

Momentary Power Interruption Recovery System



CE TÜV

Dip-Free™
Nontrip

NTC 엔티씨
Next Technologies Center
URL: <http://www.dipfree.com>

Single-phase voltage-sag compensator: Dip-Free™

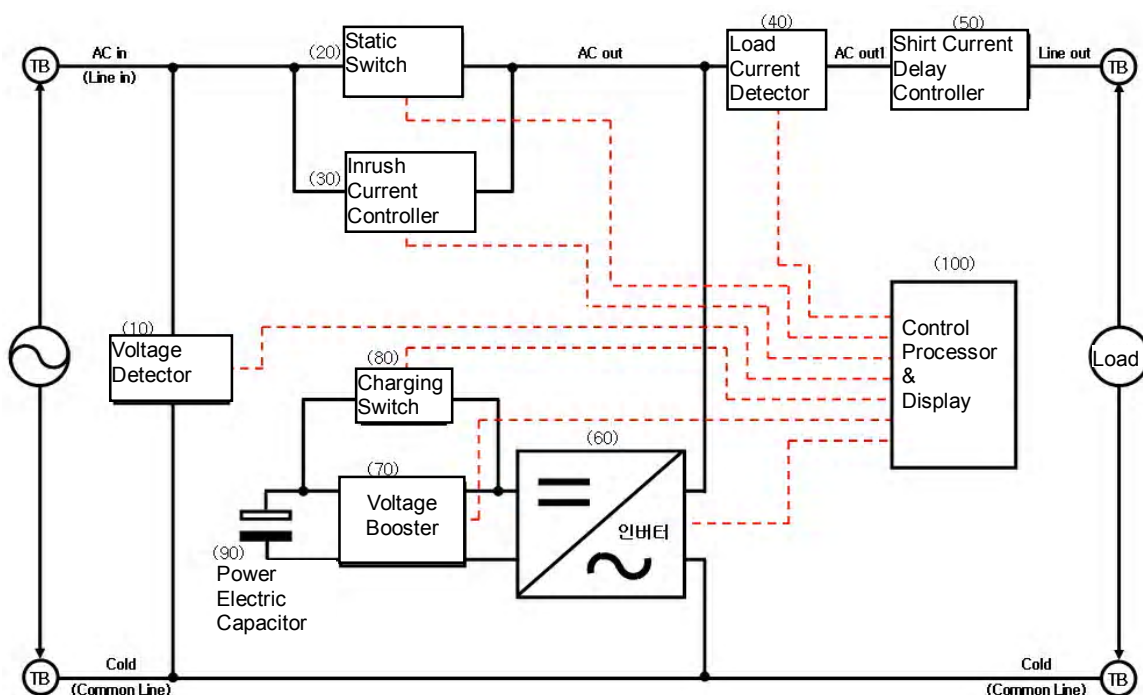
➤ Dip-Free™ (Dynamic Voltage-dip Controller)

Dip-Free (Dynamic Voltage Dip Controller) has the following benefits.

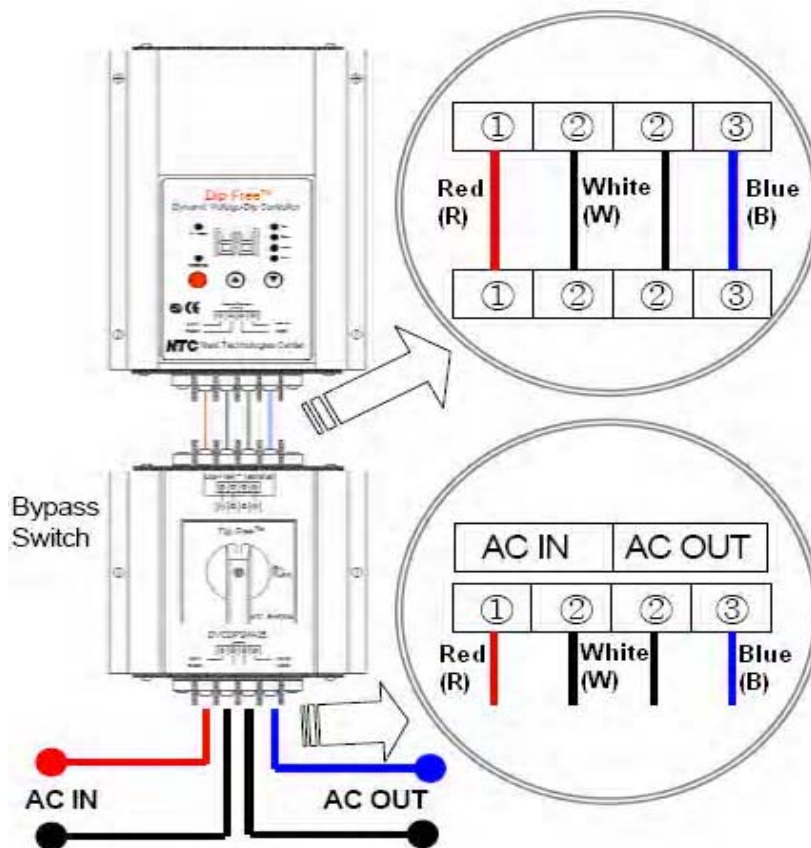
- Voltage-sag compensation: Voltage-Sags and Momentary interruptions with the duration of shorter than 1 second can be compensated.
- Off-line operation : During applying nominal supply voltage, Dip-Free is in standby status and compensates voltage dips only for faults.
- No Batteries : Free of maintenance and waste treatment. No gas generated
- Charged Power Capacitor : Over 10 years of service lifetime
- Counter : This component indicates the number of voltage compensations when Dip-Free operates
- Safe to use : Less heat generated Very safe and robust configuration
- High reliability : Ultrafast transfer within 1msec
- Able to withstand high inrush currents : Not necessary to oversize as with UPSs and CVTs. Dip-Free can protect Momentary overloading.
- Light weight and Compact size and Easy to install : No Step-up transformers or batteries needed
- Foolproof application control : Compensation duration and Transfer Level can be dependent on your facilities
- Well suited for Inductive and low power-factor loads
- S Safety mark, CE mark and TÜV approved
- Semiconductor relay contactors to indicate the status of how Dip-Free compensates for Voltage sags



➤ Dip-Free™ Block Diagram



➤ Dip-Free™ Installation instructions



➤ Dip-Free™ General Specification

- Shows a count number display of the Sag Compensations
- Adjust the Sag Compensation time
- Sets the Sag Compensation operating voltage
- Sets the Sag Compensation output voltage
- Easy maintenance with non-cutoff By-Pass-Switch
- Optional connection for an alarm when Sag happens
- Optional connection with an alarm for self-monitoring malfunction
- No additional cooling devices required since it only works during Off-Line and when it is necessary
- Cost effective for product's capacity and selecting the product's model based on the actual load
- Aluminum materials make the external to be beautiful and may be mounted on the Control Panel
- Received certifications of CE, TÜV and Safety Mark

➤ Dip-Free™ Specification Summary

MODEL (AC220V)	DVC-0350-N2	DVC-0600-N2	DVC-0850-N2	DVC-1250-N2	DVC-1800-N2	DVC-3500-N2	DVC-5000-N2
AC INPUT	AC 200 ~ AC230V +10%, 50 / 60Hz ±2Hz						
AC OUTPUT	200, 210, 220, 230Vac RMS ±3%, 50/60Hz ±2Hz						
Nominal load current	1.5A	2.6A	3.7A	5.4A	7.8A	15.2A	21.7A
Power factor	Based on 0.8						
Rated Capacity	350VA	600VA	850VA	1250VA	1800VA	3500VA	5000VA
Nominal Backup Time	1Sec. - 0.1 to 5.0s (0.1 s steps adjustable)						
CUBICLE							
Height (mm)	288	343	398	462	450	650	850
Width (mm)	142	142	142	260	355	355	355
Depth (mm)	110	110	110	159	154	154	154
Mass (Kg)	3.3	4.2	5.1	10.0	15.0	24.0	33.0

MODEL (AC110V)	DVC-0250-N1	DVC-0400-N1	DVC-0850-N1	DVC-1300-N1	DVC-2500-N1
AC INPUT	AC 100 ~ AC120V +10%, 50 / 60Hz ±2Hz				
AC OUTPUT	100, 110, 120Vac RMS ±3%, 50/60Hz ±2Hz				
Nominal load current	2.1A	3.3A	7.1A	10.8A	20.8A
Power factor	Based on 0.8				
Rated Capacity	250VA	400VA	850VA	1300VA	2500VA
Nominal Backup Time	1Sec. - 0.1 to 5.0s (0.1 s steps adjustable)				
CUBICLE					
Height (mm)	288	343	462	450	650
Width (mm)	142	142	260	355	355
Depth (mm)	110	110	159	154	154
Mass (Kg)	3.3	4.2	10.0	15.0	24.0

➤ Dip-Free™ Selection of Model

1. Survey of Electrical Load at Working - Voltage, Current
2. Calculate of Compensation Capacity - Voltage * Current * 1.3~1.5(operation margin)
3. Matching of Dip-Free Model

SMPS voltage-sag compensator: DSP

- Model : CP-1800(1,800VA), CP-3000(3,000VA)
- Rated Capacity : 1800VA, 3000VA
- AC INPUT : 1ϕ 200Vac ~ 230Vac, 50/60Hz
- DC OUTPUT : 200Vdc ~ 230Vdc
- Operation Voltage : 185Vac ± 3V
- Compensation Time : 1sec
- Only Use for SMPS(Switching Module Power Supply)



M/C voltage-sag compensator: Nontrip

Nontrip provides you the most economical solution to keep a magnetic contactor from tripping due to Voltage Interruptions or Voltage sags. It doesn't require battery so that it is free of maintenance or repair

How Nontrip operates: If the input voltage decreases to below 80% of the nominal supply voltage, the compensation switch will be turned on by

triggering by voltage-dip detection circuit and thereby the stored currents in the capacitor will be fed to loads and the number of the events will be indicated by the counter. Should the input voltage recover within the set time, the Nontrip will be switched off and the voltage supply of capacitor will be disconnected and the status will be back to normal.

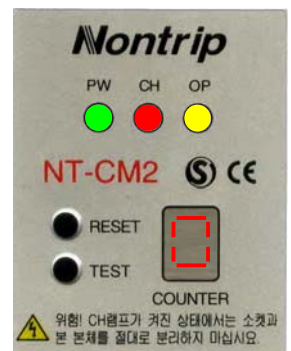


Nontrip features:

- Nontrip has a built-in SMU(Super Magnetic Unit) to be available for Magnetic Controller for AC or AC/DC convertible.
- Available for domestic product and foreign product Magnetic Controller
- Light weight and Compact size to minimize the necessary space for installation.
- In the event of Voltage sags, the voltage will be compensated for duration of one second.
- Self system test and Event counter
- Very economical solution
- Korea patent right obtained (Patent Issue # 0267075)
- S safety mark and CE, TÜV(US) international standard approved product

Nontrip functions

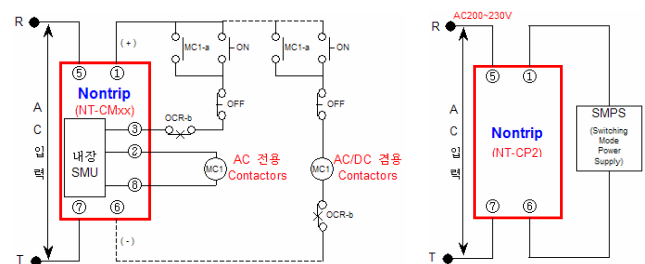
- PW : Indication of Power ON/OFF status
- CH : Charging status
- OP : This feature flickers when Nontrip operates during voltage sags
- Reset SW : Self System Test
- Counter : Indication of the number of Voltage compensation events



Nontrip specifications

MODEL	Voltage Spec	Only AC Coil Resistance	AC/DC Convertible M/C
NT-CM1	AC100V~120V, 50/60Hz, Dip-Level:AC85V±2V	15Ω ~ 100Ω	LG,
NT-CM2	AC200V~230V, 50/60Hz, Dip-Level:AC170V±2V	30Ω ~ 500Ω	HYUNDAI,
NT-CM24	AC24V~28V, 50/60Hz, Dip-Level:AC18V±2V	1Ω ~ 5Ω	FUJI
NT-CP2	AC200V~230V, 50/60Hz, Dip-Level:AC185V±2V	Only SMPS	etc

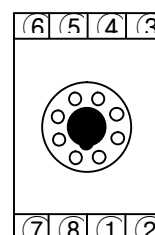
Nontrip connection block



Nontrip Time Chart



Nontrip Socket



Patents

CE, TÜV Certificate - Dip-Free 1/2

EC-Attestation of Conformity No. NB 05 07 07033 002

Holder of Certificate: NTC #200-6, Hans-Dong, Korea-Ru 100-000 Seoul, KOREA

Product: Electrical equipment acc. to the Low Voltage Directive (Uninterruptible Power System)

Model(s): DVC-XXXX "XXXX" means number 100 to 3000 according to maximum capacity of dip voltage.

Parameters: Rated input voltage: 220-230 V a.c., Rated frequency: 50/60 Hz, Rated input current: 21.7 A, Rated output voltage: 220-230 V a.c., Rated output current: 21.7 A, Number of output phases: Single phase, Output power factor: 0.9, Protection class: I, Degree of Protection: Against ingress of liquids: category

Tested according to: EN 60904-1:2003

Date: 2005.07.27

Page 1 of 2

CE, TÜV Certificate - Dip-Free 2/2

EC-Attestation of Conformity No. NB 05 07 07033 002

Holder of Certificate: NTC #200-6, Hans-Dong, Korea-Ru 100-000 Seoul, KOREA

Product: Electrical equipment acc. to the Low Voltage Directive (Uninterruptible Power System)

Model(s): DVC-XXXX "XXXX" means number 100 to 3000 according to maximum capacity of dip voltage.

Parameters: Rated input voltage: 220-230 V a.c., Rated frequency: 50/60 Hz, Rated input current: 21.7 A, Rated output voltage: 220-230 V a.c., Rated output current: 21.7 A, Number of output phases: Single phase, Output power factor: 0.9, Protection class: I, Degree of Protection: Against ingress of liquids: category

Tested according to: EN 60904-1:2003

Date: 2005.07.27

Page 2 of 2

CE, TÜV Certificate - DSP 1/2

EC-Attestation of Conformity No. NB 05 07 07033 001

Holder of Certificate: NTC #200-6, Hans-Dong, Korea-Ru 100-000 Seoul, KOREA

Product: Electrical equipment acc. to the Low Voltage Directive (Uninterruptible Power System)

Model(s): DVC-XXXX "XXXX" means number 100 to 3000 according to maximum capacity of dip voltage.

Parameters: Rated input voltage: 220-230 V a.c., Rated frequency: 50/60 Hz, Rated input current: 21.7 A, Rated output voltage: 220-230 V a.c., Rated output current: 21.7 A, Number of output phases: Single phase, Output power factor: 0.9, Protection class: I, Degree of Protection: Against ingress of liquids: category

Tested according to: EN 60904-1:2003

Date: 2005.07.27

Page 1 of 2

CE, TÜV Certificate - DSP 2/2

EC-Attestation of Conformity No. NB 05 07 07033 001

Holder of Certificate: NTC #200-6, Hans-Dong, Korea-Ru 100-000 Seoul, KOREA

Product: Electrical equipment acc. to the Low Voltage Directive (Uninterruptible Power System)

Model(s): DVC-XXXX "XXXX" means number 100 to 3000 according to maximum capacity of dip voltage.

Parameters: Rated input voltage: 220-230 V a.c., Rated frequency: 50/60 Hz, Rated input current: 21.7 A, Rated output voltage: 220-230 V a.c., Rated output current: 21.7 A, Number of output phases: Single phase, Output power factor: 0.9, Protection class: I, Degree of Protection: Against ingress of liquids: category

Tested according to: EN 60904-1:2003

Date: 2005.07.27

Page 2 of 2

CE Certificate - NT-CM2

ATTESTATION OF CONFORMITY WITH EUROPEAN DIRECTIVE

Manufacturer: NTC # 200-6, Hans-Dong, Korea-Ru Seoul, KOREA

Product: UPS for building (Power)

Model(s): NT-CM2

Date: S.A. 200-220VAC/300VA Output S.A. 200-220VAC/10W (10VA) Class 2

Other specification: Class 2

Standards applied: Safety etc. EN 60904-1:2003

Statement reference: 30232

Date of issue: 08 December 2004

CE Marking

CE Certificate - NT-CP2

ATTESTATION OF CONFORMITY WITH EUROPEAN DIRECTIVE

Manufacturer: NTC # 200-6, Hans-Dong, Korea-Ru Seoul, KOREA

Product: UPS for building (Power)

Model(s): NT-CP2

Date: S.A. 200-220VAC/300VA Output S.A. 200-220VAC/10W (10VA) Class 2

Other specification: Class 2

Standards applied: Safety etc. EN 60904-1:2003

Statement reference: 30232

Date of issue: 08 December 2004

CE Marking

Safety Certificate - Dip-Free

안전인증서

엔티씨 서울시 구로구 구로동 596-6

제품명: Dip-Free

형식 - 모델	인증번호	형식 - 모델	인증번호
DVC-0100-01	05C-2391	DVC-0250-01	05C-2395
DVC-0500-01	05C-2392	DVC-0500-02	05C-2396
DVC-0800-01	05C-2393	DVC-0800-03	05C-2397
DVC-0100-02	05C-2394		

2005년 1월 31일

한국산업안전공단이사장

Safety Certificate - Nontrip 1

안전인증서

엔티씨 서울시 구로구 구로동 596-6

제품명: Nontrip Unit

형식 - 모델	인증번호
NT-CM2 V2	05C-2389
NT-CP2	05C-2390

2005년 1월 31일

한국산업안전공단이사장

Our Major Customers



Manufactured by NTC
 1203, Hanshin IT Tower II
 #60-18, Gasan-Dong,
 Geumcheon-Gu, Seoul, Korea
 URL: <http://www.dipfree.com>