

# DIST200 SERIES"3"

DC Distribution Panels: 12V, 24V & 48VDC

Dual DC BUS Load

## Description

The ICT DISTRIBUTION SERIES 3 provides independent dual bus capability for redundant systems or mixed-voltage sites. Each bus is rated at 100A peak and provides six fuse or breaker protected outputs. Standard models are available for unmanaged applications, while Intelligent models include ICT's industry leading TCP/IP remote management and power control features.

## Common Features

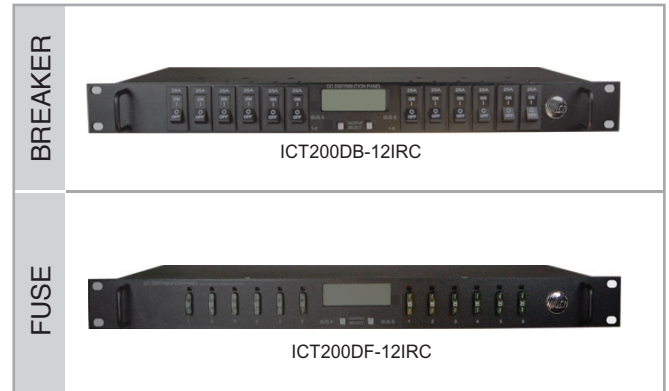
- ▶ 200A peak system current rating / 100A per bus
- ▶ Six outputs per bus
- ▶ Independent Form C alarm contacts for each bus
- ▶ Choice of fuse or breaker protected models
- ▶ 80 volt rated FKS ATO style fuses or high-quality, reliable hydraulic/magnetic breakers support 12, 24 and 48VDC
- ▶ Mixed voltages and polarities can be supported in one panel (provided grounds are common)
- ▶ -20 to +60C operating temperature range
- ▶ Front panel LED indicators for fuse status (fuse models)
- ▶ 3 year warranty

## Intelligent Model Features

- ▶ TCP/IP remote management and power control of system and individual outputs
- ▶ On-board web server means no software to maintain
- ▶ Extremely easy to use Graphical User Interface
- ▶ Remote firmware update capability
- ▶ HTTPS, SMTP, SNMP protocols supported
- ▶ Monitoring and alarm reporting of each output for pinpointing of issues with connected loads
- ▶ Alarms can be sent to multiple email accounts
- ▶ Each output has adjustable load-shed settings
- ▶ Network Watchdog feature will ping a pre-determined I.P. address and power-cycle connected device if not answered
- ▶ Five digital inputs for site monitoring sensors
- ▶ Data logging

## Performance and Flexibility

All models feature a peak current rating of 200 amps (100 amps per bus) and up to six DC devices can be connected to each bus. The breaker protected models support 12, 24 and 48VDC, and with the use of 80V rated FKS ATO fuses, so do the fuse models. Each bus can be at a different voltage or polarity to support flexible system designs.



## Lower Cost of Ownership and Site Maintenance

All models come with a 3-year warranty. Intelligent models are I.P. enabled for remote monitoring and remote shutdown or power cycling of individual outputs, potentially saving unnecessary service call-outs. Intelligent models also come with five digital input contacts for site monitoring sensors such as door, smoke, and water detection. Each input can be custom labelled to provide descriptive email alerts. All Distribution Series 3 models feature independent Form C outputs to monitor and report alarm conditions for each bus.

## Remote TCP/IP Monitoring

The Intelligent models are TCP/IP enabled, and utilize a built-in Ethernet connector with integrated web server to allow users to remotely monitor load conditions at the panel. System voltage and current, as well as the current reading of each output, can be monitored. This can provide an indication of a problem with the system power, or with individually connected devices such as a radio, repeater, or RF amplifier. Text or email alerts will be sent when an alarm is triggered. Up to 30 days of data logging is provided.

## Remote TCP/IP Power Control

Intelligent models allow the individual DC outputs to be turned on and off remotely using the TCP/IP connection. This allows connected devices to be power-cycled or shut down, potentially averting the need for an on-site service visit. The Network Watchdog feature pings a designated I.P. address and will restart an assigned output automatically, allowing devices such as routers to be power-cycled without risk of losing communications to the site. Load shedding is provided with user definable settings for each output, allowing non-essential loads to be automatically shut down in order to prolong power to critical loads.

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Model Numbers				
	ICT200DF-12 Standard Dual Bus Fuse Panel	ICT200DB-12 Standard Dual Bus Breaker Panel	ICT200DF-12IRC Intelligent Dual Bus Fuse Panel With TCP/IP	ICT200DB-12IRC Intelligent Dual Bus Breaker Panel With TCP/IP
Power Specifications				
Application Voltage (pos or neg ground)	12, 24, 48VDC			
System Current Rating (peak/cont)	200A/160A			
Bus Current Rating (peak/cont)	100A/80A			
Number of Outputs per bus	6			
Operating Voltage Range	10-60VDC	10-60VDC	10-60VDC	10-60VDC
Number of ATO Fused DC Outputs	12	-----	12	-----
ATO Max Fuse Rating (12,24V/48V)	25A/15A <sup>(1)(2)</sup>	-----	25A/15A <sup>(1)(2)</sup>	-----
Number of Breaker Outputs	-----	12	-----	12
Max Breaker Ratings (12,24V/48V)	-----	25A/15A <sup>(1)(3)</sup>	-----	25A/15A <sup>(1)(3)</sup>
Mechanical				
Form Factor	1RU - 19 Inch rack mount with handles			
Dimensions (inches) L x W x H	9.29 x 19.0 x 1.72			
Weight (lbs/kg)	7.0 lbs / 3.2 kg			
Connectors	M8 DC input stud connectors, 10-22AWG cage clamp output terminal blocks			
Environment				
Operating Temperature Range <sup>(4)</sup>	-20°C to +60°C			
Communications and Control				
Ethernet	-----	-----	TCP/IP built-in web server and graphical user interface, 10/100BASE-T, IEEE 802.3 compatible	
Supported Protocols	-----	-----	IPv4, HTTP, HTTPS, SMTP, DNS, TCP, UDP, ICMP, DHCP, ARP, SNMP v1/v2c	
SNMP Ports	-----	-----	UDP Port 161, SNMP Traps: UDP Port 162	
Firmware Upgrades	-----	-----	Upgradeable over Ethernet	
Security	-----	-----	Password protected, SSL encryption	
12 Channel Output Monitoring	-----	-----	Current draw measured and reported for each output, user definable under and over current alarms	
Email and SMS Alerts	-----	-----	Multiple email or text accounts, adjustable intervals	
Data Logging	-----	-----	Up to 30 days at 1 minute sampling rate, csv file download, major event logging	
Network Watchdog	-----	-----	Autonomously ping up to two I.P. addresses and power-cycle output if no response, definable settings	
Power Cycling and Rebooting	-----	-----	Remote on/off control of every output individually	
Auto Restore Mode	-----	-----	Return to previous output settings after a power loss	
Power-up Delay Sequencing	-----	-----	User selectable 0 to 60 second delay between outputs	
Auto Load Shedding	-----	-----	Each output user definable, manual or auto restart	
Remote Alarms	Independent Form C alarm contacts (C/NO/NC)			

(1) Please follow all recommendations of the manufacturer. Fuses, breakers and wiring should be continuously operated at no more than 80% of their current rating.

(2) Ships from factory with 12 - 15A FKS ATO 80VDC rated fuses installed.

(3) Hydraulic/magnetic breakers not included, must be ordered separately.

(4) Derate after 50°C.

Fuse and Breaker Ordering Information	HYDRAULIC/MAGNETIC BREAKER		FKS ATO 80VDC FUSE
	5 Amp	ICT-CB5	
	15 Amp	ICT-CB15	ICT-80VF15
	25 Amp	ICT-CB25	

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This guide is intended to illustrate the major new features of the Distribution Series 3 models. Consult product Data Sheets for full description of features on all models.

	DISTRIBUTION SERIES 3 Dual Bus Fuse or Breaker DC Load Distribution Panels			
	ICT200DF-12	ICT200DB-12	ICT200DF-12IRC	ICT200DB-12IRC
Load Protection	Fuse	Breaker	Fuse	Breaker
200A Peak System Current (100A per Bus)	✓	✓	✓	✓
6 Outputs per Bus - 25A Max Each	✓	✓	✓	✓
3 Year Warranty	✓	✓	✓	✓
Supports 12, 24 and 48VDC <sup>(a)(b)</sup>	✓	✓	✓	✓
Supports Mixed Voltages Simultaneously	✓	✓	✓	✓
Supports Mixed Polarities Simultaneously	✓	✓	✓	✓
Independent Bus A and Bus B Form C Remote Alarm Contacts	✓	✓	✓	✓
Uses High Quality Hydraulic/Magnetic Circuit Breakers <sup>(a)</sup>		✓ <sup>(a)</sup>		✓ <sup>(a)</sup>
Uses 80VDC Rated FKS ATO or 32VDC Rated Standard ATO Blade Fuses <sup>(b)</sup>	✓ <sup>(b)</sup>		✓ <sup>(b)</sup>	
TCP/IP Monitoring, Reporting and Output Power Control			✓	✓
5 Digital Site Monitoring Contacts			✓	✓
HTML and SNMP v1/v2c			✓	✓
Auto Restore Mode			✓	✓
System Level Voltage and Current Alarm Reporting			✓	✓
Individual Output Level Current Alarm Reporting			✓	✓
10/100BASE-T Support			✓	✓
System Level Load-Shed Adjustments			✓	✓
Individual Output Level Load Shed Adjustments			✓	✓
Network Watchdog Auto-Ping			✓	✓

(a) Hydraulic/magnetic breakers are rated up to 65 VDC and are safe to use in 12, 24 or 48VDC nominal environments. Panels ship with blanking plates installed. Breakers must be ordered separately.

(b) Always use 80VDC rated FKS ATO fuses when operating over 32VDC. Standard ATO fuses can be used when operating at 12 or 24 VDC nominal. Panels ship with 12 FKS/ATO 15A rated fuses installed.