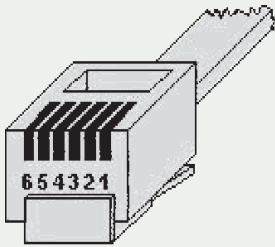
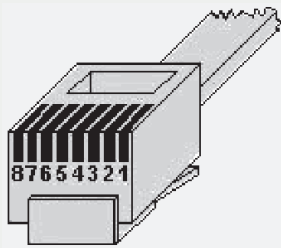




APPENDIX A – PIN-OUT OF RJ12 / RJ45 CONNECTORS

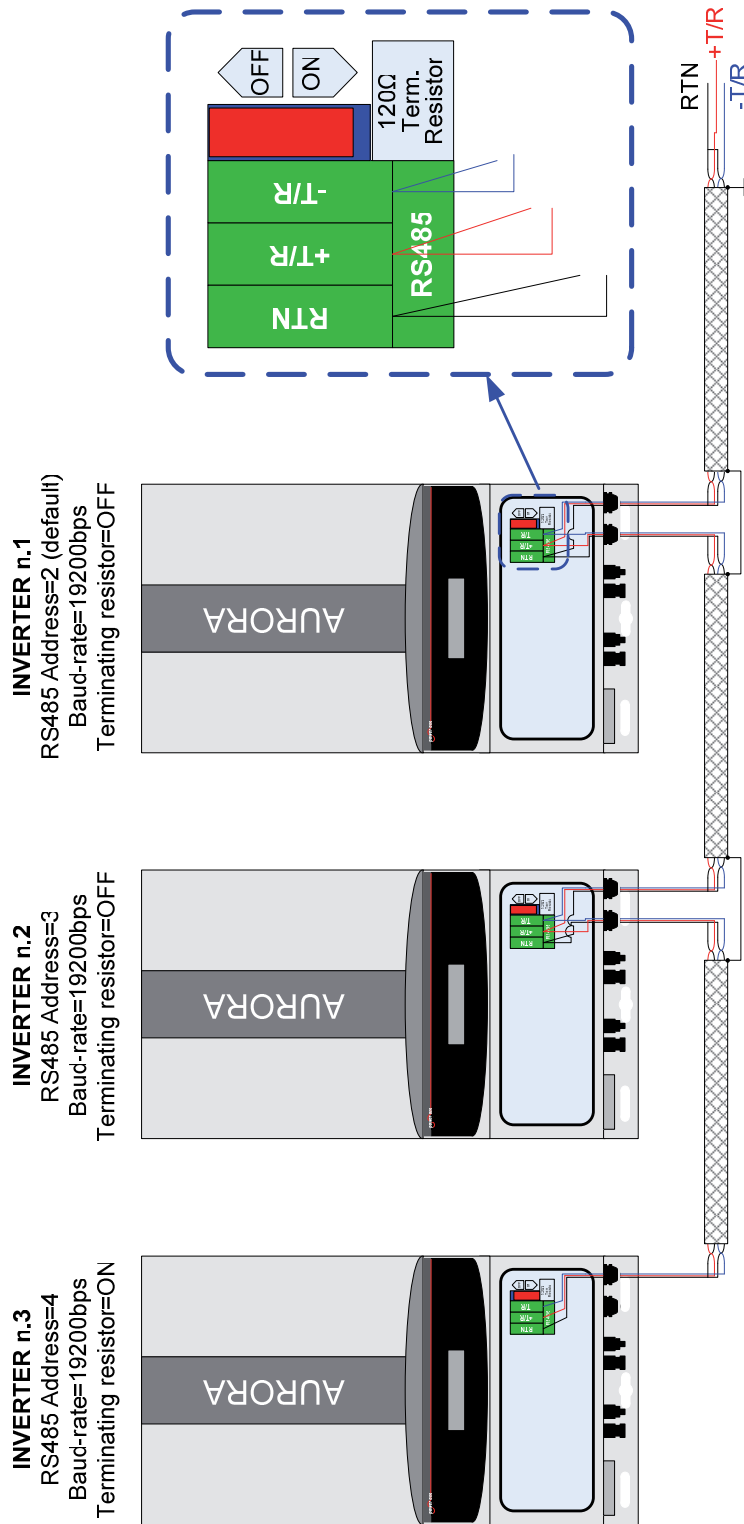
RJ12 connectors			
	Pin #	Signal Name	Description
 <p>RJ12 (6P6C)</p>	1	Not Used	
	2	+TR	+ Data Line Required for RS485 communication.
	3	+R	Remote OFF Required or Remote OFF control
	4	-TR	- Data Line Required for RS485 communication.
	5	Not Used	
	6	RTN	Signal Return Common reference for logical signals.

RJ45 connectors			
	Pin #	Signal Name	Description
 <p>RJ45</p>	1	Not Used	
	2	Not Used	
	3	+TR	+ Data Line Required for RS485 communication.
	4	+R	Remote OFF Required or Remote OFF control.
	5	-TR	- Data Line Required for RS485 communication.
	6	Not Used	
	7	RTN	Signal Return Common reference for logical signals.
	8	Not Used	

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APPENDIX B – CABLE WIRING DIAGRAM FOR RS485 LINE

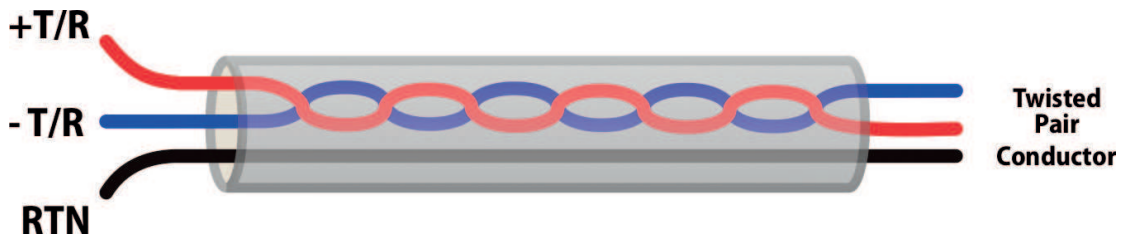




APPENDIX B – RS485 CABLE SPECIFICATION

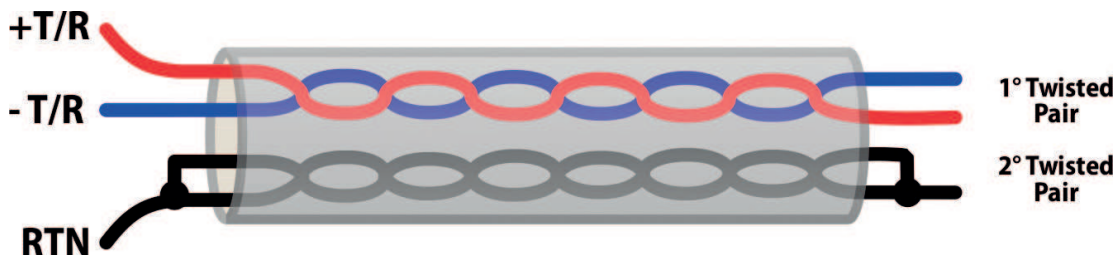
SINGLE TWISTED PAIR RS485 CABLE SPECIFICATION

Type of Cable	RS485 EIA Application
Cable Structure	1 twisted pair + 1 single conductor, shielded
AWG	22 - 24
Charateristic Impedance	120 Ω
Working Frequency	1 kHz / 1 MHz



DOUBLE TWISTED PAIR RS485 CABLE SPECIFICATION

Type of Cable	RS485 EIA Application
Cable Structure	2 twisted pair, shielded
AWG	22 - 24
Charateristic Impedance	120 Ω
Working Frequency	1 kHz / 1 MHz



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APPENDIX C - TECHNICAL DATA

MODEL	PVI-3.0-TL-OUTD	PVI-3.6-TL-OUTD	PVI-4.2-TL-OUTD
INPUT PARAMETERS			
Nominal DC Power [kW]	3,12	3,75	4,375
Max. Recommended DC Power [kW]	3,5	4,15	4,82
Operating Input Voltage Range [V]	0,7xVstart - 580 (360 nominal)		
Full Power MPPT input voltage range (symmetrical load) [V]	160-530	120-530	140-530
Full Power MPPT input voltage range (asymmetrical load) [V]	200-530 (@ 2kW) / 112-530 (@ 1,12kW)	190-530 (@ 3kW) / 90-530 (@ 0,75kW)	190-530 (@ 3kW) / 90-530 (@ 1,38kW)
Absolute Max. Input Voltage [V]	600		
Activation voltage "Vstart" [V]	200 nominal (adjustable within the range 120Vdc-350Vdc, independently/each input)		
No of independent MPPT trackers	2		
Max. Input Power, each MPPT [kW]	2	3	
No. of DC Inputs	2 (1 each MPPT)		3 (2 for MPPT1, 1 for MPPT2)
Max. DC Current, each MPPT [A]	10 (12,5 short circuit)	16 (20 short circuit)	
DC Connection	4 (2 positive, 2 negative)		6 (3 positive, 3 negative)
	Weidmüller / MultiContact Ø 4mm (male - positive input + female - negative input)		
	Mating cable connector included		
	Conductor cross section: 4-6mmq/AWG12-10 - Cable Ø w/insulator: 3-6mm		
INPUT PROTECTION			
Reverse polarity protection	Yes		
Fuse rating, each input (-FS suffix versions only)	NA	NA	NA
Thermally Protected DC side varistor	4 (2 for each MPPT)		
PV array Insulation Control	according to VDE0126-1-1		
DC Switch (-S/-FS suffix versions only)	Integrated (Rating : 600Vdc / 25A)		
OUTPUT PARAMETERS			
Nominal AC Power [up to 50°C, kW]	3	3,6	4,2
Max. AC Power [kW]	3,3	4	4,6
AC Grid Connection	single phase (Live, Neutral, PE)		
Nominal AC Voltage [V]	230		
AC Voltage Range [V]	180-264 (may vary to comply with regulations in each country)		
Nominal AC Frequency [Hz]	50		
Max. AC Line Current [A]	14,5 (16 short circuit)	17,2* (19 short circuit)	20 (22 short circuit)
AC Connection	Screw terminal block		
	Conductor cross section: Solid 0,5-16mmq / Stranded: 0,5-10mmq / AWG20-6		
	Cable Gland: M25 - Cable Ø: 10-17mm		
Line Power Factor	>0,995		
AC Current Distortion [THD%]	<3,5% at rated power with sine wave voltage		
OUTPUT PROTECTION			
AC side varistors	2 (Live - Neutral / Live - PE)		
Ground fault protection (AC + DC leakage current)	according to VDE0126-1-1		
ENVIRONMENTAL PARAMETERS			
Cooling	Natural cooling		
Ambient Temp. Range [°C]	-25 / +60 (output power derating above 50 °C)	-25 / +60 (output power derating above 55 °C)	-25 / +60 (output power derating above 50 °C)
Operating Altitude [m]	2000		
Acoustical Noise [dBA]	< 50 @ 1mt		
Environmental IP Rating	IP65		
Relative Humidity	0-100% condensing		
MECHANICAL			
Dimensions [H x W x D]	547 x 325 x 210		
Overall Dimensions (with flanges) [H x W x D]	689 x 325 x 222		
Weight [kg]			

(*) Limited to 16A for UK G83/1 Version.



APPENDIX C - TECHNICAL DATA

MODEL	PVI-5000-TL-OUTD	PVI-6000-TL-OUTD
INPUT PARAMETERS		
Nominal DC Power [kW]	4,8	6,2
Max. Recommended DC Power [kW]	5,75	6,9
Operating Input Voltage Range [V]	0,7xVstart - 580 (360 nominal)	
Full Power MPPT input voltage range (symmetrical load) [V]	150-530	180-530
Full Power MPPT input voltage range (asymmetrical load) [V]	220-530 (@ 4kW) / 90-530 (@ 0,8kW)	220-530 (@ 4kW) / 120-530 (@ 2,2kW)
Absolute Max. Input Voltage [V]	600	
Activation voltage "Vstart" [V]	200 nominal (adjustable within the range 120Vdc-350Vdc, independently/each input)	
No of independent MPPT trackers	2	
Max. Input Power, each MPPT [kW]	4	
No. of DC Inputs	4 (2 each MPPT)	
Max. DC Current, each MPPT [A]	18 (22 shortcircuit)	
DC Connection	8 x Weidmüller / MultiContact Ø 4mm (4 male - positive input + 4 female - negative input)	
	Mating cable connector included	
	Conductor cross section: 4-6mmq/AWG12-10 - Cable Ø w/insulator: 3-6mm	
INPUT PROTECTION		
Reverse polarity protection	Yes	
Fuse rating, each input (-FS suffix versions only)	NA	NA
DC side varistors	4 (2 for each MPPT), thermally protected	
PV array Insulation Control	according to VDE0126-1-1	
DC Switch (-S/-FS suffix versions only)	Integrated (Rating: 600Vdc / 25Adc)	
OUTPUT PARAMETERS		
Nominal AC Power [up to 50°C, kW]	5(**)	6
Max. AC Power [kW]	5(**)	6
AC Grid Connection	single phase 230Vac 50Hz + PE	
Nominal AC Voltage [V]	230	
AC Voltage Range [V]	180-264 (may vary to comply with regulations in each country)	
Nominal AC Frequency [Hz]	50	
Max. AC Line Current [A]	25 (32 short circuit)	30 (40 short circuit)
AC Connection	Cage-clamp terminal block	
	Conductor Cross Section: Solid: 0,5-16mmq / Stranded: 0,5-10mmq / AWG20-6	
	Cable Gland: M32 - Cable Ø: 13-21mm	
Line Power Factor	>0,995	
AC Current Distortion [THD%]	<3,5% at rated power with sine wave voltage	
OUTPUT PROTECTION		
AC side varistors	2, plus gas arrester to ground	
Ground fault protection (AC + DC leakage current)	according to VDE0126-1-1	
ENVIRONMENTAL PARAMETERS		
Cooling	Natural cooling	
Ambient Temp. Range [°C]	-25 / +60 (output power derating above 60 °C)	-25 / +60 (output power derating above 50 °C)
Operating Altitude [m]	2000	
Acoustical Noise [dBA]	<50 @1mt	
Environmental IP Rating	IP65	
Relative Humidity	0-100% condensing	
MECHANICAL		
BOX Dimensions [H x W x D]	740 x 325 x 208	
Overall Dimensions (with flanges) [H x W x D]	910 x 325 x 222	
Weight [kg]	26	

(**) Limited to 4600W for Germany.

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APPENDIX C - TECHNICAL DATA

MODEL	PVI-10.0-TL-OUTD	PVI-12.5-TL-OUTD
INPUT PARAMETERS		
Nominal DC Power [kW]	10,3	12,8
Max. Recommended DC Power [kW]	11,4	14,3
Operating Input Voltage Range [V]	0,7xVstart - 850 (580 nominal)	
Full Power MPPT input voltage range (symmetrical load) [V]	300-750	360-750
Full Power MPPT input voltage range (asymmetrical load) [V]	380-750 (@ 6,8kW) / 195-750 (@ 3,5kW) / 445-750 (@ 8kW) / 270-750 (@ 4,8kW)	
Absolute Max. Input Voltage [V]	900	
Activation voltage "Vstart" [V]	360 nominal (adjustable within the range 250Vdc-500Vdc, independently/each input)	
No of independent MPPT trackers	2	
Max. Input Power, each MPPT [kW]	6,8	8
No. of DC Inputs	6 (3 each MPPT, optionally fused) in PVI-10.0/12.5-TL-OUTD and in PVI-10.0/12.5-TL-OUTD-FS version 4 (2 each MPPT) in PVI-10.0/12.5-TL-OUTD-S version	
Max. DC Current, each MPPT [A]	18 (22 shortcircuit)	
DC Connection	12 x Weidmüller / MultiContact Ø 4mm (6 male - positive input + 6 female - negative input) in PVI-10.0/12.5-TL-OUTD and in PVI-10.0/12.5-TL-OUTD-FS version 8 x Weidmüller / MultiContact Ø 4mm (4 male - positive input + 4 female - negative input) in PVI-10.0/12.5-TL-OUTD-S version Mating cable connector included Conductor cross section: 4-6mmq/AWG12-10 - Cable Ø w/insulator: 3-6mm	
INPUT PROTECTION		
Reverse polarity protection	Yes	
Fuse rating, each input (-FS suffix versions only)	10Adc / 900Vdc	
DC side varistors	4 (2 for each MPPT), thermally protected	
PV array Insulation Control	according to VDE0126-1-1	
DC Switch (-S/-FS suffix versions only)	Integrated (Rating: 1000Vdc / 25Adc)	
OUTPUT PARAMETERS		
Nominal AC Power (up to 50°C, kW)	10	12,5
Max. AC Power [kW]	11(***)	13,8
AC Grid Connection	3 phase 400Vac 50Hz with or without neutral (3 or 4 wires) + PE	
Nominal AC Voltage [V]	400V	
AC Voltage Range [V]	320-480Vac (may vary to comply with regulations in each country)	
Nominal AC Frequency [Hz]	50	
Max. AC Line Current [A]	16,6A per phase (19A short circuit)	20A per phase (22A short circuit)
AC Connection	Screw terminal block Conductor Cross Section: Solid: 0,5-16mmq / Stranded: 0,5-10mmq / AWG20-6 Cable Gland: M40 - Cable Ø: 19-28mm	
Line Power Factor	>0,995	
AC Current Distortion [THD%]	<2% at rated power with sine wave voltage	
OUTPUT PROTECTION		
AC side varistors	3, star connected to common point, plus gas arrester to ground	
Ground fault protection (AC + DC leakage current)	according to VDE0126-1-1	
ENVIRONMENTAL PARAMETERS		
Cooling	Natural cooling	
Ambient Temp. Range [°C]	-25 / +60 (output power derating above 55 °C)	-25 / +60 (output power derating above 50 °C)
Operating Altitude [m]	2000	
Acoustical Noise [dBA]	<50 @ 1mt	
Environmental IP Rating	IP65	
Relative Humidity	0-100% condensing	
MECHANICAL		
BOX Dimensions [H x W x D]	645 x 645 x 211	
Overall Dimensions (with flanges) [H x W x D]	716 x 645 x 224	
Weight [kg]	38	

(***) Limited to 10000W for Benelux.

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