Make: Mimic/Hikson/L&T	10 Nos.	Essential
	d). CT 1500/5A Make: AE/Niksan/Nippon	3 Nos.	Essential
	e). 12 stage APFC Relay Make: Enercon/Epcos/L&T/ Havells	1 Nos.	Essential

f). Auto Manul Switch Make: Keycee/L&T/Vaishno	1 Nos.		Essential
g). MCCB 100A, 30KA, TP Make: Schenider Electric/Havells/L&T/Siemens	1 Nos.		Essential
h). Contactor for 5 KVAR, capacitor duty Make: ABB/Schenider Electric/Havells/L&T	2 Nos.		Essential
i). 5 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schenider Electric/Havells/L&T/Legrand	1 Nos.		Essential
j). Contactor for 10 KVAR capacitor duty Make: ABB/Schenider Electric/Havells/L&T	1 Nos.		Essential
k). 10 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schenider Electric/Havells/L&T/Legrand	1 Nos.		Essential
l). Contactor for 15 KVAR capacitor duty Make: ABB/Schenider Electric/Havells/L&T	1 Nos.		Essential
m). 15 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schenider electric/Havells/L&T/Legrand	1 Nos.		Essential
n). Contactor for 20 KVAR capacitor duty Make: ABB/ Schenider Electric/ Havells/L&T	1 Nos.		Essential
o). 20 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schenider Electric/Havells/L&T/Legrand	1 Nos.		Essential
p). Contactor for 25 KVAR capacitor duty Make: ABB/Schenider Electric/ Havells/L&T	1 Nos.		Essential
q). 25 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schenider Electric/Havells/L&T/Legrand	1 Nos.		Essential
r). MCCB 160A , 25KA, TP Make: Havells/Schenider Electric / L&T/Siemens	1 Nos.		Essential
s). Contactor for 50 KVAR capacitor duty Make: ABB/Havells/Schenider electric/L&T	1 Nos.		Essential
t). 50 KVAR, APP capacitor confirming to IS:13585 Part-1 (2012) Make: Unistar/Schenider	1 Nos.		Essential
u). Push button illuminated Make: Mimic/Hikson/Surdhi/L&T	10 Nos.		Essential
v). Control contactor Make: ABB/L&T/Schenider Electric/Havells	1 Nos.		Essential
w). Indicator Make: Mimic/Hikson/Surdhi/L&T	10 Nos.		Essential
x). Fan Make: Almonard/GEC/Rexnord	2 Nos.		Essential

Item B: 350 KVAR APFC Panel

SI No.	Description and Specification	Compliance Matrix (to be filled by vendor)	Essential/ Desirable
1	APFC Panel : Supply of APFC Panel compact design (front side APFC relay, controls, MCCB, MCB, indicator and Push Button etc and rear side Capacitor) made out of 2mm thick MS sheet duly painted Siemens gray color and comprising of switchgears, meters, 350KVAR (5 KVAR X 1 No + 10 KVAR X 1 No + 15KVAR X 1 No + 20 KVAR X 1 No + 25KVR X2 Nos. + 50 KVAR X 5 Nos.), 415+/-10% Volts 3 Phase APP Type heavy-duty power capacitors confirming to IS: 13585/1994 with latest amendments, Automatic power factor control relay in 12 stages etc. as mentioned below: I. Incoming: i. ACB 800 Ampere 4 pole EDO with static release Make: ABB/L&T/Schenider Electric/Havells ii. Digital three phase Ampere meter Range 0-2000A, Make: AE/Nippon/Rishabh/Schenider Electric iii. Digital three phase Volt Meter range 0-500V Make: AE/Nippon/Rishabh/Schenider Electric iv. MCB SP 6Amp for back up protection of indicating lamps Make: Havells/Schenider Electric/L&T/Legrand v. Indicator Make: Mimic/Hikson/L&T vi. CT 2000/5A Make: AE/Niksan/Nippon vii. 12 stage APFC Relay Make: Enercon/Epcos/L&T/ Havells viii. Auto Manul Switch Make: Keycee/L&T/Vaishno II. Capacitor Section: i. MCCB 100A, 30KA, TP Make: Schenider Electric/Havells/L&T/Siemens ii. Contactor for 5 KVAR, capacitor duty Make: ABB/Schenider Electric/Havells/L&T iii. 5 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schenider Electric/Havells/L&T/Legrand iv. Contactor for 10 KVAR capacitor duty Make: ABB/Schenider Electric/Havells/L&T v. 10 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schenider Electric/Havells/L&T/Legrand vi. Contactor for 15 KVAR capacitor duty Make: ABB/Schenider Electric/Havells/L&T vii. 15 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schenider electric/Havells/L&T/Legrand viii. Contactor for 20 KVAR capacitor duty Make: ABB/ Schenider Electric/ Havells/L&T ix. 20 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schenider Electric/Havells/L&T/Legrand x. Contactor for 25 KVAR capacitor duty Make: ABB/Schenider Electric/ Havells/L&T xi. 25 KVAR APP capacitor type Stud Mounting Cylindrical Construction confirming to IS:13585 Part-1 (2012) Make: Unistar/Schenider Electric/Havells/L&T/Legrand xii. MCCB 160A , 25KA, TP Make: Havells/Schenider Electric / L&T/Siemens xiii. Contactor for 50 KVAR capacitor duty Make: ABB/Havells/Schenider electric/L&T		Essential

xiv. 50 KVAR, APP capacitor type confirming to IS:13585 Part-1 (2012) ake: Unistar/Schenider Electric/Havells/L&T/Legrand	5 Nos.		Essential
xv. Push botton illuminated Make: Mimic/Hikson/Surdhi/L&T	24 Nos.		Essential
xvi. Control contactor Make: ABB/L&T/Schenider Electric/Havells	2 Nos.		Essential
xvii. Indicator Make: Mimic/Hikson/Surdhi/L&T	24 Nos.		Essential
xviii. Fan Make: Almonard/GEC/Rexnord with MCB Control	2 No.		Essential
xix. 800Amp. TPN(AL) Bus bar	1 Set		Essential
III. Box Bus Bar wiring	1 Set		Essential
IV. Installation, testing & commissioning of above sets of panel with cable 3.5 core 240 SQ MM x 2 Nos Alminium XLPE insulated Conductor Cable and connection/termination etc. distance between LT Panel and APFC Panel approx. 30 Meter	1 Job		Essential
V. Minimum warranty from the date of commissioning	2 Year		Essential
VI. Operation and maintenance manuals along with electrical/Electronics control ckt diagrams should be supplied by the vendor for maintenance purpose.	2 Set		Essential

-Note: Specifications are generic.

- **Compliance Matrix to be filled and submitted by vendor along with quote**

- **Tender will be Evaluated on Package wise basis**