m. THD current (%Ithd)

n. THD Voltage (%Vthd)

o. K-factor

1.3.18 Power Factor Correction Capacitors

1.3.18.1 Unit Capacitor

A. The Power Factor Correction Capacitors (PFCC) shall be provided to improve the overall power factor of the plant/equipment to 0.9 or more lagging to meet ADDC regulations.

B. PFCC shall be designed and manufactured for automatic centralised operation as global compensation employing multiple steps, **"standalone" IP 54** Factory Built Assembly (FBA) as described in this specification and as such circuit connections; protection devices and the like shall comply with BS EN 60439.

C. Power Factor Correction Capacitors shall be self-healing type confirming to BS EN 60831.

D. PFCC and all other components that form part of the power factor correction equipment's shall be housed in a minimum FORM 2 enclosure with no other exception, as described in this specification.

E. The enclosure shall be of equal height of MCC and located adjacent to the MCC or at other suitable location within the MCC room.

F. Power factor correction capacitors shall be modular in design, highly reliable, dry, self -healing metalized polypropylene film element, fully encapsulated in plastic housing.

G. Capacitors shall have low losses (typically less than 0.5 watts per KVAr),

H. Capacitor shall be fitted with overpressure disconnect device and a wire wound discharge resistor sized to automatically discharge the capacitor to less than 50 volts in less than one minutes.

I. Capacitors shall be used with capacitor rated duty contactors specifically designed for switching of capacitive current.

J. Each capacitor step shall be protected by quick disconnect type fused disconnect switch fitted with recommended HRC fuses disconnecting all the 3 phases simultaneously.