#### **480V MULTI-CIRCUIT MONITORING**

# PACKETPOWER

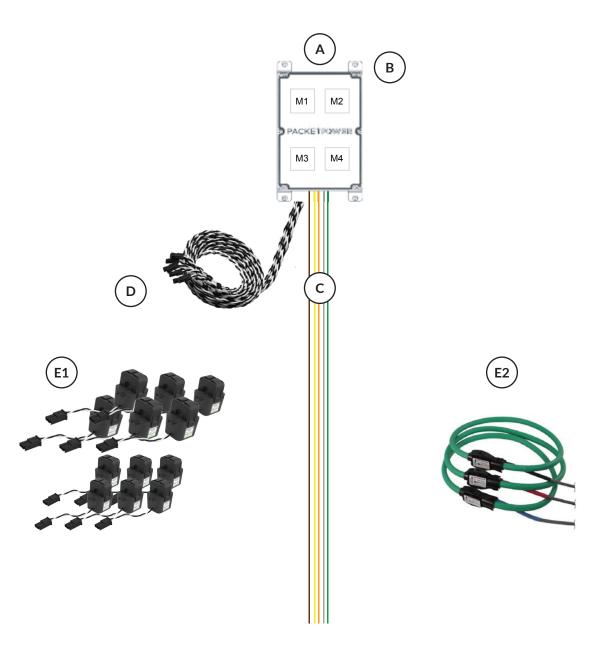
BGS15H Model Components and *Monitoring Made to Measure* Specifications





#### **480V MULTI-CIRCUIT MONITOR COMPONENTS**

Packet Power's BGS15H 480V wireless multi-circuit monitor arrives fully configured to each customer's needs.



#### **BGS15H COMPONENTS**

(A) Device: Three 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 Brackets: 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; Optional 500 mA 1000V ceramic inline fuse in clamshell holder on L1, L2, L3; Ground wire (E)

run separately

24 AWG 600V twisted pair with quick (D) CT Leads:

disconnects; 0.5-5m length

(E) Current Sensors: Up to 15 current sensors of varied amperage

and size (see page 4 for options)

Rated amperage 15A to 4000A; Dimensions vary by amperage (E1) Split Core:

Rated amperage 250A to 3000A; Integrator required; Maximum number of Rogowski coils for BGS15H is 3 (E2) Rogowski Coil:



#### **MODELS**

	Model	Maximum Full Power CTs	Maximum Current Only CTs	Voltage Inputs	Voltage Options
PACKETPOWER O	BGS15H-9P BGS15H-6P6C BGS15H-3P12C	9 6 3	None 6 12	1, 2 or 3 1, 2 or 3 1 or 2	Full power: 480V AC Delta (LLL) 600/347V AC Wye Current only: 100-240V AC 1Φ
BGS15H-3P12C pictured					

#### 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)
- CT lead length

Use the Configuration worksheet on page 5 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.

#### **TECHNICAL SPECIFICATIONS**

Measurements	Full power: V, A, VA, W, Wh, Power Factor, Hz, THDi, THDv Current only: A, Ah (W, Wh using an arbitrary voltage) Accuracy: +1.0% (CT dependent) +0.5% available
Fusing	Optional 500 mA 1000V ceramic fuse in clamshell holder
Current Range	Up to 4000A
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 brackets 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 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



#### **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	
30A / 36A	10 mm	39 x 23 x 26 mm	100 mm	
50A / 63A	10 mm	39 x 23 x 26 mm	100 mm	
4004 / 4004	16 mm	44 x 31 x 33 mm	500 mm	
100A / 120A	24 mm	65 x 46 x 35 mm	500 mm	
200A / 240A	24 mm	65 x 46 x 35 mm	500 mm	
200A / 240A	36 mm	85 x 37 x 42 mm	500 mm	
	24 mm	65 x 46 x 35 mm	500 mm	0.5 meter
300A / 360A	36 mm	85 x 37 x 42 mm	500 mm	0.5 meter
	75 x 125 mm	201 x 146 x 16 mm	500 mm	1 meter
400A / 480A	36 mm	85 x 37 x 42	500 mm	
	50 x 50 mm	125 x 120 x 30 mm	500 mm	1.5 meters
	36 mm	85 x 37 x 42 mm	500 mm	2 meters
600A / 720A	50 x 50 mm	125 x 120 x 300 mm	500 mm	
	75 x 125 mm	201 x 146 x 16 mm	500 mm	3 meters
	50 x 50 mm	125 x 120 x 30 mm	500 mm	
800A / 960A	75 x 125 mm	201 x 146 x 16 mm	500 mm	5 meters
	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
48 mm (1.9")	150 mm		
81 mm (3.2")	300 mm	250A to 3000A	2.4 meters
127 mm (5.2")	450 mm		
178 mm (7.5")	600 mm		
279 mm (11.5")	900 mm		



## Monitoring Made to Measure

BGS15H

DESIGN YOUR BGS15H 480V MULTI-CIRCUIT MONITOR Customer						Panel		Qty	
Meter Configuration									
☐ Current Only☐ Full Power	CT Type: CT Amperage: CT Qty: CT Lead Length:		□ Rogowski Coil e page 4 for options)		M2	☐ Current Onl☐ Full Power☐ No meter	CT A	mperage:	□ Split Core □ Rogowski Coil (see page 4 for options)
□ Full Power	CT Type: CT Amperage: CT Qty: CT Lead Length:	□ Split Core	□ Rogowski Coil e page 4 for options)		M4 Meter 4	☐ Full Power☐ No meter	сто	mperage:	□ Split Core □ Rogowski Coil (see page 4 for options)
Voltage Source 1	Voltage Source 1 Voltage Source 2 Optional Meter Power								
□ 480V AC Delta (3-wire □ 600/347V AC Wye (4-  V1 Lead Length: □ 3m  Fusing: □ Fus  Meters Powered □ All	-wire + E)  1	m □ None	□ 200-23 □ 480VA	□ Fused	2-wire LL + E)  .LL + E)  vire + E)	_m □ None	Lead Ler	120-240V AC 1 200-230V AC 1 277V AC 1 Phase 347V AC 1 Phase 480V AC 1 Phase	e (2-wire LN + E) e (2-wire LL + E)
Wire Exit									
Left Bottom Ba	Right		om Opening 5" / 35 mm dia) hole		Back Opening 375" / 35 mm dia)	hole	□ Left Side Oper 1" NPT (1.375" / 35 n		□ 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.



#### **BGS15H MULTI-CIRCUIT MONITOR MODEL CONFIGURATION INFORMATION**

Packet Power's BGS15H 480V wireless multi-circuit monitor arrives fully configured to each customer's needs. The components selected in the Configuration worksheet (page 5) 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 480V Delta power source, 3M fused voltage lead, 9-200A CTs, 2M leads, right side wire exit

Product Number: BGS15H9P-R-D13FA-P320023RA

Model	-	Wire Exit
BGS15H9P		B = Bottom
BGS15H6P6C		L = Left
BGS15H3P12C		R = Right
		X = Back

Voltage Source 1	V Lead 1	Meters
D1 = 480V AC Delta (3-wire LLL + E) Y3 = 600/3477V AC Wye (4-wire + E)	00 = None  0F = None, Fused  30 = 3M, Not Fused  3F = 3M, Fused  70 = 7M, Not Fused  7F = 7M, Fused	A = All Indicate meter #s

C0 = Custom Not Fused CF = Custom Fused

-	Voltage Source 2	V Lead 2	Meters
	Omit = None S0 = 120-240V AC 1 Phase (2-wire LN + E)	00 = None 0F = None, Fused	Indicate meter #s
	S1 = 200-230V AC 1 Phase (2-wire LL + E)	30 = 3M, Not Fused	
	D1 = 480V AC Delta (3-wire LLL + E)	3F = 3M, Fused	
	Y3 = 600/3477V AC Wye (4-wire + E)	70 = 7M, Not Fused	
		7F = 7M, Fused	
		C0 = Custom Not Fused	
		CF = Custom Fused	

-	Optional Meter Power	V Lead 3
	Omit = None (power from reference) 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) S3 = 347V AC 1 Phase (2-wire LN + E) S4 = 480V AC 1 Phase (2-wire LL + E)	00 = None 0F = None, Fused 30 = 3M, Not Fused 3F = 3M, Fused 70 = 7M, Not Fused 7F = 7M, Fused CO = Custom Not Fused CF = Custom Fused

Meter 1 Config	Amperage	CT Lead	CT Qty	Meters	-
C6 = Current only 1-6 CTs P3 = Full Power 1-3 CTs PG = Full Power 1-3 Rogo	015, 030, 050 100, 200, 300 400, 600, 800 10X = 1000 12X = 1200 16X = 1600 20X = 2000 30X = 3000	Omit = None H = 0.5M 1 = 1M B = 1.5M 2 = 2M 3 = 3M 5 = 5M	1-6	RA = All meters or Indicate meter #s	
	40X = 4000 C = Custom	C = Custom			

-	Meter 2 Config	Amperage	CT Lead	CT Qty	Meters	-
	C6 = Current only 1-6 CTs  P3 = Full Power 1-3 CTs  PG = Full Power 1-3 Rogo	015, 030, 050 100, 200, 300 400, 600, 800 10X = 1000 12X = 1200 16X = 1600 20X = 2000 30X = 3000 40X = 4000 C = Custom	Omit = None H = 0.5M 1 = 1M B = 1.5M 2 = 2M 3 = 3M 5 = 5M C = Custom	1-6	RA = All meters or Indicate meter #s	

-	Meter 3 Config	Amperage	CT Lead	CT Qty
	P3 = Full Power 1-3 CTs PG = Full Power 1-3 Rogo	015, 030, 050 100, 200, 300 400, 600, 800 10X = 1000 12X = 1200 16X = 1600 20X = 2000 30X = 3000 40X = 4000 C = Custom	Omit = None H = 0.5M 1 = 1M B = 1.5M 2 = 2M 3 = 3M 5 = 5M C = Custom	1-3
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