azbil Specification

Advanced-PS™ Data Hiway System
Versatile Regulator Card (VREG)

1. Description

The Versatile Regulator Card (VREG) is a common regulator card for all Hiway Boxes except for Advanced Multifunction Controller. The VREG generates logic power (such as +5 VDC or ±12 VDC or +15 VDC) from the TDC +24 VDC power source. It provides power to all other printed circuit cards residing in controller files or point card files.

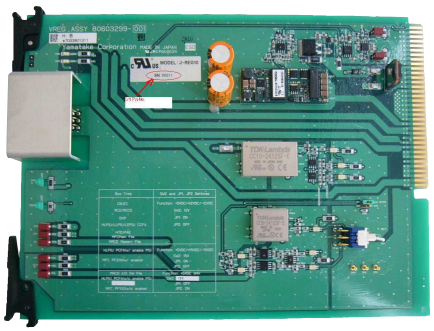

Figure 1. Versatile Regulator Card

The VREG is a direct replacement of existing regulator cards in controller card files and point card files of Hiway Boxes. The Hiway Boxes include:

- Basic Controller (CB)
- Reserve Controller Director for Basic Controller (RCD)
- Extended Controller (EC)
- Reserve Controller Director for Extended Controller (RECD)
- Multifunction Controller (MC)
- Reserve Controller Director for Multifunction Controller (RMCD)
- Hi-Level Process Interface Units (HLPIU)
- Lo-Level Process Interface Units (LLPIU)
- Lo-Energy Process Interface Units (LEPIU)
- Data Hiway Port (DHP)
- Hiway Traffic Director (HTD)
- Preferred Access Expander (PAE)

The VREG utilizes the latest electronic technology to provide higher reliability, longer product life, reduced power consumption and improved long term support. Additionally, the VREG is maintenance free and requires no periodic recalibration. By replacing older, limited life technology with today's state of the art technologies, long term support is assured to 2025.

Complies with requirements from UL 61010-1 and RoHS Directive.

The VREG supports Data Hiway user requirements for economical continuation of process controls and process interface functions which are crucial for safe and stable process plant operations.

2. Ordering Information

Model No.	Part No.	Description
J-REG10	80603299-001	Versatile Regulator Card

3. General Specifications

3.1. Functional Specifications

Item	Specification
Applications	Compatible with CB, RCD, EC, RECD, MC (CCFA and PCFA), RMCD, HLPIU/LLPIU/LEPIU (CCFA and PCFA), DHP, HTD, PAE
Configuration	Hiway box type is selected by a switch and a jumper setting on VREG PWB
Input Voltage	24 ± 3.6 vdc
Ripples	80mVp-p (noise)
Output Voltage	+5 vdc (±1%), +12 vdc, -12 vdc, +15 vdc, -15 vdc (±2%)
Output Current	12A (5V), 600mA (+12/15V), 200mA (-12/15V)
Power Consumption	3A max @24V (excluding aux. power)

3.2. Environmental Conditions

Item		Specification			
		Reference Condition	Operating Condition	Operating Limit	Transportation & Storage Condition
Ambient Temperature	Range (deg c)	25 ± 2	0 - +40	0 - +50	-40 - +70
	Change Rate (deg c/min)	0	0.25	1	5
Relative Humidity	(%RH)	45 ± 5	10 - 90 %	5 - 90 %	5 - 95 %
Vibration	Frequency	0	0 - 60	0 - 60	0 - 60
	Acceleration	0	0.1	0.2	0.5
	Amplitude mmp-p	0	0.75	0.75	—
Impact	Acceleration (g)	0	1	5	25
	Impact time (msec)	0	30	30	30
Corrosive Environment		Conformal Coated			
EMI		EN55011 compliant			
RFI		EN61000 compliant			

3.3. Complied Regulatory Requirements

UL 61010-1
RoHS Directive

4. Dimension

Fully compatible with all Common Card Files and Point Card Files of Hiway Boxes

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1st Edition: Issued in June 2011
4th Edition: Issued in May 2014