

Puffermodul DBUF40-24

24V/40 A



- Pufferung mit Elektrolytkondensatoren anstelle von Bleibatterie
- Pufferzeit 250 ms bei 22 VDC/40 A
- Puffermodus über Schalter wählbar:
 - Fixer Modus bei 22 VDC
 - Dynamischer Modus für Vin-1 VDC
- LED-Anzeige für Signalstatus
- Unterstützt Parallelschaltung für die Verlängerung der Pufferzeit



Artikelnummer	Typ	Spannung	Ausgangsstrom
2 081 201	DBUF40-24	24 VDC	40 A

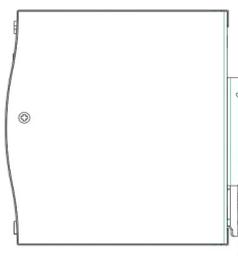
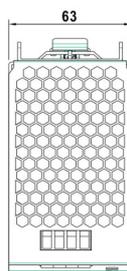
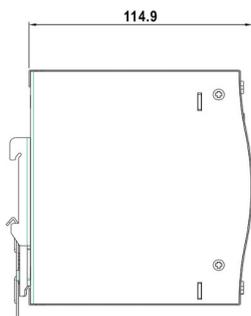
Abmessungen

Mechanical Specification

Case No. 979E Unit:mm

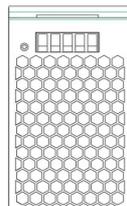
Terminal Pin No. Assignment (TB1)

Pin No.	Assignment
1,2	DC +V
3,4	DC -V



Terminal Pin No. Assignment (TB2)

Pin No.	Assignment
1	FG Ⓢ
2	Inhibit (I)
3	Ready (R)
4	Buffering (B)
5	Supply Voltage (+Vs)



Spezifikationen

Alle Spezifikationen gelten bei Nominalwerten, Volllast und 25 °C

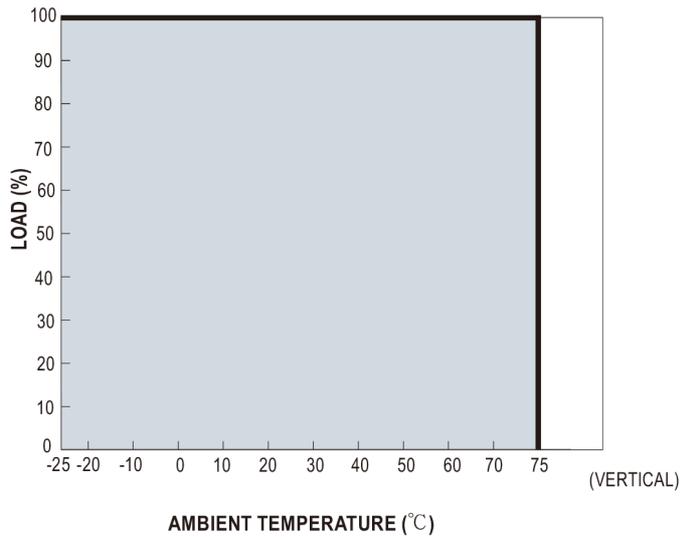
Lademodus	
Normale	24 VDC
Ladespannung	23-30 VDC
Ladestrom	900 mA max.
Stromaufnahme im	100 mA max.
Ladezeit	25 s typisch 35 s max.

Puffermodus			
Normale	22 VDC / Vin-1 VDC		
Betriebsspannung	22-29 VDC		
Ausgangsstrom	0-40 A		
Ripple	350 mVp-p		
Pufferzeit			
Ausgangsstrom	40 A	20 A	0.1 A
Typisch	250 ms	500 ms	62 s
Minimum	160 ms	320 ms	42 s

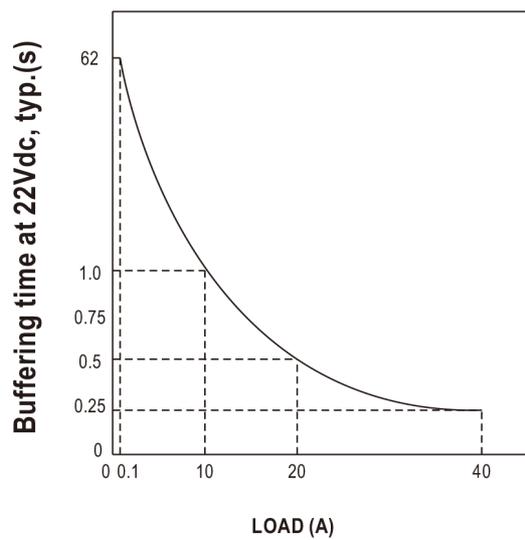
Schutz	
Überspannungsschutz	31~37.5 V
Überlastschutz	105%~125%
Kurzschlusschutz	ja
TVS für Signale (max.)	35 V
Verpolungsschutz	ja

Allgemeine	
Betriebstemperaturbereich	-25~+75°C
Lagertemperatur	-25~+80°C
Vibration	Component: 10 ~ 500 Hz, 2G 10 min. / 1 cycle, 60
Temperaturkoeffizient	±0.03%/°C (0 ~75°C)
Schocktest	IEC60068-2-27 ,30G
Sicherheit	IEC62368-1 ,UL62368-1
EMC EMISSION	
Conducted	BS EN/EN55032 Class B
Radiated	BS EN/EN55032 Class B
EMC Immunity	
	BS EN/EN55035
	BS EN/EN61000-6-2
ESD	BS EN/EN61000-4-2, Level 3, 8KV contact
Radiated	BS EN/EN61000-4-3, 10V/m
EFT/Burst	BS EN/EN61000-4-4, 2kVair
Surge	BS EN/EN61000-4-5, 1KV/Line-Line 2KV/Line-Line-FG
Conducted	BS EN/EN61000-4-6, 10V
Magnetic Field	BS EN/EN61000-4-8, 30A/m
Isolationswiderstand	IP/OP-FG:2.2 kVDC
Isolationswiderstand	IP/OP-FG>100M Ohms/ 500 VDC / 25°C / 70% RH
MTBF	162.61K hrs min. MIL-HDBK-217F (25°C)
Montage	aufschnappbar auf DIN- Schiene
Abmessungen	63 x 125.2 x 114.9 mm
Gewicht	1.062 kg

Derating Curve



Buffering Curve



Funktion

Wählbar durch Schalter

Fix 22 VDC

Vin – 1 VDC

Kontrolle

Inhibit(I)

Signale

Bereit (R)

Pufferung (B)

Versorgungsspannung (+VS)

LED-Statusanzeige

Die Pufferung beginnt, wenn die Spannung unter 22 VDC fällt

Die Pufferung beginnt, wenn die Spannung um < 1 VDC abfällt

+Vs-V(I) < 6 VDC; Puffermodul EIN

+Vs-V(I) > 10 VDC; Puffermodul AUS

35 VDC/4 mA Max.

Geladen bereit: V(R) > +Vs-2 VDC

Nicht bereit: V(R) < 1 VDC

35 VDC/10 mA Max.

Pufferung: V(B) > +Vs-2 VDC

Anderer Modus: V(B) < 1 VDC

35 VDC/10 mA Max.

10-35 VDC/10 mA (Verbunden mit +V oder externer Spannung)

ON

OFF

blinkend

Bereit

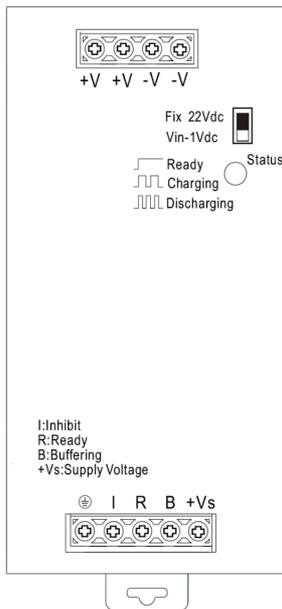
Entladen

1 Hz Laden

10 Hz Pufferung

Function Manual

1. User Elements



Back-up Threshold Voltage Selectable by Switch:

Option 1: Fixed mode (Switch in Fix 22Vdc)

The unit switches to buffer mode as soon as the voltage falls below 22Vdc.

Option 2: Dynamic mode (Switch in Vin-1Vdc)

Unit switches to buffer mode when input voltage decreases by 1Vdc.

Note: Factory setting is fixed mode.

LED Indicator Status:

LED OFF: Capacitors are discharged.

LED ON: Capacitors are fully charged.

LED Flashing slowly (1Hz): Capacitors are getting charged.

LED Flashing quickly (10Hz): Capacitors are getting discharged.

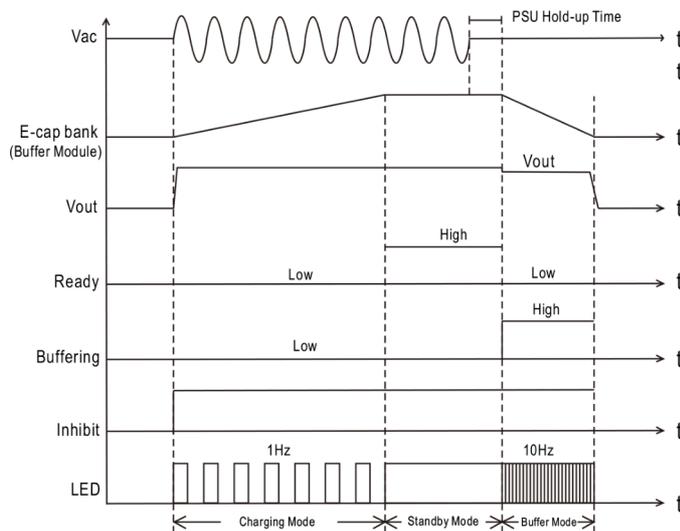
Signal Connector:

- Inhibit, +Vs - V(I) < 6Vdc: Buffer module ON; +Vs - V(I) > 10Vdc: Buffer module OFF.

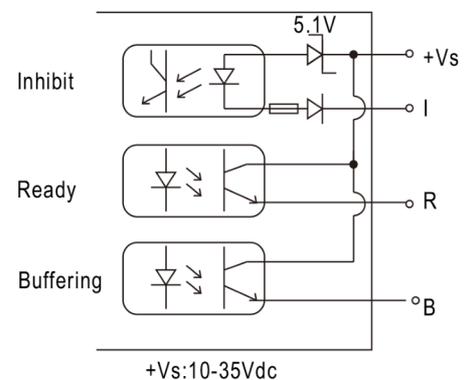
- Ready, Charged ready: V(R) > +Vs - 2Vdc; Unready: V(R) < 1Vdc.

- Buffering, Buffering: V(B) > +Vs - 2Vdc; Other mode: V(B) < 1Vdc.

2. Operating Diagram



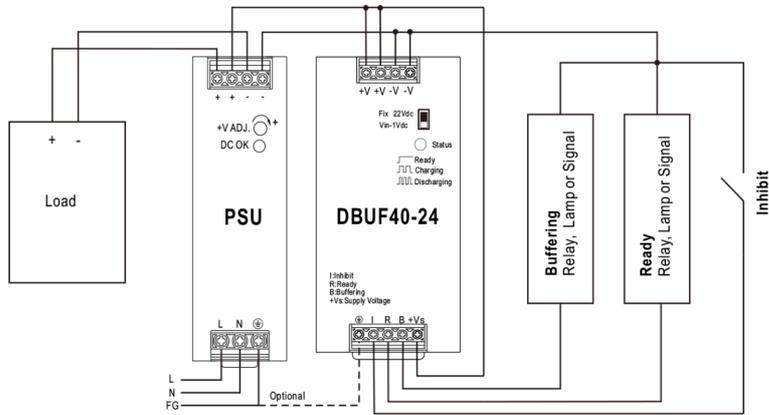
3. Signal Schematics



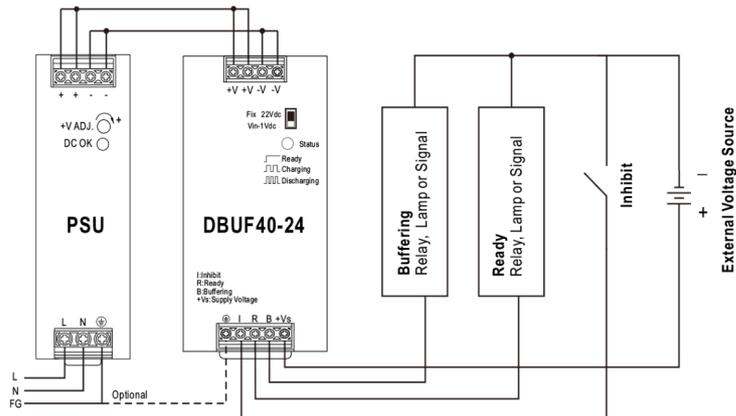
(+Vs can be connected to DBUF40 "+V" or external voltage source, Please refer to "Typical Application Notes")

Typische Anwendungen

1. General wiring diagram



2. Signals supplied from an external voltage



3. Paralleling of buffer units

