

SAGEPARTS.COM / INFO@SAGEPARTS.COM

# GPU CABLE ASSEMBLIES

# WE'VE GOT THE POWER

**RAMPTECH®** banded and single jacket cable assemblies are built to meet or exceed the industries strictest standards.

**RAMPTECH®** cables are built to withstand the toughest, harshest environmental and operational conditions that exist on today's airport ramps.

**RAMPTECH®** molded cable assemblies have integral strain reliefs to help prevent the cable from pulling out of the head.

## **RAMPTECH®** cables are resistant to:

- Abrasion wear
- Aircraft de-icing and anti-icing fluids
- Extreme heat and cold
- Fuels
- Oils and lubricants

- Ozone
- Runway deicing chemicals
- Skydrol and other hydraulic fluids
- UV and harsh sunlight



## **FEATURES**

- HIGH QUALITY OVER-MOLDED HEADS
- 100% SILVER PLATED COPPER ALLOY CONTACTS
- HIGHEST QUALITY MIL SPEC C5756C CABLE
- 100% NONMETALLIC CABLE BANDS
- 6/1 SINGLE JACKET CABLE OPTIONS

- CABLE SIZES: 1/0 (55 MM), 2/0 (70 MM), AND 4/0 (120 MM)
- STANDARD LENGTHS AVAILABLE:
   30, 40, 50, AND 60 FT (9.14, 12.19, 15.24, AND 18.29 M)
- CUSTOM LENGTHS ARE AVAILABLE ON REQUEST

## **GLOBAL INDUSTRY STANDARDS**

RAMPTECH® cables meet or exceed all familiar industry specifications

• NATO: AN2551 • CABLE SPEC: C5756 • CONNECTOR SPEC: MIL 25488 • ASSEMBLY SPEC: MIL C7974D



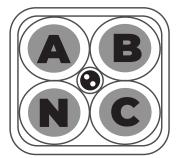
# RAMPTECH® AC 400HZ CABLE ASSEMBLIES

PB29, PM29, and PH29 Series Cables

- STANDARD 400HZ 6 POLE MOLDED ON CONNECTOR
- BANDED ASSEMBLY USING 100% NON-METALLIC BANDS SPACED EVERY TWO FEET
- 100% MIL-SPEC C5756-C CABLE
- METRIC LENGTHS AVAILABLE

Options • INTERLOCK CONTROL WIRES

- REVERSE VOLTAGE SENSING
- E & F WIRES JUMPED



#### BANDED AC CABLE SPECIFICATION

Cable sizes: 1/0, 2/0, and 4/0

Conductor Diameter: 1/0 = 0.40 in. (10 mm)

2/0 = 0.50 in. (13 mm) 4/0 = 0.65 in. (17 mm)

**Jacket Diameter:** 1/0 = 0.77 in. (29 mm)

2/0 = 0.89 in. (22 mm) 4/0 = 1 in. (26 mm)

**Temperature Range:** -76°F - 223°F (-50°C - 105°C)

**Voltage load Capacity:** 1/0 = 230A, 2/0 = 265A,

4/0 = 360A

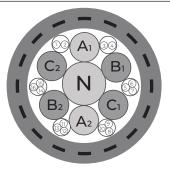
Voltage Rating: 600V

Weight per ft. (0.3 m): 1/0 = 0.56 lbs. (0.3 kg)

2/0 = 0.71 lbs. (0.3 kg)4/0 = 1.06 lbs. (0.5 kg)

Jacket Material: Black SBR 0.2 in. wall thickness

Approvals: Mil-C-5756-C SAE AS-5756



#### SINGLE JACKET SPECIFICATION

**Power Conductors:** 6 each AWG #4 Neutral Conductor

1 each AWG #1 Control Conductors 4 x 3 AWG #18 Control Conductors

2 x TP AWG #18

Voltage Rating: 600 VAC

Current Rating: 260 Amperes

**Temperature Range:** -67°F - 194°F (-55°C - 90°C)

**Diameter:** 1.65 in. (42 mm)

Bending Radius: 10 in. (254 mm)

Voltage Unbalance: 0.02 Volts\*

Voltage Drop: 2.1 Volts\*

Weight Per ft. (0.3 m): 2.1 lbs. (1 kg)

Jacket Material: Reinforced Neoprene



## RAMPTECH® GPU CABLE ASSEMBLIES LINE-UP

## RAMPTECH® 400HZ

PB29 SERIES / Banded Cable Assemblies - Standard Molded-On Head

#### 1/0 AC 400hz BANDED CABLE WITH STANDARD HEAD

4 - 1/0 CABLES AND 1 - 12/2 CONTROL LEAD



	LENGTH FEET METERS		CABLE SIZE   PART NUMBER		DESCRIPTION
			CABLE SIZE	PART NUIVIBER	DESCRIPTION
	15	4.57	1/0	PB291215RPT	CABLE, AC 400hz BANDED 1/0 15FT
	20	6.10	1/0	PB291220RPT	CABLE, AC 400hz BANDED 1/0 20FT
	25	7.62	1/0	PB291225RPT	CABLE, AC 400hz BANDED 1/0 25FT
7	30	9.14	1/0	PB291230RPT	CABLE, AC 400hz BANDED 1/0 30FT
	33	10.00	1/0	PB291233RPT	CABLE, AC 400hz BANDED 1/0 33FT
	40	12.19	1/0	PB291240RPT	CABLE, AC 400hz BANDED 1/0 40FT
	50	15.24	1/0	PB291250RPT	CABLE, AC 400hz BANDED 1/0 50FT

<sup>\*</sup>For jumpered E & F add the letter J behind the length: Example PB291215RPT jumped would be **PB291415JRPT**\*Additional lengths and configurations are available upon request

### 2/0 AC 400hz BANDED CABLE WITH STANDARD HEAD

4 - 1/0 CABLES AND 1 - 12/2 CONTROL LEAD



	LENGTH		CABLE SIZE PART NUMBER		DESCRIPTION
	FEET	METERS	CABLE SIZE	PART NUIVIDER	DESCRIPTION
	15	4.57	2/0	PB291415RPT	CABLE, AC 400hz BANDED 2/0 15FT
I	20	6.10	2/0	PB291420RPT	CABLE, AC 400hz BANDED 2/0 20FT
	25	7.62	2/0	PB291425RPT	CABLE, AC 400hz BANDED 2/0 25FT
1	30	9.14	2/0	PB291430RPT	CABLE, AC 400hz BANDED 2/0 30FT
	33	10.00	2/0	PB291433RPT	CABLE, AC 400hz BANDED 2/0 33FT
	40	12.19	2/0	PB291440RPT	CABLE, AC 400hz BANDED 2/0 40FT
	50	15.24	2/0	PB291450RPT	CABLE, AC 400hz BANDED 2/0 50FT

## PM29 SERIES / Standard Banded Cable with Added HARDHEAD™

### 1/0 AC 400hz BANDED CABLE WITH ADDED HARDHEAD™

4 - 1/0 CABLES AND 1 - 12/2 CONTROL LEAD



LEN	GTH	CABLE SIZE	PART NUMBER	DESCRIPTION
FEET	METERS	CABLE SIZE	PART NUIVIBER	DESCRIPTION
15	4.57	1/0	PM291215RPT	CABLE, AC 400hz BANDED HARDHEAD 1/0 15FT
20	6.10	1/0	PM291220RPT	CABLE, AC 400hz BANDED HARDHEAD 1/0 20FT
25	7.62	1/0	PM291225RPT	CABLE, AC 400hz BANDED HARDHEAD 1/0 25FT
30	9.14	1/0	PM291230RPT	CABLE, AC 400hz BANDED HARDHEAD 1/0 30FT
33	10.00	1/0	PM291233RPT	CABLE, AC 400hz BANDED HARDHEAD 1/0 33FT
40	12.19	1/0	PM291240RPT	CABLE, AC 400hz BANDED HARDHEAD 1/0 40FT
50	15.24	1/0	PM291250RPT	CABLE, AC 400hz BANDED HARDHEAD 1/0 50FT

\*For jumpered E & F add the letter J behind the length: Example PM291215RPT jumped would be PM291215JRPT

\*Additional lengths and configurations are available upon request

Molded in HARDHEAD™ to extend the life of the plugs

### 2/0 AC 400hz BANDED CABLE WITH ADDED HARDHEAD™

4 - 1/0 CABLES AND 1 - 12/2 CONTROL LEAD



	LENGTH		CABLE SIZE	PART NUMBER	DESCRIPTION
	FEET	METERS	CABLE SIZE	PART NUIVIBER	DESCRIPTION
	15	4.57	2/0	PM291415RPT	CABLE, AC 400hz BANDED HARDHEAD 2/0 15FT
	20	6.10	2/0	PM291420RPT	CABLE, AC 400hz BANDED HARDHEAD 2/0 20FT
-	25	7.62	2/0	PM291425RPT	CABLE, AC 400hz BANDED HARDHEAD 2/0 25FT
	30	9.14	2/0	PM291430RPT	CABLE, AC 400hz BANDED HARDHEAD 2/0 30FT
	33	10.00	2/0	PM291433RPT	CABLE, AC 400hz BANDED HARDHEAD 2/0 33FT
	40	12.19	2/0	PM291440RPT	CABLE, AC 400hz BANDED HARDHEAD 2/0 40FT
	50	15.24	2/0	PM291450RPT	CABLE, AC 400hz BANDED HARDHEAD 2/0 50FT

<sup>\*</sup>For jumpered E & F add the letter J behind the length: Example PM291415RPT jumped would be **PM291415JRPT**\*Additional lengths and configurations are available upon request

## PH29 SERIES / Series Standard Banded Cable with HARDHEAD™ and Thermal Protection

This series connector includes a thermal sensing switch molded within the face of the connector. The sensing switch will disconnect external ground power if the temperature of the cable rises to an unsafe level.



## 1/0 AC 400hz BANDED CABLE HARDHEAD<sup>TM</sup> AND THERMAL PROTECTION

4 - 1/0 CABLES AND 1 - 12/2 CONTROL LEAD



		····	CABLE SIZE	PART NUMBER	DESCRIPTION
	FEET	METERS	CABLE SIZE	PART NUIVIBER	DESCRIPTION
I	15	4.57	1/0	PH291215RPT	CABLE, AC 400hz BANDED HARDHEAD AND THERMAL PROTECTION 1/0 15FT
	20	6.10	1/0	PH291220RPT	CABLE, AC 400hz BANDED HARDHEAD AND THERMAL PROTECTION1/0 20FT
	25	7.62	1/0	PH291225RPT	CABLE, AC 400hz BANDED HARDHEAD AND THERMAL PROTECTION1/0 25FT
ĺ	30	9.14	1/0	PH291230RPT	CABLE, AC 400hz BANDED HARDHEADAND THERMAL PROTECTION 1/0 30FT
1	33	10.00	1/0	PH291233RPT	CABLE, AC 400hz BANDED HARDHEAD AND THERMAL PROTECTION 1/0 33FT
	40	12.19	1/0	PH291240RPT	CABLE, AC 400hz BANDED HARDHEAD AND THERMAL PROTECTION 1/0 40FT
	50	15.24	1/0	PH291250RPT	CABLE, AC 400hz BANDED HARDHEAD AND THERMAL PROTECTION1/0 50FT

\*For jumpered E & F add the letter J behind the length: Example PB291215RPT jumped would be **PB291215JRPT**\*Additional lengths and configurations are available upon request

Molded in HARDHEAD™ to extend the life of the plugs

## 2/0 AC 400hz BANDED CABLE HARDHEAD™ AND THERMAL PROTECTION

4 - 2/0 CABLES AND 1 - 12/2 CONTROL LEAD



LENGTH		CABLE SIZE	PART NUMBER	DESCRIPTION
FEET	METERS	CABLE SIZE	PART NOWINER	DESCRIPTION
15	4.57	2/0	PH291415RPT	CABLE, AC 400hz BANDED HARDHEAD AND THERMAL PROTECTION 2/0 15FT
20	6.10	2/0	PH291420RPT	CABLE, AC 400hz BANDED HARDHEAD AND THERMAL PROTECTION 2/0 20FT
25	7.62	2/0	PH291425RPT	CABLE, AC 400hz BANDED HARDHEAD AND THERMAL PROTECTION 2/0 25FT
30	9.14	2/0	PH291430RPT	CABLE, AC 400hz BANDED HARDHEAD AND THERMAL PROTECTION 2/0 30FT
33	10.00	2/0	PH291433RPT	CABLE, AC 400hz BANDED HARDHEAD AND THERMAL PROTECTION 2/0 33FT
40	12.19	2/0	PH291440RPT	CABLE, AC 400hz BANDED HARDHEAD AND THERMAL PROTECTION 2/0 40FT
50	15.24	2/0	PH291450RPT	CABLE, AC 400hz BANDED HARDHEAD AND THERMAL PROTECTION 2/0 50FT

## **28VDC CABLE ASSEMBLIES**

## PB28, PM28, and PH28 Series Cables

From the original basic no frills cable assembly to the most advanced features, RAMPTECH® has you covered.

### Available Features for all 28VDC RAMPTECH® Cables

- BANDED CABLES AVAILABLE IN STANDARD 2/0 AND 4/0 WIRE SIZES
- MOST ERGONOMIC DESIGNED GRIP IN THE INDUSTRY
- SUPERIOR BUILT-IN STRAIN RELIEF
- INDUSTRY LEADING MOISTURE SEAL
- Options Interlock Control Wires
- HARDHEAD™ Wear Noses
- Reverse Voltage Sensing
- Thermal Protection



## RAMPTECH® 28VDC

## PB28 SERIES / Standard 28VDC Banded Cable Assemblies

## 2/0 Standard 28VDC Banded Cables



LEN	GTH	CABLE SIZE	PART NUMBER	DESCRIPTION
FEET	METERS	CABLE SIZE	PART NUIVIBER	DESCRIPTION
15	4.57	2/0	PB281615RPT	CABLE, DC BANDED 2/0 15FT
20	6.10	2/0	PB281620RPT	CABLE, DC BANDED 2/0 20FT
25	7.62	2/0	PB281625RPT	CABLE, DC BANDED 2/0 25FT
30	9.14	2/0	PB281630RPT	CABLE, DC BANDED 2/0 30FT
33	10.00	2/0	PB281633RPT	CABLE, DC BANDED 2/0 33FT
40	12.19	2/0	PB281640RPT	CABLE, DC BANDED 2/0 40FT
50	15.24	2/0	PB281650RPT	CABLE, DC BANDED 2/0 50FT

<sup>\*</sup>Additional lengths and configurations available on request

#### 4/0 Standard 28VDC Banded Cables



	LEN	GTH	CABLE SIZE   PART NUMBER		DESCRIPTION
	FEET	METERS	CABLE SIZE	PART NUIVIDER	DESCRIPTION
	15	4.57	4/0	PB281715RPT	CABLE, DC BANDED 4/0 15FT
	20	6.10	4/0	PB281720RPT	CABLE, DC BANDED 4/0 20FT
4	25	7.62	4/0	PB281725RPT	CABLE, DC BANDED 4/0 25FT
	30	9.14	4/0	PB281730RPT	CABLE, DC BANDED 4/0 30FT
٦	33	10.00	4/0	PB281733RPT	CABLE, DC BANDED 4/0 33FT
	40	12.19	4/0	PB281740RPT	CABLE, DC BANDED 4/0 40FT
	50	15.24	4/0	PB281750RPT	CABLE, DC BANDED 4/0 50FT
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## PM28 SERIES / Standard 28VDC Banded Cable with HARDHEAD™

This molded in HARDHEAD™ option is proven to significantly extend the life of the plug.

## 2/0 28VDC Cables Banded with HARDHEAD™



LEN	GTH	CABLE SIZE	PART NUMBER	DESCRIPTION
FEET	METERS	CABLE SIZE	PART NUIVIBER	DESCRIPTION
15	4.57	2/0	PM281615RPT	CABLE, DC BANDED HARDHEAD 2/0 15FT
20	6.10	2/0	PM281620RPT	CABLE, DC BANDED HARDHEAD 2/0 20FT
25	7.62	2/0	PM281625RPT	CABLE, DC BANDED HARDHEAD 2/0 25FT
30	9.14	2/0	PM281630RPT	CABLE, DC BANDED HARDHEAD 2/0 30FT
33	10.00	2/0	PM281633RPT	CABLE, DC BANDED HARDHEAD 2/0 33FT
40	12.19	2/0	PM281640RPT	CABLE, DC BANDED HARDHEAD 2/0 40FT
50	15.24	2/0	PM281650RPT	CABLE, DC BANDED HARDHEAD 2/0 50FT

Molded in HARDHEAD™ to extend the life of the plugs

\*Additional lengths and configurations are available upon request

### 4/0 28VDC Cables Banded with HARDHEAD™



LENGTH		CABLE SIZE PART NUMBER		DESCRIPTION	
FEET	FEET METERS		PART NUIVIDER	DESCRIPTION	
15	4.57	4/0	PM281715RPT	CABLE, DC BANDED HARDHEAD 4/0 15FT	
20	6.10	4/0	PM281720RPT	CABLE, DC BANDED HARDHEAD 4/0 20FT	
 25	7.62	4/0	PM281725RPT	CABLE, DC BANDED HARDHEAD 4/0 25FT	
30	9.14	4/0	PM281730RPT	CABLE, DC BANDED HARDHEAD 4/0 30FT	
33	10.00	4/0	PM281733RPT	CABLE, DC BANDED HARDHEAD 4/0 33FT	
40	12.19	4/0	PM281740RPT	CABLE, DC BANDED HARDHEAD 4/0 40FT	
50	15.24	4/0	PM281750RPT	CABLE, DC BANDED HARDHEAD 4/0 50FT	

<sup>\*</sup>Additional lengths and configurations are available upon request

## PH28 SERIES / Multi-Option Plug with HARDHEAD™ and Thermal Protection

In addition to our HARDHEAD<sup>TM</sup>, this series connector includes a thermal sensing switch molded within the face of the connector. The sensing switch will disconnect external ground power if the temperature of the cable rises to an unsafe level.



## 2/0 28VDC Cables Banded with HARDHEAD™ and Thermal Protection



LENGTH		CARLECIZE	CABLE SIZE PART NUMBER DESCRIPTION		
FEET	METERS	CABLE SIZE	PART NUIVIBER	DESCRIPTION	
15	4.57	2/0	PH281615RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 2/0 15FT	
20	6.10	2/0	PH281620RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 2/0 20FT	
25	7.62	2/0	PH281625RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 2/0 25FT	
30	9.14	2/0	PH281630RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 2/0 30FT	
33	10.00	2/0	PH281633RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 2/0 33FT	
40	12.19	2/0	PH281640RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 2/0 40FT	
50	15.24	2/0	PH281650RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 2/0 50FT	

Molded in HARDHEAD™ to extend the life of the plugs \*Additional lengths and configurations are available upon request

## 4/0 28VDC Cables Banded with HARDHEAD™ and Thermal Protection



LEN	IGTH	CABLE SIZE	PART NUMBER	DESCRIPTION		
FEET	METERS	CABLE SIZE	PART NUIVIBER	DESCRIPTION		
15	4.57	4/0	PH281715RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 4/0 15FT		
20	6.10	4/0	PH281720RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 4/0 20FT		
25	7.62	4/0	PH281725RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 4/0 25FT		
30	9.14	4/0	PH281730RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 4/0 30FT		
33	10.00	4/0	PH281733RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 4/0 33FT		
40	12.19	4/0	PH281740RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 4/0 40FT		
50	15.24	4/0	PH281750RPT	CABLE, DC BANDED HARDHEAD AND THERMAL PROTECTION 4/0 50FT		



# ADVANCED GPU CABLE AND HEAD FEATURE SETS

**PAGE GSE** provides additional features in the design and operation of the GPU 400Hz cable to improve safety, reliability, and performance.

## THESE FEATURES INCLUDE:

Replaceable 400Hz plug head with thermal protection

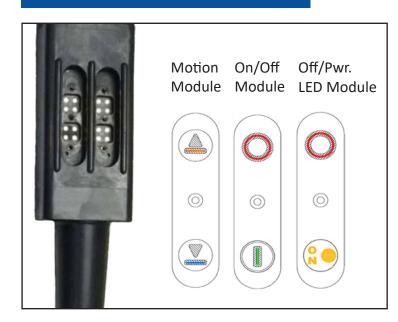
Molded on connector with broken-neutral detection

 Replaceable remote switch modules and LED modules

These features provide operational and visual functions at the end of the cable assembly



## HAVE IT YOUR WAY!



PT25, PT26, and PT27 can easily be configured to meet any specific needs.



# REPLACEABLE 400HZ HARDHEAD™ PLUG AND HARDHEAD™ WITH THERMAL PROTECTION

A replaceable **HARDHEAD™** allows you to service the cable head when it gets worn, extending the life of your cable.

Have loose contacts? Plug falling off the aircraft? The replacement head has all new contacts.

No special tools required





# **P400K** / 400Hz Power Cable Test Kit The most complete cable test kit in the industry

The most critical component in the 400Hz ground power segment is the service cable between the GPU and aircraft. Proper periodic inspection and maintenance are essential.



## **P400K TEST KIT INCLUDES THE FOLLOWING:**

## **P2861 PHASE SEQUENCE TESTER**

Voltage and phase checker with test point to read no load voltage with meter

#### **P471 PIN GAUGE TESTER**

400Hz plug retention tester with lanyard

## P472 GO/NO GO GAUGE

Aircraft receptacle pin tester with non-metallic handle

#### **P473 TENSIONOMETER**

Digital inch pound scale with peak reading for power and control plug removal force

#### P474 IR THERMOMETER

Infrared digital thermometer

## **400HZ POWER PIN BORE BRUSH**

Nylon socket cleaning bore brush

#### **RUGGED HARD CASE**

16 in. L  $\times$  13 in. W  $\times$  8 in. H. Includes cutout foam to hold above listed components







US & CANADA +1-631-501-1300

customerservice-hq@sageparts.com

### MEXICO, CARIBBEAN & LATIN AMERICA

+57-311-297-8100 customerservice-mcla@sageparts.com

#### ASIA PACIFIC

+852 2949 6257 customerservice-hk@sageparts.com

#### UNITED KINGDOM

+44 0 161 8642246 customerserviceuk@sageparts.com

#### **EUROPE**

+331 64 02 53 00 customerservice-eu@sageparts.com We make it easy to order online! esage.sageparts.com

sageparts.com

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