

# 3P Power

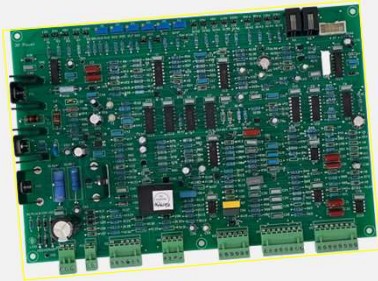
Passion Profession Perfection



## PRODUCT CATALOGUE

Brilliant Series Industrial DC Power Supply

# Brilliant Series Industrial DC Power Supply



## Design and Development in Singapore

Our Universal Rectifier Control cards, Thyristors, Triggering Cards and Alarm Display Cards are designed, developed, and assembled locally in Singapore.

This assures that our products are in the highest quality control.

Input  
Output

Three Phase 380/400/415VAC  
Refer to catalogue

## FEATURES

### • ADAPTABILITY

Designed to accept a wide range of input voltages and frequency range, this DC UPS is capable to cope with the worst utility conditions.

### • DIVERSIFICATION

Carefully designed and engineered PCB cards, our DC UPS has the ability to eliminate harmful distortion from utility power and withstand all kinds of severe impacts from various loads. This DC UPS possesses the capability to support heavy duty equipment and production equipment.

### • ROBUST CABINET DESIGN

Considering the various environmental conditions, our cabinet is designed to fit all industries from marine sector to data center.

### • FLEXIBLE BATTERY CONFIGURATION

Battery quantity and battery types can be adjusted flexibly according to the various power demands

### • UNIQUE MAN-MACHINE INTERFACE

This DC UPS has an unique panel interface which allows end user to have a better understanding to the current running mode of the live system

### • FRONT ACCESS

User access is made simple by ensuring the accessibility of the operational controls according to individual site's requirements. Electronic cards and power components are easily accessible from the front panel for further maintenance and/or replacements

## SUITABLE FOR INDUSTRIAL & COMMERCIAL APPLICATIONS



\* Industrial application such as Process and Control system, Industrial Machinery, Instrument and Measurement, Process monitoring, Control and Security



\* Infrastructures application such as Hospital, Airport, Data Centre, Telecommunication, Semiconductor, Water treatment, Transportation



\* Energy industry application such as Oil & Gas, Petrochemicals, Power Plant, Power Transmission



\* Military application such as Energy Storage Charger

# Brilliant Series Three Phase Input 24Vdc Output Technical Data

Model	TPDC24-10	TPDC24-20	TPDC24-40	TPDC24-50	TPDC24-75	TPDC24-100	TPDC24-150
Output Capacity	24V/10A	24V/20A	24V/40A	24V/50A	24V/75A	24V/100A	24V/150A
RECTIFIER INPUT							
Phase	3 Phase, 3W+G						
Input PF	0.8 at nominal input and float voltage						
Input Voltage	380V / 400V / 415V +/- 15%						
Input frequency	50Hz / 60Hz +/- 5%						
RECTIFIER DC OUTPUT							
Adjustable Range	From 80% to 135% of nominal voltage at +/- 15% of rectifier input						
Stability (Static)	+/- 1.5% @ +/- 15% of rectifier AC input						
Stability (Dynamic)	-/+ 5% at load changed from 0% to 100% and vice visa @ +/- 15% of rectifier AC input						
Recovery Time	< 250ms to be in static state						
Ripple Voltage	< 5% as standard (0.1%, 1% & 2% offered as option) without battery connected						
Nominal DC Current	From 10Adc to 500Adc (Higher ratings are available on request)						
Adjustable Range	0 to 100% both rectifier current limit and battery current limit						
Current Accuracy	+/- 1.5% of set point						
DC Overcurrent	110% continuous of nominal DC current						
Characteristic	Constant current / constant voltage according to IU IEC 60478-1						
High Pot Test	2.0KV / 1min						
Megger Test	500Vdc						
MECHANICAL SPECIFICATION							
Human Machine Interface	Brilliant M2000 controller with 5 inch Touch Screen Size						
	Standard: 1024 Events Log, Option: For > 1024 Events						
Alarm Communications	Standard: Modbus and Dry Contact (C-NC-NO), Option: TCP/IP						
Degree of Protection	IP 20 according to IEC 60529 & 60144 Standard (Other IP ratings are available on request)						
Equipment Colour	RAL7035 come with powder and anti-rust coating (Other colours are available on request)						
Acoustic Noise Level	≤ 65dB at 1m away typically						
Connection	Top or Bottom Entry as per customer requirement						
ENVIRONMENTAL							
Type Of Cooling	Natural cooling up to 75A & forced cooling above 75A						
Operating Temperature	0 Degree Celsius to 55 Degree Celsius						
Storage Temperature	-20 Degree Celsius to 70 Degree Celsius						
Humidity	< 95% (Non Condensing)						
Installation Height	0 to 1000m, derating @ 1% per 100m above 1000m						
Safety	IEC 62040-1-2, Functionality IEC 60146-1-1						
Environment	RoHS						
PHYSICAL							
Approx. Gross Weight (KG)	80	90	110	120	150	180	210
Cabinet Model	CUB0612061				CUB0616061		
Dimensions (W*D*H) mm	600 * 600 * 1200				600 * 600 * 1600		

# Brilliant Series Three Phase Input 24Vdc Output Technical Data

Model	TPDC24-175	TPDC24-200	TPDC24-250	TPDC24-300	TPDC24-400	TPDC24-500
Output Capacity	24V/175A	24V/200A	24V/250A	24V/300A	24V/400A	24V/500A
RECTIFIER INPUT						
Phase	3 Phase, 3W+G					
Input PF	0.8 at nominal input and float voltage					
Input Voltage	380V / 400V / 415V +/- 15%					
Input frequency	50Hz / 60Hz +/- 5%					
RECTIFIER DC OUTPUT						
Adjustable Range	From 80% to 135% of nominal voltage at +/- 15% of rectifier input					
Stability (Static)	+/- 1.5% @ +/- 15% of rectifier AC input					
Stability (Dynamic)	-/+ 5% at load changed from 0% to 100% and vice visa @ +/- 15% of rectifier AC input					
Recovery Time	< 250ms to be in static state					
Ripple Voltage	< 5% as standard (0.1%, 1% & 2% offered as option) without battery connected					
Nominal DC Current	From 10Adc to 500Adc (Higher ratings are available on request)					
Adjustable Range	0 to 100% both rectifier current limit and battery current limit					
Current Accuracy	+/- 1.5% of set point					
DC Overcurrent	110% continuous of nominal DC current					
Characteristic	Constant current / constant voltage according to IU IEC 60478-1					
High Pot Test	2.0KV / 1min					
Megger Test	500Vdc					
MECHANICAL SPECIFICATION						
Human Machine Interface	Brilliant M2000 controller with 5 inch Touch Screen Size					
	128MB Standard, External SD Memory Card Optional					
Alarm Communications	Modbus RTU, Dry Contact (C, NC,NO)					
Degree of Protection	IP 20 according to IEC 60529 & 60144 Standard (Other IP ratings are available on request)					
Equipment Colour	RAL7035 come with powder and anti-rust coating (Other colours are available on request)					
Acoustic Noise Level	≤ 65dB at 1m away typically					
Connection	Top or Bottom Entry as per customer requirement					
ENVIRONMENTAL						
Type Of Cooling	Forced cooling					
Operating Temperature	0 Degree Celsius to 55 Degree Celsius					
Storage Temperature	-20 Degree Celsius to 70 Degree Celsius					
Humidity	< 95% (Non Condensing)					
Installation Height	0 to 1000m, derating @ 1% per 100m above 1000m					
Safety	IEC 62040-1-2, Functionality IEC 60146-1-1					
Environment	RoHS					
PHYSICAL						
Approx. Gross Weight (KG)	240	260	300	350	460	550
Cabinet Model	CUB0818061		CUB0818081		CUB1218082	
Dimensions (W*D*H) mm	800 * 600 * 1800		800 * 800 * 1800		1200 * 800 * 1800	

# Brilliant Series Three Phase Input 30Vdc Output Technical Data

Model	TPDC30-10	TPDC30-20	TPDC30-40	TPDC30-50	TPDC30-75	TPDC30-100	TPDC30-150
Output Capacity	30V/10A	30V/20A	30V/40A	30V/50A	30V/75A	30V/100A	30V/150A
RECTIFIER INPUT							
Phase	3 Phase, 3W+G						
Input PF	0.8 at nominal input and float voltage						
Input Voltage	380V / 400V / 415V +/- 15%						
Input frequency	50Hz / 60Hz +/- 5%						
RECTIFIER DC OUTPUT							
Adjustable Range	From 80% to 135% of nominal voltage at +/- 15% of rectifier input						
Stability (Static)	+/- 1.5% @ +/- 15% of rectifier AC input						
Stability (Dynamic)	-/+ 5% at load changed from 0% to 100% and vice visa @ +/- 15% of rectifier AC input						
Recovery Time	< 250ms to be in static state						
Ripple Voltage	< 5% as standard (0.1%, 1% & 2% offered as option) without battery connected						
Nominal DC Current	From 10Adc to 500Adc (Higher ratings are available on request)						
Adjustable Range	0 to 100% both rectifier current limit and battery current limit						
Current Accuracy	+/- 1.5% of set point						
DC Overcurrent	110% continuous of nominal DC current						
Characteristic	Constant current / constant voltage according to IU IEC 60478-1						
High Pot Test	2.0KV / 1min						
Megger Test	500Vdc						
MECHANICAL SPECIFICATION							
Human Machine Interface	Brilliant M2000 controller with 5 inch Touch Screen Size						
	128MB Standard, External SD Memory Card Optional						
Alarm Communications	Modbus RTU, Dry Contact (C, NC,NO)						
Degree of Protection	IP 20 according to IEC 60529 & 60144 Standard (Other IP ratings are available on request)						
Equipment Colour	RAL7035 come with powder and anti-rust coating (Other colours are available on request)						
Acoustic Noise Level	≤ 65dB at 1m away typically						
Connection	Top or Bottom Entry as per customer requirement						
ENVIRONMENTAL							
Type Of Cooling	Natural cooling up to 100A & forced cooling above 100A						
Operating Temperature	0 Degree Celsius to 55 Degree Celsius						
Storage Temperature	-20 Degree Celsius to 70 Degree Celsius						
Humidity	< 95% (Non Condensing)						
Installation Height	0 to 1000m, derating @ 1% per 100m above 1000m						
Safety	IEC 62040-1-2, Functionality IEC 60146-1-1						
Environment	RoHS						
PHYSICAL							
Approx. Gross Weight (KG)	85	95	120	135	160	190	230
Cabinet Model	CUB0612061				CUB0616061		
Dimensions (W*D*H) mm	600 * 600 * 1200				600 * 600 * 1600		

# Brilliant Series Three Phase Input 30Vdc Output Technical Data

Model	TPDC30-175	TPDC30-200	TPDC30-250	TPDC30-300	TPDC30-400	TPDC30-500
Output Capacity	30V/175A	30V/200A	30V/250A	30V/300A	30V/400A	30V/500A
RECTIFIER INPUT						
Phase	3 Phase, 3W+G					
Input PF	0.8 at nominal input and float voltage					
Input Voltage	380V / 400V / 415V +/- 15%					
Input frequency	50Hz / 60Hz +/- 5%					
RECTIFIER DC OUTPUT						
Adjustable Range	From 80% to 135% of nominal voltage at +/- 15% of rectifier input					
Stability (Static)	+/- 1.5% @ +/- 15% of rectifier AC input					
Stability (Dynamic)	-/+ 5% at load changed from 0% to 100% and vice visa @ +/- 15% of rectifier AC input					
Recovery Time	< 250ms to be in static state					
Ripple Voltage	< 5% as standard (0.1%, 1% & 2% offered as option) without battery connected					
Nominal DC Current	From 10Adc to 500Adc (Higher ratings are available on request)					
Adjustable Range	0 to 100% both rectifier current limit and battery current limit					
Current Accuracy	+/- 1.5% of set point					
DC Overcurrent	110% continuous of nominal DC current					
Characteristic	Constant current / constant voltage according to IU IEC 60478-1					
High Pot Test	2.0KV / 1min					
Megger Test	500Vdc					
MECHANICAL SPECIFICATION						
Human Machine Interface	Brilliant M2000 controller with 5 inch Touch Screen Size					
	128MB Standard, External SD Memory Card Optional					
Alarm Communications	Modbus RTU, Dry Contact (C, NC,NO)					
Degree of Protection	IP 20 according to IEC 60529 & 60144 Standard (Other IP ratings are available on request)					
Equipment Colour	RAL7035 come with powder and anti-rust coating (Other colours are available on request)					
Acoustic Noise Level	≤ 65dB at 1m away typically					
Connection	Top or Bottom Entry as per customer requirement					
ENVIRONMENTAL						
Type Of Cooling	Forced cooling					
Operating Temperature	0 Degree Celsius to 55 Degree Celsius					
Storage Temperature	-20 Degree Celsius to 70 Degree Celsius					
Humidity	< 95% (Non Condensing)					
Installation Height	0 to 1000m, derating @ 1% per 100m above 1000m					
Safety	IEC 62040-1-2, Functionality IEC 60146-1-1					
Environment	RoHS					
PHYSICAL						
Approx. Gross Weight (KG)	255	280	320	360	470	570
Cabinet Model	CUB0818061		CUB0818081		CUB1218082	
Dimensions (W*D*H) mm	800 * 600 * 1800		800 * 800 * 1800		1200 * 800 * 1800	

# Brilliant Series Three Phase Input 48Vdc Output Technical Data

Model	TPDC48-10	TPDC48-20	TPDC48-40	TPDC48-50	TPDC48-75	TPDC48-100	TPDC48-150
Output Capacity	48V/10A	48V/20A	48V/40A	48V/50A	48V/75A	48V/100A	48V/150A
RECTIFIER INPUT							
Phase	3 Phase, 3W+G						
Input PF	0.8 at nominal input and float voltage						
Input Voltage	380V / 400V / 415V +/- 15%						
Input frequency	50Hz / 60Hz +/- 5%						
RECTIFIER DC OUTPUT							
Adjustable Range	From 80% to 135% of nominal voltage at +/- 15% of rectifier input						
Stability (Static)	+/- 1.5% @ +/- 15% of rectifier AC input						
Stability (Dynamic)	-/+ 5% at load changed from 0% to 100% and vice visa @ +/- 15% of rectifier AC input						
Recovery Time	< 250ms to be in static state						
Ripple Voltage	< 5% as standard (0.1%, 1% & 2% offered as option) without battery connected						
Nominal DC Current	From 10Adc to 500Adc (Higher ratings are available on request)						
Adjustable Range	0 to 100% both rectifier current limit and battery current limit						
Current Accuracy	+/- 1.5% of set point						
DC Overcurrent	110% continuous of nominal DC current						
Characteristic	Constant current / constant voltage according to IU IEC 60478-1						
High Pot Test	2.0KV / 1min						
Megger Test	500Vdc						
MECHANICAL SPECIFICATION							
Human Machine Interface	Brilliant M2000 controller with 5 inch Touch Screen Size						
	128MB Standard, External SD Memory Card Optional						
Alarm Communications	Modbus RTU, Dry Contact (C, NC,NO)						
Degree of Protection	IP 20 according to IEC 60529 & 60144 Standard (Other IP ratings are available on request)						
Equipment Colour	RAL7035 come with powder and anti-rust coating (Other colours are available on request)						
Acoustic Noise Level	≤ 65dB at 1m away typically						
Connection	Top or Bottom Entry as per customer requirement						
ENVIRONMENTAL							
Type Of Cooling	Natural cooling up to 75A & forced cooling above 75A						
Operating Temperature	0 Degree Celsius to 55 Degree Celsius						
Storage Temperature	-20 Degree Celsius to 70 Degree Celsius						
Humidity	< 95% (Non Condensing)						
Installation Height	0 to 1000m, derating @ 1% per 100m above 1000m						
Safety	IEC 62040-1-2, Functionality IEC 60146-1-1						
Environment	RoHS						
PHYSICAL							
Approx. Gross Weight (KG)	100	115	135	150	200	230	290
Cabinet Model	CUB0612061				CUB0616061		
Dimensions (W*D*H) mm	600 * 600 * 1200				600 * 600 * 1600		

# Brilliant Series Three Phase Input 48Vdc Output Technical Data

Model	TPDC48-175	TPDC48-200	TPDC48-250	TPDC48-300	TPDC48-400	TPDC48-500
Output Capacity	48V/175A	48V/200A	48V/250A	48V/300A	48V/400A	48V/500A
RECTIFIER INPUT						
Phase	3 Phase, 3W+G					
Input PF	0.8 at nominal input and float voltage					
Input Voltage	380V / 400V / 415V +/- 15%					
Input frequency	50Hz / 60Hz +/- 5%					
RECTIFIER DC OUTPUT						
Adjustable Range	From 80% to 135% of nominal voltage at +/- 15% of rectifier input					
Stability (Static)	+/- 1.5% @ +/- 15% of rectifier AC input					
Stability (Dynamic)	-/+ 5% at load changed from 0% to 100% and vice visa @ +/- 15% of rectifier AC input					
Recovery Time	< 250ms to be in static state					
Ripple Voltage	< 5% as standard (0.1%, 1% & 2% offered as option) without battery connected					
Nominal DC Current	From 10Adc to 500Adc (Higher ratings are available on request)					
Adjustable Range	0 to 100% both rectifier current limit and battery current limit					
Current Accuracy	+/- 1.5% of set point					
DC Overcurrent	110% continuous of nominal DC current					
Characteristic	Constant current / constant voltage according to IU IEC 60478-1					
High Pot Test	2.0KV / 1min					
Megger Test	500Vdc					
MECHANICAL SPECIFICATION						
Human Machine Interface	Brilliant M2000 controller with 5 inch Touch Screen Size					
	128MB Standard, External SD Memory Card Optional					
Alarm Communications	Modbus RTU, Dry Contact (C, NC,NO)					
Degree of Protection	IP 20 according to IEC 60529 & 60144 Standard (Other IP ratings are available on request)					
Equipment Colour	RAL7035 come with powder and anti-rust coating (Other colours are available on request)					
Acoustic Noise Level	≤ 65dB at 1m away typically					
Connection	Top or Bottom Entry as per customer requirement					
ENVIRONMENTAL						
Type Of Cooling	Forced cooling					
Operating Temperature	0 Degree Celsius to 55 Degree Celsius					
Storage Temperature	-20 Degree Celsius to 70 Degree Celsius					
Humidity	< 95% (Non Condensing)					
Installation Height	0 to 1000m, derating @ 1% per 100m above 1000m					
Safety	IEC 62040-1-2, Functionality IEC 60146-1-1					
Environment	RoHS					
PHYSICAL						
Approx. Gross Weight (KG)	260	280	350	400	480	580
Cabinet Model	CUB0818061		CUB0818081		CUB1218082	
Dimensions (W*D*H) mm	800 * 600 * 1800		800 * 800 * 1800		1200 * 800 * 1800	

# Brilliant Series Three Phase Input 110Vdc Output Technical Data

Model	TPDC110-10	TPDC110-25	TPDC110-50	TPDC110-75	TPDC110-100	TPDC110-150
Output Capacity	110V/10A	110V/25A	110V/50A	110V/75A	110V/100A	110V/150A
RECTIFIER INPUT						
Phase	3 Phase, 3W+G					
Input PF	0.8 at nominal input and float voltage					
Input Voltage	380V / 400V / 415V +/- 15%					
Input frequency	50Hz / 60Hz +/- 5%					
RECTIFIER DC OUTPUT						
Adjustable Range	From 80% to 135% of nominal voltage at +/- 15% of rectifier input					
Stability (Static)	+/- 1.5% @ +/- 15% of rectifier AC input					
Stability (Dynamic)	-/+ 5% at load changed from 0% to 100% and vice visa @ +/- 15% of rectifier AC input					
Recovery Time	< 250ms to be in static state					
Ripple Voltage	< 5% as standard (0.1%, 1% & 2% offered as option) without battery connected					
Nominal DC Current	From 10Adc to 500Adc (Higher ratings are available on request)					
Adjustable Range	0 to 100% both rectifier current limit and battery current limit					
Current Accuracy	+/- 1.5% of set point					
DC Overcurrent	110% continuous of nominal DC current					
Characteristic	Constant current / constant voltage according to IU IEC 60478-1					
High Pot Test	2.0KV / 1min					
Megger Test	500Vdc					
MECHANICAL SPECIFICATION						
Human Machine Interface	Brilliant M2000 controller with 5 inch Touch Screen Size					
	128MB Standard, External SD Memory Card Optional					
Alarm Communications	Modbus RTU, Dry Contact (C, NC,NO)					
Degree of Protection	IP 20 according to IEC 60529 & 60144 Standard (Other IP ratings are available on request)					
Equipment Colour	RAL7035 come with powder and anti-rust coating (Other colours are available on request)					
Acoustic Noise Level	≤ 65dB at 1m away typically					
Connection	Top or Bottom Entry as per customer requirement					
ENVIRONMENTAL						
Type Of Cooling	Natural cooling up to 50A & forced cooling above 50A					
Operating Temperature	0 Degree Celsius to 55 Degree Celsius					
Storage Temperature	-20 Degree Celsius to 70 Degree Celsius					
Humidity	< 95% (Non Condensing)					
Installation Height	0 to 1000m, derating @ 1% per 100m above 1000m					
Safety	IEC 62040-1-2, Functionality IEC 60146-1-1					
Environment	RoHS					
PHYSICAL						
Approx. Gross Weight (KG)	100	150	270	400	425	490
Cabinet Model	CUB0612061			CUB0616061		
Dimensions (W*D*H) mm	600 * 600 * 1200			600 * 600 * 1600		

# Brilliant Series Three Phase Input 110Vdc Output Technical Data

Model	TPDC110-175	TPDC110-200	TPDC110-250	TPDC110-300	TPDC110-400	TPDC110-500
Output Capacity	110V/175A	110V/200A	110V/250A	110V/300A	110V/400A	110V/500A
RECTIFIER INPUT						
Phase	3 Phase, 3W+G					
Input PF	0.8 at nominal input and float voltage					
Input Voltage	380V / 400V / 415V +/- 15%					
Input frequency	50Hz / 60Hz +/- 5%					
RECTIFIER DC OUTPUT						
Adjustable Range	From 80% to 135% of nominal voltage at +/- 15% of rectifier input					
Stability (Static)	+/- 1.5% @ +/- 15% of rectifier AC input					
Stability (Dynamic)	-/+ 5% at load changed from 0% to 100% and vice visa @ +/- 15% of rectifier AC input					
Recovery Time	< 250ms to be in static state					
Ripple Voltage	< 5% as standard (0.1%, 1% & 2% offered as option) without battery connected					
Nominal DC Current	From 10Adc to 500Adc (Higher ratings are available on request)					
Adjustable Range	0 to 100% both rectifier current limit and battery current limit					
Current Accuracy	+/- 1.5% of set point					
DC Overcurrent	110% continuous of nominal DC current					
Characteristic	Constant current / constant voltage according to IU IEC 60478-1					
High Pot Test	2.0KV / 1min					
Megger Test	500Vdc					
MECHANICAL SPECIFICATION						
Human Machine Interface	Brilliant M2000 controller with 5 inch Touch Screen Size					
	128MB Standard, External SD Memory Card Optional					
Alarm Communications	Modbus RTU, Dry Contact (C, NC,NO)					
Degree of Protection	IP 20 according to IEC 60529 & 60144 Standard (Other IP ratings are available on request)					
Equipment Colour	RAL7035 come with powder and anti-rust coating (Other colours are available on request)					
Acoustic Noise Level	≤ 65dB at 1m away typically					
Connection	Top or Bottom Entry as per customer requirement					
ENVIRONMENTAL						
Type Of Cooling	Forced cooling					
Operating Temperature	0 Degree Celsius to 55 Degree Celsius					
Storage Temperature	-20 Degree Celsius to 70 Degree Celsius					
Humidity	< 95% (Non Condensing)					
Installation Height	0 to 1000m, derating @ 1% per 100m above 1000m					
Safety	IEC 62040-1-2, Functionality IEC 60146-1-1					
Environment	RoHS					
PHYSICAL						
Approx. Gross Weight (KG)	550	630	720	900	970	1050
Cabinet Model	CUB0818081		CUB1218082		CUB1618082	
Dimensions (W*D*H) mm	800 * 800 * 1800		1200 * 800 * 1800		1600 * 800 * 1800	

# Brilliant Series Three Phase Input 220Vdc Output Technical Data

Model	TPDC220-10	TPDC220-25	TPDC220-50	TPDC220-75	TPDC220-100	TPDC220-150
Output Capacity	220V/10A	220V/25A	220V/50A	220V/75A	220V/100A	220V/150A
RECTIFIER INPUT						
Phase	3 Phase, 3W+G					
Input PF	0.8 at nominal input and float voltage					
Input Voltage	380V / 400V / 415V +/- 15%					
Input frequency	50Hz / 60Hz +/- 5%					
RECTIFIER DC OUTPUT						
Adjustable Range	From 80% to 135% of nominal voltage at +/- 15% of rectifier input					
Stability (Static)	+/- 1.5% @ +/- 15% of rectifier AC input					
Stability (Dynamic)	-/+ 5% at load changed from 0% to 100% and vice visa @ +/- 15% of rectifier AC input					
Recovery Time	< 250ms to be in static state					
Ripple Voltage	< 5% as standard (0.1%, 1% & 2% offered as option) without battery connected					
Nominal DC Current	From 10Adc to 500Adc (Higher ratings are available on request)					
Adjustable Range	0 to 100% both rectifier current limit and battery current limit					
Current Accuracy	+/- 1.5% of set point					
DC Overcurrent	110% continuous of nominal DC current					
Characteristic	Constant current / constant voltage according to IU IEC 60478-1					
High Pot Test	2.0KV / 1min					
Megger Test	500Vdc					
MECHANICAL SPECIFICATION						
Human Machine Interface	Brilliant M2000 controller with 5 inch Touch Screen Size					
	128MB Standard, External SD Memory Card Optional					
Alarm Communications	Modbus RTU, Dry Contact (C, NC,NO)					
Degree of Protection	IP 20 according to IEC 60529 & 60144 Standard (Other IP ratings are available on request)					
Equipment Colour	RAL7035 come with powder and anti-rust coating (Other colours are available on request)					
Acoustic Noise Level	≤ 65dB at 1m away typically					
Connection	Top or Bottom Entry as per customer requirement					
ENVIRONMENTAL						
Type Of Cooling	Natural cooling up to 50A & forced cooling above 50A					
Operating Temperature	0 Degree Celsius to 55 Degree Celsius					
Storage Temperature	-20 Degree Celsius to 70 Degree Celsius					
Humidity	< 95% (Non Condensing)					
Installation Height	0 to 1000m, derating @ 1% per 100m above 1000m					
Safety	IEC 62040-1-2, Functionality IEC 60146-1-1					
Environment	RoHS					
PHYSICAL						
Approx. Gross Weight (KG)	150	180	290	350	440	500
Cabinet Model	CUB0612061		CUB0616061		CUB0818061	
Dimensions (W*D*H) mm	600 * 600 * 1200		600 * 600 * 1600		800 * 600 * 1600	

# Brilliant Series Three Phase Input 220Vdc Output Technical Data

Model	TPDC220-175	TPDC220-200	TPDC220-250	TPDC220-300	TPDC220-400	TPDC220-500
Output Capacity	220V/175A	220V/200A	220V/250A	220V/300A	220V/400A	220V/500A
RECTIFIER INPUT						
Phase	3 Phase, 3W+G					
Input PF	0.8 at nominal input and float voltage					
Input Voltage	380V / 400V / 415V +/- 15%					
Input frequency	50Hz / 60Hz +/- 5%					
RECTIFIER DC OUTPUT						
Adjustable Range	From 80% to 135% of nominal voltage at +/- 15% of rectifier input					
Stability (Static)	+/- 1.5% @ +/- 15% of rectifier AC input					
Stability (Dynamic)	-/+ 5% at load changed from 0% to 100% and vice visa @ +/- 15% of rectifier AC input					
Recovery Time	< 250ms to be in static state					
Ripple Voltage	< 5% as standard (0.1%, 1% & 2% offered as option) without battery connected					
Nominal DC Current	From 10Adc to 500Adc (Higher ratings are available on request)					
Adjustable Range	0 to 100% both rectifier current limit and battery current limit					
Current Accuracy	+/- 1.5% of set point					
DC Overcurrent	110% continuous of nominal DC current					
Characteristic	Constant current / constant voltage according to IU IEC 60478-1					
High Pot Test	2.0KV / 1min					
Megger Test	500Vdc					
MECHANICAL SPECIFICATION						
Human Machine Interface	Brilliant M2000 controller with 5 inch Touch Screen Size					
	128MB Standard, External SD Memory Card Optional					
Alarm Communications	Modbus RTU, Dry Contact (C, NC,NO)					
Degree of Protection	IP 20 according to IEC 60529 & 60144 Standard (Other IP ratings are available on request)					
Equipment Colour	RAL7035 come with powder and anti-rust coating (Other colours are available on request)					
Acoustic Noise Level	≤ 65dB at 1m away typically					
Connection	Top or Bottom Entry as per customer requirement					
ENVIRONMENTAL						
Type Of Cooling	Forced cooling					
Operating Temperature	0 Degree Celsius to 55 Degree Celsius					
Storage Temperature	-20 Degree Celsius to 70 Degree Celsius					
Humidity	< 95% (Non Condensing)					
Installation Height	0 to 1000m, derating @ 1% per 100m above 1000m					
Safety	IEC 62040-1-2, Functionality IEC 60146-1-1					
Environment	RoHS					
PHYSICAL						
Approx. Gross Weight (KG)	560	640	750	930	1035	1150
Cabinet Model	CUB0818081		CUB1218082		CUB1618082	
Dimensions (W*D*H) mm	800 * 800 * 1800		1200 * 800 * 1800		1600 * 800 * 1800	

# Brilliant Series Industrial DC Power Supply

## 3P Power One Stop Solution



**3P Power**

Passion Profession Perfection

**3P POWER PTE. LTD.**

1 Genting Link, #04-02,  
Perfect One Building,  
Singapore 349518

T +65 6743 1006 & +65 6019 0772

E [enquiry@3ppower.com](mailto:enquiry@3ppower.com)

W [www.3ppower.com](http://www.3ppower.com)