

# Digital Power Factor Regulator NV-6s/8s/14s



## features



- True RMS Measurement
- 4 Quadrant Operation
- No Voltage Release Function
- 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 15<sup>th</sup> 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 RTU)
- 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 : ..1/5A  
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 10A, 250 VAC  
Electrical Life : 100,000 operations at rated current  
Mechanical Life : 5 x 10<sup>6</sup> 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)
- thdV> (%) : 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

