

Digital Power Factor Regulator NV-5/7



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
Alarm Information:
- Under / Over Compensate
- Under / Over Voltage
- Overload, THD-V Limit High
User selectable capacitor protection for
Over voltage & THD-V
Selectable contact for Signal Alarm Output or
Exhaust Fan Output
Extrenal Plug-in Module for:
A-01s / A-01sp (RS-485 Modbus RTU) isolated type
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

AC range : 85 ~ 275 VAC, 45 ~ 65 Hz
Consumption : < 3 VA

Power Measurement

Accuracy (W, Var, Cos ϕ , PF) : $\pm 1.0\%$

Current Measurement

AC Input range : 0.01 ~ 6.50 A
Accuracy : $\pm 1.0\%$
CT range : $\dots/5A$
Burden : < 0.1 VA at 5A

Voltage Measurement

AC Input range : according to Aux Power Supply
Accuracy : $\pm 1.0\%$

Frequency Measurement

Range : 45 ~ 65 Hz
Accuracy : $\pm 0.1\%$

LEDs Indication

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

Mechanical

Output Relay (Individual Steps / Alarm / Fan) Rating : SPST 7A, 250 VAC
Electrical Life : 100,000 operations at rated current
Mechanical Life : 5×10^6 operations
No voltage release : < 40ms
Operating Temp. : $-5^{\circ}\text{C} \sim +55^{\circ}\text{C}$
Humidity : 56 days at 93%RH, 40°C non-condensing
IP Rating : IP54 (front panel)
Installation : Panel flush mount
Weight : 280 g

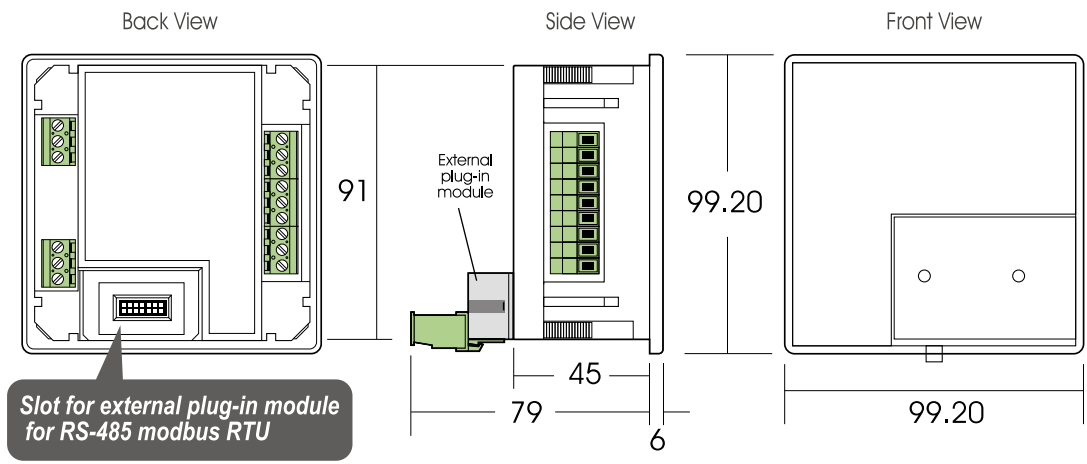
parameter setting

C/K Value : Auto or 0.01 ~ 0.80 (step of 0.01)
Targer 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)
thd-V > (%) : OFF or 3, 4, 5, 6, 7, 8, 10%

selectable switching program sequence

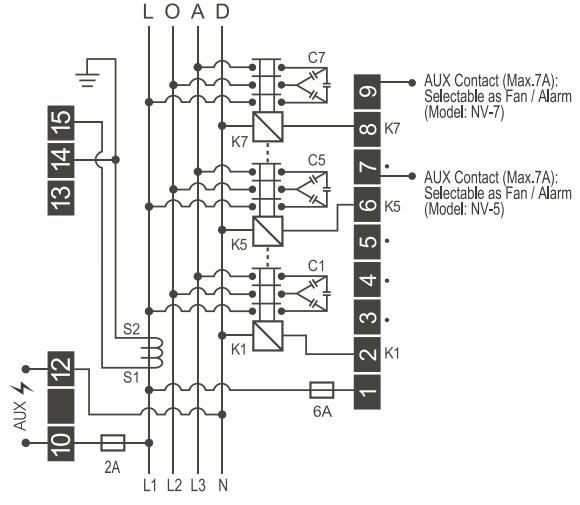
Auto	Automatic
P-0	Linear
P-1	1 : 1 : 1 : 1 : 1
P-2	1 : 2 : 2 : 2 : 2
P-3	1 : 2 : 4 : 4 : 4
P-4	1 : 1 : 2 : 2 : 2
P-5	1 : 1 : 2 : 2 : 4
P-6	1 : 1 : 1 : 2 : 2
P-7	1 : 2 : 4 : 8 : 8

casing dimension



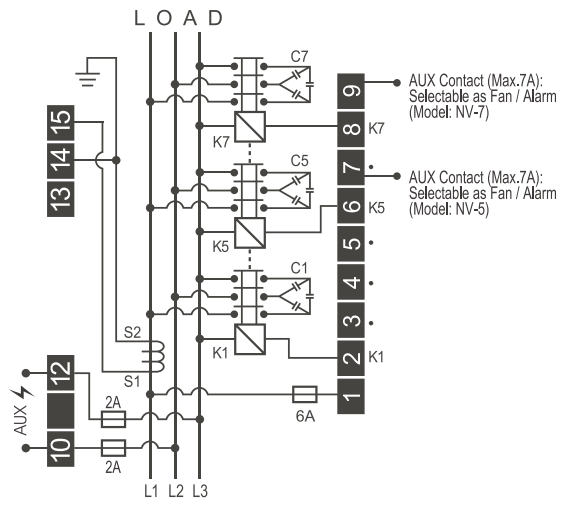
wiring diagram: NV-5/7 (3P4W)

P-n (3P4W)

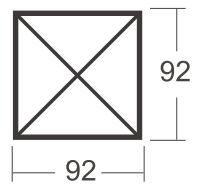


wiring diagram: NV-5/7 (3P3W)

P-P (3P3W)



panel cut-out



Panel Cut-out : 92 x 92

AUX Power Supply Range	AUX Power Connection	C.T. Phase Connection
85~275 VAC	L1- N (P- n)	L1
45~65 Hz	L2- L3 (P- P)	L1

⚠ WARNING
Do not exceed Aux power supply specification.

ordering information

Model	Description
NV-5	85 ~ 275 VAC (45~65 Hz)
NV-7	85 ~ 275 VAC (45~65 Hz)

Note: All measurement in mm.