



## Preferred Electrical Equipment List

Gippsland Water Business Management System	
<b>Detailed Title</b>	Gippsland Water – Preferred Electrical Equipment List
<b>File Location</b>	COR/14/81638
<b>Owner</b>	Standards and Products Evaluation Committee (Electrical)
<b>Sponsor</b>	Standards and Products Evaluation Committee (Electrical)
<b>Reviewed</b>	November 2022
<b>Version Number</b>	1.8
<b>Next Review Date</b>	2024
<b>Total Pages</b>	5
<b>WHEN PRINTED DOCUMENT WILL BECOME UNCONTROLLED</b>	

**REVISION HISTORY**

Rev	Description	Author	Date
1.1	COR/02/27924	AIG/SCADA	14 Nov 2002
1.2	COR/14/81638	EIC Standards Committee	29 Aug 2014
1.3	Added valve actuators	P. Stewart, in consultation with AMPD, Scada, Ops	11 Feb 2016
1.4	Added power meter, radar level sensor, pump controller and note on Bluetooth capability	P. Stewart	14 June 2017
1.5	Added Eaton surge filter	P. Stewart	2 April 2020
1.6	Removed Critec surge filter Added Danfoss AAF006 active harmonic filter Added Terasaki and Schneider air circuit breakers Added Terasaki moulded case circuit breakers Added GW approval required for Allen Bradley PowerFlex VSDs Removed Biffi and EIM valve actuators Added Carlo Gavazzi proximity switch Added Rockwell power meter Added Carlo Gavazzi WM50 power meter (multiple small circuits) Removed touch panels Updated PLC to L8* from L7*	P. Stewart	Sept 2020
1.7	Added generator inlet plugs Added Electronic shear pin	P. Stewart	March 2022
1.8	Added detail to Power Meters	P. Stewart	November 2022

## Preferred Electrical Equipment List

All electrical equipment shall be installed as per manufacturer's specifications and shall be capable of operating under climatic and environmental conditions for the location in which it is installed. All items shall be readily and safely accessible for testing, maintenance and replacement.

Standard items shall be used that can be replaced from equipment supplied from the manufacturer without modification. All equipment shall be new and of current model and manufacture.

This list does not cover High Voltage and Hazards area equipment.

The following equipment is preferred by the Gippsland Water. The Contractor may propose alternatives to these, however must demonstrate at the time of Tender that the alternative is able to meet (as a minimum) all requirements provided by equipment on this list.

Items must be approved by the Electrical Standards Committee to be display on the list.

Item	Supplier	Make/Model
3 Pole Main Switch	Socomec Kraus & Namer	SIRCOVER Series CA Series
1 Pole Main Switch	Terasaki	DIN-T10 Series
Generator Plug	Proconect	3PS3A3NE01 - 50 Amp, 5 pin 3PS9A3NE01 - 150 Amp, 5 pin 3PS2A3NE01 - 250 Amp, 5 pin
Surge Diverter	Cirprotec	PSM-20/230
Power Meter (PLC Sites)	Rockwell  (Note that temperature limit is 40 deg C)	Power Monitor 5000 M6 (large MSBs)  Power Monitor 500 (sub boards)
Power Meter (RTU Sites)	IME	NEMO 96HD
Power Meter (multiple small circuits)	Carlo Gavazzi	WM50
Air Circuit Breakers	Terasaki Schneider	TemPower2 Masterpact
Moulded Case Circuit Breakers	Terasaki	TemBreak2
Miniature Circuit Breakers	Clipsal Terasaki	Power Range Din-T/Safe-T Series
Motor Circuit Breakers	Sprecher & Schuh Teraski	KTA7 XS Series
Motor Fuses	SIBA	Class Gg
RCD	Clipsal Terasaki	Power Range Din-T/Safe-T Series
Contactors	Sprecher & Schuh	CA-7 (CAS-7 for emergency stop)
Electronic Shear Pin	Emotron	M20
Emergency Stop Relays & Timers	Pilz	PNOZ & PZW Series
Phase Failure Relays	RMS Carlo Gavazzi	2P740A415 DPA-01-C-M44
Control Relay	IDE Finder	RH4B 55.34 Series
Control Timer	Carlo Gavazzi	DMB-51-D-M24

Terminals	WAGO WEIDMULLER	S-Series WDU Series
GPOs	Clipsal	56C Series
Surge Filter	Eaton	CSFi 25A
Power Supply	Meanwell	DIN Series
DC/DC Converters	Meanwell	Enclosed Type
Transformer	Legrand IME	42304 24V 160A 2402420
Signal Isolator	Weidmuller	Mann Series
Digital Panel Meters	Novus	N1540
Pilot Lights	Sprecher & Schuh	D5P
Push Buttons	Sprecher & Schuh	D5-3LX10
Cubicle Light	PIERLITE	MLC113
Cubicle Fan	B&R Cosmotec	VF34 GKV Series
Cubicle Heater	STEGO	HGK04702
Cubicle Thermostats	Cosmotec	KTS01151 or FZK01100
Building Ventilation	Fantech	AD Series
Pump Controller	MJK VEGA	Shuttle VEGAMET 391
Variable Speed Drive	Danfoss Allen-Bradley	FC202 Series PowerFlex (requires GW approval)
Active Harmonic Filters (Treatment Plants only)	Danfoss	AAF006
Passive Harmonic Filters	Danfoss Schaffner	AHF2 Series Ecosine Series
Submersible Level Sensor	MJK VEGA	Expert 700/1400 (with configurable range) VEGAWELL (with configurable range)
Ultrasonic Level Sensor	MJK VEGA	Shuttle VEGASON
Radar Level Sensor	VEGA	VEGAPULS WL61
Float Switch	MJK	7030
Fluoride	Prominent	
Temperature		
H2S	Drager	
Dissolved Oxygen	MJK Hach	Oxix
PH Meter	Foxboro Hach Prominent	(Combined Meters) (Combined Meters)
Turbidity	HACH MJK	Susix
Flow Meters	MJK Siemens Siemens	Magflux + MODBUS Module Magflo 6000 + MODBUS Module Sitrans FM Magflo MAG 1100
Flow Switch	IFM	SI Series
Proximity Switch	Allen Bradley IFM Carlo Gavazzi	871TM IGA Type Inductive M30

Chlorine Monitoring	Prominent	
Pressure Sensors	VEGA IFM	Vegabar 5X Series PG Type
Pressure Switch	FM	PK Type
Solenoid Valves	Parker Burkert	
Valve Positioners	Keystone SMC Accord	
Valve Actuators (preferably specified by actuator supplier in direct contact with valve supplier)	Rotork Limitorque	
Programmable Logic Controller	NHP (Rockwell)	Allen Bradley ControlLogix L8* (Refer to GW PLC standard for full list of options)
Remote Terminal Unit <sup>Note1</sup>	Motorola	ACE3680
Radio <sup>Note1</sup>	Schneider GE	TRIO E-Series GE MDS

Note 1 Supply of these items must be done via Gippsland Water.

All instruments shall include a display and configuration module mounted in an easily accessible location close to the sensing element.

Bluetooth communication capability is not permitted on equipment unless otherwise approved in writing by Gippsland Water.