Digital

Power Factor Regulator

6s/8s/14s

EBCHQ

features

True RMS Measurement
LED Step Indication
Automatic / Manual Step Operation
Automatic or Manual C.T. Polarity
Automatic C/K Detection or User Preset
Automatic or User Preset Switching Sequence
(rotational for same size grouping)
Operation from 1% Load
Viewable Parameters:
V, I, Cos φ, PF, Hz, W, Var, THD-V, THD-I, Harmonics Spectrum up to 15th order for V & I (secondary values for I, W, Var)
Individual Capacitor Step Info:
- Hour run (accumulative)
- Usage count (accumulative)
- Secondary 1-phase Var value (present)
Programmable Over Voltage & THD-V alarm
Dedicated exhaust fan & alarm output
Alarm Information:
- Under / Over Compensate
- Under / Over Voltage
- Overload, THD-V Limit High
User selectable capacitor protection for Over voltage & THD-V
Built-in RS-485 communication (Modbus Protocol)
Software Lock to prevent unauthorized modification of parameters
Complies with:
IEC 61000-6-2 / 6-4 Standards
IEC 60255-27-Clause 10.6.4.2 / 4.3

technical data

Aux Power Supply
Range (VAC) : 100~275, 200~480 (depending on model)
Consumption : <3 VA

Power Measurement
Accuracy (W, Var, Cos φ, PF) : ± 1.0%

AC Current Measurement
Range : 0.01 ~ 6.50 A
Accuracy : ± 1.0 %
CT range : ../5A
Burden : < 0.1 VA at 5A

AC Voltage Measurement
Range : Same as Aux supply
Accuracy : ± 1.0 %

Frequency Measurement
Range : 45 ~ 65 Hz
Accuracy : ± 0.1 %

LEDs Indication
Individual Steps, Auto/Manual, Fan, Ind., Cap., Alarm, x1000, A / PF, V / Hz, W / Var, thd / nth Harmonic

Mechanical
Output Relay (Individual Steps / Alarm / Fan) Rating : SPST 7A, 250 VAC
Electrical Life : 100,000 operations at rated current
Mechanical Life : 5 x 10^6 operations
No voltage release : < 40ms
Operating Temp. : -5°C ~ +55°C
Humidity : 56 days at 93%RH, 40°C non-condensing
IP Rating : IP54 (front panel)
Installation : Panel flush mount
Weight : 560 g

parameter setting

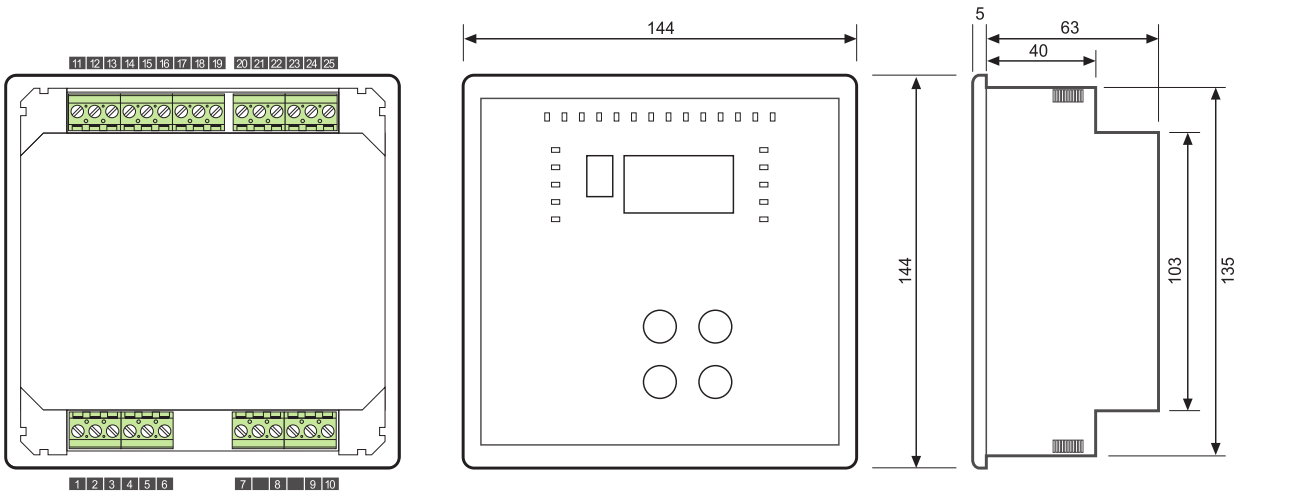
C/K Value : Auto or 0.01 ~ 0.80 (step of 0.01)
Target Cos φ : 0.85 (Ind.) ~0.90 (Cap.) (step of 0.01)
Switching Program : Auto or P-0 ~ P-7
Switching Interval : (t-on) : 1s ~ 250s (step of 1s)
(t-off) : 1s ~ 250s (step of 1s)
Reconnection Inhibit : OFF or 5s ~ 900s (step of 5s)
V> (Over Voltage) : OFF or 100 V ~ 260 V (step of 1 V) *(For Model 220a only)*
: OFF or 200 V ~ 450 V (step of 1 V) *(For Model 415a only)*
thd-V > (%) : OFF or 3, 4, 5, 6, 7, 8, 10%

selectable switching program sequence

Auto	Automatic
P-0	Linear
P-1	1 : 1 : 1 : 1 : 1
P-2	1 : 2 : 2 : 2 : 2
P-3	1 : 2 : 4 : 4 : 4
P-4	1 : 1 : 2 : 2 : 2
P-5	1 : 1 : 2 : 2 : 4
P-6	1 : 1 : 1 : 2 : 2
P-7	1 : 2 : 4 : 8 : 8

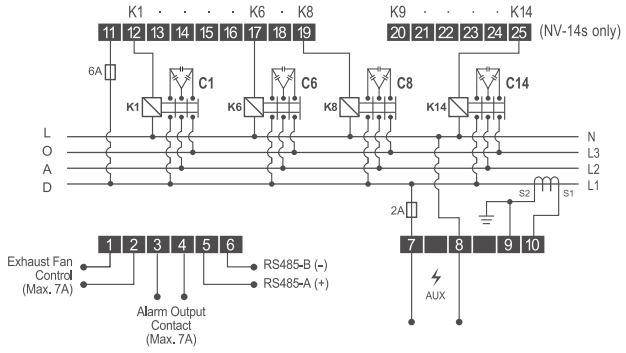
Note: Specification subject to change without prior notification

casing dimension



wiring diagram : 6s /8s /14s

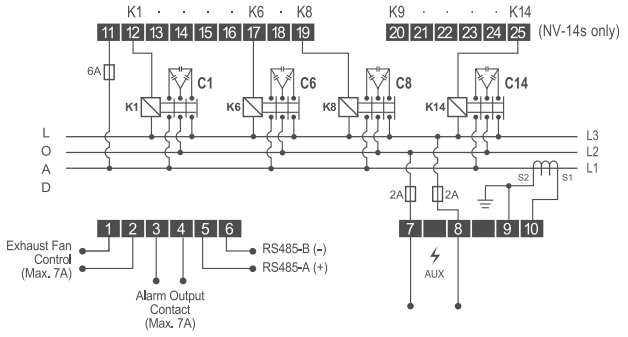
P-n (3P4W)



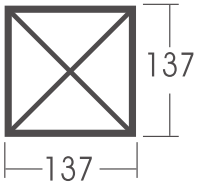
AUX Power Connection	C.T. Phase Connection
L1- N (P-n)	L1
L2- L3 (P-P)	L1

wiring diagram : 6s /8s /14s

P-P (3P3W)



panel cut-out



Panel Cut-out : 137 x 137

ordering information

Model	Description
83962	100~275 VAC (P-n / P-P)
83972	200~480 VAC (P-P)
83966	100~275 VAC (P-n / P-P)
83976	200~480 VAC (P-P)

Model	Description
83968	100~275 VAC (P-n / P-P)
83978	200~480 VAC (P-P)

Note: All measurement in mm.