

NGC-30/NGC-40 SYSTEM PANELS AND SKIDS



The nVent RAYCHEM FLEX Series of NGC-30 and NGC-40 heat tracing control and monitoring systems are designed to optimize panel configurations and meet customer project needs by reducing production lead times and simplifying design options. The FLEX Series takes advantage of standard components including Hazardous area C1Z2 circuit breakers, Type 4X enclosures, hazardous rated transformers and steel frames for use in hazardous and non-hazardous areas. The FLEX series panels and skids make the design and procurement process simple and easy.

FEATURES

- Standardized designs and components reduce lead times
- Uses internal encapsulated breakers for hazardous applications, eliminating the requirement for separate explosion proof panelboards or Z-Purge Systems
- Panel can be pre-wired to a transformer and skid mounted, drastically reducing construction time in the field
- Panels of up to 20 circuits can also be wall mounted, minimizing installed footprint

FLEX SERIES DESIGN OPTIONS AND SPECIFICATIONS

ELECTRIC HEAT TRACING CONTROL SYSTEM

The FLEX series EHT panels and skids incorporate either the NGC-30 or NGC-40 control and monitoring systems to provide the highest reliability, performance and safety in heat tracing control applications. Both electronic multi-point systems provide energy efficient control modes such as PASC (Proportional Ambient Sensing Control), advanced monitoring and diagnostic capabilities, state-of-the-art touch screen interfaces to facilitate easy programming, and value added accessories to provide significant cost savings to a project. Both the User Interface Terminal (NGC-30) and the Touch1500 (NGC-40) provide the ability to monitor and configure the systems either locally or remotely.

APPROVALS

UL508A, ISA 12.12.01, CSA C22.2 #14:2013, CSA C22.2 #213, CSA C22.2 #30, UL1203

ENCLOSURE

- Type 4X, 304 stainless steel
- Small enclosure (HxWxD in [mm]):
60"[1524] X 36"[914] X 16"[406]
- Large enclosure (HxWxD in [mm]):
82"[2235] X 44"[1118] X 24"[610]
- Breather drain

WIRING AND TERMINATIONS

- Transformer Termination Screw Type #6AWG – 250 kcmil
- Field Power Termination 300/600VAC Screw Type #20 AWG - #6 AWG
- Field RTD Wiring Termination 300/600VAC Tension Clamp #28 AWG - #12 AWG
- Communications and Alarm Termination Tension Clamp #28 AWG - #10 AWG
- Multi-level terminal blocks

POWER DISTRIBUTION

- Internal DIN-rail encapsulated circuit breakers (for hazardous applications) or non-encapsulated (for non-hazardous applications)
- Rigid galvanized conduit
- Up to 40 AMP, 1, 2 and 3 Pole breakers depending on total number of circuits and Solid-State Relays (SSRs) (see FLEX Panel Sizing Calculator)
- An optional 225 AMP maximum main circuit breaker per enclosure (see FLEX Panel Sizing Calculator)

OPTIONS/UPGRADES

- Main circuit breaker (only available in larger enclosure):
60, 80, 100, 125, 150, 200 and 225 AMP
- Up to 8 I/O Modules (only available with NGC-40 and larger enclosure)
- Up to 3 I/O Modules (only available with NGC-40 and smaller enclosure)
- Up to 3 RMMs (only available with NGC-30 and larger enclosure)
- Up to 1 RMM (available with NGC-30 and smaller enclosure)
- Additional circuit breakers installed for non-EHT circuits
- 6 inch [153 mm] Floor Stands

SKID

- Galvanized steel channels
- Grounding servit posts

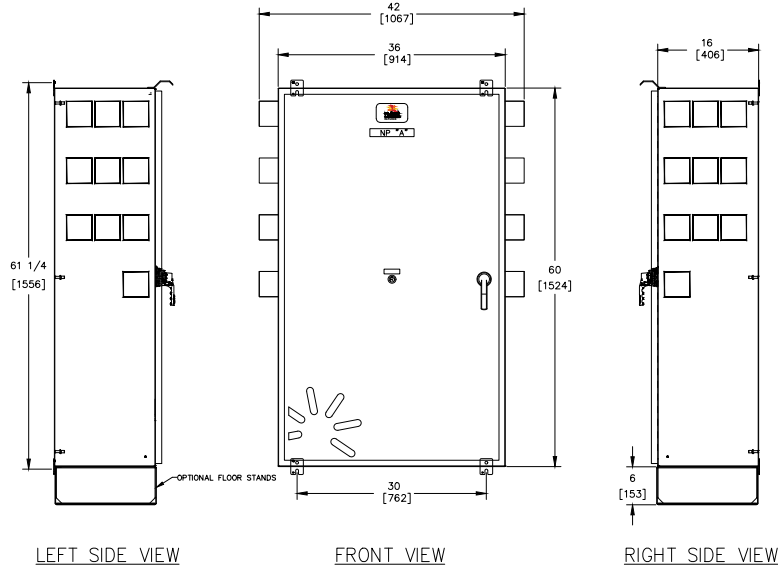
TRANSFORMERS

- REX, BC/HLC SERIES
- Type 3R
- 30 - 150 kVA
- 600 - 480/277, 600 - 208/120, 480 - 480/277, 480 - 208 / 120 VAC, 60Hz
- 115°F rise, 220°F Insulation Class (CSA CERTIFIED LR34493, UL LISTED-E348963)

CONFIGURATION OPTIONS (ALL DIMENSIONS IN INCHES [MM])

1

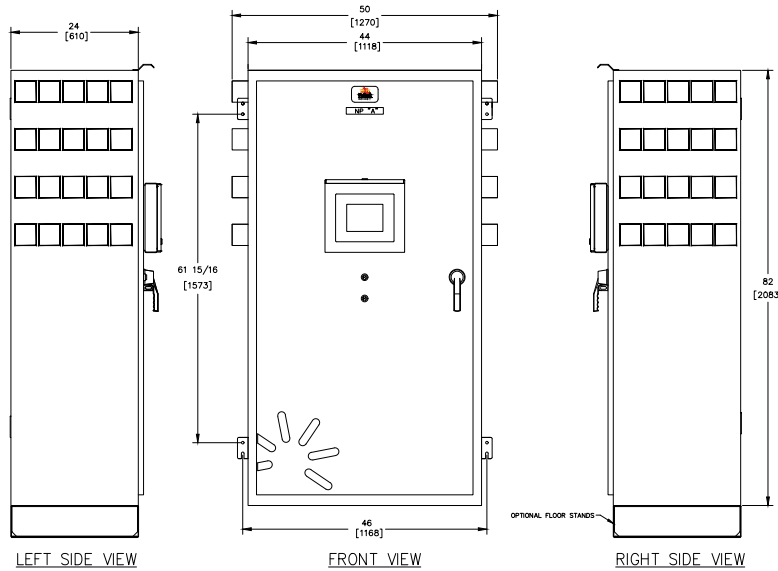
**Up to 20 EHT Circuit Panel
(smaller enclosure)**



Approximate weight:
Enclosure - 300 lbs./136 kg

2

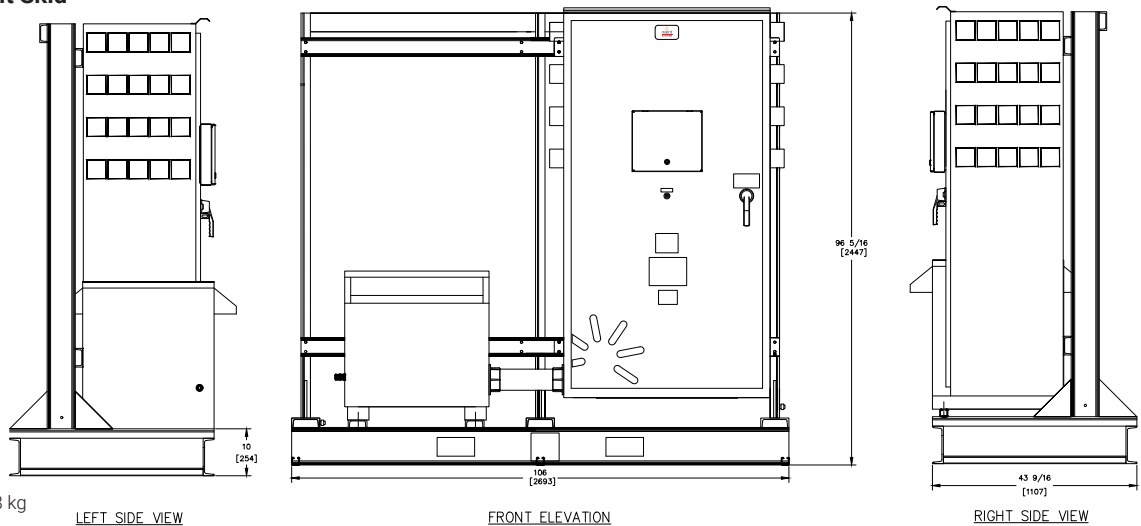
Up to 40 EHT Circuit Panel



Approximate weight:
Enclosure - 900 lbs./408 kg

3

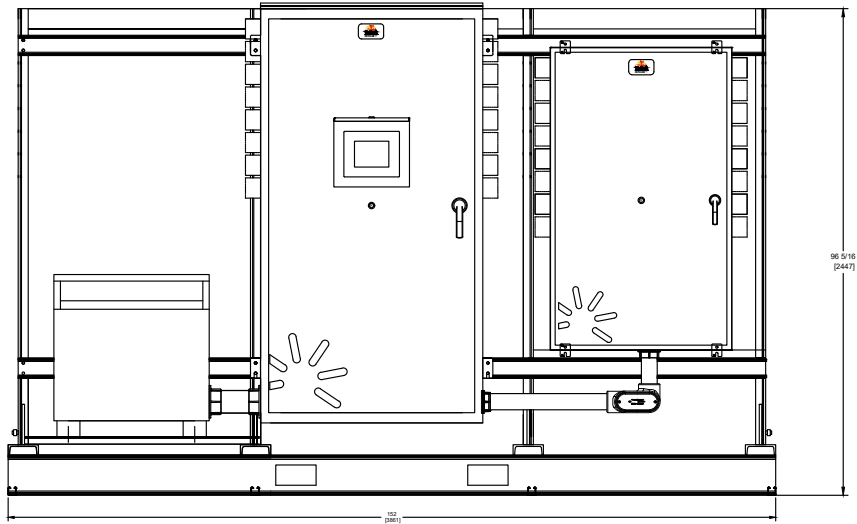
Up to 40 EHT Circuit Skid



Approximate weight:
Enclosure - 900 lbs. / 408 kg
Rack - 800 lbs. / 363 kg
Transformer - 650 lbs. / 295 kg
Roof - 200 lbs. / 91 kg

4

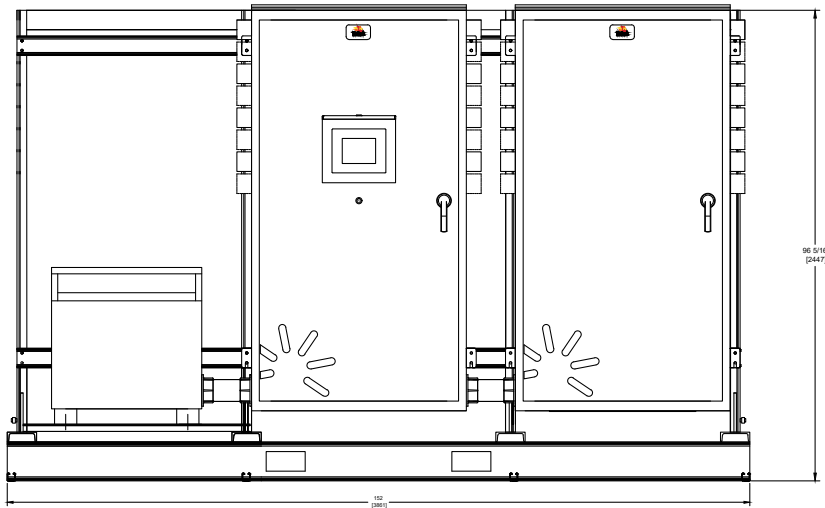
**Up to 60 EHT Circuit Skid -
Combination of 1 and 2
above, skid mounted**



Approximate weight:
 Enclosure - 1200 lbs. / 544 kg
 Rack - 1000 lbs. / 454 kg
 Transformer - 650 lbs. / 295 kg
 Roof - 300 lbs. / 130 kg

5

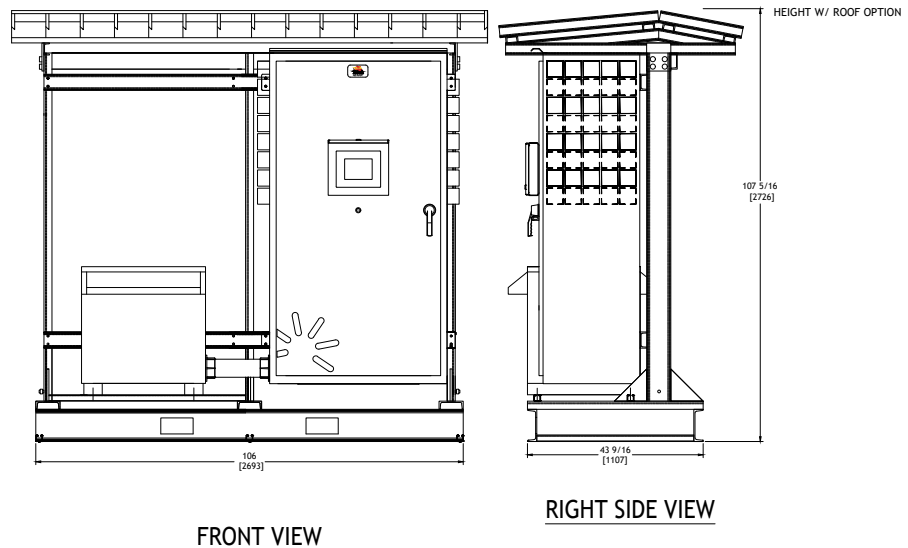
**Up to 80 EHT Circuit Skid -
Combination of 2 and 3
above, skid mounted**



Approximate weight:
 Enclosure - 1800 lbs. / 816 kg
 Rack - 1000 lbs. / 454 kg
 Transformer - 650 lbs. / 295 kg
 Roof - 300 lbs. / 136 kg

6

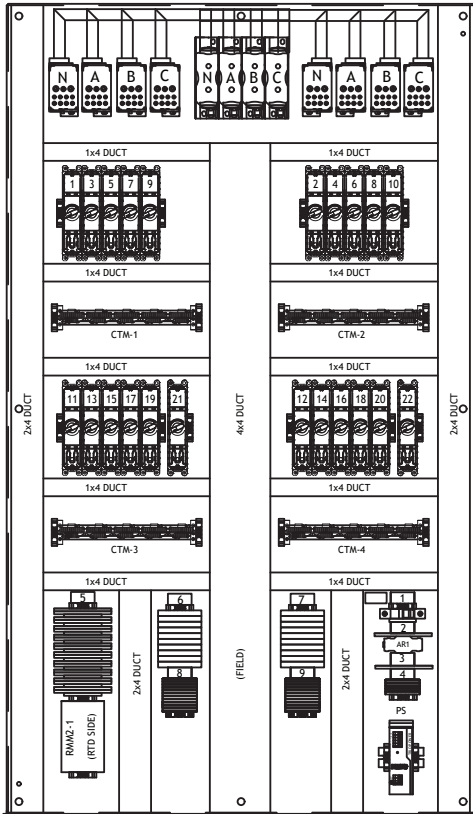
Roof



FRONT VIEW

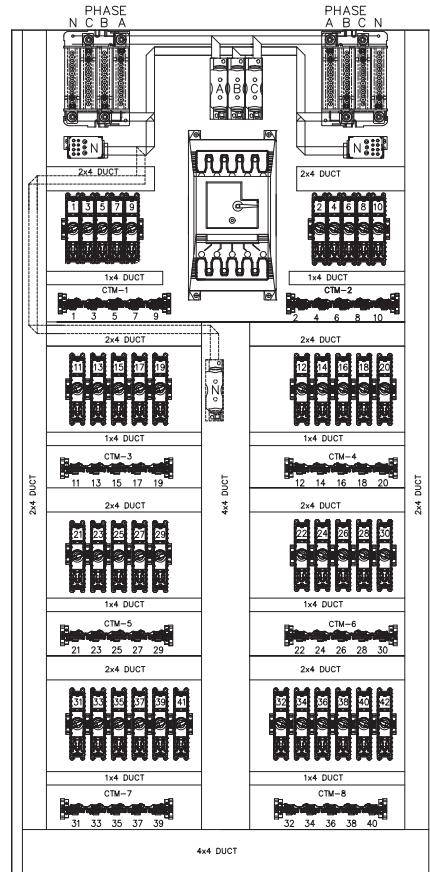
RIGHT SIDE VIEW

1



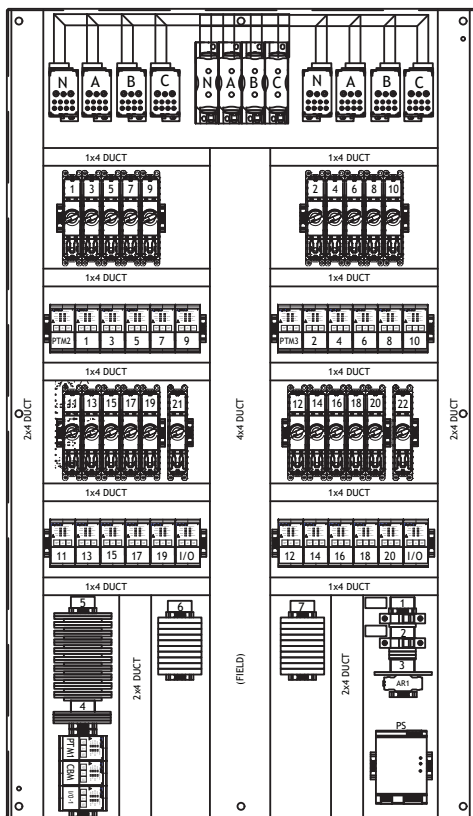
NGC-30, 20 Circuit

2



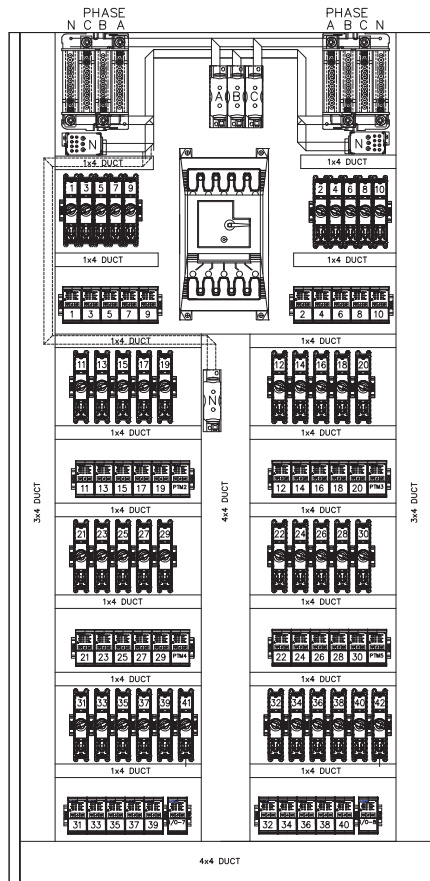
NGC-30, 40 Circuit

3



NGC-40, 20 Circuit

4



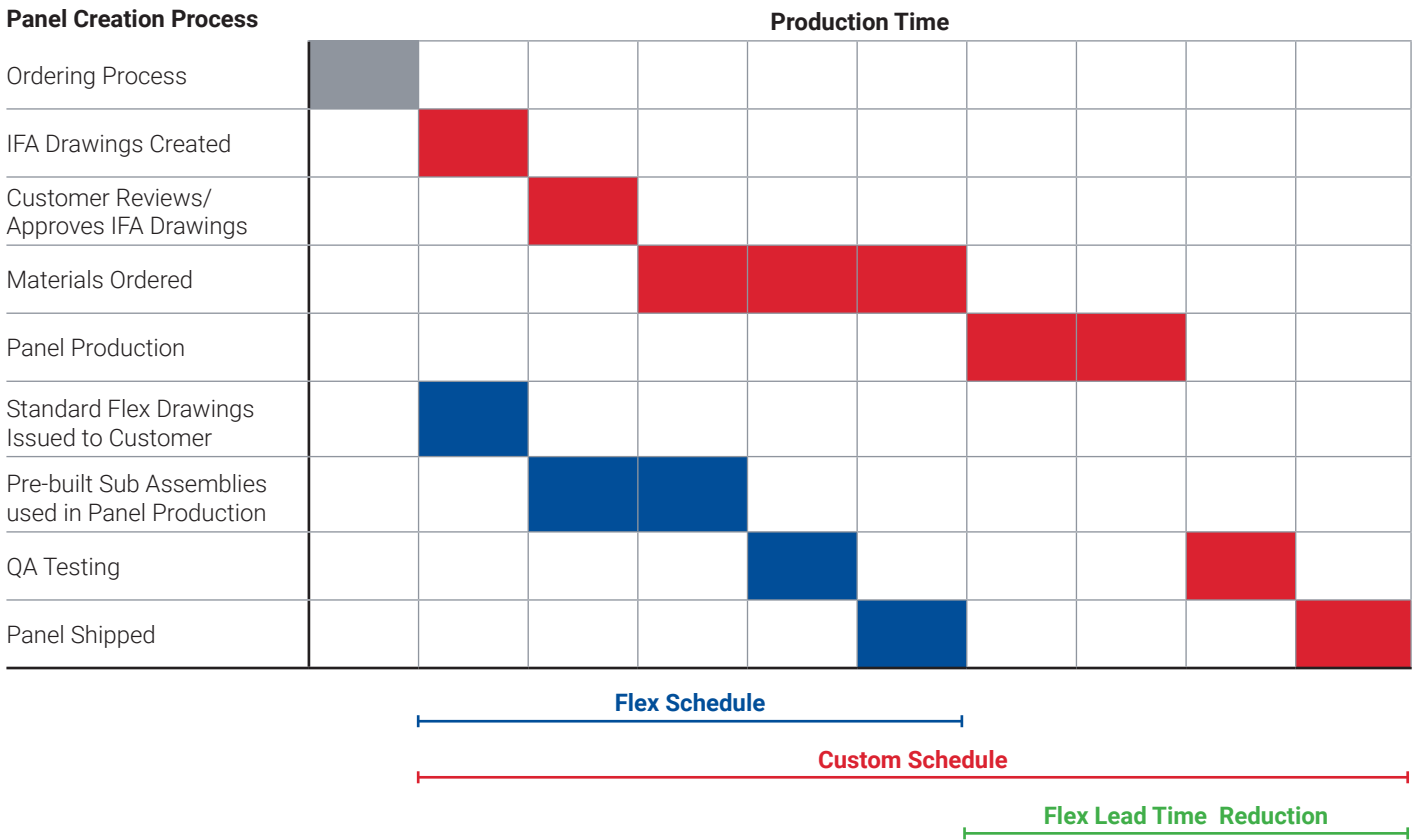
NGC-40, 40 Circuit

For further details specific to each of the configurations above, contact your nVent sales representative for sample drawings.

ORDERING INFORMATION

The FLEX series panels and skids utilize standard designs and components to maximize production capacity and shorten lead times. Standard designs eliminate the need for creating and reviewing custom panel drawings. Below is an example of a typical production schedule comparing Flex and Custom panels.

FLEX AND CUSTOM PANEL PRODUCTION SCHEDULE



North America

Tel +1.800.545.6258
Fax +1.800.527.5703
thermal.info@nvent.com

Europe, Middle East, Africa

Tel +32.16.213.511
Fax +32.16.213.604
thermal.info@nvent.com

Asia Pacific

Tel +86.21.2412.1688
Fax +86.21.5426.3167
cn.thermal.info@nvent.com

Latin America

Tel +1.713.868.4800
Fax +1.713.868.2333
thermal.info@nvent.com



nVent.com

Our powerful portfolio of brands:

CADDY ERICO HOFFMAN RAYCHEM SCHROFF TRACER