CERTIFICATE OF COMPLIANCE

Certificate Number	E483168
Report Reference	E483168-20200721
Issue Date	2020-JULY-23
Issued to:	TDK-LAMBDA SINGAPORE PTE LTD 06-01/08 , 1008 TOA PAYOH NORTH SINGAPORE 318996 SINGAPORE
This certificate confirms that representative samples of	POWER CIRCUIT AND MOTOR-MOUNTED APPARATUS USL, CNL - Open type, Buffer Module, Models DBM20, DBM20/E may be followed by CO, CO2 or any alphanumeric characters.
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	Standard for Industrial Control Equipment, UL 508 Canadian national Standard for Power Conversion Equipment, CSA C22.2 NO. 107.1-16
Additional Information:	See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

File E483168

Project 4789220970

July 21, 2020

REPORT

On

POWER CIRCUIT AND MOTOR-MOUNTED APPARATUS

TDK-LAMBDA SINGAPORE PTE LTD
TOA PAYOH NORTH, SINGAPORE

DESCRIPTION

PRODUCTS COVERED:

USL, CNL - Open type, Buffer Module, Models DBM20, DBM20/E may be followed by CO, CO2 or any alphanumeric characters.

GENERAL:

These devices are an open-type buffer module which intended for din rail mounting and to be used in combination with Industrial Control Equipment. The protection of these devices are based on the input power or upstream circuit.

These devices are suitable for field wiring and for use in a pollution degree 2 environment / controlled environment.

RATINGS:

ELECTRICAL RATINGS:

Ready Mode:

Model	Mode Selection	Input Ratings	Output Ratings	Buffer Time
DBM20,DBM20/E	Fixed	23 – 30 Vdc, 20 A	Same as Input	N/A
	VIN-1	24 – 30 Vdc, 20 A	Same as Input	

Buffer Mode:

Model	Mode Selection	Input Ratings	Output Ratings	Buffer Time
DBM20,DBM20/E	Fixed	N/A	22.4 Vdc, 20 A	0.25 s at 20 A
	VIN-1	N/A	22.1 – 29.2 Vdc, 20 A	

Signal Rating:

DC_OK : 30 Vdc, 0.2 A

Buffer, Ready, Inhibit: 30 Vdc, 0.01 A

ENVIRONMENTAL RATINGS:

Maximum Surrounding Air Temperature: 70 °C.

Pollution degree: 2

Mounting Orientation: Vertical, Inverted Vertical or Horizontal table top Refer to ILL.1 for details.

NOMENCLATURE

DBM20	/E	CO2
I	II	III

I - Buffer Module Model
DBM20: 20 A

II - Terminal Block type
Blank: Screw Type; Input/Output = 5 Poles, Signal = 4 Poles
/E: Spring Type; Input/Output = 5 Poles, Signal = 4 Poles

III - Option Code
CO: with a thin coating on one side of PWB
CO2: with a thin coating on both side of PWB
Any alphanumeric characters: This code means the product differs from the standard model. The differences are within the extent of the non-critical part.

MODEL DIFERENCES:

Model DBM20 and DBM20/E are identical except for the input/output and signal terminal blocks.

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

The following items are considerations that were used when evaluating this product.

USL: **Products designated UL have been investigated using US requirements as noted in the Test Record.**

CNL: **Products designated C-UL have been investigated using Canadian requirements as noted in the Test Record.**