



Weidmüller 

Phambili Interface Project Track Record PV

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PROJECT TRACK RECORD PV

The following is a list of experience of supply to PV plants in South Africa.

1	Project:	Droogfontein (Kimberly) 48MW and De Aar (48MW)
	Client:	Siemens Energy and Renewables SA
	Scope:	Procure components, assemble supply and deliver 3600 of 1000VDC combiner boxes (5 string without monitoring) plus 36000 external PV cables and connectors (see picture 1 below). 100% local assembly with BEE sub-contractors, project management and QC by Phambili Interface (Pty) Ltd supply of secondary combiner box terminals and components to subcontractor (see picture 2 below).
	General conditions of contract:	Standard supply and deliver
	Duration:	March 2013 - June 2013



Picture 1: 5 string combiner box and connectors



Picture 2: Secondary combiner box components



2	Project:	Lesedi (Postmasburg) 75MW Letsastsi (Bloemfontein) 75MW
	Client:	Gransolar Cobra
	Value:	R48 million
	Scope:	Procure components, assemble supply and deliver 1500 of 1000VDC primary combiner boxes (16 string with monitoring) (see picture 3 below) plus 600 off 1000VDC secondary combiner boxes (see picture 4 below). Partial local assembly with BEE subcontractors, majority assembled in Weidmüller Spain, project management and QC by Phambili Interface (Pty) Ltd.
	General conditions of contract:	Standard supply and deliver
	Duration:	April 2013 - August 2013



Picture 3: 16 string primary combiner box with monitoring



Picture 4: Secondary combiner boxes



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Project: Swartland PV (Malmesbury) 8MW

Client: JUWI

Value: R2 million

Scope: Procure assembled 1000VDC combiner boxes 16 string (see picture 5) and 32 string with monitoring (see picture 6) plus plinths. Assembled in Weidmüller Spain, project management and QC by Phambili Interface (Pty) Ltd.

General conditions of contract: Standard supply and deliver

Duration: December 2013 – February 2014



Picture 5: JUWI 16 string with monitoring



Picture 6: JUWI 32 string with monitoring



4	Project:	Boshof PV Plant (Boshof)
	Client:	Engala Africa (Pty) Ltd (Basil Read Matomo)
	Value:	R17 million
	Scope:	Procure components, assemble supply and deliver 648 of 1000VDC primary combiner Boxes (20 string with monitoring) (see picture 7 and 8 below) plus various components (connectors, cable, brackets, conduit). Partial local assembly with BEE subcontractors, plus overseas assembly in Weidmüller Spain, project management and QC by Phambili Interface (Pty) Ltd.
	General conditions of contract:	Standard supply and deliver
	Duration:	May 2014 – August 2014



Picture 7: Boshof 20 string CB with monitoring



Picture 8: Boshof 20 string CB mounting brackets



5	Project:	Bidvest Laundry Spartan Johannesburg 470kW Rooftop PV
	Client:	Bidvest Laundry
	Value:	R7 million
	Scope:	Design, procure, install and commission a 470kW rooftop grid tied PV plant for the Bidvest laundry using Solaredge inverters and optimisers. All PV Panels (1440), mounting structure, DC combiner boxes (16) DC isolator junction boxes (16), inverters (16) optimisers (720) AC junction boxes(1), monitoring and metering, cable channels and cabling where all supplied by Phambili Interface. Phambili Interface subcontracted Sunworx for installation and commissioning of plant. 3 string combiner boxes with class I+II surge protection and fuses (see picture 9). DC isolator boxes for inverters (see picture 10) and inverter station (see picture 11). AC control cabinet (see picture 12). Drone picture of roof installation (see picture 13). Annual energy yield 720Mwhrs - Annual electricity savings (2018) R1.03 million.
	General conditions of contract:	Engineer, design, procure, deliver, install and commission
	Duration:	November 2017 – March 2018



Picture 9: DC combiner box



Picture 10: DC isolator



Picture 11: Inverter station



Picture 12: AC control station



Picture 13: Rooftop installation



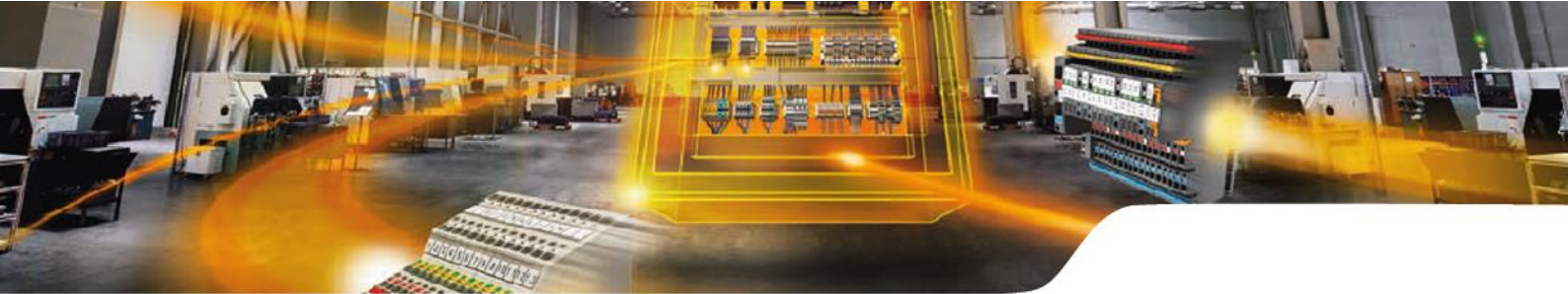
6	Project:	Droogfontein, Waterloo and Bakomoso PV Plants (Round 4)
	Client:	JUWI Renewable Energies ZA
	Value:	R36 million
	Scope:	Procure components, assemble supply and deliver 1200 of 1500VDC primary combiner boxes (20 string with monitoring) (see picture 14 and 15 below) plus various components (connectors, cable, brackets, conduit). 100% local assembly with BEE subcontractors project management and QC by Phambili Interface (Pty) Ltd.
	General conditions of contract:	Standard supply and deliver
	Duration:	December 2018 – October 2019



Picture 14: Juwi round 4 projects 20 string 1500VDC combiner box – external view



Picture 15: Juwi round 4 projects 20 string 1500VDC combiner box – internal view



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Project:

Konkoosies II, Aggeneys PV Plants

Client:

Brand Engineering for ET Solutions/Biotherm Energy

Value:

R21 million

Scope:

Procure components, assemble supply and deliver 1100 of 1500VDC primary combiner boxes (16 string) (see picture 16) plus various components (connectors, cable, brackets, conduit). 100% local assembly with BEE subcontractors project management and QC by Phambili Interface (Pty) Ltd.

General conditions of contract:

Standard supply and deliver

Duration:

May 2019 – August 2019



Picture 16: Biotherm round 4 projects 16 string 1500VDC combiner box – internal view



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Project:	Pretoria Waterkloof Ridge
Client:	Mr R Risk
Value:	R500 000
Scope:	Removal of substandard solar system. Installation of 20kVa Bi-directional battery inverter system along with a 30kWh LiFePO4 battery as well as 12kWp of solar modules (see picture 17&18).
General conditions of contract:	Full turn-key hybrid system
Duration:	6 days December 2018



Picture 17: Full system with battery, charge controllers, inverters along with DC combiner and solar combiner



Picture 18: Layout of PV modules installed onto a tile roof



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Project:	Krugersdorp Featherbrooke Estate Roodepoort
Client:	Mr. D du Plessis
Value:	R950 000
Scope:	Installation of 30kVa bi-directional battery inverter system along with a 65kWh LiFePO4 battery as well as 16.5kWp of Solar Modules (see picture 19 below).
General conditions of contract:	Full turn-key hybrid system
Duration:	10 days May 2018



Picture 19: Full system with battery, charge controllers, inverters along with DC fusing and DC combiner boxes



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Project:	Adams 10MW PV Project
Client:	Aurex Construction
Value:	R1.7 million
Scope:	Procure components, assemble supply and deliver 76 of 1500VDC primary combiner boxes (14 string) plus 76 1500VDC isolator enclosures. 100% local assembly with BEE subcontractors, project management and QC by Phambili Interface (Pty) Ltd.
General conditions of contract:	Standard supply and deliver
Duration:	April 2021 – June 2021



Picture 20: 14 String primary combiner box without monitoring or SPD.