Amphenol nrg600BT08-M 600A dual-feed 8/8 circuit breaker/ TFD Load Center with 5 GMT fuse positions, features -48V operating voltage to fit in legacy and "next-gen" network applications, with advanced circuit level monitoring features engineered into a 4RU footprint. Each of the dual feeds contains eight positions for either bullet-style breakers or TFD fuse holders. Each of the dual feeds also includes five GMT fuse positions, providing ample capacity for distribution to a broad range of components.

The panel provides front access to breakers, fuses and LED status. Below the status LED console is a pull-out designation card holder.

All terminals for inputs, outputs, ground, and alarms are on the rear of the panel. All terminals are covered by a single full-width transparent terminal cover:

- Inputs are studs for dual-hole lugs
- Ground terminals are dual, threaded holes for ground bolts
- Output studs for dual-hole lugs and screw posts for GMTs
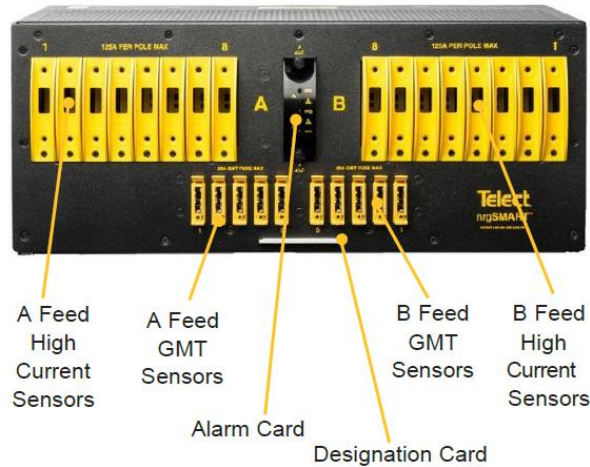- Power/fuse alarm terminals are wire wrap pins

The bullet terminals can accept either TFD fuse holders or bullet terminal breakers. Single pole, double pole, and triple pole breakers are also supported.

The GMT fuse holders are mounted inverted so that the GMT indicator flag flips downward when tripped, making identification and detection easier, especially on taller racks. In addition, the GMT fuse holders/sensors are generously spaced for easy grip of fuses and better heat dissipation.
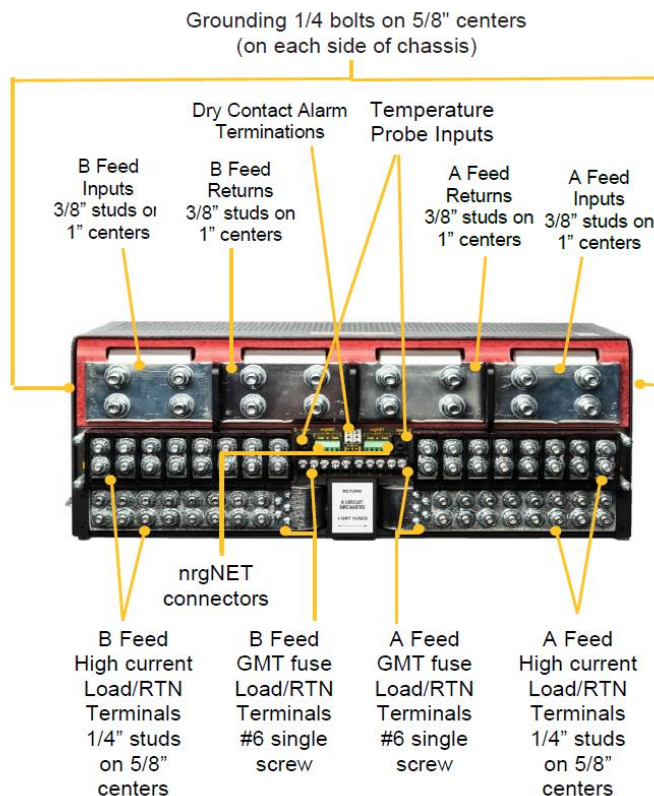
Benefits

- Individual circuit monitoring
  - High accuracy, 100% passive monitoring, modular sensor modules
- Collect feed voltage, circuit current, and temperature
- NSNMP interface comes standard when used with the nrgCONTROL-BT
- Data Analytics

nrg600BT08-M

Front View

A Feed High Current Sensors

A Feed GMT Sensors

B Feed GMT Sensors

B Feed High Current Sensors

Alarm Card

Designation Card

Rear View

Grounding 1/4 bolts on 5/8" centers
(on each side of chassis)

Dry Contact Alarm Terminations

Temperature Probe Inputs

B Feed Inputs 3/8" studs on 1" centers

B Feed Returns 3/8" studs on 1" centers

A Feed Returns 3/8" studs on 1" centers

A Feed Inputs 3/8" studs on 1" centers

nrgNET connectors

B Feed High current Load/RTN Terminals 1/4" studs on 5/8" centers

B Feed GMT fuse Load/RTN Terminals #6 single screw

A Feed GMT fuse Load/RTN Terminals #6 single screw

A Feed High current Load/RTN Terminals 1/4" studs on 5/8" centers

nrg600BT08-M

Specifications

Inputs	
Voltage range, nominal voltage	-40V to -60V (Nominal -48 VDC)
Max input load rating	600A per side
Short circuit withstand rating	5000A (breakers/fuses); 450A GMT
Nominal power loss at full load	Less than 75W per side @ 28,000W full load per side (600A x 48V)
Percentage of full power dissipation at nominal voltage	Less than 1%
Max. input interrupt device	750A
Input Terminal Studs (with nuts, flat washers, and spring washers) for dual-hole compression lug	• Two pair of 3/8-16 studs on 1 in. centers per terminal [max. lug width 1.94 in. (49.2 mm)] per pair • Torque nut (using 9/16 in. or 15 mm wrench) to 150 in.-lb. (~17 N•m), max.
Input wire sizes	#1 AWG to 750 MCM
Dual-Hole Outputs	
Max. output single-pole, long-delay circuit breaker (ea.)	100A
Max. output TPS or TLS	125A
Max. output load (ea.) – continuous	100A
Minimum short circuit interrupt rating	500A
Output terminal studs (with KEPS, nuts, and washers) for dual-hole compression lugs	• ¼-20 studs on 5/8 in. centers [max. lug width of 0.680 in. (15.8 mm) for a BATT terminal and 0.70 in. (17.7 mm) for a RETURN terminal]
Output wire size	#14 AWG minimum
GMT Outputs	
Max. GMT output fuse (ea.)	20A
Max. GMT output load (ea.) – continuous	14A
Minimum short circuit interrupt	450A
GMT output terminals for compression lugs	• 10, removable, #6-32 panhead screws (max. lug width of 0.29 in. [7.4 mm]) • Torque to 6.3 in.-lb (~0.7 N•m), max.
GMT output wire size	#22 AWG to #12 AWG, depending on output fuse rating
Dry Contact Alarms	
Alarm wire size	#22 to #18 AWG
Alarm terminals	Wire wrap
Relay contact ratings	Dry Form-C contacts (1A @ 30 VDC, 0.5A @ 60 VDC, 0.3A @ 125 VAC)
Max. Alarm Power Rating	@24V: 72 mA (1.73W) @48V: 147 mA (7.06W)

Grounding	
End GND terminal bolts (with washers) for dual-hole compression lug	• Two pair of 1/4-20 threaded holes on 5/8 in. centers • Torque bolts (using 7/16 in. or 12 mm wrench) to 50 in.-lb. (5.5 N•m), max.
Ground wire size	#2 AWG recommended
Voltage Sensor	
Sensor Accuracy	0 to -19.99V: ±0.3V -20V to -60V: ±0.1V
Voltage Measurement Range	0 to -60VDC
Feed Voltage Detection	0 to -19.99V: Alarm -20V to -60V: Normal

NOTE: • Voltage measurement may be slightly different than at input terminal blocks due to the voltage drop within the panel
    • Sensors are factory calibrated and do not require user adjustment

Communication	
nrgNET sensors and alarm card power (via nrgNET cabling connection to a nrgCONTROL-BT controller)	-48 VDC nominal *NOTE:* The nrg600BT08 chassis MUST BE connected to a nrgCONTROL-BT controller via nrgNET cabling for LED Alarm Indicators to function
nrgNET data communication	RS-485
nrgNET connector	Removable 5-pin connector with screw down terminals
nrgNET connector functions	nrgNET IN from the nrgCONTROL or nrgSMART panel, nrgNET OUT to next in-line nrgSMART panel
LED Alarm Indicators (requires nrgNET & controller for power)	A/B bus power A/B fuse alarms nrgNET Comms active
Supported protocols	Proprietary nrgNET used to communicate between panels and controller
Fit and Finish	
Material	14-gauge steel
Color	Pewter grey powder coat
Mechanical	
Dimensions (L x W x H)	12" x 17.25" x 7"
Rack Space	4RU
Environmental	
Operating temperature	-5° to +44°C
Humidity	0 to 90%, non-condensing
Weight	
Installed	47 lb (21.3kg)
Shipping	49.1 lb (22.3kg)
Compliance	
UL, NEBS Level 3	
Warranty	
• Standard one-year warranty on all parts	

nrg600BT08-M

Ordering Information

Part Numbers	Description
nrgCONTROL Parts	
nrgCONTROL-BT	nrgSMART: CONTROLLER
143142	TERM BLOCK: RCPT, 1x4, 300V, 15A, 5.08 mm. MTG SCREW, 30-12AWG, ROHS (for connecting power to the nrgCONTROL-BT)
nrg600BT08-M	
nrg600BT08-M	nrgSMART: PANEL, 600A DUAL 8/5 GMT, 4RU, -48V, with nrgBT and nrgGMT
306308	nrgSMART: AUX, ALARM CARD for BT/GMT
600CB08-MPK	COVER: REAR, with EXTENSIONS, MULTI-POLE
600CB08-3PK	BUSBAR: ADAPTER, 3-POLE, 600CB08
nrg600CB08-SGL	KIT: nrgSMART, ACC, A/B BUSS BAR BRIDGE to SINGLE-FEED
nrgSMART Circuit Modules	
nrgBT	nrgSMART: MOD, BT, CURRENT SENSOR, -48V
BT	nrgSMART: MOD, BT, PASSTHROUGH, -48V
nrgGMT	nrgSMART: MOD, GMT, CURRENT SENSOR, -48V
nrgGMT-BLANK	nrgSMART: MOD, GMT, BLANK FACEPLATE
System Level Components	
nrgNET-500	nrgSMART: ACC, nrgNET CABLE, SPOOL, 500FT
nrgNET-10	nrgSMART: ACC, nrgNET CABLE, UN-TERMINATED, 10FT
nrgBT-HEX	nrgSMART: ACC, BT, HEX WRENCH
nrgTEMP	nrgSMART: ACC, TEMP SENSOR, 6FT
141431	TERM BLOCK: RCPT, 1x5, 160V, 8A, 3.81mm, 30-16AWG, ROHS
133705+B7	Bracket: UNIVERSAL, 19IN, 4RU, PWTR GRAY
133800+B7	Bracket: UNIVERSAL, 23IN, 4RU, PWTR GRAY

nrg600BT08-M