

Trinity 30-100kVA

Series Specification

Specification table for Trinity Series, UPS systems 30-100kVA

For models:

TRIO30B/C

TRIO40B/C

TRIO60C

TRIO80C

TRIO0C

Tech Support

Need help? Our UK-based experts are available 9am–5pm, Monday to Friday.

Email: hello@neotec.co.uk **Website:** www.neotec.co.uk

TRI030B/C		TRI040B/C		TRI060C		TRI080C	TRI100C
POWER RATING							
kVA/kWatt	30kVA/kW		40kVA/kW		60kVA/kW	80kVA/kW	100kVA/kW
EFFICIENCY							
Normal mode (dual conversion)	96%					97%	
ECO mode	>99%						
Battery mode	Up to 96%						
GENERAL							
Acoustic noise level at 1 meter	65dB at 100% load, 62dB at 45% load						
Altitude of operation	≤1000m, load de-rated 1% per 100m from 1000m to 2000m						
Relative humidity	0-95% RH, non-condensing						
Operating temperature	0-40°C (for UPS only), battery life is halved for every 10°C increase above 20°C						
UPS storage temperature	-40 to 70°C						
PHYSICAL ATTRIBUTES							
Dimensions: W x D x H (mm)	350x823x1200				250x782x650	350x950x900	
Weight (kg)	300	92	303	95	72	91	
IP protection level	IP20						
Colour	Black						
INPUT RECTIFIER							
Grid system	3 Lines + Neutral + Ground						
Rated AC input voltage	380/400/415Vac (three-phase and sharing neutral with the bypass input)						
Rated frequency	50/60Hz						
Input voltage range	304V~478Vac (Line-Line), full load. 228V~304Vac (Line-Line), load decrease linearly from 100% to 50%						
Input frequency range	40~70Hz						
Input power factor	>0.99 kW/KVA, full load						
THDI	<3%, 100% Resistance load				<3%, 100% linear load	<2%, 100% linear load	
BATTERY							
Battery bus voltage	Rated : ±240V						
Quantity of lead-acid cells	480V=40x6 cell (12V) (Selectable 30-50pcs, derates at 34 blocks and under)						
Float charge voltage	2.25V/cell (selectable from 2.2V/cell~2.35V/cell) Constant current and constant voltage charge mode						
Temperature compensation	-3.0mV/°C/cI (selectable:0~-5.0)						
Ripple voltage	≤1% V float						
Ripple current	≤5% C ₁₀						
Boost voltage	2.4V/cell (selectable from : 2.30V/cell~2.45V/cell) Constant current and constant voltage charge mode						
End of discharge voltage	1.65V/cell (selectable from: 1.60V/cell~1.750V/cell) at 0.6C discharge current 1.75V/cell (selectable from: 1.65V/cell~1.8V/cell) at 0.15C discharge current (EOD voltage changes linearly within the set range according to discharge current)						

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BATTERY					
Battery charge	2.4V/cell (selectable from: 2.3V/cell~2.45V/cell) Constant current and constant voltage charging mode				
Battery charging power max current	10%* UPS capacity (selectable from: 1~20%* UPS capacity)			10%* UPS capacity (selectable from: 1~15%* UPS capacity)	
INVERTER					
Rated AC voltage	380/400/415Vac (Three-phase four-line, with the bypass common middle line)				
Rated frequency	50/60Hz				
Frequency regulation	50/60Hz ±0.1%				
Voltage precision	±1% (0-100% Linear load)				
Overload	110%, 60min; 125%, 10min; 150%, 1min; >150%, 200ms				
Synchronised range	Settable, ±0.5Hz ~±5Hz, default ±3Hz				
Synchronised slew rate	Settable, 0.5Hz/S ~ 3Hz/S, default 0.5Hz/S				
Output power factor	1				
Transient response	<5% (20% - 80% -20% step load)	N/A			
Transient recovery	<30ms (0% - 100% -0% step load)	N/A			
Output Voltage THDu	<1%, 0-100%, linear load <6%, non-linear load	<1%, 0-100%, linear load; <5%, non-linear load <1%, 0-100%, linear load; <3%, non-linear load			
Output short circuit current (Irms)	2.5 times rated current				
Output short circuit (Ipeak)	3 times rated current				
BYPASS					
Rated AC voltage	380/400/415Vac (three-phase four-wire and sharing neutral with the bypass)				
Rated current	45-60A	90-152A			
Overload	125% Long term operation; 125%~130% for 10min; 130%~150% for 1min; 150%~400% for 1s; >400%, less than 200ms	N/A			
Current rating of neutral cable	1.7A×In				
Frequency	50/60Hz				
Switch time (between bypass and inverter)	Synchronized transfer: 0ms				
Bypass voltage range (%Vac)	Settable: Upper limit: +10, +15, +20, default +15 Lower limit: - 10, - 15, - 30, - 40, default - 20				
Bypass frequency range	Settable, ±1Hz, ±3Hz, ±5Hz				
Synchronised range	Default: ±2Hz (Settable: ±0.5Hz~±5Hz)				