

TSi-HAPS VRP

HAPS VRP

Three Phase 3kVA to 50kVA, ± 20%



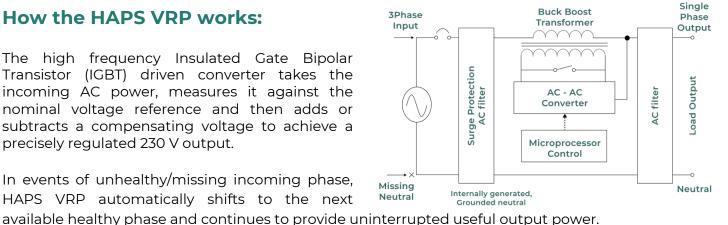
HAPS VRP is a cost-effective three phase precision AC voltage regulator with inbuilt Healthy Automatic Phase Selection (HAPS) system which selects the best incoming voltage phases, ignores incoming neutral and provides a stabilized single-phase output with a fresh grounded neutral. This ensures maintenance-free operation of electronic equipment over a wide range of input voltage range even in situations of phase loss and broken input neutral.

TSi-HAPS VRP is designed to provide high precision power with a typical compensation time of 20 milliseconds to comply with the requirements of the ITIC curve for power supply to electronics.

How the HAPS VRP works:

The high frequency Insulated Gate Bipolar Transistor (IGBT) driven converter takes the incoming AC power, measures it against the nominal voltage reference and then adds or subtracts a compensating voltage to achieve a precisely regulated 230 V output.

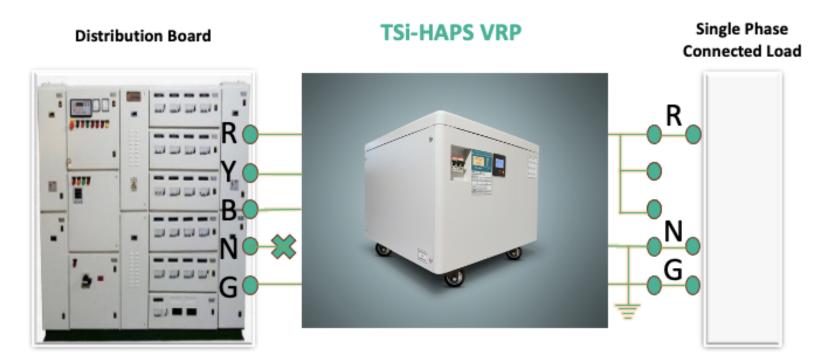
In events of unhealthy/missing incoming phase, HAPS VRP automatically shifts to the next



Features and Benefits:

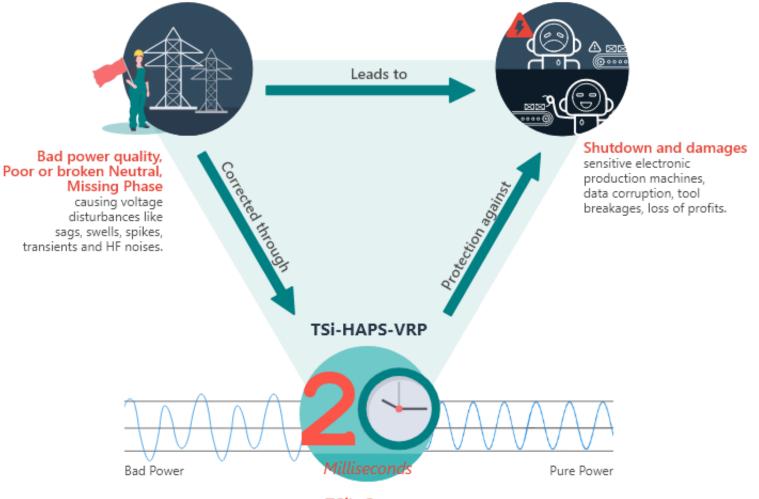
- HAPS VRP can work without incoming neutral. It creates its own perfectly grounded neutral.
- Ability to provide healthy single-phase output even in case of absence of one of the three input phases. Thus, it can work and provide uninterrupted pure power with any of the two incoming phases.
- Provides the output voltage within +/-1% of the nominal voltage with real-time optimum voltage compensation, as well as spike & noise control.
- No change in wiring is required. Input will be three phase 4 wire and output will be single phase 3 wire.
- Static technology results in quiet operation, high product up-time & low maintenance.
- Internal surge voltage protection assures trouble-free operation.
- AC input circuit breakers and load over current protection prevents costly equipment damage.
- Tight control over electronic card failures, data corruption and machine breakdowns result in higher productivity, lower operating costs, and greater consumer comfort.
- Lightweight and compact size makes for ease of installation.

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Note:

- In HAPS VRP, the output load shall be only single phase.
- No distribution of load is required.



TSi's Secret

Corrects supply side disturbances due to sags/ swells/ spikes and supplies 'Pure Power' leading to no downtime in the production line.

All this is done within ITIC curve requirement of 20 milliseconds.

Model	HAPS-3000-9319-200M
Electrical	
Capacity (in KVA)	3
Switching Technology	20 kHz IGBT AC chopper/inverter
Voltage Compensation Time	20 ms typical
AC Input	
Nominal Input Voltage (V)	Three phase 400
Designed Input voltage range (V) (voltage regulation accuracy of +/-1%)	320 - 480
Input voltage range (V)	
(for relaxed output regulation within	277 - 520
functional range of 200-250V P-N)	47 – 63 Hz
Nominal Operating Frequency Maximum rated input current (A)	9
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AC Input Connector	L1, L2, L3 & Ground input wires. Input neutral will not be used.
Overload & Short Circuit Protection	Through suitably rated input circuit breaker
AC Output Nominal Output Voltage (V)	Single phase 230
Efficiency	Typical 96% (under 20 – 100 % load condition)
Output Voltage Compensation Range	+/- 1 %
Maximum Rated Output Current (A)	13
	Green LED ON-Normal operation - Amber LED ON-Bypass operation
System Status Indicator	Red LED ON-Fault
Output Connector	L1, Neutral & Ground output wires. Fresh output neutral provided.
Surge Protection	Class II Surge Protection
Physical	
Cabinet Construction	RAL 7035 light grey powder coated CRCA cabinets
Automatic AC-AC Converter Bypass	Standard, will get activated when there is a fault condition
Cabinet Weather Protection Ratings	IP 20 (for use in protected indoor environments)
Display	Digital output voltage display thru selector switch
Mounting	4 High Quality Castor wheels, 2 with brakes
Overall Dimension (approx.)	As per Dimension Diagram of Cubical Type 610x610x640
Unpacked Weight (approx.)	90 kg
Environmental	
Cooling Method	Forced air
Operating Temperature Range	0 to + 45 °C
Operating Humidity Range	10 to 90% relative humidity (non-condensing)

^{*}HAPS VRP works with broken input neutral & one missing phase.

Electrical Capacity (in KVA) Switching Technology 20 kHz IGBT AC chopper/inverter Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency AC Input Connector Overload & Short Circuit Protection AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 - 100 % lead condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Cutput Connector Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction Ratings IP 20 (for use in protected when there is a fault condition Cabinet Weather Protection Range Maximum Rated Output Voltage (V) Single phase 230 Creen LED ON-Normal Operation - Amber LED ON-Bypass operation Red LED ON-Fault Red LED ON-Fault Cabinet Construction Red LED ON-Fault Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Clabrated Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting A High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Poverating Temperature Range Operating Temperature Range Operating Temperature Range Operating Temperature Range Operating Humidity Range	Model	HAPS-6000-9319-200M
Switching Technology 20 kHz IGBT AC chopper/inverter Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage Compensation Red Coutput Input Connector AC Output Input Connector AC Output Input Voltage Compensation Range Input voltage Construction Input voltage Compensation Range Input voltage Construction Input voltage Voltage Voltage Voltage Protection Input voltage Volta	Electrical	
Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency AC Input Connector Curput Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Digital output voltage display thru selector switch Mounting A High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) Environmental Cooling Method Porced air Oto +45 °C	Capacity (in KVA)	6
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(for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency AC Input Connector Coverload & Short Circuit Protection AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Connector Cl.1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction Ratl Converter Bypass Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) Environmental Cooling Method Operating Temperature Range 0 to + 45 °C	(voltage regulation accuracy of +/-1%)	320 - 480
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AC Input Connector Display AC Input Connector L1, L2, L3 & Ground input wires. Input neutral will not be used. Through suitably rated input circuit breaker AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Porced air Operating Temperature Range O to + 45 °C	Nominal Operating Frequency	47 – 63 Hz
Overload & Short Circuit Protection AC Output Nominal Output Voltage (V) Efficiency Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector Surge Protection Physical Cabinet Construction Automatic AC-AC Converter Bypass Display Display Display Display Display Display Display Display As per Dimension (approx.) Environmental Cooling Method Operating Temperature Range Typical 96% (under 20 – 100 % load condition) Flypical 96% (under 20 – 100 % load condition) Alinet 20 – 100 % load condition) Capinet Con - Amber LED ON-Bypass operation Red LED ON-Bypass operation Red LED ON-Fault Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Forced air Operating Temperature Range	Maximum rated input current (A)	19
AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	AC Input Connector	L1, L2, L3 & Ground input wires. Input neutral will not be used.
Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Overload & Short Circuit Protection	Through suitably rated input circuit breaker
Efficiency Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction Red LED ON-Normal operation. RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	AC Output	
Output Voltage Compensation Range+/-1%Maximum Rated Output Current (A)25System Status IndicatorGreen LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-FaultOutput ConnectorL1, Neutral & Ground output wires. Fresh output neutral provided.Surge ProtectionClass II Surge ProtectionPhysicalRAL 7035 light grey powder coated CRCA cabinetsAutomatic AC-AC Converter BypassStandard, will get activated when there is a fault conditionCabinet Weather Protection RatingsIP 20 (for use in protected indoor environments)DisplayDigital output voltage display thru selector switchMounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 660x660x720Unpacked Weight (approx.)90 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Nominal Output Voltage (V)	Single phase 230
Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Efficiency	Typical 96% (under 20 – 100 % load condition)
System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Output Voltage Compensation Range	+/- 1 %
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Cabinet ConstructionRAL 7035 light grey powder coated CRCA cabinetsAutomatic AC-AC Converter BypassStandard, will get activated when there is a fault conditionCabinet Weather Protection RatingsIP 20 (for use in protected indoor environments)DisplayDigital output voltage display thru selector switchMounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 660x660x720Unpacked Weight (approx.)90 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Surge Protection	Class II Surge Protection
Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) 90 kg Environmental Cooling Method Forced air Operating Temperature Range	Physical	
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Mounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 660x660x720Unpacked Weight (approx.)90 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Cabinet Weather Protection Ratings	IP 20 (for use in protected indoor environments)
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Unpacked Weight (approx.) 90 kg Environmental Forced air Cooling Method Forced air Operating Temperature Range 0 to + 45 °C	Mounting	4 High Quality Castor wheels, 2 with brakes
EnvironmentalCooling MethodForced airOperating Temperature Range0 to + 45 °C	Overall Dimension (approx.)	As per Dimension Diagram of Cubical Type 660x660x720
Cooling MethodForced airOperating Temperature Range0 to + 45 °C	Unpacked Weight (approx.)	90 kg
Operating Temperature Range 0 to + 45 °C	Environmental	
	Cooling Method	Forced air
Operating Humidity Range 10 to 90% relative humidity (non-condensing)	Operating Temperature Range	0 to + 45 °C
	Operating Humidity Range	10 to 90% relative humidity (non-condensing)

^{*}HAPS VRP works with broken input neutral & one missing phase.

Electrical Capacity (in KVA) Switching Technology 20 kHz IGBT AC chopper/inverter Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency AC Input Connector Overload & Short Circuit Protection AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 - 100 % lead condition) Output Voltage Compensation Range Maximum Rated Output Current (A) 44 System Status Indicator Cutput Connector Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction Ratings IP 20 (for use in protected when there is a fault condition Cabinet Weather Protection Range AL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting A High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Operating Temperature Range Oto + 45°C Operating Humidity Range	Model	HAPS-10000-9319-200M
Switching Technology 20 kHz IGBT AC chopper/inverter Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) Maximum rated input current (A) AC Input Connector Coverload & Short Circuit Protection Through suitably rated input circuit breaker AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 - 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector LI, Neutral & Ground output wires. Fresh output neutral provided. Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Operating Temperature Range O to +45 °C	Electrical	
Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency Maximum rated input current (A) AC Input Connector Curput Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Overall Dimension (approx.) Lnpacked Weight (approx.) Environmental Cooling Method Porced air Oto +45 °C	Capacity (in KVA)	10
AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency A7 - 63 Hz Maximum rated input current (A) AC Input Connector Overload & Short Circuit Protection Through suitably rated input circuit breaker AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 - 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector Output Connector L1, Neutral & Ground output wires. Presh output neutral will not be used. Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Display Display Displa output voltage display thru selector switch Mounting A High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Porced air Operating Temperature Range O to + 45 °C	Switching Technology	20 kHz IGBT AC chopper/inverter
Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency AC Input Connector Coverload & Short Circuit Protection AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector UI, Neutral & Ground output wires. Input neutral will not be used. Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector UI, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Display Display Display Digital output voltage display thru selector switch Mounting A High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Operating Temperature Range	Voltage Compensation Time	20 ms typical
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(for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency AZ Input Connector AC Input Connector Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) L1, Neutral Rorocad air Operating Temperature Range O to + 45 °C	(voltage regulation accuracy of +/-1%)	320 - 480
Maximum rated input current (A) AC Input Connector Display Protection AC Output Nominal Output Voltage (V) Efficiency Maximum Rated Output Current (A) System Status Indicator Cutput Connector L1, L2, L3 & Ground input wires. Input neutral will not be used. Through suitably rated input circuit breaker AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range +/- 1 % Maximum Rated Output Current (A) System Status Indicator Creen LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Forced air Oto + 45 °C	(for relaxed output regulation within	277 - 520
AC Input Connector Display AC Input Connector L1, L2, L3 & Ground input wires. Input neutral will not be used. Through suitably rated input circuit breaker AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Nominal Operating Frequency	47 – 63 Hz
Overload & Short Circuit Protection AC Output Nominal Output Voltage (V) Efficiency Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector Surge Protection Physical Cabinet Construction Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings Display Display Display Display Display Display Display Display As per Dimension (approx.) Environmental Cooling Method Proced air Output Contesting Through suitably rated input circuit breaker Through suitably rated input circuit breaker Single phase 230 Single phase 230 Typical 96% (under 20 – 100 % load condition) 44 44 System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Colars II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Forced air Operating Temperature Range	Maximum rated input current (A)	31
AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	AC Input Connector	L1, L2, L3 & Ground input wires. Input neutral will not be used.
Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction Red LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Overload & Short Circuit Protection	Through suitably rated input circuit breaker
Efficiency Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction Red LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Class II Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	AC Output	
Output Voltage Compensation Range+/-1%Maximum Rated Output Current (A)44System Status IndicatorGreen LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-FaultOutput ConnectorL1, Neutral & Ground output wires. Fresh output neutral provided.Surge ProtectionClass II Surge ProtectionPhysicalRAL 7035 light grey powder coated CRCA cabinetsAutomatic AC-AC Converter BypassStandard, will get activated when there is a fault conditionCabinet Weather Protection RatingsIP 20 (for use in protected indoor environments)DisplayDigital output voltage display thru selector switchMounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 660x660x720Unpacked Weight (approx.)100 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Nominal Output Voltage (V)	Single phase 230
Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Efficiency	Typical 96% (under 20 – 100 % load condition)
System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Output Voltage Compensation Range	+/- 1 %
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Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	System Status Indicator	
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Cabinet ConstructionRAL 7035 light grey powder coated CRCA cabinetsAutomatic AC-AC Converter BypassStandard, will get activated when there is a fault conditionCabinet Weather Protection RatingsIP 20 (for use in protected indoor environments)DisplayDigital output voltage display thru selector switchMounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 660x660x720Unpacked Weight (approx.)100 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Surge Protection	Class II Surge Protection
Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) IOO kg Environmental Cooling Method Forced air Operating Temperature Range	Physical	
Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 660x660x720 Unpacked Weight (approx.) 100 kg Environmental Cooling Method Forced air Operating Temperature Range	Cabinet Construction	RAL 7035 light grey powder coated CRCA cabinets
DisplayDigital output voltage display thru selector switchMounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 660x660x720Unpacked Weight (approx.)100 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Automatic AC-AC Converter Bypass	Standard, will get activated when there is a fault condition
Mounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 660x660x720Unpacked Weight (approx.)100 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Cabinet Weather Protection Ratings	IP 20 (for use in protected indoor environments)
Overall Dimension (approx.)As per Dimension Diagram of Cubical Type 660x660x720Unpacked Weight (approx.)100 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Display	Digital output voltage display thru selector switch
Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range 0 to + 45 °C	Mounting	4 High Quality Castor wheels, 2 with brakes
EnvironmentalCooling MethodForced airOperating Temperature Range0 to + 45 °C	Overall Dimension (approx.)	As per Dimension Diagram of Cubical Type 660x660x720
Cooling MethodForced airOperating Temperature Range0 to + 45 °C	Unpacked Weight (approx.)	100 kg
Operating Temperature Range 0 to + 45 °C	Environmental	
	Cooling Method	Forced air
Operating Humidity Range 10 to 90% relative humidity (non-condensing)	Operating Temperature Range	0 to + 45 °C
	Operating Humidity Range	10 to 90% relative humidity (non-condensing)

^{*}HAPS VRP works with broken input neutral & one missing phase.

Model	HAPS-15000-9319-200M
Electrical	
Capacity (in KVA)	15
Switching Technology	20 kHz IGBT AC chopper/inverter
Voltage Compensation Time	20 ms typical
AC Input	
Nominal Input Voltage (V)	Three phase 400
Designed Input voltage range (V) (voltage regulation accuracy of +/-1%)	320 - 480
Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N)	277 - 520
Nominal Operating Frequency	47 – 63 Hz
Maximum rated input current (A)	47
AC Input Connector	L1, L2, L3 & Ground input wires. Input neutral will not be used.
Overload & Short Circuit Protection	Through suitably rated input circuit breaker
AC Output	
Nominal Output Voltage (V)	Single phase 230
Efficiency	Typical 96% (under 20 – 100 % load condition)
Output Voltage Compensation Range	+/-1%
Maximum Rated Output Current (A)	65
System Status Indicator	Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault
Output Connector	L1, Neutral & Ground output wires. Fresh output neutral provided.
Surge Protection	Class II Surge Protection
Physical	
Cabinet Construction	RAL 7035 light grey powder coated CRCA cabinets
Automatic AC-AC Converter Bypass	Standard, will get activated when there is a fault condition
Cabinet Weather Protection Ratings	IP 20 (for use in protected indoor environments)
Display	Digital output voltage display thru selector switch
Mounting	4 High Quality Castor wheels, 2 with brakes
Overall Dimension (approx.)	As per Dimension Diagram of Cubical Type 660x660x720
Unpacked Weight (approx.)	130 kg
Environmental	
Cooling Method	Forced air
Operating Temperature Range	0 to + 45 °C
Operating Humidity Range	10 to 90% relative humidity (non-condensing)

^{*}HAPS VRP works with broken input neutral & one missing phase.

Electrical Capacity (in KVA) Switching Technology 20 kHz IGBT AC chopper/inverter Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of 4/1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency AC Input Connector Overload & Short Circuit Protection AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 - 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Curput Connector Output Connector L1, Neutral & Ground output wivers. Input neutral provided. Surge Protection Class II Surge Protection Red LED ON-Fault Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting A High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Cooling Method Operating Temperature Range Oto + 45°C Operating Humidity Range 10 to 90% relative humidity (non-condensing)	Model	HAPS-20000-9319-200M
Switching Technology 20 kHz IGBT AC chopper/inverter Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) Maximum rated input current (A) AC Input Connector Coverload & Short Circuit Protection Through suitably rated input circuit breaker AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 - 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector LI, Neutral & Ground output wires. Fresh output neutral provided. Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting A High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Liva kg Environmental Cooling Method Forced air Operating Temperature Range Oto + 45 °C	Electrical	
Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency Maximum rated input current (A) AC Input Connector Curput Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector Cl., Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Linpacked Weight (approx.) Environmental Cooling Method Operating Temperature Range O to +45 °C	Capacity (in KVA)	20
AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency A7 - 63 Hz Maximum rated input current (A) AC Input Connector Divided Short Circuit Protection AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 - 100 % load condition) Output Voltage Compensation Range Aximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector LI, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction Red LEO AC Converter Bypass Automatic AC-AC Converter Bypass Display Digital output voltage diplay thru selector switch Mounting A High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Forced air Operating Temperature Range O to + 45 °C	Switching Technology	20 kHz IGBT AC chopper/inverter
Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency AC Input Connector Coverload & Short Circuit Protection AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector LI, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings Display Display Display Display AS per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Environmental Cooling Method Proced air Operating Temperature Range O to + 45 °C	Voltage Compensation Time	20 ms typical
Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency AC Input Connector AC Input Connector Coverload & Short Circuit Protection AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Display Display As per Dimension (approx.) L10 to +45 °C At 105 Hz Arced air Oto +45 °C	AC Input	
voltage regulation accuracy of +/-1% Input voltage range (V) (For relaxed output regulation within functional range of 200-250V P-N)		Three phase 400
(for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency Maximum rated input current (A) AC Input Connector Coverload & Short Circuit Protection AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Connector Cl.1, Neutral & Ground output viers. Protection AR Output Voltage Compensation Range #/-1 % Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x88x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range O to + 45 °C	(voltage regulation accuracy of +/-1%)	320 - 480
Maximum rated input current (A) AC Input Connector Display Protection Cabinet Construction AC Output Connector Dutput Voltage (V) Efficiency Maximum Rated Output Current (A) System Status Indicator Cabinet Construction Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Display Display Display Display Display Display Display As per Dimension (approx.) AC Input Coning Imput current (A) AC Output Voltage (V) Single phase 230 Through suitably rated input circuit breaker Through suitably rated input circuit breaker Through suitably rated input neutral will not be used. Through suitably rated input circuit breaker A Through suitably rated input circuit breaker Through suitably rated input circuit breaker Through suitably rated input circuit breaker A Through suitably rated input circuit breaker Through suitably rated input circuit breaker As per Dimension (approx.) As per Dimension Diagram of Cubical Type 888x88x838 Unpacked Weight (approx.) As per Dimension Diagram of Cubical Type 888x88x838 Unpacked Weight (approx.) Forced air Operating Temperature Range	(for relaxed output regulation within	277 - 520
AC Input Connector Display AC Output Nominal Output Voltage (V) Efficiency Maximum Rated Output Current (A) System Status Indicator Cabinet Construction Cabinet Construction Automatic AC-AC Converter Bypass Display Display Display Display Display Display AC Output Waltage Convences Automatic AC-AC Converter Bypass Display Display Display A procedair A procedair Cooling Method Departing Temperature Range L1, L2, L3 & Ground input wires. Input neutral will not be used. Through suitably rated input circuit breaker Affolds (and 20 – 100 % load condition) B7 Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Bypass o	Nominal Operating Frequency	47 – 63 Hz
Overload & Short Circuit Protection AC Output Nominal Output Voltage (V) Efficiency Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector Surge Protection Physical Cabinet Construction Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings Display Display Display Display Display Display Display Display As per Dimension (approx.) Environmental Cooling Method Proced air Output Contiever Through suitably rated input circuit breaker Through suitably rated input circuit breaker Single phase 230 Single phase 230 Single phase 230 Environmental Cate of the Action	Maximum rated input current (A)	63
AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	AC Input Connector	L1, L2, L3 & Ground input wires. Input neutral will not be used.
Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x88x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Overload & Short Circuit Protection	Through suitably rated input circuit breaker
Efficiency Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector Surge Protection Physical Cabinet Construction Cabinet Weather Protection Ratings Display Display Display Display Display Display Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Efficiency Typical 96% (under 20 – 100 % load condition) 87 Fypical 96% (under 20 – 100 % load condition) 87 Fypical 96% (under 20 – 100 % load condition) 87 Freeh output Con-Bypass operation Red LED ON-Bypass oper	AC Output	
Output Voltage Compensation Range+/-1%Maximum Rated Output Current (A)87System Status IndicatorGreen LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-FaultOutput ConnectorL1, Neutral & Ground output wires. Fresh output neutral provided.Surge ProtectionClass II Surge ProtectionPhysicalRAL 7035 light grey powder coated CRCA cabinetsAutomatic AC-AC Converter BypassStandard, will get activated when there is a fault conditionCabinet Weather Protection RatingsIP 20 (for use in protected indoor environments)DisplayDigital output voltage display thru selector switchMounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 888x888x838Unpacked Weight (approx.)140 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Nominal Output Voltage (V)	Single phase 230
Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Efficiency	Typical 96% (under 20 – 100 % load condition)
System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x88x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Output Voltage Compensation Range	+/- 1 %
Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x88x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range Oto + 45 °C	Maximum Rated Output Current (A)	87
Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	System Status Indicator	· · · · · · · · · · · · · · · · · · ·
Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) 140 kg Environmental Cooling Method Forced air Operating Temperature Range	Output Connector	L1, Neutral & Ground output wires. Fresh output neutral provided.
Cabinet ConstructionRAL 7035 light grey powder coated CRCA cabinetsAutomatic AC-AC Converter BypassStandard, will get activated when there is a fault conditionCabinet Weather Protection RatingsIP 20 (for use in protected indoor environments)DisplayDigital output voltage display thru selector switchMounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 888x88x838Unpacked Weight (approx.)140 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Surge Protection	Class II Surge Protection
Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) 140 kg Environmental Cooling Method Forced air Operating Temperature Range	Physical	
Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) 140 kg Environmental Cooling Method Forced air Operating Temperature Range	Cabinet Construction	RAL 7035 light grey powder coated CRCA cabinets
DisplayDigital output voltage display thru selector switchMounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 888x888x838Unpacked Weight (approx.)140 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Automatic AC-AC Converter Bypass	Standard, will get activated when there is a fault condition
Mounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 888x888x838Unpacked Weight (approx.)140 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Cabinet Weather Protection Ratings	IP 20 (for use in protected indoor environments)
Overall Dimension (approx.)As per Dimension Diagram of Cubical Type 888x888x838Unpacked Weight (approx.)140 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Display	Digital output voltage display thru selector switch
Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range 0 to + 45 °C	Mounting	4 High Quality Castor wheels, 2 with brakes
EnvironmentalCooling MethodForced airOperating Temperature Range0 to + 45 °C	Overall Dimension (approx.)	As per Dimension Diagram of Cubical Type 888x888x838
Cooling MethodForced airOperating Temperature Range0 to + 45 °C	Unpacked Weight (approx.)	140 kg
Operating Temperature Range 0 to + 45 °C	Environmental	
	Cooling Method	Forced air
Operating Humidity Range 10 to 90% relative humidity (non-condensing)	Operating Temperature Range	0 to + 45 °C
	Operating Humidity Range	10 to 90% relative humidity (non-condensing)

^{*}HAPS VRP works with broken input neutral & one missing phase.

Electrical Capacity (in KVA) 25	Model	HAPS-25000-9319-200M
Switching Technology 20 kHz IGBT AC chopper/inverter Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) Maximum rated input current (A) AC Input Connector Coverload & Short Circuit Protection Through suitably rated input circuit breaker AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) I09 System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector LI, Neutral & Ground output wires. Fresh output neutral provided. Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting A High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Input Connental Cooling Method Forced air Operating Temperature Range Oto +45 °C	Electrical	
Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency Maximum rated input current (A) AC Input Connector Coverload & Short Circuit Protection AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector Circen LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings Digital output voltage display thru selector switch Mounting A High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x888 L40 kg Environmental Cooling Method Forced air Oto +45 °C	Capacity (in KVA)	25
AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency Maximum rated input current (A) AC Input Connector LI, L2, L3 & Ground input wires. Input neutral will not be used. Overload & Short Circuit Protection AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings Display Digital output voltage diplay thru selector switch Mounting A High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x88 Unpacked Weight (approx.) Forced air Operating Temperature Range O to + 45 °C	Switching Technology	20 kHz IGBT AC chopper/inverter
Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency AC Input Connector Coverioad & Short Circuit Protection AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector Class II Surge Protection Physical Cabinet Construction Ral 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings Display Display Unpacked Weight (approx.) Physical Cooling Method Proced air Operating Temperature Range O to + 45 °C Typical 96 Typical Place 230 Typical 96 Typical Place 230 Typical Place 2	Voltage Compensation Time	20 ms typical
Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency AC Input Connector Overload & Short Circuit Protection AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings Pical of the surface of the su	AC Input	
voltage regulation accuracy of +/-1% Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N)		Three phase 400
(for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency 47 – 63 Hz Maximum rated input current (A) 78 AC Input Connector L1, L2, L3 & Ground input wires. Input neutral will not be used. Overload & Short Circuit Protection Through suitably rated input circuit breaker AC Output Through suitably rated input circuit breaker Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range +/-1% Maximum Rated Output Current (A) 109 System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Bypass operation Red LED ON-Fault wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Class II Surge Protection Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x88x888 Unpacked Weight (approx.)	(voltage regulation accuracy of +/-1%)	320 - 480
Maximum rated input current (A) AC Input Connector Display AC Output Nominal Output Voltage (V) Efficiency Maximum Rated Output Current (A) System Status Indicator Output Connector Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Display Displ	(for relaxed output regulation within	277 - 520
AC Input Connector Display AC Output Nominal Output Voltage (V) Efficiency Maximum Rated Output Current (A) System Status Indicator Cabinet Construction Cabinet Construction Automatic AC-AC Converter Bypass Display Di	Nominal Operating Frequency	47 – 63 Hz
Overload & Short Circuit Protection Through suitably rated input circuit breaker AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 − 100 % load condition) Output Voltage Compensation Range +/- 1 % Maximum Rated Output Current (A) 109 System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) 140 kg Environmental Forced air Operating Temperature Range 0 to + 45 °C	Maximum rated input current (A)	78
AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	AC Input Connector	L1, L2, L3 & Ground input wires. Input neutral will not be used.
Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Overload & Short Circuit Protection	Through suitably rated input circuit breaker
Efficiency Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction Rated Converter Bypass Cabinet Weather Protection Ratings Display Display Display Display Display Display Display As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Environmental Cooling Method Pice LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Class II Surge Protection - Red LED ON-Fault Class II Surge Protection RAL 7035 light grey powder coated CRCA cabinets Standard, will get activated when there is a fault condition IP 20 (for use in protected indoor environments) Display Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x88x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Oto + 45 °C	AC Output	
Output Voltage Compensation Range+/-1%Maximum Rated Output Current (A)109System Status IndicatorGreen LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-FaultOutput ConnectorL1, Neutral & Ground output wires. Fresh output neutral provided.Surge ProtectionClass II Surge ProtectionPhysicalCabinet ConstructionRAL 7035 light grey powder coated CRCA cabinetsAutomatic AC-AC Converter BypassStandard, will get activated when there is a fault conditionCabinet Weather Protection RatingsIP 20 (for use in protected indoor environments)DisplayDigital output voltage display thru selector switchMounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 888x888x838Unpacked Weight (approx.)140 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Nominal Output Voltage (V)	Single phase 230
Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Efficiency	Typical 96% (under 20 – 100 % load condition)
Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output wires. Fresh output neutral provided. Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Output Voltage Compensation Range	+/- 1 %
System Status IndicatorRed LED ON-FaultOutput ConnectorL1, Neutral & Ground output wires. Fresh output neutral provided.Surge ProtectionClass II Surge ProtectionPhysicalCabinet ConstructionRAL 7035 light grey powder coated CRCA cabinetsAutomatic AC-AC Converter BypassStandard, will get activated when there is a fault conditionCabinet Weather Protection RatingsIP 20 (for use in protected indoor environments)DisplayDigital output voltage display thru selector switchMounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 888x88x838Unpacked Weight (approx.)140 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Maximum Rated Output Current (A)	109
Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	System Status Indicator	
Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) 140 kg Environmental Cooling Method Forced air Operating Temperature Range	Output Connector	L1, Neutral & Ground output wires. Fresh output neutral provided.
Cabinet ConstructionRAL 7035 light grey powder coated CRCA cabinetsAutomatic AC-AC Converter BypassStandard, will get activated when there is a fault conditionCabinet Weather Protection RatingsIP 20 (for use in protected indoor environments)DisplayDigital output voltage display thru selector switchMounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 888x888x838Unpacked Weight (approx.)140 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Surge Protection	Class II Surge Protection
Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) 140 kg Environmental Cooling Method Forced air Operating Temperature Range	Physical	
Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch 4 High Quality Castor wheels, 2 with brakes Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Cabinet Construction	RAL 7035 light grey powder coated CRCA cabinets
DisplayDigital output voltage display thru selector switchMounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 888x888x838Unpacked Weight (approx.)140 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Automatic AC-AC Converter Bypass	Standard, will get activated when there is a fault condition
Mounting4 High Quality Castor wheels, 2 with brakesOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 888x888x838Unpacked Weight (approx.)140 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Cabinet Weather Protection Ratings	IP 20 (for use in protected indoor environments)
Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 888x888x838 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range Oto + 45 °C	Display	Digital output voltage display thru selector switch
Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range 0 to + 45 °C	Mounting	4 High Quality Castor wheels, 2 with brakes
Environmental Cooling Method Forced air Operating Temperature Range 0 to + 45 °C	Overall Dimension (approx.)	As per Dimension Diagram of Cubical Type 888x888x838
Cooling MethodForced airOperating Temperature Range0 to + 45 °C	Unpacked Weight (approx.)	140 kg
Operating Temperature Range 0 to + 45 °C	Environmental	
	Cooling Method	Forced air
Operating Humidity Range 10 to 90% relative humidity (non-condensing)	Operating Temperature Range	0 to + 45 °C
	Operating Humidity Range	10 to 90% relative humidity (non-condensing)

^{*}HAPS VRP works with broken input neutral & one missing phase.

Model	HAPS-30000-9319-200M
Electrical	
Capacity (in KVA)	30
Switching Technology	20 kHz IGBT AC chopper/inverter
Voltage Compensation Time	20 ms typical
AC Input	
Nominal Input Voltage (V)	Three phase 400
Designed Input voltage range (V) (voltage regulation accuracy of +/-1%)	320 - 480
Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N)	277 - 520
Nominal Operating Frequency	47 – 63 Hz
Maximum rated input current (A)	94
AC Input Connector	L1, L2, L3 & Ground input wires. Input neutral will not be used.
Overload & Short Circuit Protection	Through suitably rated input circuit breaker
AC Output	
Nominal Output Voltage (V)	Single phase 230
Efficiency	Typical 96% (under 20 – 100 % load condition)
Output Voltage Compensation Range	+/- 1 %
Maximum Rated Output Current (A)	130
System Status Indicator	Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault
Output Connector	L1, Neutral & Ground output wires. Fresh output neutral provided.
Surge Protection	Class II Surge Protection
Physical	
Cabinet Construction	RAL 7035 light grey powder coated CRCA cabinets
Automatic AC-AC Converter Bypass	Standard, will get activated when there is a fault condition
Cabinet Weather Protection Ratings	IP 20 (for use in protected indoor environments)
Display	Digital output voltage display thru selector switch
Mounting	4 High Quality Castor wheels, 2 with brakes
Overall Dimension (approx.)	As per Dimension Diagram of Cubical Type 888x888x838
Unpacked Weight (approx.)	150 kg
Environmental	
Cooling Method	Forced air
Operating Temperature Range	0 to + 45 °C
Operating Humidity Range	10 to 90% relative humidity (non-condensing)

^{*}HAPS VRP works with broken input neutral & one missing phase.

Electrical Capacity (in KVA) Switching Technology 20 kHz IGBT AC chopper/inverter Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of 4/1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency AC Input Connector Overload & Short Circuit Protection AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 - 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Cuput Connector Output Connector U.), Neutral & Ground output BUS BAR. Fresh output neutral provided. Surge Protection Class II Surge Protection Class II Surge Protection Physical Cabinet Construction Ratings IP 20 (for use in protected when there is a fault condition) Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) Coloring Method Operating Temperature Range Oto 9 Vote 45°C Operating Humidity Range 10 to 90% relative humidity (non-condensing)	Model	HAPS-40000-9319-200MP
Switching Technology 20 kHz IGBT AC chopper/inverter Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) Maximum rated input current (A) AC Input Connector L1, L2, L3 & Ground input BUS BAR. Input neutral will not be used. Overload & Short Circuit Protection Through suitably rated input circuit breaker AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 - 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Bypass operation Re	Electrical	
Voltage Compensation Time AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency Maximum rated input current (A) AC Input Connector Curput Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector LI, Neutral & Ground output BUS BAR. Fresh output neutral provided. Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Linpacked Weight (approx.) Environmental Cooling Method Pocrating Temperature Range Oto +45°C	Capacity (in KVA)	40
AC Input Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency A7 - 63 Hz Maximum rated input current (A) AC Input Connector LI, L2, L3 & Ground input BUS BAR. Input neutral will not be used. Overload & Short Circuit Protection Through suitably rated input circuit breaker AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 - 100 % load condition) Output Voltage Compensation Range H/- 1 % Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector LI, Neutral & Ground output BUS BAR. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Display Display Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) Forced air Operating Temperature Range O to + 45 °C	Switching Technology	20 kHz IGBT AC chopper/inverter
Nominal Input Voltage (V) Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency Maximum rated input current (A) AC Input Connector LI, L2, L3 & Ground input BUS BAR. Input neutral will not be used. Overload & Short Circuit Protection AC Output Nominal Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector LI, Neutral & Ground output BUS BAR. Fresh output neutral provided. Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings Display Display Display AS per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) A00 kg Environmental Cooling Method Proced air Operating Temperature Range O to + 45 °C	Voltage Compensation Time	20 ms typical
Designed Input voltage range (V) (voltage regulation accuracy of +/-1%) Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency AC Input Connector AC Input Connector AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output BUS BAR. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction ARAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Display Display Pad mounted Overall Dimension (approx.) Lnacked Weight (approx.) Automatic Temperature Range Oto + 45 °C Ara 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 127 - 520 128 - 47 - 63 Hz 125 AC Input neutral will not be used. Through suitably rated input entral will not be used. Through suitably rated input entral will not be used. Through suitably rated input entral will not be used. 128 - 129 Green LED ON-Normal operation - Amber LED ON-Bypass operation and condition and Red LED ON-Fault For each LED ON-Bypass operation and condition and Red LED ON-Fault Green LED ON-Normal operation - Amber LED ON-Bypass operation and Red LED ON-Fault For each LED ON-Bypass operation and condition and Red LED ON-Fault For each LED ON-Bypass operation and red for a facility of the suit and red for a facility of the s	AC Input	
voltage regulation accuracy of +/-1% Input voltage range (V)		Three phase 400
(for relaxed output regulation within functional range of 200-250V P-N) Nominal Operating Frequency Maximum rated input current (A) AC Input Connector Overload & Short Circuit Protection AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Connector Output Connector Cl., Neutral & Ground output BUS BAR. Fresh output neutral provided. System Status Indicator Class II Surge Protection Physical Cabinet Construction ARL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) Linkettal & Ground input BUS BAR. Fresh output neutral provided. Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) Environmental Cooling Method Porced air Operating Temperature Range	(voltage regulation accuracy of +/-1%)	320 - 480
Maximum rated input current (A) AC Input Connector Display Protection Cabinet Construction Ac Output Voltage (V) Single phase 230 Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range #/- 1 % Maximum Rated Output Current (A) System Status Indicator Output Connector L1, Neutral & Ground output BUS BAR. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) Forced air Operating Temperature Range	(for relaxed output regulation within	277 - 520
AC Input Connector Display AC Input Connector L1, L2, L3 & Ground input BUS BAR. Input neutral will not be used. Through suitably rated input circuit breaker AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output BUS BAR. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Nominal Operating Frequency	47 – 63 Hz
Overload & Short Circuit Protection AC Output Nominal Output Voltage (V) Efficiency Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector Surge Protection Physical Cabinet Construction Automatic AC-AC Converter Bypass Display As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) Entire Temperature Range Display Current (A) AC Output Connector Class II Surge Protection RAL 7035 light grey powder coated CRCA cabinets Standard, will get activated when there is a fault condition Display Displa	Maximum rated input current (A)	125
AC Output Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector L1, Neutral & Ground output BUS BAR. Fresh output neutral provided. Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	AC Input Connector	L1, L2, L3 & Ground input BUS BAR. Input neutral will not be used.
Nominal Output Voltage (V) Efficiency Typical 96% (under 20 – 100 % load condition) Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output BUS BAR. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Overload & Short Circuit Protection	Through suitably rated input circuit breaker
Efficiency Output Voltage Compensation Range Maximum Rated Output Current (A) System Status Indicator Output Connector Surge Protection Physical Cabinet Construction Cabinet Weather Protection Ratings Display	AC Output	
Output Voltage Compensation Range+/-1%Maximum Rated Output Current (A)174System Status IndicatorGreen LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-FaultOutput ConnectorL1, Neutral & Ground output BUS BAR. Fresh output neutral provided.Surge ProtectionClass II Surge ProtectionPhysicalRAL 7035 light grey powder coated CRCA cabinetsAutomatic AC-AC Converter BypassStandard, will get activated when there is a fault conditionCabinet Weather Protection RatingsIP 20 (for use in protected indoor environments)DisplayDigital output voltage display thru selector switchMountingPad mountedOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 650x1020x2150Unpacked Weight (approx.)400 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Nominal Output Voltage (V)	Single phase 230
Maximum Rated Output Current (A) System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector Li, Neutral & Ground output BUS BAR. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Efficiency	Typical 96% (under 20 – 100 % load condition)
System Status Indicator Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault Output Connector L1, Neutral & Ground output BUS BAR. Fresh output neutral provided. Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Output Voltage Compensation Range	+/- 1 %
System Status Indicator Output Connector L1, Neutral & Ground output BUS BAR. Fresh output neutral provided. Surge Protection Class II Surge Protection Physical RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) 400 kg Environmental Forced air Cooling Method Forced air Operating Temperature Range 0 to + 45 °C	Maximum Rated Output Current (A)	174
Surge Protection Class II Surge Protection Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	System Status Indicator	,
Physical Cabinet Construction RAL 7035 light grey powder coated CRCA cabinets Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) 400 kg Environmental Cooling Method Forced air Operating Temperature Range	Output Connector	L1, Neutral & Ground output BUS BAR. Fresh output neutral provided.
Cabinet ConstructionRAL 7035 light grey powder coated CRCA cabinetsAutomatic AC-AC Converter BypassStandard, will get activated when there is a fault conditionCabinet Weather Protection RatingsIP 20 (for use in protected indoor environments)DisplayDigital output voltage display thru selector switchMountingPad mountedOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 650x1020x2150Unpacked Weight (approx.)400 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Surge Protection	Class II Surge Protection
Automatic AC-AC Converter Bypass Standard, will get activated when there is a fault condition Cabinet Weather Protection Ratings IP 20 (for use in protected indoor environments) Display Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) 400 kg Environmental Cooling Method Forced air Operating Temperature Range	Physical	
Cabinet Weather Protection Ratings Display Digital output voltage display thru selector switch Mounting Pad mounted Overall Dimension (approx.) As per Dimension Diagram of Cubical Type 650x1020x2150 Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range	Cabinet Construction	RAL 7035 light grey powder coated CRCA cabinets
DisplayDigital output voltage display thru selector switchMountingPad mountedOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 650x1020x2150Unpacked Weight (approx.)400 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Automatic AC-AC Converter Bypass	Standard, will get activated when there is a fault condition
MountingPad mountedOverall Dimension (approx.)As per Dimension Diagram of Cubical Type 650x1020x2150Unpacked Weight (approx.)400 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Cabinet Weather Protection Ratings	IP 20 (for use in protected indoor environments)
Overall Dimension (approx.)As per Dimension Diagram of Cubical Type 650x1020x2150Unpacked Weight (approx.)400 kgEnvironmentalForced airCooling MethodForced airOperating Temperature Range0 to + 45 °C	Display	Digital output voltage display thru selector switch
Unpacked Weight (approx.) Environmental Cooling Method Forced air Operating Temperature Range O to + 45 °C	Mounting	Pad mounted
EnvironmentalCooling MethodForced airOperating Temperature Range0 to + 45 °C	Overall Dimension (approx.)	As per Dimension Diagram of Cubical Type 650x1020x2150
Cooling Method Forced air Operating Temperature Range 0 to + 45 °C	Unpacked Weight (approx.)	400 kg
Operating Temperature Range 0 to + 45 °C	Environmental	
	Cooling Method	Forced air
Operating Humidity Range 10 to 90% relative humidity (non-condensing)	Operating Temperature Range	0 to + 45 °C
	Operating Humidity Range	10 to 90% relative humidity (non-condensing)

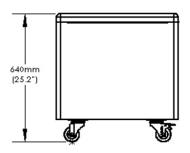
^{*}HAPS VRP works with broken input neutral & one missing phase.

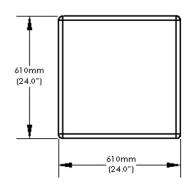
Model	HAPS-50000-9319-200MP
Electrical	
Capacity (in KVA)	50
Switching Technology	20 kHz IGBT AC chopper/inverter
Voltage Compensation Time	20 ms typical
AC Input	
Nominal Input Voltage (V)	Three phase 400
Designed Input voltage range (V) (voltage regulation accuracy of +/-1%)	320 - 480
Input voltage range (V) (for relaxed output regulation within functional range of 200-250V P-N)	277 - 520
Nominal Operating Frequency	47 – 63 Hz
Maximum rated input current (A)	156
AC Input Connector	L1, L2, L3 & Ground input BUS BAR. Input neutral will not be used.
Overload & Short Circuit Protection	Through suitably rated input circuit breaker
AC Output	
Nominal Output Voltage (V)	Single phase 230
Efficiency	Typical 96% (under 20 – 100 % load condition)
Output Voltage Compensation Range	+/- 1 %
Maximum Rated Output Current (A)	217
System Status Indicator	Green LED ON-Normal operation - Amber LED ON-Bypass operation Red LED ON-Fault
Output Connector	L1, Neutral & Ground output BUS BAR. Fresh output neutral provided.
Surge Protection	Class II Surge Protection
Physical	
Cabinet Construction	RAL 7035 light grey powder coated CRCA cabinets
Automatic AC-AC Converter Bypass	Standard, will get activated when there is a fault condition
Cabinet Weather Protection Ratings	IP 20 (for use in protected indoor environments)
Display	Digital output voltage display thru selector switch
Mounting	Pad mounted
Overall Dimension (approx.)	As per Dimension Diagram of Cubical Type 650x1020x2150
Unpacked Weight (approx.)	430 kg
Environmental	
Cooling Method	Forced air
Operating Temperature Range	0 to + 45 °C
Operating Humidity Range	10 to 90% relative humidity (non-condensing)

^{*}HAPS VRP works with broken input neutral & one missing phase.

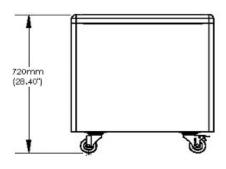
Dimension Diagrams

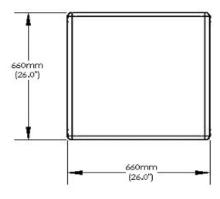
CUBICAL TYPE 610x610x640





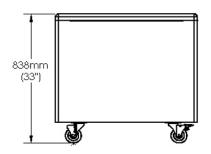
CUBICAL TYPE 660x660x720

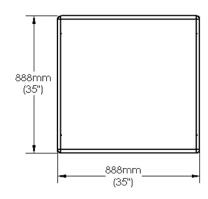




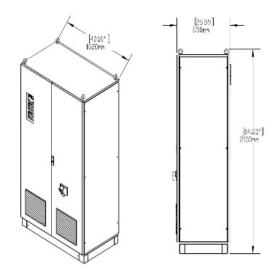
Dimension Diagrams

CUBICAL TYPE 888x888x838





PANEL TYPE 650x1020x2150





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