

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 Single Phase 220/230/240Vac
Output 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 Single Phase Input 24Vdc Output Technical Data

| Model | SPDC24-10 | SPDC24-20 | SPDC24-40 | SPDC24-50 | SPDC24-75 | SPDC24-100 |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|------------|
| Output Capacity | 24V/10A | 24V/20A | 24V/40A | 24V/50A | 24V/75A | 24V/100A |
| RECTIFIER INPUT | | | | | | |
| Phase | 1 Phase, L+N+G | | | | | |
| Input PF | 0.8 at nominal input and float voltage | | | | | |
| Input Voltage | 220/230/240Vac +/- 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 100Adc (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 5inch 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) | 75 | 90 | 110 | 130 | 180 | 200 |
| Cabinet Model | CUB0612061 | | | | | |
| Dimensions (W*D*H) mm | 600 * 600 * 1200 | | | | | |

Brilliant Series Single Phase Input 30Vdc Output Technical Data

| Model | SPDC30-06 | SPDC30-10 | SPDC30-20 | SPDC30-40 | SPDC30-50 | SPDC30-100 |
|---------------------------------|-------------------------------------------------------------------------------------------------------------|-----------|------------------------------|-----------|-------------------------------|------------|
| Output Capacity | 30V/06A | 30V/10A | 30V/30A | 30V/40A | 30V/50A | 30V/100A |
| RECTIFIER INPUT | | | | | | |
| Phase | 1 Phase, L+N+G | | | | | |
| Input PF | 0.8 at nominal input and float voltage | | | | | |
| Input Voltage | 220/230/240Vac +/- 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 6Adc to 100Adc (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 5inch Touch Screen Size 128MB Standard, External SD Memory Card Optional | | | | | |
| Alarm Communications | Modbus RTU, 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 | 95 | 118 | 130 | 150 | 200 |
| Battery Compartment | 23 Cells x 1.2V 40Ah ~ 80Ah | | 23 Cells x 1.2V 90Ah ~ 120Ah | | 23 Cells x 1.2V 150Ah ~ 210Ah | |
| Dimensions (W*D*H) mm | 700 * 450 * 1100 ~ 1400 | | 700 * 700 * 1500 | | 1000 * 700 * 1500 | |

Brilliant Series Single Phase Input 48Vdc Output Technical Data

| Model | SPDC48-10 | SPDC48-20 | SPDC48-40 | SPDC48-50 | SPDC48-75 | SPDC48-100 |
|---------------------------------|-------------------------------------------------------------------------------------------------------------|-----------|-----------|------------------|-----------|------------|
| Output Capacity | 48V/10A | 48V/20A | 48V/40A | 48V/50A | 48V/75A | 48V/100A |
| RECTIFIER INPUT | | | | | | |
| Phase | 1 Phase, L+N+G | | | | | |
| Input PF | 0.8 at nominal input and float voltage | | | | | |
| Input Voltage | 220/230/240Vac +/- 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 100Adc (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 Sinch Touch Screen Size 128MB Standard, External SD Memory Card Optional | | | | | |
| Alarm Communications | Modbus RTU, 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) | 100 | 110 | 130 | 150 | 180 | 220 |
| Cabinet Model | CUB0612061 | | | CUB0616061 | | |
| Dimensions (W*D*H) mm | 600 * 600 * 1200 | | | 600 * 600 * 1600 | | |

Brilliant Series Single Phase Input 48Vdc Output Technical Data

| Model | SPDC48-10 | SPDC48-20 | SPDC48-40 | SPDC48-50 | SPDC48-75 | SPDC48-100 |
|---------------------------------|-------------------------------------------------------------------------------------------------------------|-----------|------------------------------|-----------|-------------------------------|------------|
| Output Capacity | 48V/10A | 48V/20A | 48V/40A | 48V/50A | 48V/75A | 48V/100A |
| RECTIFIER INPUT | | | | | | |
| Phase | 1 Phase, L+N+G | | | | | |
| Input PF | 0.8 at nominal input and float voltage | | | | | |
| Input Voltage | 220/230/240Vac +/- 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 100Adc (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 5inch Touch Screen Size 128MB Standard, External SD Memory Card Optional | | | | | |
| Alarm Communications | Modbus RTU, 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) | 100 | 110 | 130 | 150 | 180 | 220 |
| Battery Compartment | 39 Cells x 1.2V 40Ah ~ 80Ah | | 39 Cells x 1.2V 90Ah ~ 120Ah | | 39 Cells x 1.2V 150Ah ~ 210Ah | |
| Dimensions (W*D*H) mm | 700 * 750 * 1700 | | 900 * 850 * 1600 | | 1350 * 900 * 1700 | |

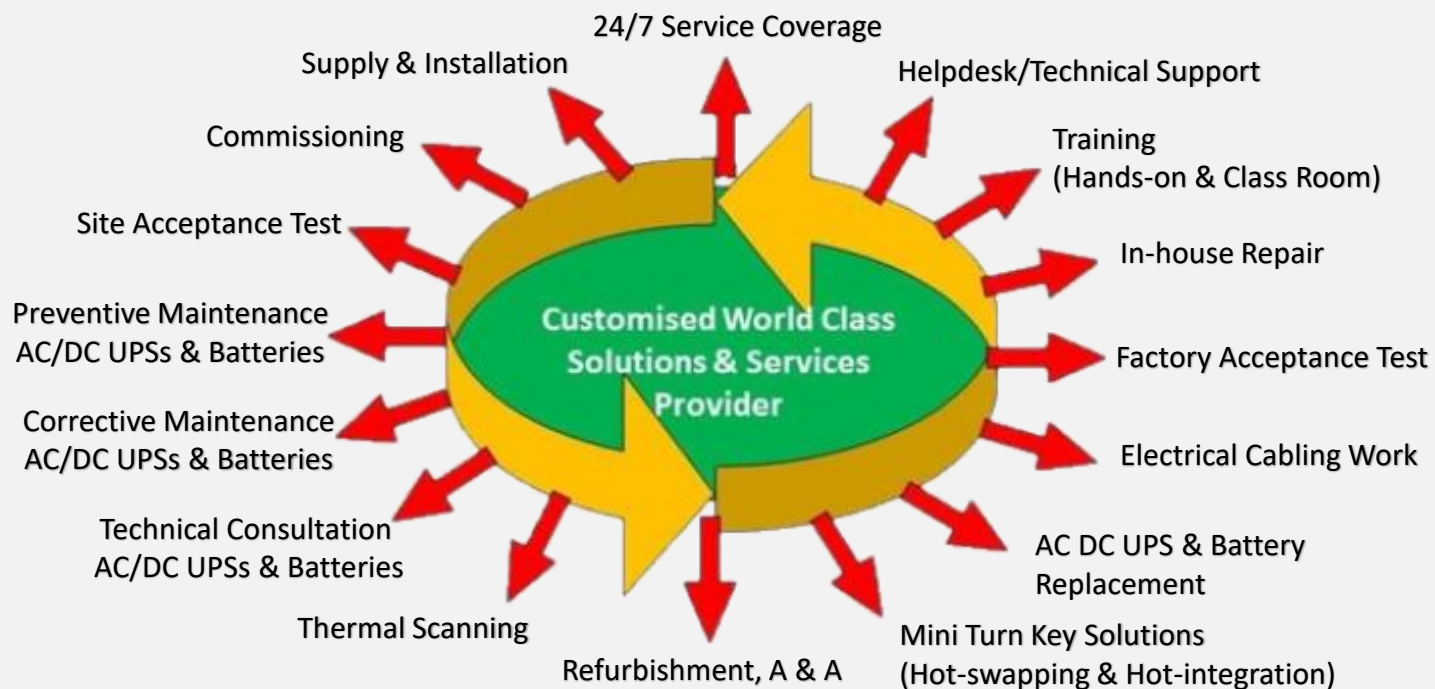
Brilliant Series Single Phase Input 110Vdc Output Technical Data

| Model | SPDC110-10 | SPDC110-20 | SPDC110-40 | SPDC110-50 | SPDC110-60 | SPDC110-75 |
|---------------------------------|-------------------------------------------------------------------------------------------------------------|------------|------------|------------------|------------|------------|
| Output Capacity | 110V/10A | 110V/20A | 110V/40A | 110V/50A | 110V/60A | 110V/75A |
| RECTIFIER INPUT | | | | | | |
| Phase | 1 Phase, L+N+G | | | | | |
| Input PF | 0.8 at nominal input and float voltage | | | | | |
| Input Voltage | 220/230/240Vac +/- 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 75Adc (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 5inch Touch Screen Size 128MB Standard, External SD Memory Card Optional | | | | | |
| Alarm Communications | Modbus RTU, 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 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) | 110 | 130 | 140 | 155 | 180 | 210 |
| Cabinet Model | CUB0612061 | | | CUB0616061 | | |
| Dimensions (W*D*H) mm | 600 * 600 * 1200 | | | 600 * 600 * 1600 | | |

Brilliant Series Single Phase Input 220Vdc Output Technical Data

| Model | SPDC220-10 | SPDC220-20 | SPDC220-25 | SPDC220-35 | SPDC220-40 | SPDC220-50 |
|---------------------------------|-------------------------------------------------------------------------------------------------------------|------------|------------|------------------|------------|------------|
| Output Capacity | 220V/10A | 220V/20A | 220V/25A | 220V/35A | 220V/40A | 220V/50A |
| RECTIFIER INPUT | | | | | | |
| Phase | 1 Phase, L+N+G | | | | | |
| Input PF | 0.8 at nominal input and float voltage | | | | | |
| Input Voltage | 220/230/240Vac +/- 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 75Adc (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 5inch Touch Screen Size 128MB Standard, External SD Memory Card Optional | | | | | |
| Alarm Communications | Modbus RTU, 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 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) | 130 | 150 | 160 | 170 | 180 | 200 |
| Cabinet Model | CUB0612061 | | | CUB0616061 | | |
| Dimensions (W*D*H) mm | 600 * 600 * 1200 | | | 600 * 600 * 1600 | | |

3P Power One Stop Solution



3PPower

Passion Profession Perfection

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