TECHNICAL SPECIFICATIONS

EC-series Online UPS MODEL EC IPL 303-(CT & MRI scanners)

10 KVA To 80 KVA 3- Ø Input 3-Ø Output

TECHNOLOGY	Double conversion Online with the latest MPWM technology using IGBT .	
RATING		10 KVA To 80 KVA
DC BUS		192 V - 360V
INPUT		
Input Voltage		415V AC Three Ø & N
Input Voltage Window		330-470V
Input Frequency		50Hz ± 10%
Power walk in		Soft start for 0-20 seconds power walk-in.
Input power limiting facility		The maximum input power drawn from the utility / generator during active scanning mode can be limited to maximum of 25% of the total UPS capacity which can be preset depending upon the availability of sanctioned EB power/ generator capacity. Input power limit adjustable from 25% to 100% of the unit capacity.
RECTIFIER		
Type		6 Pulse
Voltage Regulation		(±) 1%
Ripple Voltage		< 2% without Battery
Converter Protection		Advanced Electronic Protection for device safety backed up with MCB's/ MCCBs & fast acting fuses
INVERTER		
Inverter Type		IGBT based MPWM with instantaneous Sinewave Control
Power Factor		0.8 lag
Nominal Voltage		Depends on Machine
Regulation	Balanced Load	(±) 1%
	Unbalanced Load	(±) 1%
Unbalanced Load Phase Shift		$120^0 \pm 0.5^0$
Frequency		50 Hz ± 0.1Hz
Waveform		True Sinewave
Total Harmonic Distortion	Linear Load	< 2%
	Non Linear Load	< 6%
Transient Response		Remains within +/- 5% & recover to normal within 20 msec
Over Load Capacity	100%	Continuous
	125%	1 Minute
	150%	5 Seconds
Crest Factor		3:1
Mode of Operation		Designed for Continuous operation
ISOLATION		True Online with complete galvanic isolation.

* Specifications are indicative to our standard models and are subject to change without notice.

Inverter Protection		Advanced Electronic Protection for device safety backed up with MCB's/ MCCBs & fast acting fuses, high speed pulse by pulse electronic device protection over voltage / under voltage protection, Electronic over current trip.
BYPASS		
Manual Bypass		Provided
Static bypass(Optional)		NO
EFFICIENCY	**Load**	
Overall Efficiency	100 % load	> 86 % to >88%
BATTERY		
Battery Type		SMF/ TUBULAR
RATING		10 KVA To 80 KVA
Battery Voltage - 12 V	No. of Batteries	16 to 30 No's
Voltage		192 V - 360V
Battery Low advance warning at		11 V / Battery
Battery Low cut off at		10.5 V/Battery
Charger		CCCV
Charging Current Standard		0-10A
ALARMS		
		Input / Low / Fail
		Output Overload
		Over Temperature
		Battery low
LED Indications (Four LED with Multi function)		
		• Mains ON Individual Phase Indication R-Y-B
		• UPS on Individual Phase Indication R-Y-B
		• Battery Low
		• Overload
		• UPS Trip
User Friendly LCD Display showing the following parameters		
		• Input Voltage I/P Phase to Phase voltage
		• Output Voltage Individual Phase O/P voltage
		• Load Current Individual Phase current
		• Output Frequency
		• Battery Voltage

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PROTECTIONS	
PROTECTING THE LOAD	
Output Under Voltage	Protects the load and its components from premature failure
Output Over Voltage	
Output Single Phase prevention	Protects the connected three phase loads & its components from premature failure
Output short circuit with pulse by pulse current limit up to 200µ secs.Protects 300% for 15 msecs,500% for 5 msec & 1000% for 1.5 msec of the rated current	Protects against false tripping & complete shutdown in case of surge power drawn by the load (non linear loads)
Neutral drift	Galvanic isolation provides complete isolation between output neutral and Input & the the output is fully protected against neutral drifts, voltage avalanches like lighting & input harmonics commonly found in the input side.
Neutral failure	
Lightning	
EMI & Harmonics in the input raw power	
'High voltage transient protection & Electrostatic discharge protection as per IEC 62040-2	
PROTECTING THE UPS	
Input MCCB/MCB	Protects the input from very large current caused by short circuit or due to a damaged internal component and avoids further damage to the equipment.
Input Under Voltage / Over Voltage	Prevents damage of components in the input sensing & the converter devices.
Rectifier Over Voltage	Prevents damage to the inverter & the charger components
Single phase prevention	Prevents damages to the components in the input & converter
Over Temperature Protection	Protects the Inverter & Converter magnetics and switching devices against premature failure
Battery Low protection	
Over Load protection	Protects the Inverter components against premature failure
Short circuit protection	
'High voltage transient protection & Electrostatic discharge protection as per IEC 62040-2	Prevents damage of components in the input sensing & the converter devices.
External Magnetic field Protection	Protects against external power frequency magnetic field

ENVIRONMENTAL	
Acoustic Noise level	<60db @ 1.5 meter
Ambient Temperature	0 to 40 Deg C
Storage Temperature	-10 to 70 Deg C
Humidity	Up to 95% RH Non condensing
Altitude	< 3000 Feet above sea level (without derating)
Extreme Climatic conditions	AC Environment is required if the temperature goes beyond the normal operating temperature (0-40 deg C)
Testing Standard	As per IEC 62040 - 3
PHYSICAL	
Enclosure Protection Grade	IP - 20
Cooling	Forced Air
Cable Entry	Front side bottom

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