

COMING
SOON

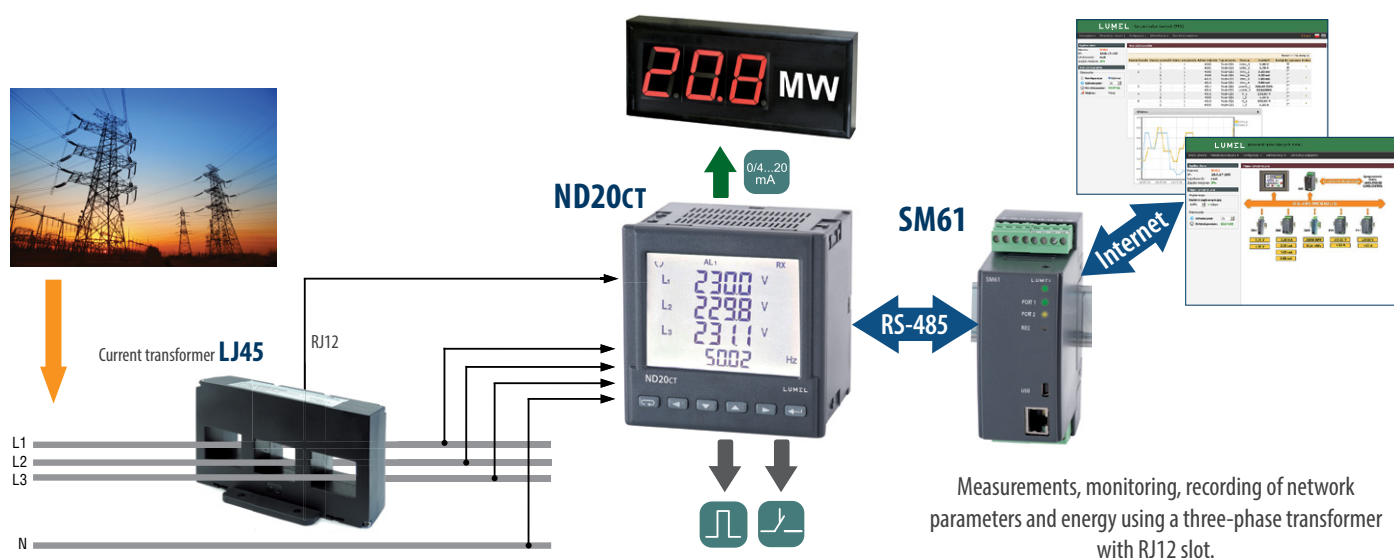
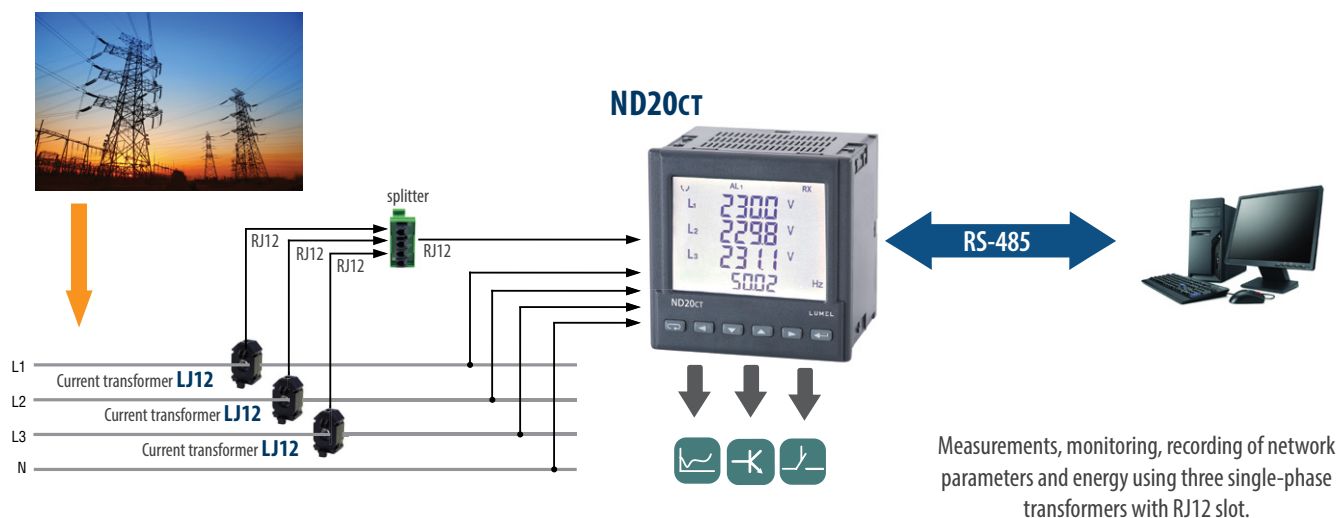
ND20ct - METER OF NETWORK PARAMETERS

It enables quick, easy and convenient installation of dedicated 1- and 3-phase current transformers and additionally eliminates the risk of a faulty connection of a meter with the transformers.

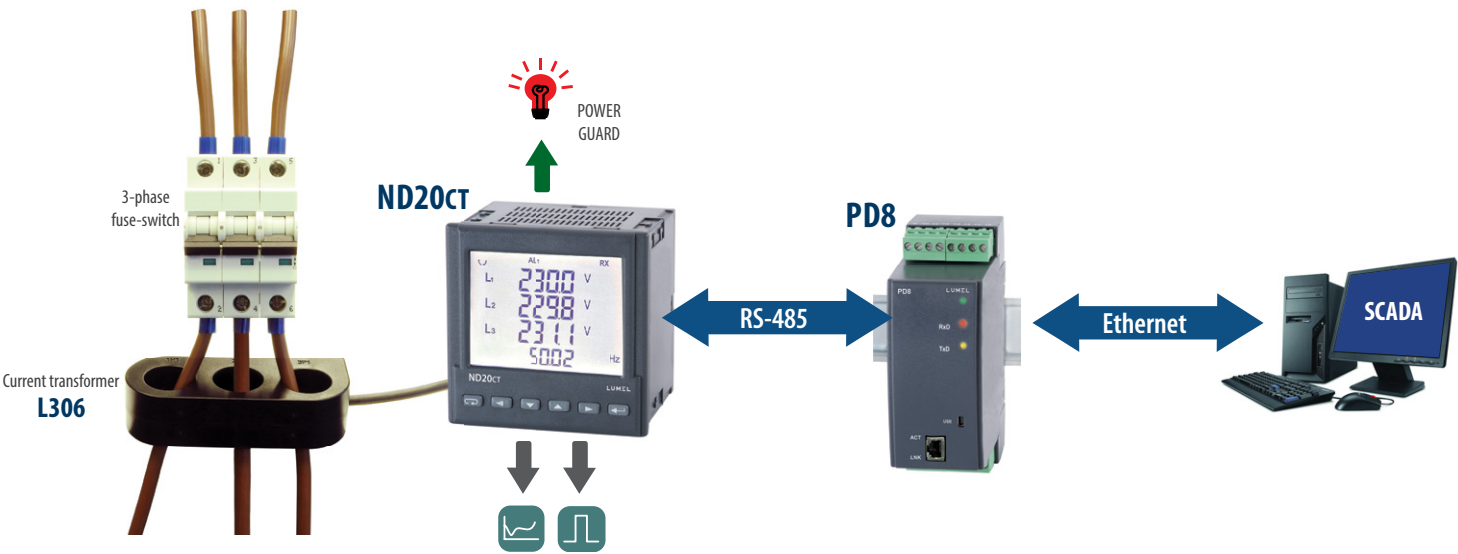
- Measurement of power network parameters in 1-phase and 3-phase (3 or 4-wire) systems.
- Current inputs 0.1 A and 0.25 A (for dedicated transformers).
- Quick and convenient ways to connect current transformers via RJ12 connector or screw terminals.
- THD factor measurement.
- Backlighted LCD 3.5".
- Protection grade from the frontal side: IP65.
- Digital transmission to the master system through the RS-485 interface (MODBUS).
- Programmable outputs: analog (option), alarm and pulse (energy).
- Setting up of displayed pages.



EXAMPLE OF APPLICATION



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Measurements, monitoring, recording of network parameters and energy using a three-phase transformer with screw terminals.

FEATURES	INPUTS	OUTPUTS	GALVANIC ISOLATION
eCon software MOD BUS Password protection IP65 THD P,Q C/L T/C PAord	AC	RS 485 0/4...20 mA	Supply RS 485

TECHNICAL DATA

MEASURED QUANTITIES AND MEASURING RANGES

Measured value	Indication range*	Measuring range	L1	L2	L3	Σ	Basic error
Current In 0,1 A 0,25 A	0.00 .. 999.9 A 0.00 .. 999.9 A	0.0002..0.1200 A 0.0005..0.3000 A	•	•	•		$\pm 0.2\%$ r
Voltage L-N 57,7 V 230 V	0.0 .. 280 kV 0.0 .. 1.104 MV	2.8 .. 70.0 V~ 11.5 .. 276 V~	•	•	•		$\pm 0.2\%$ r
Voltage L-L 100 V 400 V	0.0 .. 480 kV 0.0 .. 1.92 MV	5 .. 120 V~ 20 .. 480 V~	•	•	•		$\pm 0.5\%$ r
Frequency	47.0 .. 63.0 Hz	47.0 ... 63.0 Hz	•	•	•		$\pm 0.2\%$ mv
Active power	-9999 MW .. 0.00 W .. 9999 MW	-1.65 kW...1.4 W...1.65 kW	•	•	•	•	$\pm 0.5\%$ r
Reactive power	-9999 Mvar ... 0.00 var ... 9999 Mvar	-1.65 kvar...1.4 var...1.65 kvar	•	•	•	•	$\pm 0.5\%$ r
Apparent power	0.00 VA ... 9999 MVA	1.4 VA ... 1.65 kVA	•	•	•	•	$\pm 0.5\%$ r
Power factor PF	-1 ... 0 ... 1	-1 ... 0 ... 1	•	•	•	•	$\pm 1\%$ r
Tangent φ	-1.2 ... 0 ... 1.2	-1.2 ... 0 ... 1.2	•	•	•	•	$\pm 1\%$ r
Cosinus φ	-1 ... 1	-1 ... 1	•	•	•	•	$\pm 1\%$ r
φ	-180 ... 180	-180 ... 180	•	•	•		$\pm 0.5\%$ r
Imported active energy	0 ... 99 999 999.9 kWh					•	$\pm 0.5\%$ r
Exported active energy	0 ... 99 999 999.9 kWh					•	$\pm 0.5\%$ r
Reactive inductive energy	0 ... 99 999 999.9 kvarh					•	$\pm 0.5\%$ r
Reactive capacitive energy	0 ... 99 999 999.9 kvarh					•	$\pm 0.5\%$ r
Apparent energy	0 ..99 999 999.9 kVAh					•	$\pm 0.5\%$ r
THD	0 ... 100%	0 ... 100%	•	•	•		$\pm 5\%$ r

* Depending on the set tr_U ratio (ratio of the voltage transformer: 0.1...4000.0) and tr_I ratio (ratio of the current transformer: 1...10000)

r - of the range
mv - of the measured value

OUTPUTS

Output type	Properties
Relay output	programmable relay output, normally open voltageless contacts, load capacity 250 V~/0.5 A~
Analog output (option)	1 programmable current output 0/4...20 mA
Pulse output of active or reactive energy	1 OC type, passive

DIGITAL INTERFACE

Interface type	Transmission protocol	Baud rate
RS-485	Modbus RTU 8N2, 8E1, 8O1, 8N1	4.8, 9.6, 19.2, 38.4 kbit/s

EXTERNAL FEATURES

Readout field	LCD 3,5" screen, specialized, monochromatic with backlight	
Overall dimensions	96 x 96 x 77 mm	panel cut-out: $92^{+0.6} \times 92^{+0.6}$ mm
Weight	0.3 kg	
Protection grade (acc. to EN 60529)	from frontal side: IP65	from terminal side: IP20

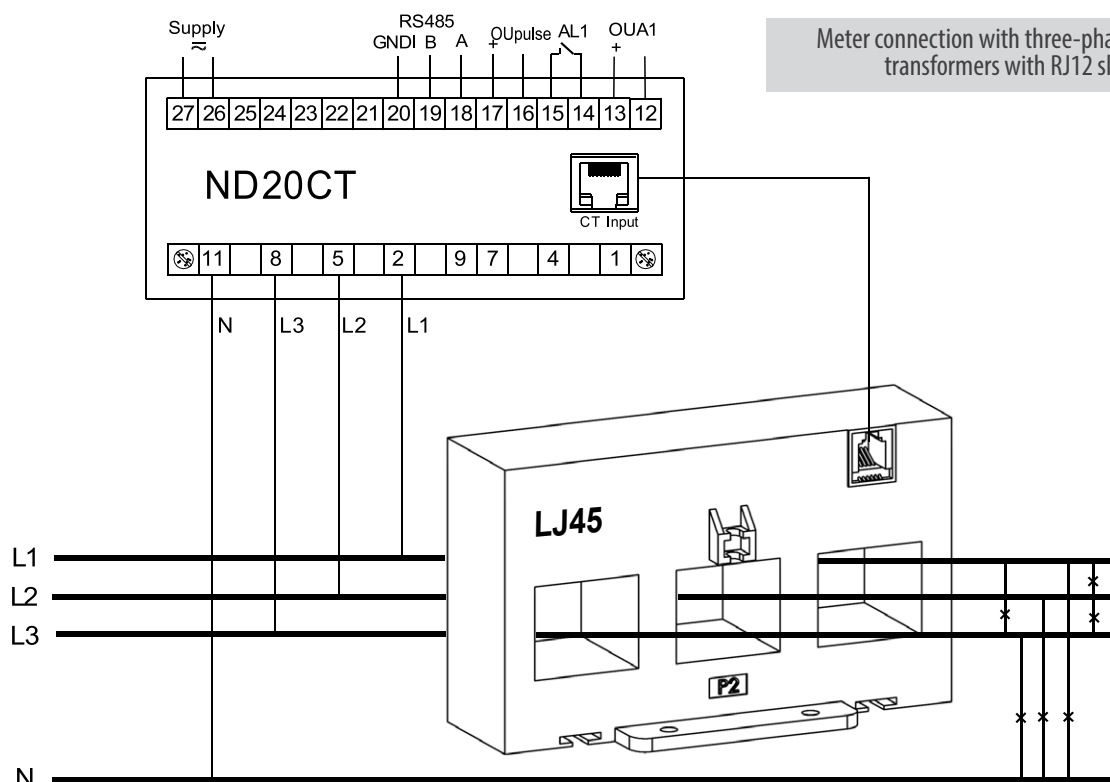
RATED OPERATING CONDITIONS

Supply voltage	85...253 V a.c., 90...300 V d.c. or 20...40 V a.c., 20...60 V d.c.	
Temperature	ambient: -25...23...55°C	storage: -30...70°C
Relative humidity	25...95%	inadmissible condensation
Operating position	any	
External magnetic field	0...400 A/m	
Short duration overload (5 s)	voltage input: 2 Un (max. 1000 V)	current input: 5 In
Power consumption	- in supply circuit ≤ 6 VA - in voltage circuit ≤ 0.05 VA - in current circuit ≤ 0.05 VA	

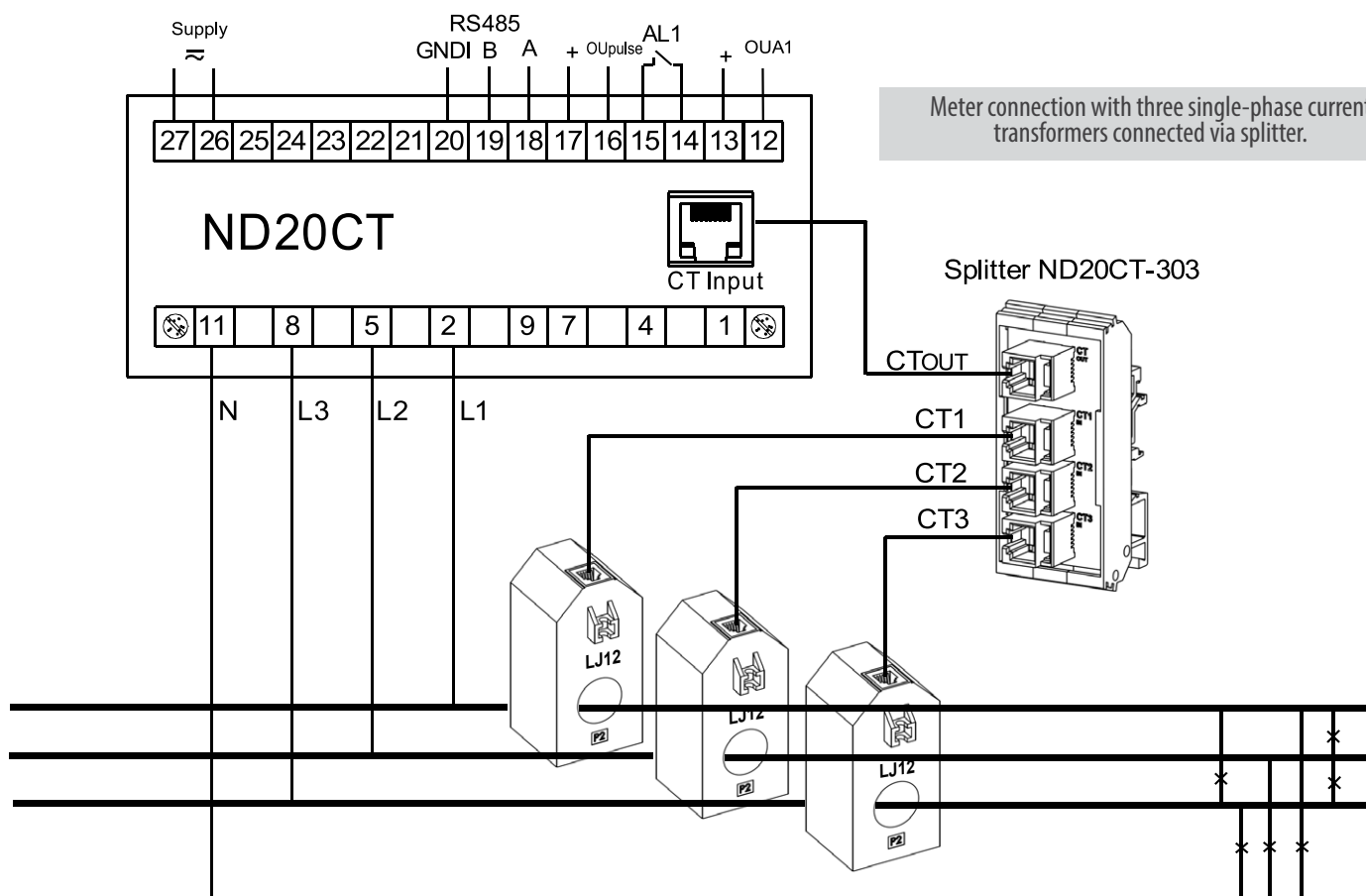
SAFETY AND COMPATIBILITY REQUIREMENTS

Electromagnetic compatibility	noise immunity	acc. to EN 61000-6-2
	noise emissions	acc. to EN 61000-6-4
Isolation ensuring by the housing	single	acc. to EN 61010-1
Isolation between circuits	basic	acc. to EN 61010-1
Pollution level	2	acc. to EN 61010-1
Installation category	III	acc. to EN 61010-1
Maximal phase-to-earth voltage	• for supply and measuring circuits: 300 V • for other circuits: 50 V	acc. to EN 61010-1
Altitude a.s.l.	< 2000 m	

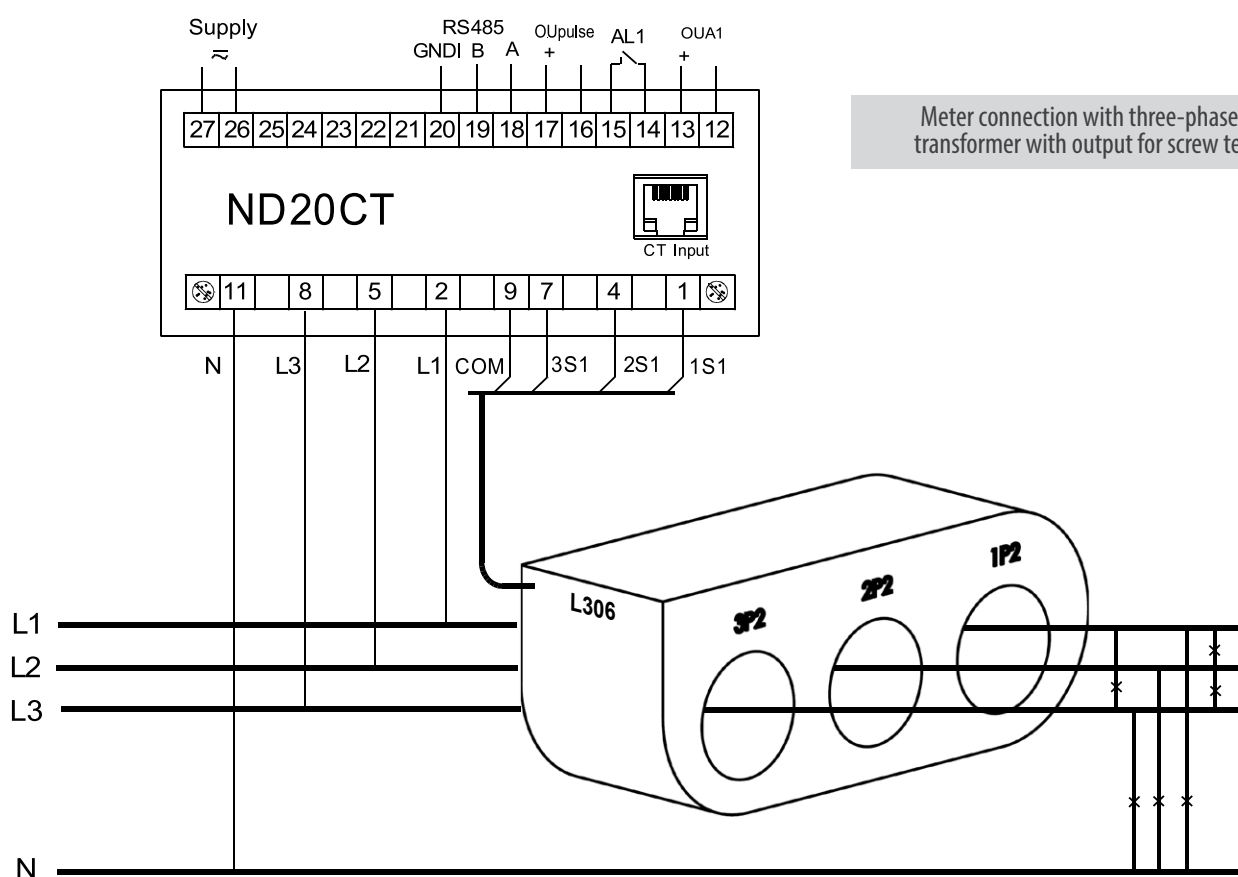
ELECTRICAL CONNECTIONS



ELECTRICAL CONNECTIONS



Meter connection with three single-phase current transformers connected via splitter.

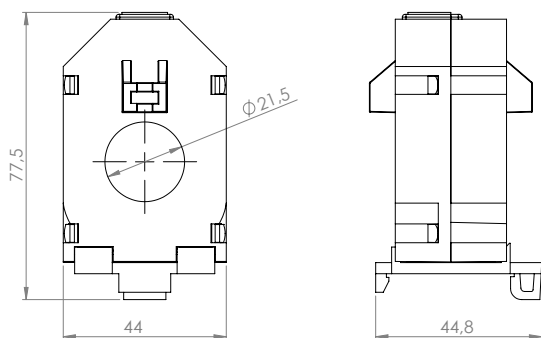


Meter connection with three-phase current transformer with output for screw terminals.

ORDERING

TRANSFORMERS TO COOPERATION WITH ND20CT

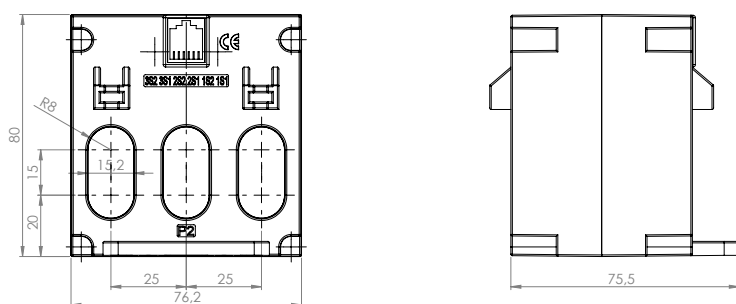
Single-phase transformer RJ12 - hole diameter 21 mm



Code	Current ratio	Power/class
LJ12-132235S 000000 *	50A/100mA	0.25VA/1
LJ12-142235S 000000	60A/100mA	0.25VA/1
LJ12-182235S 000000	100A/100mA	0.25VA/0.5; 0.35VA/1
LJ12-202235S 000000	125A/100mA	0.25VA/0.5; 0.35VA/1
LJ12-222235S 000000	150A/100mA	0.25VA/0.5; 0.35VA/1
LJ12-232235S 000000	160A/100mA	0.25VA/0.5; 0.35VA/1
LJ12-242235S 000000	200A/100mA	0.25VA/0.5; 0.5VA/1
LJ12-272235S 000000	250A/100mA	0.25VA/0.5; 0.5VA/1

* - item available from our stock

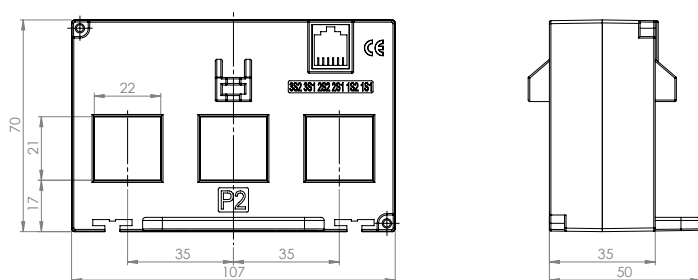
Three-phase transformer RJ12 - busbar 15 x 15 mm



Code	Current ratio	Power/class
LJ25-142231S 000000	60A/100mA	0.25VA/1
LJ25-182235S 000000 *	100A/100mA	0.25VA/0.5; 0.35VA/1
LJ25-202235S 000000	125A/100mA	0.25VA/0.5; 0.35VA/1
LJ25-222235S 000000	150A/100mA	0.25VA/0.5; 0.35VA/1
LJ25-232235S 000000	160A/100mA	0.25VA/0.5; 0.35VA/1
LJ25-242235S 000000	200A/100mA	0.25VA/0.5; 0.35VA/1

* - item available from our stock

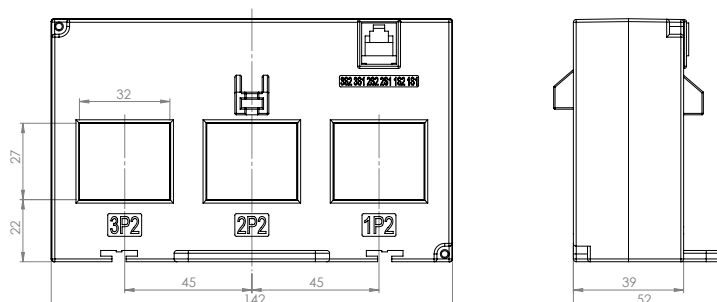
Three-phase transformer RJ12 - busbar 22 x 21 mm



Code	Current ratio	Power/class
LJ35-142231S 000000	60A/100mA	0.25VA/1
LJ35-182235S 000000 *	100A/100mA	0.25VA/0.5; 0.35VA/1
LJ35-202235S 000000	125A/100mA	0.25VA/0.5; 0.35VA/1
LJ35-222235S 000000 *	150A/100mA	0.25VA/0.5; 0.5VA/1
LJ35-232235S 000000	160A/100mA	0.25VA/0.5; 0.5VA/1
LJ35-242235S 000000 *	200A/100mA	0.25VA/0.5; 0.5VA/1
LJ35-272235S 000000	250A/100mA	0.25VA/0.5; 0.5VA/1

* - item available from our stock

Three-phase transformer RJ12 - busbar 32 x 27 mm



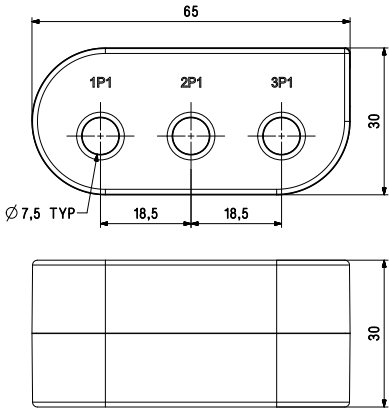
Code	Current ratio	Power/class
LJ45-272235S 000000 *	250A/100mA	0.25VA/0.5; 0.5VA/1
LJ45-312235S 000000	400A/100mA	0.25VA/0.5; 0.5VA/1
LJ45-332235S 000000	600A/100mA	0.25VA/0.5; 0.5VA/1

* - item available from our stock

ORDERING

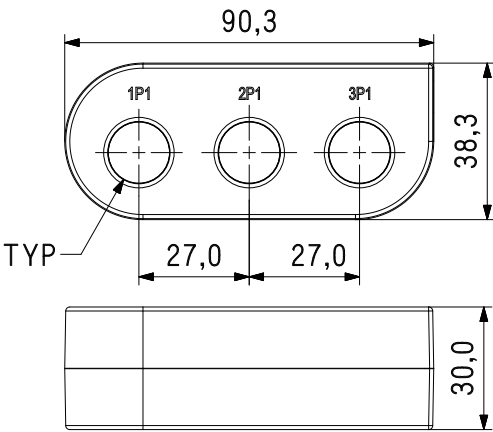
Three-phase transformer with screw terminal cable - hole diameter 8 mm, cable lenght 1550 mm	Code	Current ratio	Power/class
	L308 0632511BL0000 *	63A/250mA	0.1VA/0,5

* - item available from our stock



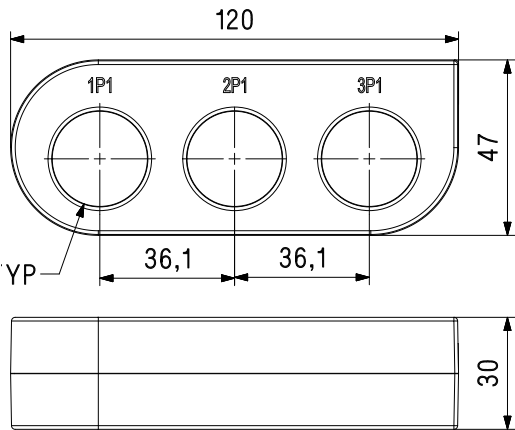
Three-phase transformer with screw terminal cable - hole diameter 15 mm, cable lenght 1550 mm	Code	Current ratio	Power/class
	L306 1252511BL0000 *	125A/250mA	0.1VA/0,5

* - item available from our stock



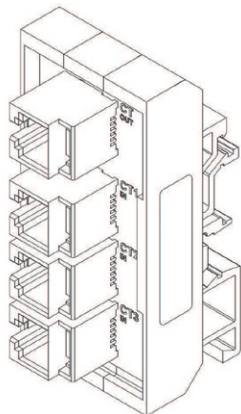
Three-phase transformer with screw terminal cable - hole diameter 26 mm, cable lenght 1550 mm	Code	Current ratio	Power/class
	L307 2502511BL0000 *	250A/250mA	0.1VA/0,5

* - item available from our stock



ORDERING

SPLITTER



Code	Remarks
ND20CT-303	Splitter is recommended when connecting LJ single-phase current transformers with ND20CT meter.

Meter of network parameters ND20CT -	X	X	X	XX	X	X
Voltage input (phase/phase-to-phase) Un:						
3 x 57.7/ 100 V	1					
3 x 230/ 400 V	2					
Analog current output:						
without analog output	0					
with programmable output 0(4)...20 mA	1					
Supply:						
85...253 V a.c., 90...300 V d.c.		1				
20...40 V a.c., 20...60 V d.c.		2				
Version:						
standard				00		
custom-made*				XX		
Language:						
Polish					P	
English					E	
other*					X	
Acceptance tests:						
without extra quality requirements						0
with an extra quality inspection certificate						1
acc. to customer's request						X

Example of order:

The code: **ND20CT - 2 1 1 00 E 0** means:

ND20CT - meter of network parameters ND20CT

2 - input voltage 3 x 230/ 400 V

1 - with programmable analog output 0(4)...20 mA

1 - supply: 85...253 V a.c./ 90...300 V d.c.

00 - standard version

E - user's manual in English

0 - without extra quality requirements

* after agreeing with the manufacturer

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ND20CT-19_en



LUMEL
EVERYTHING COUNTS

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