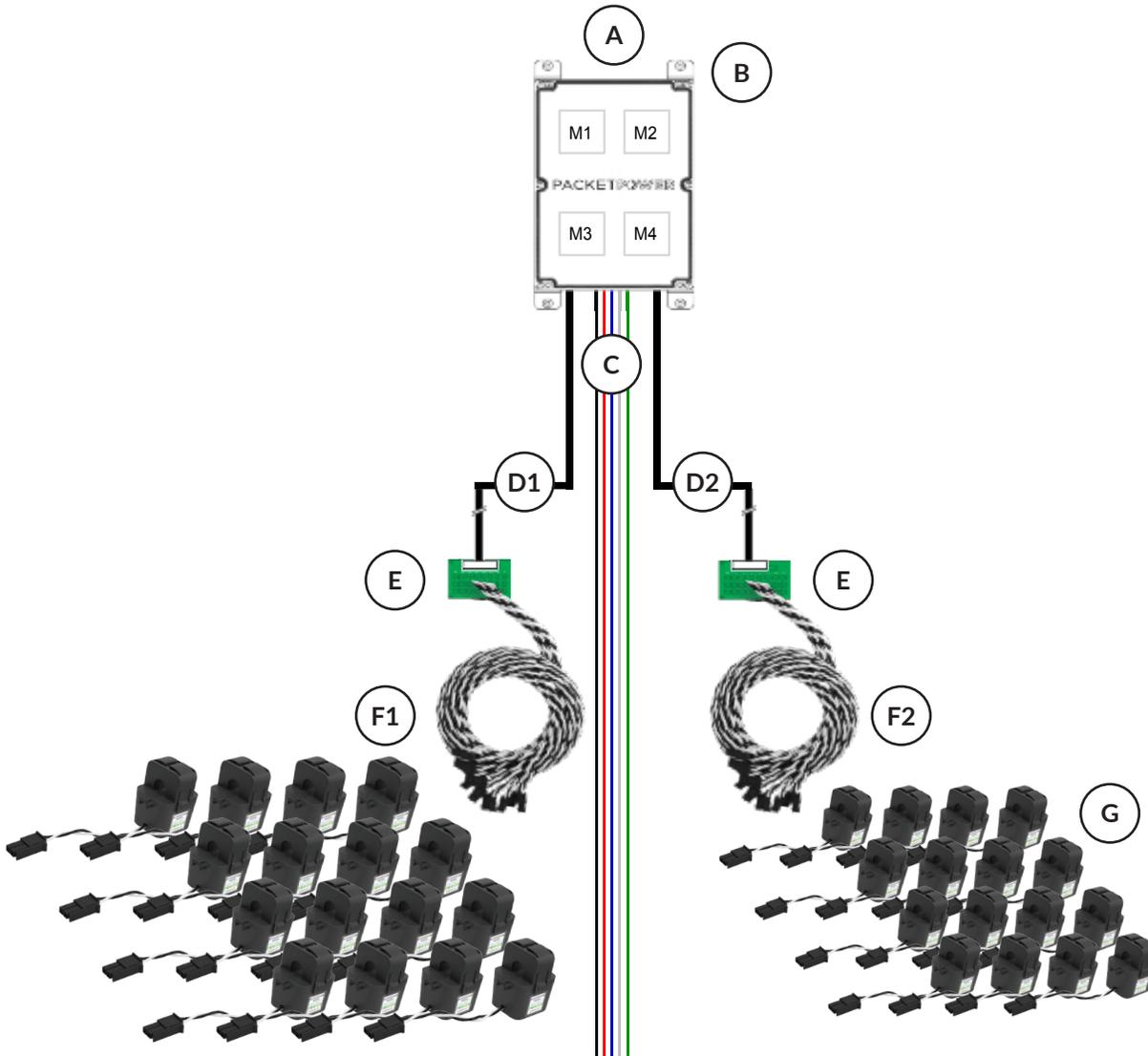


BGS32 Model Components and *Monitoring Made to Measure* Specifications



MULTI-CIRCUIT MONITOR COMPONENTS

Packet Power's BGS32 wireless multi-circuit monitor arrives fully configured to each customer's needs.



BGS32 COMPONENTS

- (A) Device: Up to 4 wireless monitors in a polycarbonate enclosure (NEMA 4 available)
241 x 160 x 96 mm (9.5 x 6.3 x 3.8 in)
- (B) Mounting Tabs: Four 21 x 21 mm (0.84 x 0.84 in) tabs included for mounting on a wall or on device
- (C) Voltage Lead(s): 18 AWG 600V colored wire connected to a 6-position terminal block, 3m or 7m length; 5x20 mm 5A inline fuses on L1, L2, L3
Optional additional voltage leads
- (D) CT Interconnect Cables: Two shielded 300V cords; 1-5m length; terminate in a 34-pin connector that fastens to the CT Interconnect Board
- (E) CT Interconnect Boards: Two 72 x 53 x 6.3 mm (2.8 x 2.1 x 0.2 in) acrylic boards with VHB adhesive tape for mounting
- (F) CT Leads: 24 AWG 600V twisted pair with quick disconnects; 0.5-5m length
Optional CT wire harness available (see page 5 for wire harness options)
- (G) Current Sensors: Up to 32 current sensors of varied amperage and size (see page 4 for options)
 - Split Core: Rated amperage 15A to 4000A; Dimensions vary by amperage
 - Rogowski Coil: (Not shown) Rated amperage 100A to 10,000A; Available in 4 different lengths

MODELS

	Model	Maximum Full Power CTs	Maximum Current Only CTs	Voltage Inputs	Voltage Options
 BGS32-16P 12C pictured	BGS32-16P12C	16	12	1 or 2	120-240V AC 1Φ (LN) 200-230V AC 1Φ (LL) 277V AC 1Φ (LN) 200-230V AC Delta (LLL)
	BGS32-24P	24	None	1, 2 or 3	208/120V AC Wye 240/120V AC Split (LLN)
	BGS32-32P	32	None	1, 2, 3 or 4	415/240V AC Wye 480/277V AC Wye 50/60 Hz Frequency

TECHNICAL SPECIFICATIONS

Measurements	V, A, VA, W, Wh, Power Factor, Hz, THDi, THDv Accuracy: +1.0% (CT dependent) +0.5% available
Fusing	Optional inline 5A fuses
Current Range	Up to 10,000A
Frequency	50/60 Hz
Monitor Dimensions	241 x 160 x 96 mm (9.5 x 6.3 x 3.8 in) without mounting ears
Monitor Weight	1.0 - 1.3 kg (2.3 - 2.8 lb)
Mounting	On wall or on device; mounting tabs included
Available Wire Exits	Left, right, bottom or back 1" NPT (1.375" / 35 mm dia) hole
Voltage Lead Wire	18 AWG 600V; 3m or 7m lengths
CT Interconnect Board Cable (from BGS32 to CT lead)	Shielded 300V cord; 1-5m length
CT Leads	24 AWG 600V twisted pair; quick disconnect; 0.5 - 5m length
Operating Environment	0° to 75°C (32° to 167°F); 5% to 95% non-condensing
Water and Dust Resistance	Polycarbonate enclosure; NEMA 4 if specified
Power Usage	1-5W
Wireless Network Protocol	Frequency hopping self-configuring load-balancing mesh; Operating frequency 860 to 930 MHz and 2.4 GHz (frequencies vary by region)
Wired Network Protocols	HTTPS to Packet Power EMX running locally or as cloud service; SNMP V1/V2c/V3; Modbus TCP/IP; Ethernet/IP; MTConnect; BACnet/IP; MQTT
Firmware Updates	Wireless
Typical Transmission Range	10 to 30 meters indoors between any two devices in mesh network
Antenna	Fully enclosed, fixed configuration
Monitor to Gateway Ratio	Up to 25 monitoring units per Ethernet Gateway with unlimited Gateways per site
Local Display	Volts, Amps and communication status
Made in USA	Yes
Product Warranty	1 year
Certifications	UL 508A and CE, FCC and other country communications standards

MONITORING MADE TO MEASURE

"Monitoring made to measure" means we fully configure each power monitor to meet your exact needs.

Here's what we need to know to cut your installation time in half.

- Voltage input service type and quantity (source power)
- Mix of full power monitoring and current only meters
- Number of current transformers (CTs) and CT amperage(s)
- Desired wire exit location
- Need for inline fuses on the voltage lead(s)
- Length of the cable to the CT interconnect board
- Type of wiring from the interconnect board to the CTs (loose leads or wire harnesses)

Use the Configuration worksheet on page 6 to capture your needs.

Contact sales@packetpower.com with questions or if you need a different option than outlined in the rest of this document.

SPLIT CORE CTs

Rated / Max Amperage	Inside Diameter	External Dimensions (H x W x D)	CT Tail	CT Lead Length
15A / 18A	10 mm	39 x 23 x 26 mm	100 mm	0.5 meter 1 meter 1.5 meters 2 meters 3 meters 5 meters Wire harness (See page 5 for details)
30A / 36A	10 mm	39 x 23 x 26 mm	100 mm	
50A / 63A	10 mm	39 x 23 x 26 mm	100 mm	
100A / 120A	16 mm	44 x 31 x 33 mm	500 mm	
	24 mm	65 x 46 x 35 mm	500 mm	
200A / 240A	24 mm	65 x 46 x 35 mm	500 mm	
	36 mm	85 x 37 x 42 mm	500 mm	
300A / 360A	24 mm	65 x 46 x 35 mm	500 mm	
	36 mm	85 x 37 x 42 mm	500 mm	
	75 x 125 mm	201 x 146 x 16 mm	500 mm	
400A / 480A	36 mm	85 x 37 x 42	500 mm	
	50 x 50 mm	125 x 120 x 30 mm	500 mm	
600A / 720A	36 mm	85 x 37 x 42 mm	500 mm	
	50 x 50 mm	125 x 120 x 300 mm	500 mm	
	75 x 125 mm	201 x 146 x 16 mm	500 mm	
800A / 960A	50 x 50 mm	125 x 120 x 30 mm	500 mm	
	75 x 125 mm	201 x 146 x 16 mm	500 mm	
	150 x 150 mm	225 x 219 x 30 mm	500 mm	
1000A / 1200A	150 x 150 mm	225 x 219 x 30 mm	500 mm	
1200A / 1440A	150 x 150 mm	225 x 219 x 30 mm	500 mm	
1600A / 1920A	150 x 150 mm	225 x 219 x 30 mm	500 mm	
2000A / 2400A	150 x 150 mm	225 x 219 x 30 mm	500 mm	
3000A / 3600A	150 x 150 mm	225 x 219 x 30 mm	500 mm	
4000A / 4800A	150 x 150 mm	225 x 219 x 30 mm	500 mm	

ROGOWSKI COILS

Max Conductor Diameter	Coil Length	Amperage	Coil Lead
68 mm (2.66")	250 mm	100A to 10,000A	2 meters
147 mm (5.87")	500 mm		
211 mm (8")	700 mm		
306 mm (12.6")	1000 mm		



CTs sold separately

CT LEAD WIRE OPTIONS

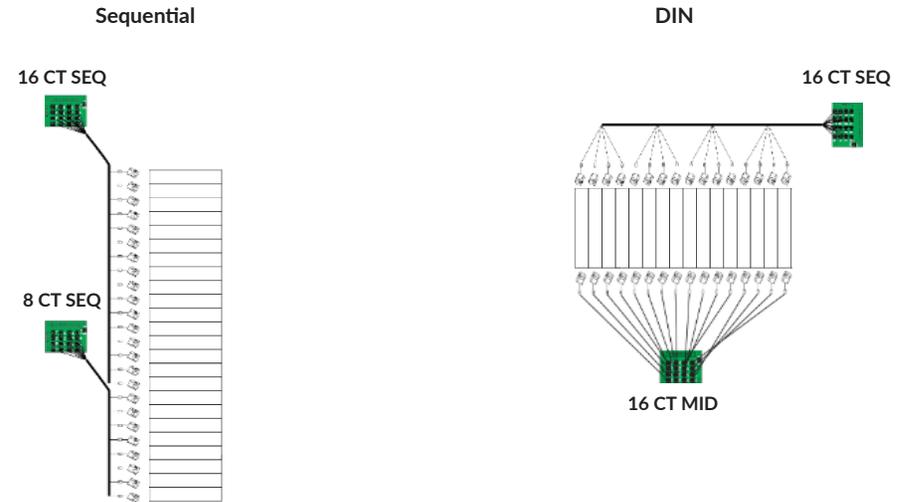
The BGS32 supports loose CT leads at a variety of lengths as well as CT wire harnesses. Loose leads are best suited to equipment such as switchgear that has widely- or unevenly-spaced circuits. Wire harnesses are best installed with evenly-spaced breakers.

Loose Leads



Lead Wire Specifications
24 AWG 600V twisted pair wire with quick disconnects
0.5m, 1m, 1.5m, 2m, 3m or 5m lengths available

Wire Harnesses



Wire Harness Type	16 CT SEQ	8 CT SEQ	16 CT MID
# CTs	16	8	16
Length to 1st CT	495 mm	495 mm	521 mm
1st CT number	1	1	1
Length to last CT	876 mm	673 mm	521 mm
Last CT number	16	8	16
# CT Interconnect Boards	1	1	1

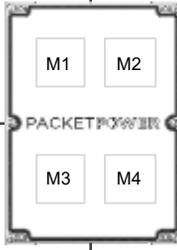
Wire Harness Specifications	24 AWG 300V twisted pair wire with quick disconnects
	Wire lengths and lead labels vary by harness type
	Accommodates inline or DIN mount panels with 25 mm (1") center-to-center breakers

DESIGN YOUR BGS32 MULTI-CIRCUIT MONITOR

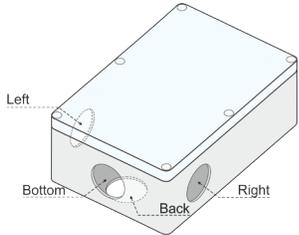
Customer _____

Panel _____

Qty _____

Meter Configuration			
<input type="checkbox"/> Current Only <input type="checkbox"/> Full Power	CT Type: <input type="checkbox"/> Split Core <input type="checkbox"/> Rogowski Coil CT Amperage: _____ (see page 4 for options) CT Qty: _____ CT Lead Type: <input type="checkbox"/> Loose <input type="checkbox"/> Wire Harness CT Lead Length/Harness: _____ (see page 5 for options)		<input type="checkbox"/> Current Only <input type="checkbox"/> Full Power
<input type="checkbox"/> Full Power	CT Type: <input type="checkbox"/> Split Core <input type="checkbox"/> Rogowski Coil CT Amperage: _____ (see page 4 for options) CT Qty: _____ CT Lead Type: <input type="checkbox"/> Loose <input type="checkbox"/> Wire Harness CT Lead Length/Harness: _____ (see page 5 for options)	<input type="checkbox"/> Full Power <input type="checkbox"/> No meter	CT Type: <input type="checkbox"/> Split Core <input type="checkbox"/> Rogowski Coil CT Amperage: _____ (see page 4 for options) CT Qty: _____ CT Lead Type: <input type="checkbox"/> Loose <input type="checkbox"/> Wire Harness CT Lead Length/Harness: _____ (see page 5 for options)

Voltage Source 1	Voltage Source 2	Voltage Source 3	CT Interconnect Cable Length														
<input type="checkbox"/> 120-240V AC 1 Phase (2-wire LN + E) <input type="checkbox"/> 200-230V AC 1 Phase (2-wire LL + E) <input type="checkbox"/> 277V AC 1 Phase (2-wire LN + E) <input type="checkbox"/> 200-230V AC Delta (3-wire LLL + E) <input type="checkbox"/> 240/120V AC Split (3-wire LLL + E) <input type="checkbox"/> 208/120V AC Wye (4-wire + E) <input type="checkbox"/> 415/240V AC Wye (4-wire + E) <input type="checkbox"/> 480/277V AC Wye (4-wire + E)	<input type="checkbox"/> None <input type="checkbox"/> 120-240V AC 1 Phase (2-wire LN + E) <input type="checkbox"/> 200-230V AC 1 Phase (2-wire LL + E) <input type="checkbox"/> 277V AC 1 Phase (2-wire LN + E) <input type="checkbox"/> 200-230V AC Delta (3-wire LLN + E) <input type="checkbox"/> 240/120V AC Split (3-wire LLN + E) <input type="checkbox"/> 208/120V AC Wye (4-wire + E) <input type="checkbox"/> 415/240V AC Wye (4-wire + E) <input type="checkbox"/> 480/277V AC Wye (4-wire + E)	<input type="checkbox"/> None <input type="checkbox"/> 120-240V AC 1 Phase (2-wire LN + E) <input type="checkbox"/> 200-230V AC 1 Phase (2-wire LL + E) <input type="checkbox"/> 277V AC 1 Phase (2-wire LN + E) <input type="checkbox"/> 200-230V AC Delta (3-wire LLN + E) <input type="checkbox"/> 240/120V AC Split (3-wire LLN + E) <input type="checkbox"/> 208/120V AC Wye (4-wire + E) <input type="checkbox"/> 415/240V AC Wye (4-wire + E) <input type="checkbox"/> 480/277V AC Wye (4-wire + E)	<table style="width:100%; border: none;"> <tr> <td style="text-align: center; border: none;"><u>Cable 1 (D1)</u></td> <td style="text-align: center; border: none;"><u>Cable 2 (D2)</u></td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> 1m</td> <td style="border: none;"><input type="checkbox"/> 1m</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> 1.5m</td> <td style="border: none;"><input type="checkbox"/> 1.5m</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> 2m</td> <td style="border: none;"><input type="checkbox"/> 2m</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> 3m</td> <td style="border: none;"><input type="checkbox"/> 3m</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> 5m</td> <td style="border: none;"><input type="checkbox"/> 5m</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> _____m</td> <td style="border: none;"><input type="checkbox"/> _____m</td> </tr> </table> <p style="text-align: center; font-size: small;">Reference D1 and D2 on page 2</p>	<u>Cable 1 (D1)</u>	<u>Cable 2 (D2)</u>	<input type="checkbox"/> 1m	<input type="checkbox"/> 1m	<input type="checkbox"/> 1.5m	<input type="checkbox"/> 1.5m	<input type="checkbox"/> 2m	<input type="checkbox"/> 2m	<input type="checkbox"/> 3m	<input type="checkbox"/> 3m	<input type="checkbox"/> 5m	<input type="checkbox"/> 5m	<input type="checkbox"/> _____m	<input type="checkbox"/> _____m
<u>Cable 1 (D1)</u>	<u>Cable 2 (D2)</u>																
<input type="checkbox"/> 1m	<input type="checkbox"/> 1m																
<input type="checkbox"/> 1.5m	<input type="checkbox"/> 1.5m																
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<input type="checkbox"/> _____m	<input type="checkbox"/> _____m																
V1 Lead Length: <input type="checkbox"/> 3m <input type="checkbox"/> 7m <input type="checkbox"/> _____m <input type="checkbox"/> None Fusing: <input type="checkbox"/> Fused <input type="checkbox"/> Not Fused Meters Powered <input type="checkbox"/> All Meters: _____	V2 Lead Length: <input type="checkbox"/> 3m <input type="checkbox"/> 7m <input type="checkbox"/> _____m <input type="checkbox"/> None Fusing: <input type="checkbox"/> Fused <input type="checkbox"/> Not Fused Meters Powered Meters: _____	V3 Lead Length: <input type="checkbox"/> 3m <input type="checkbox"/> 7m <input type="checkbox"/> _____m <input type="checkbox"/> None Fusing: <input type="checkbox"/> Fused <input type="checkbox"/> Not Fused Meters Powered Meters: _____															

Wire Exit				
	<input type="checkbox"/> Bottom Opening 1" NPT (1.375" / 35 mm dia) hole	<input type="checkbox"/> Back Opening 1" NPT (1.375" / 35 mm dia) hole	<input type="checkbox"/> Left Side Opening 1" NPT (1.375" / 35 mm dia) hole	<input type="checkbox"/> Right Side Opening 1" NPT (1.375" / 35 mm dia) hole

Please contact sales@packetpower.com with questions or if additional customization options are needed.

BGS32 MULTI-CIRCUIT MONITOR ORDERING INFORMATION

Packet Power's BGS32 wireless multi-circuit monitor arrives fully configured to each customer's needs. The components selected in the Configuration worksheet (page 6) result in a unique product number. Please contact sales@packetpower.com with questions or if you have any additional customization needs not shown here.

Example: 3 power meters, 1 480/277V Wye power source, 3M fused voltage leads, 2M CTIB leads, 18-200A CTs, 2M leads, bottom wire exit
 Product Number: BGS3224P-B-Y23FA-22-P-G20026RA

Model	Wire Exit	Voltage Source 1	V Lead 1	Meters	Voltage Source 2	V Lead 2	Meters	Voltage Source 3	V Lead 3	Meters	CT ICB Cable 1	CT ICB Cable 2
BGS3216P12C BGS3224P BGS3232P	B = Bottom L = Left R = Right X = Back	S0 = 120-240V AC 1 Phase (2-wire LN + E) S1 = 200-230V AC 1 Phase (2-wire LL + E) S2 = 277V AC 1 Phase (2-wire LN + E) D0 = 200-230V AC Delta T0 = 240-120V AC Split (3-wire LLN + E) Y0 = 208-120V AC Wye (4-wire + E) Y1 = 415/240V AC Wye (4-wire + E) Y2 = 480/277V AC Wye (4-wire + E)	00 = None 0F = None, Fused 30 = 3M, Not Fused 3F = 3M, Fused 70 = 7M, Not Fused 7F = 7M, Fused C0 = Custom Not Fused CF = Custom Fused	A = All Indicate meter #s	Omit = None S0 = 120-240V AC 1 Phase (2-wire LN + E) S1 = 200-230V AC 1 Phase (2-wire LL + E) S2 = 277V AC 1 Phase (2-wire LN + E) D0 = 200-230V AC Delta T0 = 240-120V AC Split (3-wire LLN + E) Y0 = 208-120V AC Wye (4-wire + E) Y1 = 415/240V AC Wye (4-wire + E) Y2 = 480/277V AC Wye (4-wire + E)	00 = None 0F = None, Fused 30 = 3M, Not Fused 3F = 3M, Fused 70 = 7M, Not Fused 7F = 7M, Fused C0 = Custom Not Fused CF = Custom Fused	Indicate meter #s	Omit = None S0 = 120-240V AC 1 Phase (2-wire LN + E) S1 = 200-230V AC 1 Phase (2-wire LL + E) S2 = 277V AC 1 Phase (2-wire LN + E) D0 = 200-230V AC Delta T0 = 240-120V AC Split (3-wire LLN + E) Y0 = 208-120V AC Wye (4-wire + E) Y1 = 415/240V AC Wye (4-wire + E) Y2 = 480/277V AC Wye (4-wire + E)	00 = None 0F = None, Fused 30 = 3M, Not Fused 3F = 3M, Fused 70 = 7M, Not Fused 7F = 7M, Fused C0 = Custom Not Fused CF = Custom Fused	Indicate meter #s	1 = 1M B = 1.5M 2 = 2M 3 = 3M 5 = 5M C = Custom	1 = 1M B = 1.5M 2 = 2M 3 = 3M 5 = 5M C = Custom

Meter 1 Config	Amperage	CT Lead	CT Qty	Meters	Meter 2 Config	Amperage	CT Lead	CT Qty	Meters	Meter 3 Config	Amperage	CT Lead	CT Qty	Meters	Meter 4 Config	Amperage	CT Lead	CT Qty	Meters
C6 = Current only, 1-6 CTs P8 = Full Power 1-8 CTs PG = Full Power 1-8 CTs	015, 030, 050 100, 200, 300 400, 600, 800 10X = 1000 12X = 1200 16X = 1600 20X = 2000 30X = 3000 40X = 4000 50X = 5000 1XX = 10,000 C = Custom	Omit = None H = 0.5M 1 = 1M B = 1.5M 2 = 2M 3 = 3M 5 = 5M C = Custom	1-8	RA = All meters or Indicate meter #s	C6 = Current only 1-6 CTs P8 = Full Power 1-8 CTs PG = Full Power 1-8 Rogo	015, 030, 050 100, 200, 300 400, 600, 800 10X = 1000 12X = 1200 16X = 1600 20X = 2000 30X = 3000 40X = 4000 50X = 5000 1XX = 10,000 C = Custom	Omit = None H = 0.5M 1 = 1M B = 1.5M 2 = 2M 3 = 3M 5 = 5M C = Custom	1-8	Indicate meter #s	P8 = Full Power 1-8 CTs PG = Full Power 1-8 Rogo	015, 030, 050 100, 200, 300 400, 600, 800 10X = 1000 12X = 1200 16X = 1600 20X = 2000 30X = 3000 40X = 4000 50X = 5000 1XX = 10,000 C = Custom	Omit = None H = 0.5M 1 = 1M B = 1.5M 2 = 2M 3 = 3M 5 = 5M C = Custom	1-8	Indicate meter #s	Omit = None P8 = Full Power 1-8 CTs PG = Full Power 1-8 Rogo	015, 030, 050 100, 200, 300 400, 600, 800 10X = 1000 12X = 1200 16X = 1600 20X = 2000 30X = 3000 40X = 4000 50X = 5000 1XX = 10,000 C = Custom	Omit = None H = 0.5M 1 = 1M B = 1.5M 2 = 2M 3 = 3M 5 = 5M C = Custom	1-8	Indicate meter #s