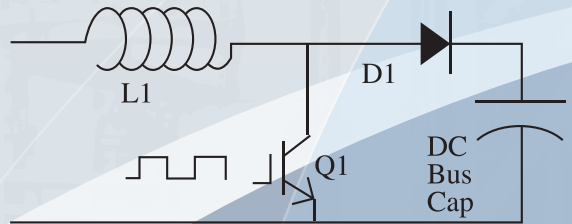


# U\_RTM模組原理與應用

## U\_RTM增壓模組迴路

併接於VFD輸入整流部與VFD驅動DC Capacitor bank 間之DC Bus。

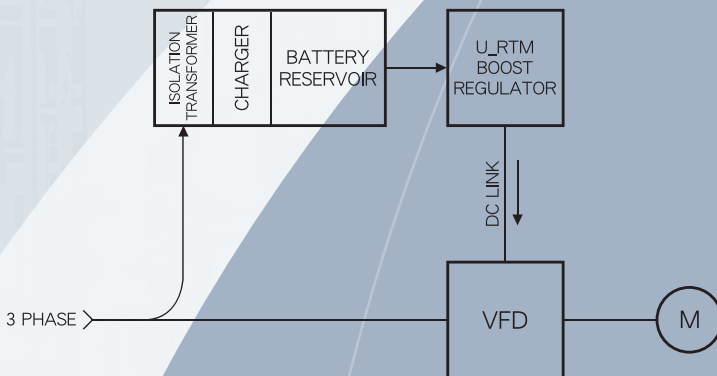
電力原件包含有(L1)Inductor Choke 為能源儲存原件，切換開關為高功率IGBT原件及DC Bus 電力電容器，IGBT藉由改變Duty Cycle調整輸出電壓。當IGBT turn on，IL電流升高，儲存能源於Inductor。當IGBT turn off，則能源釋出，對DC Bus Capacitors充電。



## U\_RTM增壓模組

應用於DC-BANK變頻器之直流備援系統，結合電池組，提供穩定直流備源電力，當市電AC電源瞬間壓降或斷電異常時，能持續提供穩定直流電源給VFD，確保重要負載設備，維持穩定運轉；當市電由停電再度恢復正常穩定供電或緊急備用電力運轉啟動時，系統將自動恢復，不對負載造成任何影響。

## DC BANK系統架構



## U\_RTM URB-D-460 規格

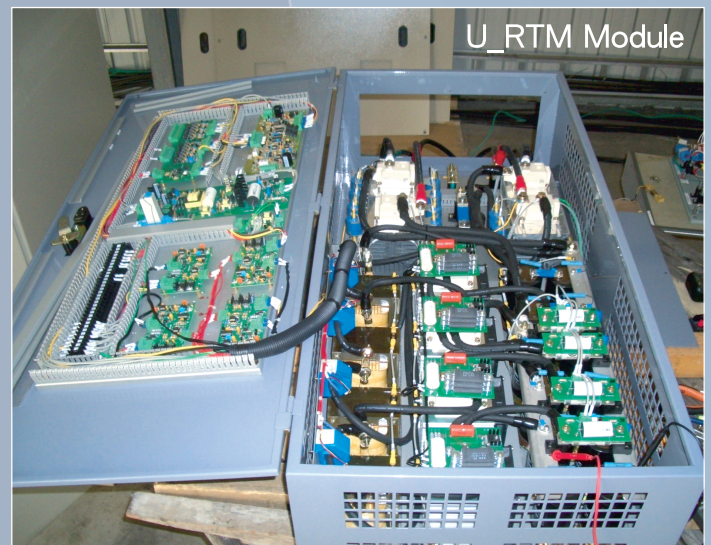
25kw to 150 kw Drives

4 Minute 100% Outage

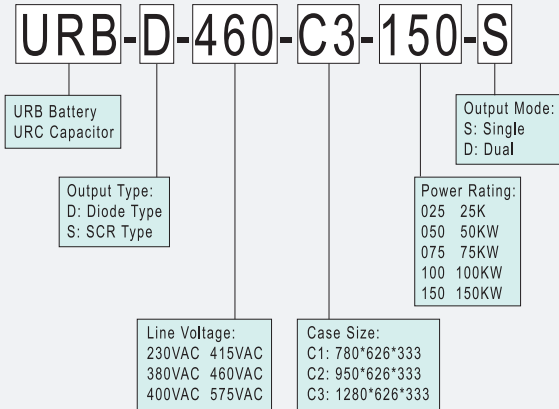
完整系統包含:充電機、隔離變壓器、U\_RTM增壓模組及電池組。

## RTM Module功能

- Channel 可各別獨立運行
- IGBT保護: CT過電流截止保護 & Fuse短路保護
- Pre Charge Function ( for Inrush current & Ripple Voltage )
- U\_RTM Action指示
- Input Under Voltage ( Voltage Fault )指示
- Output Under Voltage ( Voltage Fault )指示
- 功率原件Temperature Switch (Fault )指示
- DC Bus Capacitor ( for Stable Voltage )
- On Line U\_RTM Boosting test
- DC Bus Ripple Current  $\leq 1\%$
- Meet SEMI-F47



## 產品代碼



## 產品規格表

U_RTM Model No.	System KW	Drive HP	Max DC Bus Current	Min DC Bus Voltage
<b>230 VAC Drives</b>				
URB-D-230-C1-012-S	12.5	16	40	290
URB-D-230-C1-025-S	25	33	80	290
URB-D-230-C2-037-S	37.5	50	120	290
URB-D-230-C2-050-S	50	67	160	290
URB-D-230-C3-075-S	75	100	240	290
URB-D-230-C3-100-S	100	134	320	290
<b>380 VAC Drives</b>				
URB-D-380-C1-020-S	20	28	40	490
URB-D-380-C1-041-S	41	53	80	490
URB-D-380-C2-062-S	62	83	120	490
URB-D-380-C2-083-S	83	113	160	490
URB-D-380-C3-125-S	125	167	240	490
URB-D-380-C3-165-S	165	221	320	490
<b>400 VAC Drives</b>				
URB-D-400-C1-021-S	21	29	40	505
URB-D-400-C1-043-S	43	56	80	505
URB-D-400-C2-065-S	65	87	120	505
URB-D-400-C2-087-S	87	116	160	505
URB-D-400-C3-130-S	130	174	240	505
URB-D-400-C3-175-S	175	234	320	505

U_RTM Model No.	System KW	Drive HP	Max DC Bus Current	Min DC Bus Voltage
<b>415 VAC Drives</b>				
URB-D-415-C1-022-S	22	30	40	520
URB-D-415-C1-045-S	45	60	80	520
URB-D-415-C2-067-S	67	89	120	520
URB-D-415-C2-090-S	90	120	160	520
URB-D-415-C3-135-S	135	180	240	520
URB-D-415-C3-180-S	180	241	320	520
<b>460 VAC Drives</b>				
URB-D-460-C1-025-S	25	28	40	590
URB-D-460-C1-050-S	50	53	80	590
URB-D-460-C2-075-S	75	83	120	590
URB-D-460-C2-100-S	100	113	160	590
URB-D-460-C3-150-S	150	167	240	590
URB-D-460-C3-200-S	200	268	320	590
<b>575 VAC Drives</b>				
URB-D-575-C1-032-S	32	42	40	720
URB-D-575-C1-062-S	62	83	80	720
URB-D-575-C2-093-S	95	120	120	720
URB-D-575-C2-125-S	125	167	160	720
URB-D-575-C3-187-S	187	254	240	720
URB-D-575-C3-250-S	250	335	320	720

## U\_RTM Long life零件

1. IGBT、SCR & DIODE : REACH-EU-Regulation 1907/2006 Confirmation ◦
2. ELECTROLYTIC CAPACITORS : 105 ° C, Long Life Type ◦
3. 散熱冷卻風扇 50,000 Hr running life cycle for Per Boosting auto running 2 hours ◦
4. Vishay Wirewound Resistors, Military, MIL-PRF-26 Qualified, Type RW, Precision Power, Silicone Coated , for 電壓分壓控制
5. Vishay Cera-Mite PTCR Positive Temperature Coefficient Resistors, are recognized by Underwriter Laboratories file E97640 in accordance with Standard for Thermistor Type Devices UL 1434; and Canadian Standards C22.2 No. 0-1991. for Pre Charge Control and Protection ◦



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