

UPS REMOTE MONITORING PANEL

RMP-X1



INSTALLATION AND USER'S GUIDE

Thank you for choosing our product.

UPS Remote Monitoring panel is developed by expert R&D personnel carefully and became a product. You can find all information on the remote monitoring panel in this document. Remote monitoring panel shall briefly referred as RMP. (Remote Monitoring Panel)

Special Situations

- RMP should be kept in dry and dehumidified places.
- Storage temperature is between -10 and +70 degrees.

INDEX

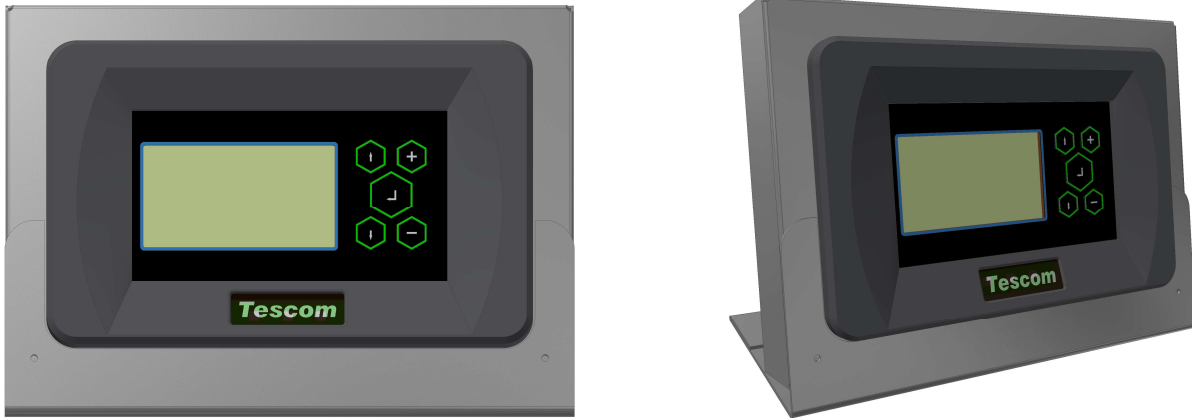
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1. PRESENTATION

1.1 Package Opening and Content Control

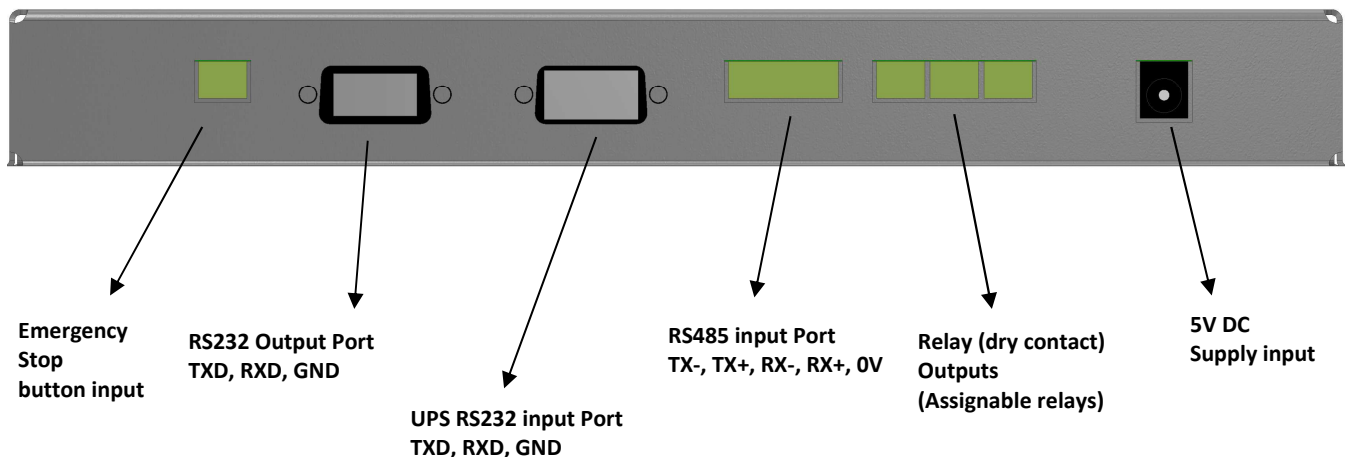
Remote monitoring panel and pedestal
5Vdc 1A Supply adapter
RS232 UPS connection cable (CC05)
Installation and User's Guide

1.2 View of Remote Monitoring Panel

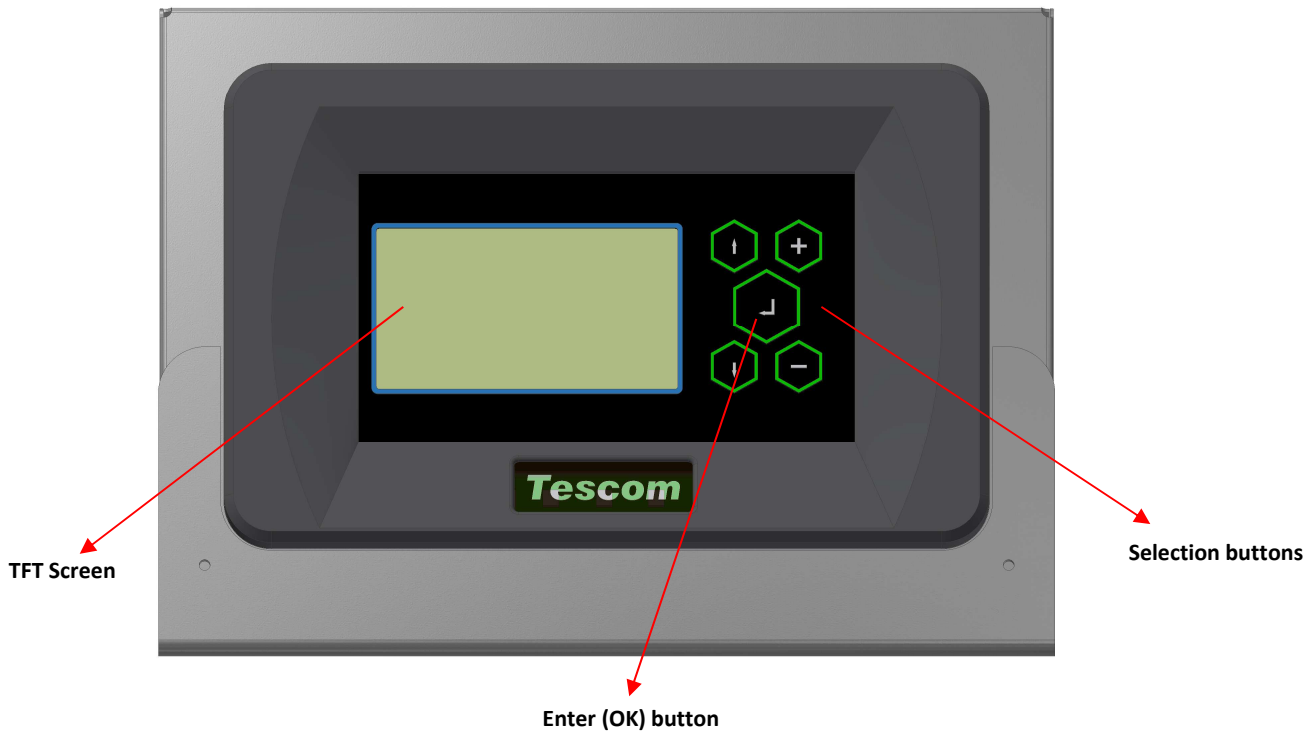


1.3 Functions

Remote monitoring panel is developed for remotely monitoring UPS status information and measured parameters. UPS can be connected through RS232 and RS485 communication networks. It has separate input port for each communication network. It has communication output port equal to UPS communication port. It can transmit responses coming from UPS to other devices from this port with RS232. Device has 3 relay outputs (dry contact). Views and functions of ports are as given below.



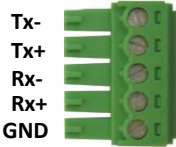
1.4 Front panel functions



- TFT Screen** : The screen indicating status information received from UPS and values measured.
- Selection buttons** : Used for roaming between menus and setting options.
- Enter (OK) button** : Used for entering the selected menu or confirming the selected option.

1.5 Technical Features

Function	Parameter	Value	
COM1 RS232 UPS Port	Baud rate	2400 baud	
	Parity	No parity	
	Stop bit	1 stop bit	
	UPS Connection	RXD, TXD, Gnd (3 wire)	
		Pin no.	Function
1		Empty	
2		TXD (RS232)	
3		RXD (RS232)	
4		Empty	
5		Signal Ground	
6		Empty	
7		Empty	
8	Empty		
9	Empty		

RS485 Port	UPS Connection	TX-, TX+, RX-, RX+, Gnd (5 wire)																			
		Phoenix Contact MC1.5/5-ST-3.81 																			
COM2 RS232 Ext. Port	Baud rate	2400 baud																			
	Parity	No parity																			
	Stop bit	1 stop bit																			
	PC or Other devices	RXD, TXD, Gnd (3 wire) <table border="1" data-bbox="769 604 1337 1019"> <thead> <tr> <th>Pin no.</th> <th>Function</th> </tr> </thead> <tbody> <tr><td>1</td><td>Empty</td></tr> <tr><td>2</td><td>Empty</td></tr> <tr><td>3</td><td>Empty</td></tr> <tr><td>4</td><td>Empty</td></tr> <tr><td>5</td><td>Empty</td></tr> <tr><td>6</td><td>RXD (RS232)</td></tr> <tr><td>7</td><td>Signal Ground</td></tr> <tr><td>8</td><td>Empty</td></tr> <tr><td>9</td><td>TXD (RS232)</td></tr> </tbody> </table>	Pin no.	Function	1	Empty	2	Empty	3	Empty	4	Empty	5	Empty	6	RXD (RS232)	7	Signal Ground	8	Empty	9
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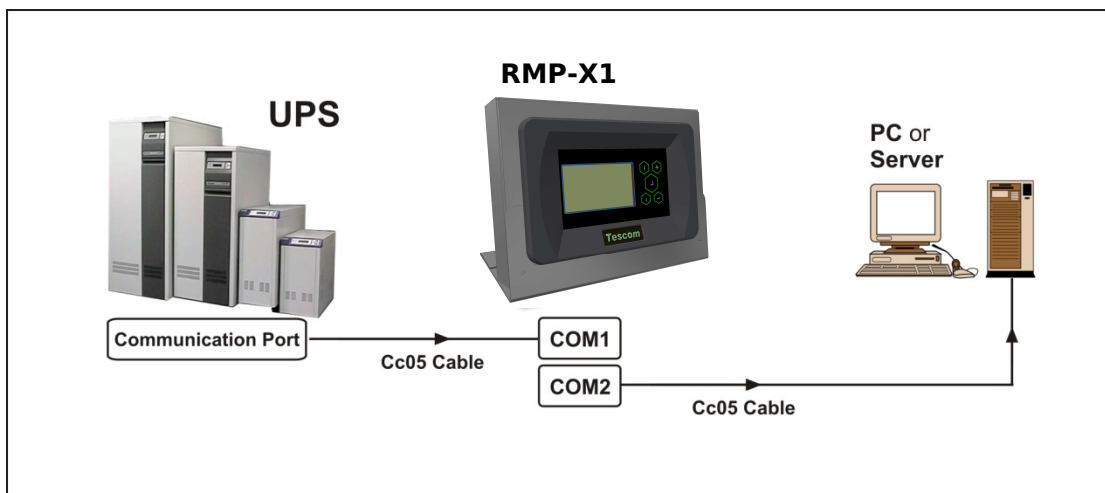
2. INSTALLATION

2.1 UPS and Remote Monitoring Panel connection types

- **RS232 connection**

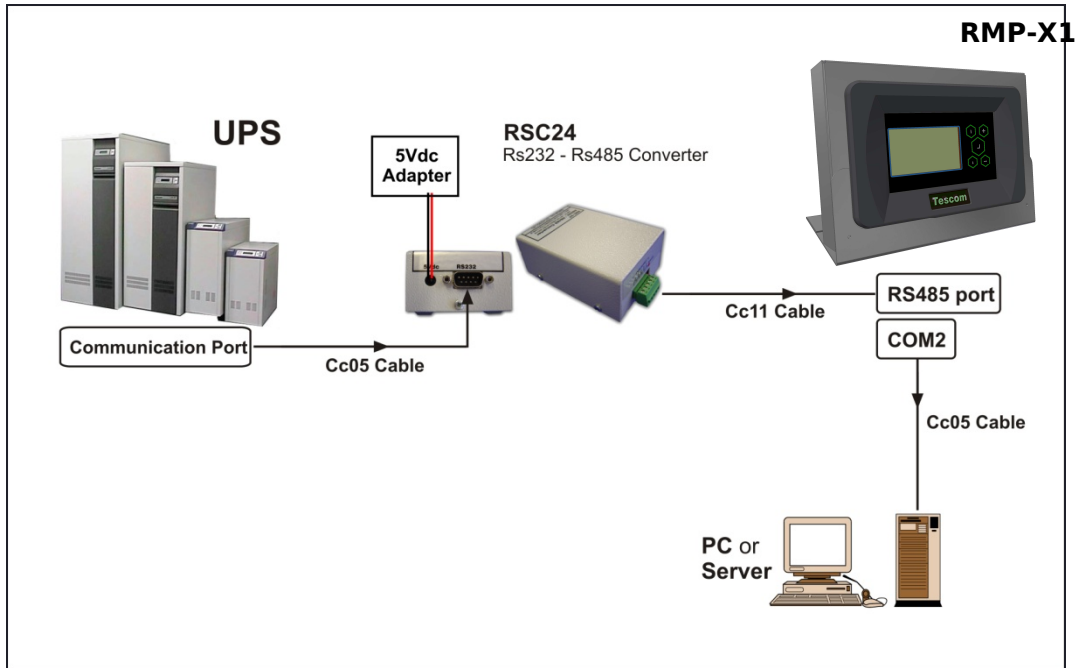
This connection type is used for the max. 25 m short distance. Connection shall be made with CC05 coded cable. See the next topic for pin explanations of CC05 Cable.

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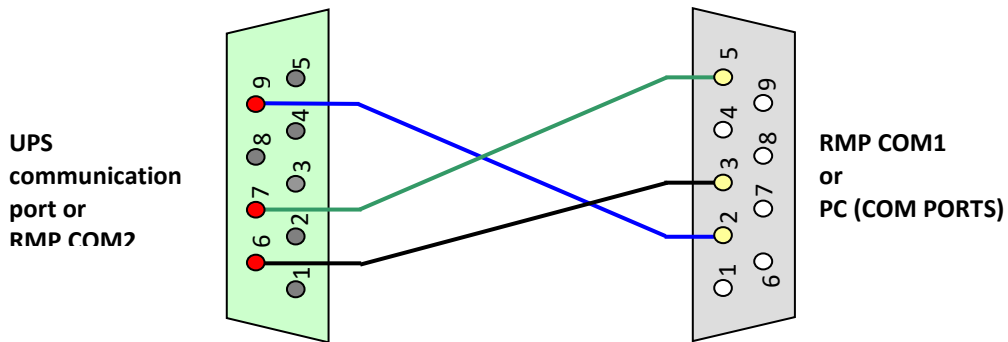
- **RS485 connection**

This connection type is used for distances longer than **25 meters** with UPS. As UPS has standard RS232 communication output, RSC24 model RS232-RS485 converter adapter should be used to establish communication with RMP. Input of this adapter shall be established with CC05 coded cable. Remote monitoring panel connection with far distance output shall be established with CC11 coded cable. See the next topic for pin explanations of cables.

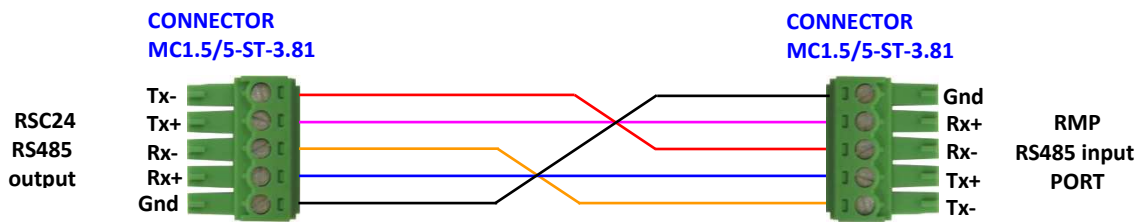


2.2 Explanations on Cable pin between UPS - Remote monitoring panel

- CC05 RS232 communication cable (max. 25m)



- CC11 RS485 communication cable (distances further than 25m)

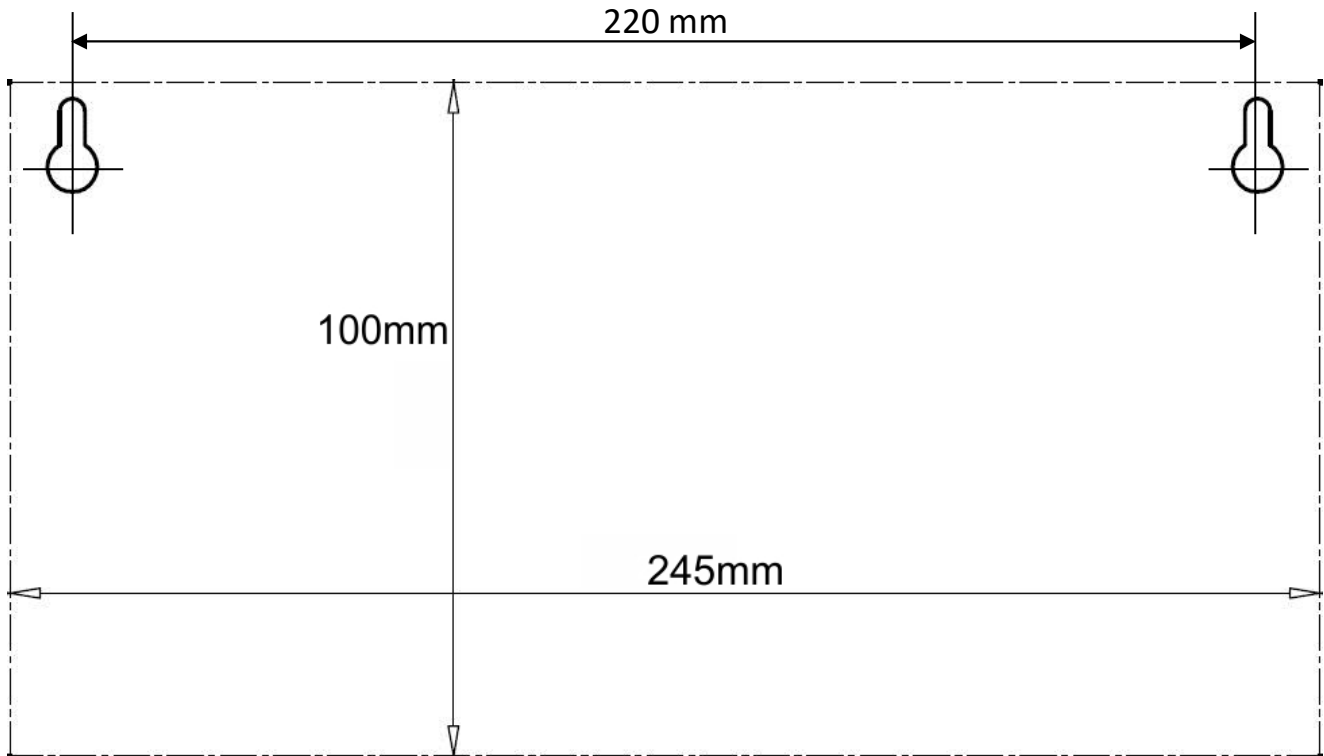


2.3 Mechanical Installation

You can either install the remote monitoring panel on the wall or use on the table by placing on the pedestal.

There are 2 connection points to install to the wall.

Dimension of installation points are given below.



2.4 Before Starting

Control the communication connection between UPS and remote monitoring panel. (RS232 / RS485). If everything is OK, plug the electrical cable of adapter. **(Panel supply should be taken from UPS output. Otherwise, panel power shall be interrupted during electrical interruptions).**

3. STARTING

3.1 LCD Menu Structure

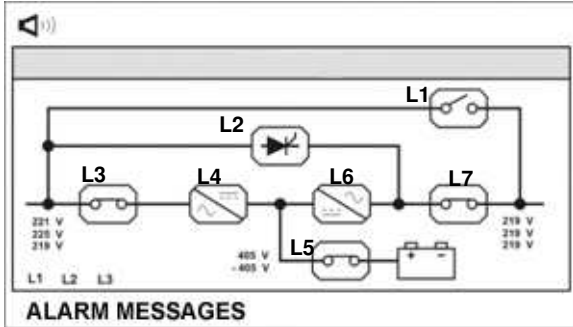
Menu structure is established on LCD panel to monitor UPS status information and measured parameters. These menus can be roamed with the "menu selection button" and enter into menu content with the "enter" button. Menu selection button is used again to monitor different parameters inside the menu. Menu names and monitorable values are given at upper line on the LCD screen. UPS status information and alarms are monitored on the lower line.

Values in the menu content vary depending on communication protocol of the device. Remote monitoring panel automatically recognizes the communication protocol and varies values accordingly. It can communicate with TX100 (1phase/1phase) and TX300 (3 phase/1 phase, 3 phase/3 phase) protocols. For instance, while voltage value is indicated as single phase in menus depending on TX100 information, it is indicated as 3 phase depending on TX300 protocol.

Menus and sub-parameters are indicated below.

3.2 Menus and Sub-parameters (Upper Line)

View of a 3 phase / 3 phase device in the remote monitoring panel is different than the screen view of 3 phase / 1 phase. LCD screen views automatically vary depending on the device protocol. Screen view and explanations of a remote monitoring panel connected to a 3/3 phase UPS are given in the table below.

<p>▼ STATUS</p>	 <p>ALARM MESSAGES</p>																																				
<p>▼ MEASURES – INPUT</p>	<table border="1" data-bbox="375 674 858 898"> <tr> <td>P-N</td> <td>L1</td> <td>L2</td> <td>L3</td> <td></td> </tr> <tr> <td>V</td> <td>!!!</td> <td>!!!</td> <td>!!!</td> <td>V</td> </tr> <tr> <td>I</td> <td>!!!</td> <td>!!!</td> <td>!!!</td> <td>A</td> </tr> <tr> <td>P-P</td> <td>L1-3</td> <td>L2-1</td> <td>L3-2</td> <td></td> </tr> <tr> <td>V</td> <td>!!!</td> <td>!!!</td> <td>!!!</td> <td>V</td> </tr> <tr> <td>FREQ</td> <td>!!!</td> <td></td> <td></td> <td>Hz</td> </tr> <tr> <td colspan="5" style="text-align: center;">----- Alarm Line -----</td> </tr> </table>	P-N	L1	L2	L3		V	!!!	!!!	!!!	V	I	!!!	!!!	!!!	A	P-P	L1-3	L2-1	L3-2		V	!!!	!!!	!!!	V	FREQ	!!!			Hz	----- Alarm Line -----					<p>INPUT CURRENT AND VOLTAGE VALUES BETWEEN PHASE NEUTRAL INPUT VOLTAGE VALUES BETWEEN PHASE PHASE INDICATES THE INPUT FREQUENCY STATUS AND VALUE. LOWEST LINE IS THE ALARM INDICATOR.</p>
P-N	L1	L2	L3																																		
V	!!!	!!!	!!!	V																																	
I	!!!	!!!	!!!	A																																	
P-P	L1-3	L2-1	L3-2																																		
V	!!!	!!!	!!!	V																																	
FREQ	!!!			Hz																																	
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<p>▼ MEASURES - BYPASS</p>	<table border="1" data-bbox="375 972 858 1160"> <tr> <td>P-N</td> <td>L1</td> <td>L2</td> <td>L3</td> <td></td> </tr> <tr> <td>V</td> <td>!!!</td> <td>!!!</td> <td>!!!</td> <td>V</td> </tr> <tr> <td>P-P</td> <td>L1-3</td> <td>L2-1</td> <td>L3-2</td> <td></td> </tr> <tr> <td>V</td> <td>!!!</td> <td>!!!</td> <td>!!!</td> <td>V</td> </tr> <tr> <td>FREQ</td> <td>!!!</td> <td></td> <td></td> <td>Hz</td> </tr> <tr> <td colspan="5" style="text-align: center;">----- Alarm Line -----</td> </tr> </table>	P-N	L1	L2	L3		V	!!!	!!!	!!!	V	P-P	L1-3	L2-1	L3-2		V	!!!	!!!	!!!	V	FREQ	!!!			Hz	----- Alarm Line -----					<p>BYPASS VOLTAGE VALUES BETWEEN PHASE NEUTRAL BYPASS VOLTAGE VALUES BETWEEN PHASE PHASE BYPASS FREQUENCY STATUS AND VALUE LOWEST LINE IS THE ALARM INDICATOR.</p>					
P-N	L1	L2	L3																																		
V	!!!	!!!	!!!	V																																	
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V	!!!	!!!	!!!	V																																	
FREQ	!!!			Hz																																	
----- Alarm Line -----																																					
<p>▼ MEASURES – INVERTER</p>	<table border="1" data-bbox="375 1223 858 1328"> <tr> <td>P-N</td> <td>L1</td> <td>L2</td> <td>L3</td> <td></td> </tr> <tr> <td>V</td> <td>!!!</td> <td>!!!</td> <td>!!!</td> <td>V</td> </tr> <tr> <td colspan="5" style="text-align: center;">----- Alarm Line -----</td> </tr> </table>	P-N	L1	L2	L3		V	!!!	!!!	!!!	V	----- Alarm Line -----					<p>INDICATES THE INTERTER VOLTAGE VALUES BETWEEN PHASE NEUTRAL LOWEST LINE IS THE ALARM INDICATOR.</p>																				
P-N	L1	L2	L3																																		
V	!!!	!!!	!!!	V																																	
----- Alarm Line -----																																					
<p>▼ MEASURES – OUTPUT</p>	<table border="1" data-bbox="375 1413 858 1637"> <tr> <td>P-N</td> <td>L1</td> <td>L2</td> <td>L3</td> <td></td> </tr> <tr> <td>V</td> <td>!!!</td> <td>!!!</td> <td>!!!</td> <td>V</td> </tr> <tr> <td>I</td> <td>!!!</td> <td>!!!</td> <td>!!!</td> <td>A</td> </tr> <tr> <td>P-P</td> <td>L1-3</td> <td>L2-1</td> <td>L3-2</td> <td></td> </tr> <tr> <td>V</td> <td>!!!</td> <td>!!!</td> <td>!!!</td> <td>V</td> </tr> <tr> <td>FREQ</td> <td>!!!</td> <td></td> <td></td> <td>Hz</td> </tr> <tr> <td colspan="5" style="text-align: center;">----- Alarm Line -----</td> </tr> </table>	P-N	L1	L2	L3		V	!!!	!!!	!!!	V	I	!!!	!!!	!!!	A	P-P	L1-3	L2-1	L3-2		V	!!!	!!!	!!!	V	FREQ	!!!			Hz	----- Alarm Line -----					<p>OUTPUT CURRENT AND VOLTAGE VALUES BETWEEN PHASE NEUTRAL OUTPUT VOLTAGE VALUES BETWEEN PHASE PHASE INDICATES THE OUTPUT FREQUENCY STATUS AND VALUE. LOWEST LINE IS THE ALARM INDICATOR.</p>
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V	!!!	!!!	!!!	V																																	
FREQ	!!!			Hz																																	
----- Alarm Line -----																																					
<p>▼ MEASURES – DC</p>	<table border="1" data-bbox="375 1711 935 1966"> <tr> <td>Vbat</td> <td>!!!</td> <td>/</td> <td>-!!!</td> <td>V</td> </tr> <tr> <td>Ibat</td> <td>!!!!!!</td> <td>/</td> <td>!!!!!!</td> <td>A</td> </tr> <tr> <td>Batteries :</td> <td></td> <td></td> <td>!!!</td> <td>X 2</td> </tr> <tr> <td>Par. Batts :</td> <td></td> <td></td> <td>!!</td> <td></td> </tr> <tr> <td>Batt. A/H :</td> <td></td> <td></td> <td>!!!</td> <td>Ah</td> </tr> <tr> <td>Backup Time</td> <td></td> <td></td> <td>!!!</td> <td>min</td> </tr> <tr> <td colspan="5" style="text-align: center;">----- Alarm Line -----</td> </tr> </table>	Vbat	!!!	/	-!!!	V	Ibat	!!!!!!	/	!!!!!!	A	Batteries :			!!!	X 2	Par. Batts :			!!		Batt. A/H :			!!!	Ah	Backup Time			!!!	min	----- Alarm Line -----					<p>Indicates Accumulator voltage and current values, Accumulator number, Accumulator remaining period. Lowest line is the alarm indicator.</p>
Vbat	!!!	/	-!!!	V																																	
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<p>▼ MEASURES – GENERAL</p>	<table border="1"> <tr><td>TH1</td><td>!!!!</td><td></td><td></td><td>C</td></tr> <tr><td>TH2</td><td>!!!!</td><td></td><td></td><td>C</td></tr> <tr><td>TH3</td><td>!!!!</td><td></td><td></td><td>C</td></tr> <tr><td colspan="5" style="text-align: center;">----- Alarm Line -----</td></tr> </table>	TH1	!!!!			C	TH2	!!!!			C	TH3	!!!!			C	----- Alarm Line -----					<p>Indicates the UPS Temperature values. Lowest line is the alarm indicator.</p>
TH1	!!!!			C																		
TH2	!!!!			C																		
TH3	!!!!			C																		
----- Alarm Line -----																						

<p>▼ ALARMS LOGS MENU</p>		<p>ALARM LOGS SHOULD BE SEEN OVER THE DEVICE, NOT THROUGH THE REMOTE CONTROL PANEL.</p>
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<p>▼ INFORMATION MENU</p>	<table border="1"> <tr><td>RS232 COMM1</td><td>:</td><td>--</td></tr> <tr><td>RS232 COMM2</td><td>:</td><td>--</td></tr> <tr><td colspan="3" style="text-align: center;">-----</td></tr> <tr><td>NOMINAL VALUE</td><td>:</td><td>!!!!!! !!!!!</td></tr> <tr><td>LCD VERSION</td><td>:</td><td>!!!</td></tr> <tr><td>PROTOCOL</td><td>:</td><td>!!!!!!!</td></tr> <tr><td>Chassis Nr</td><td>:</td><td>!!!!!!!</td></tr> <tr><td colspan="3" style="text-align: center;">----- Alarm Line -----</td></tr> </table>	RS232 COMM1	:	--	RS232 COMM2	:	--	-----			NOMINAL VALUE	:	!!!!!! !!!!!	LCD VERSION	:	!!!	PROTOCOL	:	!!!!!!!	Chassis Nr	:	!!!!!!!	----- Alarm Line -----			<p>Instant communication status, Software version data, Protocol data, Nominal voltage values, model and chassis number data are indicated by taking from UPS. Lowest line is the alarm indicator.</p>
RS232 COMM1	:	--																								
RS232 COMM2	:	--																								

NOMINAL VALUE	:	!!!!!! !!!!!																								
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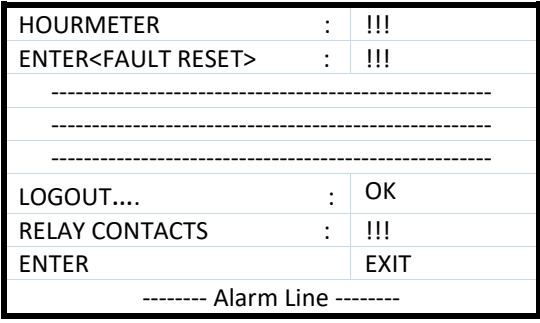
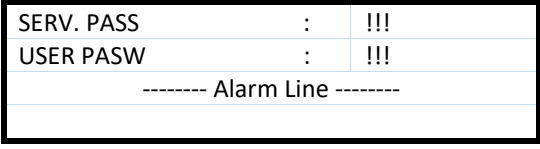
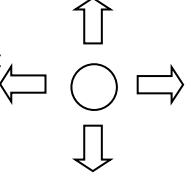

<p>▼ OPTIONS MENU</p>	<p>LCD OPTIONS</p> <table border="1"> <tr><td>LANGUAGE</td><td>:</td><td>--</td></tr> <tr><td>CLICK</td><td>:</td><td>--</td></tr> <tr><td>BACKLIGHT</td><td>:</td><td>-----</td></tr> <tr><td>BL DELAY</td><td>:</td><td>!!!!!! !!!!!</td></tr> <tr><td>BL DIM</td><td>:</td><td>!!!</td></tr> <tr><td>ENTER</td><td></td><td>EXIT</td></tr> <tr><td colspan="3" style="text-align: center;">----- Alarm Line -----</td></tr> </table> <p>COMMUNICATION OPTIONS</p> <table border="1"> <tr><td>REMOTE CNTRL</td><td>:</td><td>!!!</td></tr> <tr><td>UPS BAUD</td><td>:</td><td>!!!</td></tr> <tr><td>UPS COMM.</td><td>:</td><td>!!!</td></tr> <tr><td>REPO</td><td>:</td><td>!!!!!! !!!!!</td></tr> <tr><td>RELAY-ALARM ASSIGN</td><td></td><td></td></tr> <tr><td>GENIN</td><td>:</td><td>!!!</td></tr> <tr><td>EPO</td><td>:</td><td>!!!</td></tr> <tr><td>RELAY CONTACTS</td><td>:</td><td>!!!</td></tr> <tr><td>ENTER</td><td></td><td>EXIT</td></tr> <tr><td colspan="3" style="text-align: center;">----- Alarm Line -----</td></tr> </table> <p>ALARM OPTIONS</p> <p>BYPASS OPTIONS</p>	LANGUAGE	:	--	CLICK	:	--	BACKLIGHT	:	-----	BL DELAY	:	!!!!!! !!!!!	BL DIM	:	!!!	ENTER		EXIT	----- Alarm Line -----			REMOTE CNTRL	:	!!!	UPS BAUD	:	!!!	UPS COMM.	:	!!!	REPO	:	!!!!!! !!!!!	RELAY-ALARM ASSIGN			GENIN	:	!!!	EPO	:	!!!	RELAY CONTACTS	:	!!!	ENTER		EXIT	----- Alarm Line -----			<p>Language setting and Button volume setting, screen background illumination settings are adjusted independent from UPS. Lowest line is the alarm indicator.</p> <p>Remote control permission setting, UPS communication frequency setting(2400-9600), UPS communication type setting (RS232-RS485), Setting for alarm assignment to internal alarm relays, Selection screen indicates the normal open or closed emergency stop button input Lowest line is the alarm indicator.</p> <p>ALARM SETTINGS SHOULD BE MADE OVER THE DEVICE, NOT THROUGH THE REMOTE CONTROL PANEL.</p> <p>BYPASS SETTINGS SHOULD BE MADE OVER THE DEVICE, NOT THROUGH THE REMOTE CONTROL PANEL.</p>
LANGUAGE	:	--																																																			
CLICK	:	--																																																			
BACKLIGHT	:	-----																																																			
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REMOTE CNTRL	:	!!!																																																			
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ENTER		EXIT																																																			
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<p>▼ COMMAND MENU</p>	<table border="1"> <tr><td>-----</td></tr> <tr><td>-----</td></tr> <tr><td>-----</td></tr> <tr><td>RELAY TEST</td></tr> <tr><td>-----</td></tr> <tr><td>ALARM SOUND : ON</td></tr> <tr><td>----- Alarm Line -----</td></tr> </table>	-----	-----	-----	RELAY TEST	-----	ALARM SOUND : ON	----- Alarm Line -----	<p>Indicates the setting for cancelling alarm noise of remote monitoring panel until a new alarm is received, The test whether internal relays are functional. Lowest line is the alarm indicator.</p>

RELAY TEST									

ALARM SOUND : ON									
----- Alarm Line -----									

<p>▼ TIME MENU</p>		<p>CLOCK DATA IS RECEIVED FROM UPS BY THE REMOTE MONITORING PANEL. SETTING SHOULD BE MADE THROUGH UPS.</p>
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<p>▼ SERVICE MENU</p>		<p>Ones other than total working hour data are only used for monitoring.</p>
<p>▼ ADJUST MENU</p>		<p>Made through UPS except main panel settings.</p> 
<p>▼ T.CALIB MENU</p>	 <p>TOUCH THE STATED POINTS FOR CALIBRATION</p>	<p>TOUCH SCREEN CALIBRATION SETTING IS DONE. CLICK ON THE CENTER OF PLUSSES AUTOMATICALLY INDICATED FOR CALIBRATION. Lowest line is the alarm indicator.</p>

3.3 UPS status information and alarm messages (Lower line)

Alarm line shall be seen as empty on the LCD screen when no alarm or event is available. Alarms indicated on the screen vary depending on UPS communication protocols. Alarms to be monitored depending on TX300 and TX301 protocols are indicated in below given tables.

TX301 protocol alarm and statuses

REC CODE = 1XXX		Status code of rectifier module at that moment.
R00 PFC ERROR = XXXX	Error	System error in PFC Module XXXX value indicates the occurring error. Call the service
R01 AC INPUT HIGH	Alarm	Rectifier AC input voltage high, rectifier stopped
R02 GRID INTERRUPTED	Alarm	Rectifier AC input voltage interrupted, rectifier stopped
R03 DC HIGH	Alarm	Rectifier DC output voltage high, rectifier stopped
R04 DC LOW	Alarm	Rectifier DC output voltage low, rectifier stopped
R05 FREQ TOLER	Alarm	Rectifier AC input frequency out of tolerance, rectifier stopped
R06 OVER HEAT	Alarm	Excessive heating at rectifier power cooler, rectifier stopped
R07 SHORT INTERRUPTION	Alarm	Short term interruption at rectifier input voltage, rectifier stopped
R08 IGBT ERROR	Alarm	Excessive load at rectifier power components, rectifier stopped
R09 PHASE ROTATE	Alarm	Rectifier AC input voltage phase line faulty, rectifier stopped
R14 PFC PAUSED	Alarm	Rectifier paused for short period
R15 DC LOW	Alarm	DC busbar reduced while rectifier operates, rectifier shall start again after 20 seconds.
R17 ACCUMULATOR TEST	Warning	Accumulator test is in progress (lasts for 30 seconds)
R18 BOOST CHARGE	Warning	Rectified charge is in progress (lasts for 10 hours)
R19 AC HIGH		AC input peak voltage 20% higher
R20 INPUT CONTACTOR	Warning	Input contactor is in released status
R21 PFC STOPPED	Warning	Rectifier stopped for short period by the inverter module
R22 POS CHARGE LIMIT	Warning	(+)Accumulator charge current limited
R23 NEG CHARGE LIMIT	Warning	(-)Accumulator charge current limited
R24 DC BUSBAR HOLD	Warning	Rectifier waits for DC busbar increase to start
R25 ACCUMULATOR FAILURE	Warning	Accumulators found faulty in the accumulator test
R26 ACCUMULATOR HEAT SENSOR	Warning	Accumulator heat sensor failed or not plugged.
R27 ACCUMULATOR HEAT HIGH	Warning	Accumulator environment heat is high
R28 PHASE LOSS	Warning	Missing phase in input.
R29 PFC RESET	Warning	PFC module supply applied recently (only seen when the device is started for the first time)
R30 WAIT !	Warning	Rectifier start delay waits for the setting period.
L01 TH1 HIGH HEAT	Warning	TH1 heat sensor heat is higher than the adjusted alarm level
L02 TH2 HIGH HEAT	Warning	TH2 heat sensor heat is higher than the adjusted alarm level

L03 TH1 LOW HEAT	Warning	TH1 heat sensor heat is lower than the adjusted alarm level
L04 TH2 LOW HEAT	Warning	TH2 heat sensor heat is lower than the adjusted alarm level
L05 FAN MAINTENANCE	Warning	FAN maintenance period expired warning
L06 ACCUMULATOR MAINTENANCE	Warning	ACCUMULATOR maintenance period expired warning
L07 OPT MAINTENANCE	Warning	Allocated for future
L08 TH1 SENSOR ERROR	Warning	TH1 temperature sensor broken or short circuit
L09 TH2 SENSOR ERROR	Warning	TH2 temperature sensor broken or short circuit
L10 ERROR RESET	Warning	Not recorded in logs
L11 ACCUMULATOR OUT-OF-SERVICE	Warning	External accumulator switch is off
L12 GENERAL MAINTENANCE	Warning	General maintenance period expired warning
L13 PFC CAN COMM ERR	Warning	PFC module CAN communication broken warning
L14 INV CAN COMM ERR	Warning	INV module CAN communication broken warning
L17 SLEEP WAIT	Warning	Wait warning before the sleep mode
L18 WAKE-UP WAIT	Warning	Wait warning before transition from sleep to wake-up mode
INV CODE = 0XXX		Status code of inverter module at that moment.
A00 INV ERROR = XXXX	Error	System error in inverter module XXXX value indicates the occurring error, service code is required to start the device -call the service
A01 OVER CURRENT	Alarm	Over loading occurred in the inverter module
A02 OVER HEAT BREAK	Alarm	Over heat occurred in the inverter module
A03 ACCUMULATOR HIGH	Alarm	Accumulator voltage found high
A04 LOW OUTPUT	Alarm	UPS Output voltage found low
A05 OUTPUTN HIGH	Alarm	UPS Output voltage found high
A02 OVER LOAD BREAK	Alarm	Over loading occurred at device output stop the device
A07 SHORT CIRCUIT	Alarm	Short circuit occurred at UPS output device blocked
A08 IN MAINTENANCE	Alarm	Device maintenance switch is on
A09 MANUAL BYPASS	Alarm	Device taken to manual by-pass position from the front panel
A10 ACCUMULATOR LOW BREAK	Alarm	Accumulator voltage found low
A11 EMERGENCY SHUT-OFF	Alarm	External emergency shut-off signal detected
A12 DC BALANCE	Alarm	DC available at INV output before inverter starts
A13 PEAK HIGH	Alarm	Short period over load drawn from UPS output
A14 INV FAILED TO START	Alarm	Inverter module failed to create voltage at output during start
A17 BYPASS INTERRUPTED	Warning	By-pass input voltage interrupted
A18 BYPASS VOLT	Warning	By-pass input voltage out of tolerance
A19 BYPASS FREQUENCY	Warning	By-pass voltage frequency is out-of-tolerance
A20 OVER LOAD	Warning	Over loading available at device output device will stop
A21 OVER HEAT	Warning	Over heating available at device output device will stop
A22 OUTPUT INTERRUPTED	Warning	No voltage at UPS output
A23 BYPASS	Warning	Device transferred the load to by-pass input
A24 REVERSE CURRENT	Warning	Regenerative load applied voltage to device output
A25 INV RESET	Warning	Inverter module supply applied recently (only seen when the device is started for the first time)
A26 ACCUMULATOR LOW	Warning	Accumulator low warning, device will stop soon and electricity of connected loads will be interrupted.
A27 GENERATOR MODE	Warning	Device operates at generator position
A28 PHASE LOSS	Warning	Interruption in any of phases at UPS output
A29 NO SYNCHRON	Warning	Inverter is not synchronous to by-pass input
A30 SHORT CIRCUIT	Warning	Short circuit occurred and passed at UPS output
A31 OUTPUT SWITCH	Warning	Device output switch is closed
A32 SERVICE LOGIN	Warning	Device logged in with service authorizations
A34 BYP.PHASE ROTATE	Warning	Order of 3 phases applied to device by-pass input is reverse
A35 INV STOP	Warning	Inverter module stopped for any reason
A36 INV DC LOW	Warning	DC Busbar voltage is below 120 volt DC value
A37 AC CURRENT LIMIT	Warning	UPS output current is over RXXXX value
A38 FUSE BLOWN	Warning	Any fuse blown in the device
A39 SUPPLY TOL.	Alarm	Inverter card supply values out-of-tolerance
A41 SLEEP MODE	Warning	Inverter module in sleep mode
A43 USER LOGIN	Warning	Device logged in with user authorizations
A45 ENTER PASSWORD	Error	Error occurred at device inverter module service code required -call the service

TX300 protocol alarms

A1 BYPASS FAILURE	Bypass system failure
A2 INVERTER FAILURE	Inverter starting signals not established
A3 3 OVERTEMP	Over-heating occurred for 3 times in the device within half an hour.
A4 OUT FAILURE	UPS output voltage found as out-of-tolerance for 3 times within half an hour
A5 BATT AUT END	Accumulators emptied as the result of electricity interruption Status normal.
A6 CHARGER FAULT	Rectifier failed to create DC busbar voltage.
A7 BATTERY LOW	Accumulators low.
A8 OUTPUT HIGH	Inverter output voltage found high at max. tolerance value and inverter stopped.
A9 OVERLOAD	Over load. UPS more than 100% loaded max power level exceeded.
A10 LINE FAILURE	Grid interrupted.
A11 HIGH TEMPER	Over heat (at inverter or rectifier section)
A12 IGBT FAILURE	Inverter output system failure.
A13 OUTPUT LOW	Inverter output voltage is found below the minimum tolerance. Inverter stopped.
A14 BATTERY HIGH	Accumulator voltage found higher than the maximum tolerance.
A15 FUSE FAILURE	Fuse blown.
A16 BYP INPUT BAD	UPS tried to transfer the load to bypass but grid voltage is out-of-tolerance. This message may be seen when grid conditions are bad. If bypass protection is active, if grid voltage is out of min or max tolerances when the load is on bypass, electricity supplied to load will be interrupted to protect the load.
A17 BATT CB OPEN	Accumulator contactor off accumulators not connected to UPS. If electricity is available, only the user will be warned on the lower line. If no electricity, device will stop and waits for the accumulator switch to be turned on by the user.
A18 BATT.CAPA.LOW	Accumulators emptied during electricity interruption charging process not completed yet. If electricity interruption occurs while this message is on the screen, expected accumulator supplied operation period will be short. User will be warned with an audio warning once in 15 seconds when this message is seen.
A19 BATT FAULT	Accumulators are detected as faulty as the result of accumulator test. Message may be deleted by the user by pressing the enter button for 3 seconds. User will be warned with an audio warning once in 15 seconds when this message is seen.
A20 BOOST CHARGE	Accumulators are in increased charge position. This charge lasts for 10 hours and automatically normal charge position is selected at the end of this period. User will be warned with a short audio warning once in 15 seconds when this message is seen.
A21 ROTATE PHASE	Phase order connected to UPS input is rotated. Change.
A23 MODE FAILURE	Other UPS mode is not same with this UPS in the parallel system. Change the mode.
A24 P.FAILURE 17	Parallel card failure
A25 P.FAILURE 18	Parallel card failure
A26 P.FAILURE 19	Parallel card failure
A27 P.FAILURE 20	Parallel card failure
A28 P.FAILURE 21	Parallel card failure
A29 P.TEST MODE	Parallel card in test position
A30 P FAILURE 23	Parallel card failure
A31 DUBL UPS NR.	There are 2 UPSs with same number in the system while operating in parallel modes.
A39 PSP FAILURE1	Power supply failure occurring in the device
A40 CANT FIND PR	Parallel mode selected. But parallel control system not available. Only operated in ONLINE mode. Change the mode.
A41 P.BAL.FAILURE	Current exchange failed in parallel operation.
A42 BATTERY TEST	Indicates the ongoing accumulator test.
A43 P.SYNC.FAIL	Parallel mode synchronous signal not followed.
A44 BT.OPERATION	Operation from accumulator
A45 MAINS OK	Grid normalized after the electricity interruption. This message will be seen for 15 seconds upon grid normalization after electricity interruption and lost on the screen at the end of the period.
A46 BOOST CH.END	Boost charge mode is ended automatically or manually. Normal mode selected.
A47 CANNOT START	Everything is OK for inverter start but failed to start.

Status Information

RECTIFIER START !	: Rectifier started to operate.
INVERTER START !	: Inverter started to operate.
MAINT SWITCH ON !	: Maintenance Bypass Switch is on.
MANUEL BYPASS !	: Load manually transferred to grid.
STATUS ALARM !	: Alarm status message on the lower line means alarm status situation is temporary
STATUS NORMAL !	: UPS operates normally.
EMERGENCY STOP !	: Emergency shut-off button is pressed.
WAITING SYNC !	: Inverter operated I am waiting for grid synchronization to transfer the load.
STATUS FAULT !	: Failure status is permanent.
STATUS WARNING !	: Warning status message on the lower line is a warning system functioning but, Caution!
CLOSE BATT.CB !	: UPS waits opening of accumulator switch.

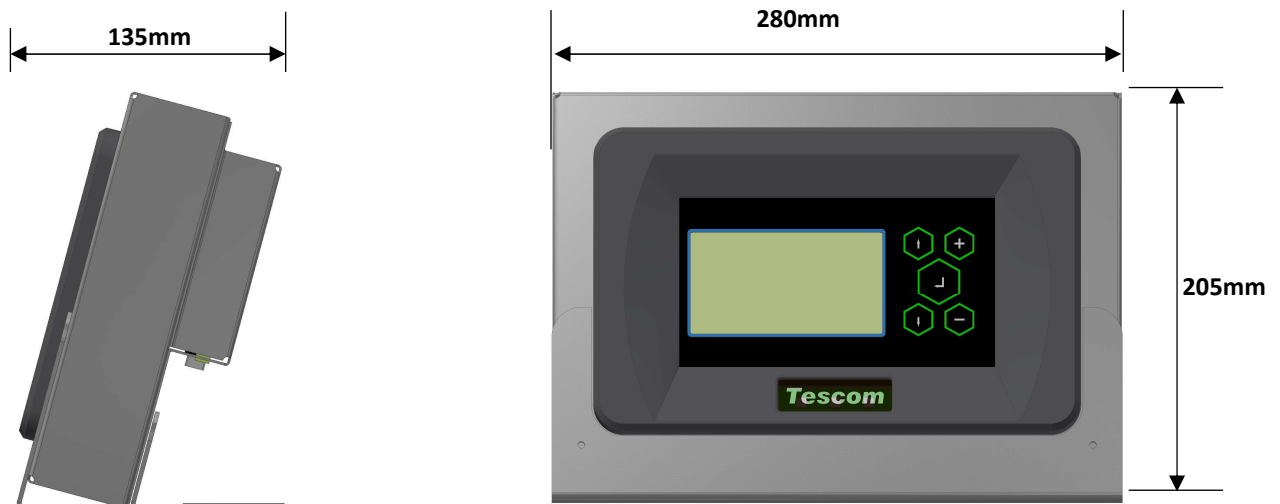
3.4 Special situations while remote monitoring panel operates

- If panel's communication with UPS interrupts, all values coming from UPS will be seen as "!!!" for 10 seconds and panel will give audio warning as very short "beep" with one minute breaks.
- Short "beep" button voice is given in every press on panel buttons.
- When the panel voice is turned-off on the menu, panel's audio alarm will be prevented. If a different alarm occurs, panel voice will be opened automatically.

4. POSSIBLE FAILURES

- If electricity is not supplied to panel when the supply cable is plugged, supply cable may be failed. The socket which the cable is plugged in may be failed. Main card transformer of remote monitoring panel may be failed.
- All connections made with UPS but if communication interrupted alarm is given on the remote monitoring panel screen;
 - Control whether the selected communication interface is correct. RS232 / RS485 communication ports are different.
 - Cable may be failed. Plug the cable to a PC that you are sure of having functional com port directly with UPS and try with T-mom software. If not functional, try with another CC05 cable.
 - If you are sure about the cable soundness and communication error is still available, a problem may be available in the main card of remote monitoring panel. Inform the service.
- UPS Communication is available but if measured values are false or various values cannot be read;
 - In this case, see the communication status of UPS from the "Alarms Menu".
UPS: 232 Tout P1 etc. messages will be seen. In this case, UPS's software version will be incompatible. UPS software should be in TX100 or TX300 communication protocol.

5. MECHANICAL DIMENSIONS



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