300CB08/nrg300CB08 - 325A Dual-Feed Circuit Breaker Panel

Power :: 8/8 Position Circuit Breaker Panel

Overview

300CB08 - Front View

The Amphenol 300CB08/nrg300CB08 are 325A dual-feed 8/8 position circuit breaker panels featuring ±12/±24/±48V operating voltages to serve both legacy and “next-gen” network applications. Engineered into a standard 1RU footprint, each circuit supports up to 60A breakers in each position, providing ample capacity for distribution to a broad range of components. Advanced circuit level monitoring features are available as an option. The panel is available in standard terminal block outputs or connectorized outputs.


Nrg300CB08 - Rear View

This platform provides front access to circuit breakers with alarm on/off switch configuration for uninstalled breaker locations. Also featured are front LED indicators for power/breaker alarms and monitoring status, and rear connections for form C relay alarms (and optional nrgSmart controller connections).

Each of the 325A feeds provide power for up to eight output positions. Field replaceable circuit breakers are available from 5A to 60A per position. The front of the panel features a face plate designed to protect against unintended breaker on or off switching. The panel supports universal voltages (±12VDC to ±48VDC).

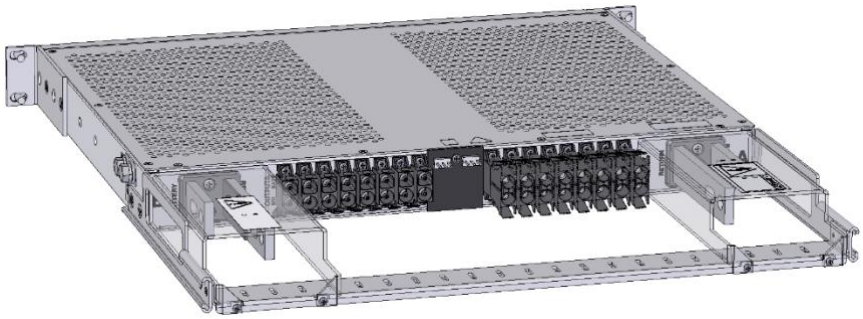
Primary Benefits

- Universal voltage (±12VDC, ±24VDC and ±48VDC) enables standardization on a single part number for multiple voltages
- Up to 60A breakers for distribution to a variety of network elements
- UL and NEBS compliant to ensure industry-standard safety and functional requirements
- Form C relay contacts provide reliable alarm connections
- Integrated designation card holder for simple power identification
- Fail alarm LEDs indicate breaker and power failures
- Clear, flame-retardant polycarbonate cover (94V-0) protects input and output power connections and wiring from damage

- Either vertical feed inputs and staggered output terminal blocks facilitate waterfall cable management or horizontal feed inputs and output connectors allows cables to exit straight back from the panel
- Optional Individual Circuit Monitoring provides high accuracy, 100% passive monitoring
- Collect feed voltage, circuit current and temperature
- Data is collected and sent to a customer's network management system via SNMP and MODBUS

Applications

- Wireless
- Central office
- Co-location
- Remote sites
- Secondary distribution



300CB08-C Rear View

Ordering Information

Description:	Part Number:
325A Dual-Feed Circuit Breaker Panel	
8/8 Panel, Vertical Inputs, Output Terminal Blocks	300CB08
nrgSmart Circuit Monitoring, 8/8 Panel, Vertical Inputs, Output Terminal Blocks	nrg300CB08
8/8 Panel, Horizontal Inputs, Connectorized Outputs, Standard Tie Bar	300CB08-C
nrgSmart Circuit Monitoring, 8/8 Panel, Horizontal Inputs, Connectorized Outputs, Standard Tie Bar	nrg300CB08-C
Accessories	
Replaceable Alarm Card	307337
Replaceable Alarm Card, nrgSMART	307343
1RU Circuit Breaker Puller	307491
Blanking Covers (sheet of 16): to cover unused breaker positions	149568
Tie Bar Kit, Chassis Mount, Clear Cover	307620
Tie Bar Kit, Chassis Mount, Clear Cover, 4 Post Mounting Bracket, 22"-36"	307621
Retrofit Kit, 4 Post Mounting Brackets, 22"-36"	307622
Connector Kit: Plug, Contacts, 8-6 AWG	150326
Connector Kit: Plug, Contacts, 12-10 AWG	150325
Replaceable Contact: 8-6 AWG, Single	150333
Replaceable Contact: 12-10 AWG, Single	150334
nrgSMART Temperature Sensor, ACC, 6ft	nrgTemp
Single-pole Breakers	
5A, standard delay, UL489	149710
10A, standard delay, UL489	149711
15A, standard delay, UL489	149712
20A, standard delay, UL489	149713
25A, standard delay, UL489	149714
30A, standard delay, UL489	149715
40A, standard delay, UL489	149716
45A, standard delay, UL489	149717
50A, standard delay, UL489	149718
60A, standard delay, UL489	149719

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Specifications

Inputs:	Specifications:
Voltage range (nominal voltage)	±12VDC, ±24VDC and ±48VDC
Max. input load rating	325A @ 45°C per panel (De-rated to 200A @ 70°C)
Short circuit withstand rating	5000A
Nominal power loss at full load	Less than 45W per side @15,600W full load per side (325A x 48V); 325A @ 45°C per panel (De-rated to 200A @ 70°C)
Percentage of full power dissipation at nominal voltage	Less than 0.5%
Max. input interrupt device	125% of panel rating (for 325A rated feeds)
Optional: Vertical input terminal studs (with Keps nuts and flat washers) for dual-hole compression lugs	Two pairs of $^{3}/_{8}$-16 studs on 1" centers per terminal [max. lug width of 1.15" (29.2 mm)]. Torque nut (using $^{9}/_{16}$" or 15 mm socket) to 150 in/lb. (~17 N•m), max.
Optional: Horizontal input terminal landings (with Keps nuts, flat washers, and bolts) for dual-hole compression lugs	Two pairs of $^{3}/_{8}$" holes on $^{5}/_{8}$"-1" centers per terminal [max. lug width of 1.5" (38.1 mm)]. Torque bolt and nut (using $^{9}/_{16}$" or 15 mm sockets) to 150 in/lb. (~17 N•m), max.
Input wire size	#2 AWG to 250 MCM
Grounding:	**Specifications:**
Earth GND terminal bolts (with spring washers and flat washers) for dual-hole compression lug	Three sets of $^{1}/_{4}$-20 threaded holes on $^{5}/_{8}$" centers. [max. lug width of .50" (12.7 mm)]. Torque bolts (using $^{7}/_{16}$" or 12 mm socket) to 50 in/lb. (5.5 N•m), max.
Ground wire size	#14 AWG to #4 AWG
Outputs:	**Specifications:**
Output circuit breaker	Single-pole: 60A
Output load	Single-pole: 48A continuous
Minimum short circuit interrupt rating	5000A
Optional: Terminal blocks, single-hole compression lugs	16, #10-32 screws [max. lug width of .50" (12.7)]. Torque screw to 20 in/lb. (2.3 N•m), max.
Optional: Output wire size, single-hole compression lug	#14 AWG to #4 AWG
Optional: Connectors	Connector plug, latching, safe touch
Optional: Output wire size, connectors	#12 AWG to #6 AWG
Circuit breakers	EATON and AIRPAX 1U Series
Alarms:	**Specifications:**
Alarm relay contacts	2A @ 30 VDC; 0.6A @ 60 VDC
Max. alarm card power rating	@12V: 18mA (0.22W) @24V: 20mA (0.48W); @48V: 30mA (1.44W)
Alarm wire size	#24 AWG, typical (#26 to #20 AWG)
Terminals	Wire wrap
Dimensions:	**Specifications:**
300CB08/nrg300CB08 Height:	1.75" (44 mm)
Depth:	13.55" (344 mm)
Width:	17" (432 mm) without brackets 19" and 23" brackets included with panel
300CB08-C/nrg300CB08-C Height:	1.75" (44 mm)
Depth:	18.8" (478 mm) without tie bar 22.0" (559 mm) with tie bar
Width:	17" (432 mm) without brackets 19" and 23" brackets included with panel Tie bar included with panel

Voltage Sensor (nrgSMART model only):	Specifications:
Sensor accuracy	-19.99 to +19.99V: ± 0.3V -20V to -60V: ± 0.1V +20V to +60V: ± 0.1V
Voltage measurement range	-60 to +60 VDC
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.	
Current Sensor (nrgSMART model only):	**Specifications:**
Precision / accuracy	±5% precision, ±0.25A accuracy Example: 40A current, will measure 40A ± (40A*5%) ± 0.25A = 40A ± 2.0A ± 0.25A = 37.75A to 42.25A
Communication (nrgSMART model only):	**Specifications:**
nrgOS minimum required version	nrgOS 4.0.0
nrgNET communication protocol	Proprietary nrgNET used to communicate between panels and controller
nrgNET connector	Removable 5-pin connector with screw down terminals
nrgNET connector functions	nrgNET IN from the nrgCONTROL or upstream nrgSMART panel nrgNET OUT to downstream nrgSMART panel