

## DBM20

### SPECIFICATIONS

PA640-01-01

ITEMS	MODEL		DBM20
1	Nominal Buffer Voltage (Fixed Mode)	V	22.4
2	Buffer Current	A	20
3	Buffer Power (* 1)	W	448
4	Nominal Input Voltage	V	24
5	Input Voltage Range (Fixed Mode) (VIN-1)	V	23 - 30
			24 - 30
6	Input Current (Typ.)	A	0.8 at Charging Mode
			0.2 at Ready Mode
7	Charging Time (Typ.)	s	40
8	Buffer Voltage Accuracy (* 1) (Fixed Mode) (* 9) (VIN-1)		± 2
			+3/-4
9	Maximum Ripple & Noise (* 1, 3)	mV	< 240
10	Input Over Voltage Protection (* 2)	-	Yes
11	Over Current Protection (* 4)	-	> 105% of rated Buffer Current
12	Buffer time (Typ) (* 1, 5)	ms	250
13	Monitoring Signals (* 6)	-	a) DC OK Signal (Photo Relay Rated : 30V, 0.2A) b) Ready, Buffer & Inhibit Signals (Common Supply Voltage)
14	Ready Mode Indication (* 10)	-	Green LED
15	Buffer Mode Indication (* 11)	-	Red LED
16	Parallel Operation	-	Yes
17	Series Operation	-	No
18	Operating Temperature (* 7)	°C	-25 ~ + 70 °C
19	Operating Humidity	-	30 ~ 90%RH (No Dewdrop)
20	Storage Temperature	°C	-25 ~ + 85 °C
21	Storage Humidity	-	10 ~ 90%RH (No Dewdrop)
22	Operating Altitude	m	5000
23	Cooling	-	Convection Cooling
24	Withstand Voltage	-	Input/output & signal ports - FG : 500VAC (100mA) 1 MINUTE
25	Isolation Resistance	-	Input/output & signal ports - FG : ... More Than 100MΩ (500VDC) AT Ta=25°C & 70%RH
26	Vibration	-	At no operating, 10 - 55Hz (sweep for 1min) 19.6m/s <sup>2</sup> Constant, X, Y, Z 1hour each.
27	Shock (In package)	m/s <sup>2</sup>	Less than 196.1
28	Safety	-	Approved by UL/EN/IEC 62368-1 2nd Edition, UL508
29	EMI (* 8)	-	Design to meet EN55032-B, CISPR32-B
30	Immunity	-	Design to meet IEC61000-4-2 (Level 4), -3 (Level 3), -4 (Level 3), -5 (Level 2), -6 (Level 3)
31	Weight (Typ.)	g	740
32	Warranty	-	5-Year
33	Dimension (W x H x D)	mm	49 X 123.6 X 115.4 (Refer to Outline Drawing)

\* Read instruction manual carefully , before using the buffer module unit.

= NOTES=

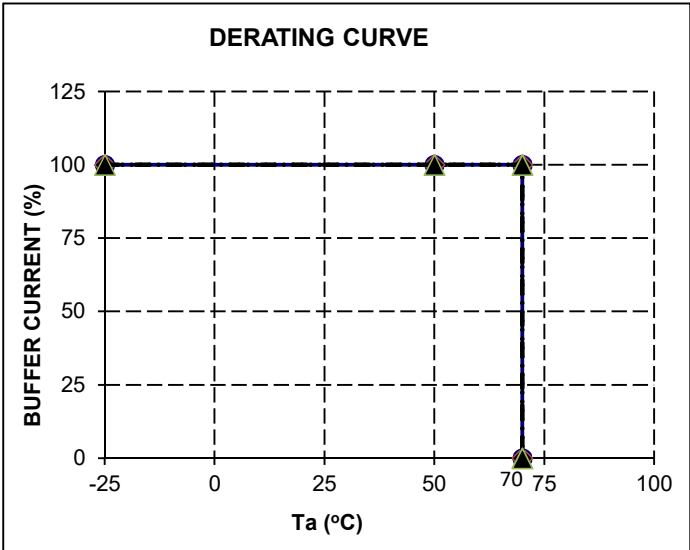
- \* 1 : At Ta=25 °C, nominal buffer voltage and average buffer power.
- \* 2 : Input voltage is 35Vmax.
- \* 3 : Ripple & noise are measured at 20MHz by using a 150mm twisted pair of load wires terminated with a 0.1uF film capacitor and a 100uF electrolytic capacitor.
- \* 4 : When the buffering current exceeds 105% of the maximum DC buffer current specification, OCP operation will be activated. Automatic recovery.
- \* 5 : Refer to (PA640-01-03\_) for buffer time versus buffer current.
- \* 6 : Please refer to instruction manual for more details.
- \* 7 : Refer to Derating Curve (PA640-01-02\_) for details of buffer current versus ambient temperature.
- \* 8 : EMI (CE) compliance to be confirmed at system level. Product is considered as a peripheral accessory to power supply.
- \* 9 : Buffer current, Iout > 5%.
- \* 10 : GREEN LED will be ON if the bulk electrolytic capacitors are more than 220V typical.
- \* 11 : RED LED will be OFF if the bulk electrolytic capacitors are less than 50V typical.
- \* 12 : All parameters NOT specifically mentioned are measured at rated load & nominal input at ready mode, and during buffering it is at fixed mode.  
All measurement are conducted at Ta=25 °C.

**DBM20**  
PA640-01-02

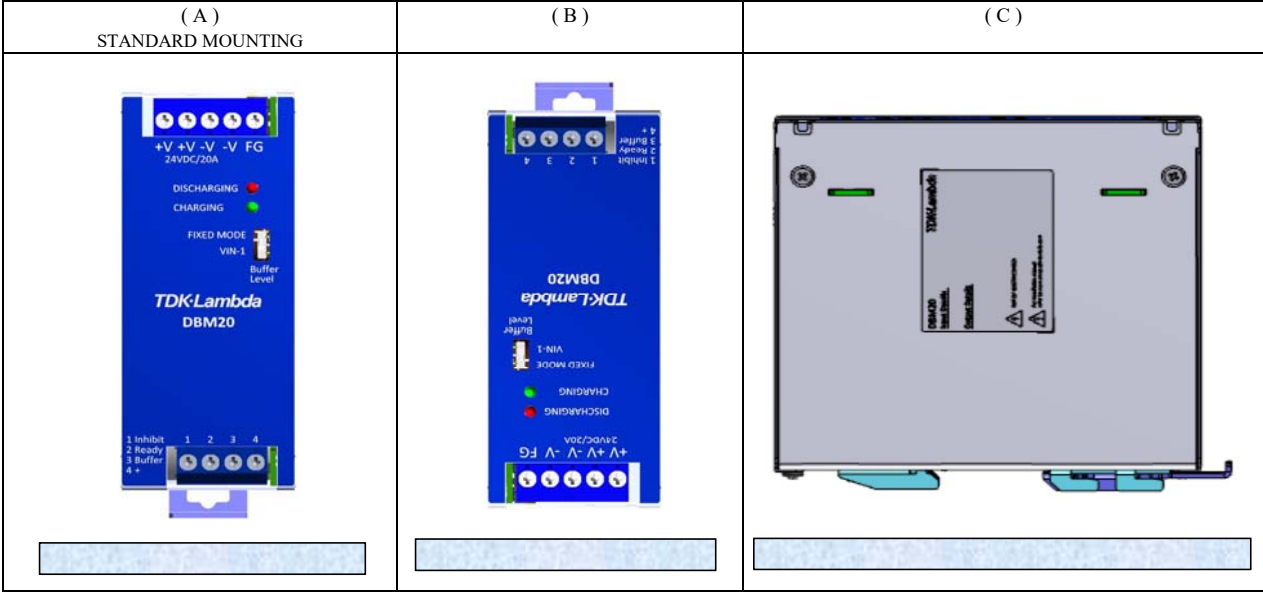
DERATING CURVE FOR BUFFER CURRENT VERSUS AMBIENT TEMPERATURE

**\*COOLING : CONVECTION COOLING**

Ta (°C)	LOAD (%)		
	( A ) Standard Mounting	( B )	( C )
-25 - +70	100	100	100



- ( A ) Standard Mounting
- ◆···· ( B )
- - -▲- - - ( C )

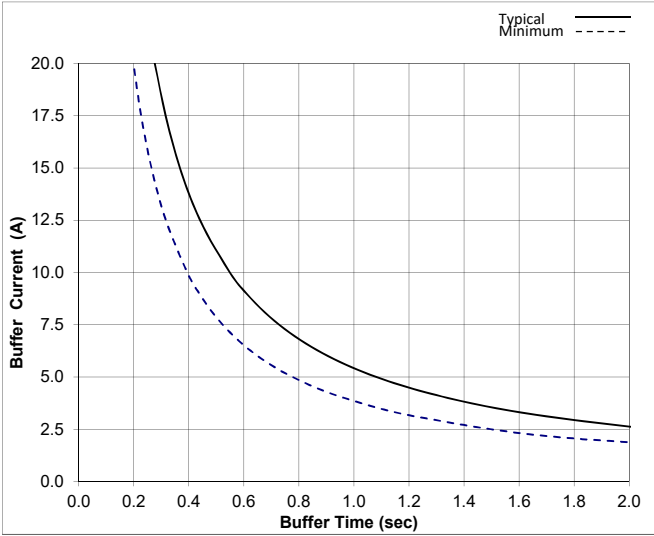


**DBM20**  
PA640-01-03

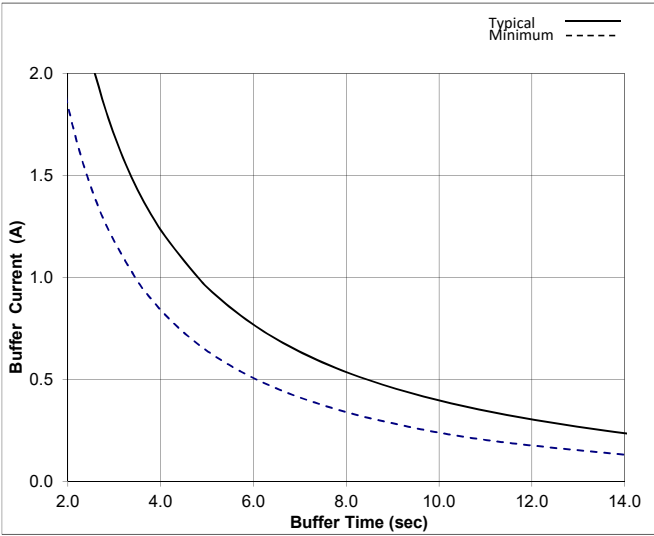
**BUFFER TIME VERSUS BUFFER CURRENT**

**FIXED Mode and Nominal Buffer Voltage**

a) Buffer time : 0 - 2 sec

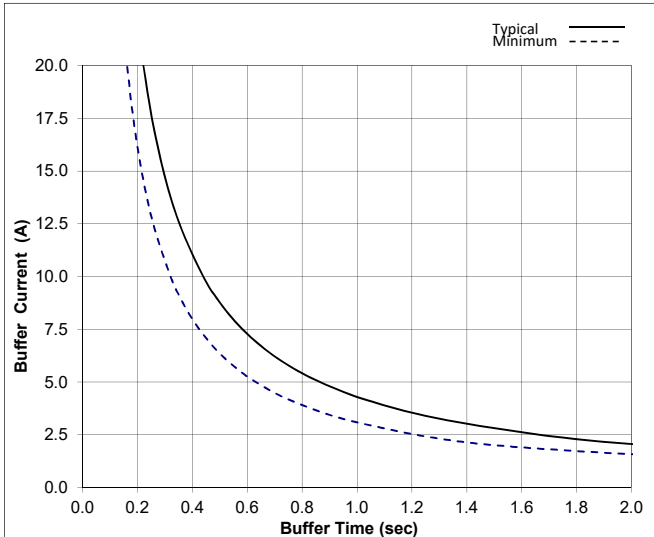


b) Buffer time for small buffer current : 2 - 14 sec



**VIN-1 and Maximum Buffer Voltage**

a) Buffer time : 0 - 2 sec



b) Buffer time for small buffer current : 2 - 12 sec

