

User Manual

UTS400 (400A ETLi)



Before installing, operation, maintaining, or using this product, be sure to read the safety precautions and use it correctly.

This user manual should be distributed to end users and maintenance personnel.

⚠ Danger: If there is a possibility that serious injury or death may occur immediately when violating the hazard warnings.

⚠ Caution: In cases where minor injury or product damage may occur when caution signs are violated.

FCC Information

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions :

- (1) This Device may not cause harmful interface, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try correct the interference by one or more of the following measures:

- 1.1. Reorient or relocate the receiving antenna.
- 1.2. Increase the separation between the equipment and receiver.
- 1.3. Connect the equipment into an outlet on a circuit different from that to which receiver is connected.
- 1.4. Consult the dealer or experienced radio/TV technician for help.

WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment..

IMPORTANT NOTE:

FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



Danger

- Be sure to turn off the upper circuit breaker when installing or maintaining the product.
Electric shock may cause serious injury or death.
- Be careful not to touch the exposed parts of the terminals.
Causes injury or death due to electric shock or short circuit accidents.



Caution

- Before installing the product, be sure to read the precautions and install it according to the instructions.
- There is a risk of malfunction or accident due to incorrect installation. Installation and maintenance of the circuit breaker must be performed by a qualified person(electrician).
- Avoid installing in environments where there is rain, oil, dust, or direct sunlight.
- Connect the product to a power source that matches the rated voltage and current of the product. If the rated voltage and current are not correct, it may cause malfunction or failure.
- Be sure to secure the terminals securely, as insufficient tightening torque may cause overheating or fire.
- When connecting terminals, install the connecting conductors in parallel. There is a risk of a Phase-to-phase short circuit.
- When using the product in close contact, install an insulating barrier between the terminals. If there is no insulating barrier, insulate the crimp terminal or the exposed part of the conductor with an insulating pin or insulating tape, or install a terminal cover(sold separately). There is a risk of a phase-to-phase short circuit accident.
- Please install an insulating barrier between the terminal.
Damage to the product may cause malfunction or failure.
- If the circuit breaker trips and automatically shuts off, be sure to remove the cause before turning the handle on. This may result in electric shock or fire.
- Be careful not to damage it during transport and installation.
- When disposing of the product, please dispose of it in accordance with the Waste Management Act.
- Do not connect aluminum terminals and conductors directly to the circuit breaker terminal. This may cause corrosion and heat generation.
- Please do not make any unauthorized modifications.

Specifications

Item	Detail				note
Operation power	• Self-Power(When MCCB is energized, DC power is generated by the output of the internal CT to operate the device) • Or External Power DC 24V(ETMi/ETHi/ETLi)				Self-Power: ETSi/ETMi/ETHi/ETLi ^(*)
Rated voltage	AC 220/240/380/415/480/500V				
Rated frequency	50/60Hz				
Power consumption	24V/1W under				
Frame Size	400AF				
No. of Poles	3 Pole				
Rated current	400A				
Rated breaking current, Icu(kA)	Vac	Ni	Hi	Li	UL489 80% Rated
		NTi	HTi	LTi	UL489 100% Rated
	220/240	65	100	150	
	380/415	35	65	100	
	480/500	18	35	50	
DI input	ETSi		X		(*)Ax, AL input
	ETMi, ETHi, ETLi		2ea		
DO output	ETSi		X		DO output when tripping
	ETMi, ETHi, ETLi		2ea		
Measurement	ETSi, ETMi		I		
	ETHi, ETLi		I, V, Power, Frequency		
Relay	Long time/Short time/Instantaneous/Ground leakage protection				

Item	Detail				note
Communication interface		Uart	RS485	BLE	
	ETSi	●			
	ETMi	●	●		
	ETHi	●	●		
	ETLi	●	●	●	
Uart	Port for connecting tester equipment for relay testing				Administrat or use
RS485	Comm. speed: 9600/19200/38400bps				
Bluetooth	• Check the measurement and setting values • Identify trip events and accident waveforms				ETLi
Protocol	Modbus				
Save function	• System Event : 50EA • Fault Event : 50EA • Trip Wave : 2EA				
LED	Active	Blue	Blinks when DC24 or Self-power operating current exceeds the specified value		
	>90%I _r	Orange	Blinks when load current is more than 90% of I _r		
	>105%I _r	Red	Blinks when load current is more than 105% of I _r		
Size(mm)	290(H) x 140(W) x 110(D)				Max. dimension
Storage temperature	-25℃ ~ +55℃				
Operating temperature	-5℃ ~ +40℃				

(*1) ETSi: Standard(I), ETMi: Multi-function(I, RS485)

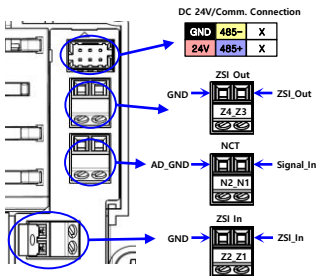
ETHi: High performance(I/V/Power, RS485),

ETLi: Limited performance(I/V/Power, RS485/mobile)

(*2) Ax: On/Off status, AL: Trip status

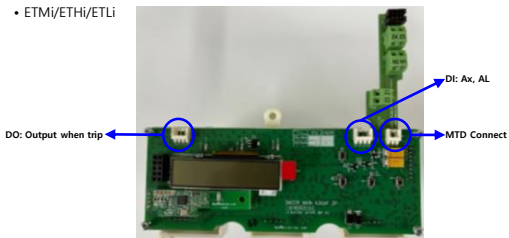
External B/D

- ETMi/ETHi/ETLi



DI, DO

- ETMi/ETHi/ETLi



Conformity assessment mark

Item	Detail
Name of who received the suitability assessment	LS ELECTRIC
Equipment name	Specific low-power wireless devices(wireless devices for wireless data communication systems) - ETLi
Product name	Molded-case circuit-breaker
Model name	UTS400LTi ETLi 400A 3P
Manufacturer/Country	LS ELECTRIC/Korea
Date of manufacture	Marked separately
Certification number	R-R-LSR-UTS400-ETLi-3P

Guide for Business Broadcasting and Communication Equipment

By model	User Guide
Class A (Broadcasting and communications materials for business use)	This device is a business-use(Class A) electromagnetic wave-compatible device. Sellers and users should take note of this, and it is intended for use in areas other than the home.

KC Certification Registration No.	 R-R-LSR-UTS400-ETLi-3P
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☞ For more information, please refer to catalog and home page (www.ls-electric.com)

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LS ELECTRIC



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Specifications in this instruction manual are subject to change without notice due to continuous products development and improvement