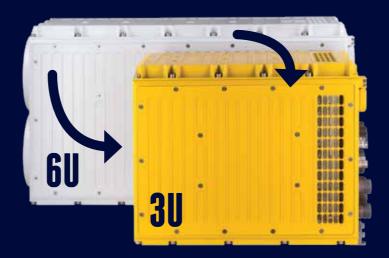
# CM ATR ORDERING INFORMATION

## **CONFIGURING YOUR ATR APPLICATION**

"the COTS chassis buyer's guide"

CM chassis ordering information has been carefully distributed and organized into fields in order to help format part numbers correctly. A complete list of product-specific options and a wide set of off-the-shelf user selectable features have been itemized to avoid confusion when configuring your ATR product.





### CM ATR ORDERING INFORMATION

# 3U Military ATR Chassis Ordering

SWaP military aerospace enclosure part number configuration



Please carefully follow our chassis ordering guide for configuring your 3U ATR part number. Note that all CM 3U Backplanes integrate a functional Temperature Supervisory Unit (TSU) that controls Power Supply and Fan operation. Remote optoisolated control switches for 'Battle-short' and chassis PSU 'on/standby' are also fitted as standard.

#### CHASSIS GENERIC PART NUMBER: CM-ATR-3U /CT /B /I /W /FP /TC /BC /CS /F /C

#### /CT Enclosure Cooling Technique

S: Standard Sealed 3U Enclosure

SEF-18HP: Sealed with Extended Fins + 18 Heat Pipes 3U Enclosure

HES: Sealed with Heat Exchangers 3U Enclosure

HES-FBL(3-5-7-9): Sealed with Heat Exchangers 3U Enclosure FAC: Flowthrough Air Cooled 3U Enclosure (open, non-sealed)

#### /B Backplane Type

VME64x: Military VME64x Backplane (5 Slot 3U 1" Pitch)
cPCI: Military Compact PCI Backplane (5 Slot 3U 1" Pitch)
cPCI-S: Military Compact PCI Serial R.2.0 Backplane (3-5-7-9 Slot 3U 1" Pitch)
VPX: VITA 46 Military VPX Backplane (3-5-7-9 Slot 3U 1" Pitch)
VPX-6: VITA 46 Military VPX Backplane (6 Slot 3U 0.85" Pitch)

#### /I PSU Input Power Voltage

**28VDC:** 28 VDC Input **48VDC:** 48 VDC Input **72VDC:** 72 VDC Input **270VDC:** 270 VDC Input

**90-264VAC:** Autorange 90-264 VAC @ 47-880 Hz Input **200VAC-3Ph:** 200 VAC 3 Phase @ 47-880 Hz Input

#### **/W Power Supply Unit Watts**

**A-475W:** 28 VDC (+5 VDC @ 40A, +3.3 VDC @ 22A, ±12 VDC @ 8A) **A-575W:** All PSUs (+5 VDC @ 40A, +3.3 VDC @ 22A, ±12 VDC @ 12A) **A-675W:** 28 VDC (+5 VDC @ 80A, +3.3 VDC @ 22A, ±12 VDC @ 8A) **A-775W:** All PSUs (+5 VDC @ 80A, +3.3 VDC @ 22A, ±12 VDC @ 12A) **A** 

**B-450W:** 28 VDC (+5 VDC @ 20A, +3.3 VDC @ 45A, ±12 VDC @ 8A) **B-550W:** All PS Us (+5 VDC @ 20A, +3.3 VDC @ 45A, ±12 VDC @ 12A) **B-564W:** 28 VDC (+5 VDC @ 20A, +3.3 VDC @ 80A, ±12 VDC @ 8A) **B-664W:** All PSUs (+5 VDC @ 20A, +3.3 VDC @ 80A, ±12 VDC @ 12A) **A** 

C-475W: 28 VDC (+5 VDC @ 20A, +3.3 VDC @ 22A, +12 VDC @ 16A,-12 VDC @ 8A)
C-575W: All PSUS (+5 VDC @ 20A, +3.3 VDC @ 22A, +12 VDC @ 21A, -12 VDC @ 12A)
C-775W: 28 VDC (+5 VDC @ 20A, +3.3 VDC @ 22A, +12 VDC @ 41A, -12 VDC @ 8A)
C-825W: All PSUS (+5 VDC @ 20A, +3.3 VDC @ 22A, +12 VDC @ 41A, -12 VDC @ 12A)

**D-550W:** 28 VDC (+5 VDC @ 40A, +3.3 VDC @ 45A, ±12 VDC @ 8A)\* **D-650W:** All PSUS (+5 VDC @ 40A, +3.3 VDC @ 45A, ±12 VDC @ 12A)\*

**E-550W:** 28 VDC (+5 VDC @ 20A, +3.3 VDC @ 45A, +12 VDC @ 16A, -12 VDC @ 8A)\* **E-650W:** All PSUs (+5 VDC @ 20A, +3.3 VDC @ 45A, +12 VDC @ 21A, -12 VDC @ 12A)\*

 $\begin{tabular}{ll} F-575W: 28 VDC (+5 VDC @ 40A, +3.3 VDC @ 22A, +12 VDC @ 16A, -12 VDC @ 8A) & F-675W: All PSUS (+5 VDC @ 40A, +3.3 VDC @ 22A, +12 VDC @ 21A, -12 VDC @ 12A) & F-675W: All PSUS (+5 VDC @ 40A, +3.3 VDC @ 22A, +12 VDC @ 21A, -12 VDC @ 12A) & F-675W: All PSUS (+5 VDC @ 40A, +3.3 VDC @ 22A, +12 VDC @ 21A, -12 VDC @ 12A, -12 VDC @ 12A$ 

All PSUs = All PSUs except 28 VDC input | 28 VDC = 28 VDC input only

\*PSU not available for CM-ATR-3U/FAC & CM-ATR-3U/HES-FBL chassis models

# MOUNTING TRAY GENERIC PART NUMBER:

CM-TR-3U /CT

#### /FP Front Panel Layout

CMP: Standard CM front panel fitted with MIL-DTL-38999 connectors UDP: User-defined front panel layout (requires customer drawing)

#### /TC Chassis Top Cover

STC: Standard Top Cover. Wiring clearance 13mm
FTC: Standard Top Cover. Wiring clearance 13mm. (Std. on SEF-18HP)
HTC: High profile Top Cover. Wiring clearance 35mm
HETC: Heat Exchanger Top Cover. Wiring clearance 13mm (Std. on HES & HES-FBL)

#### **/BC Chassis Bottom Cover**

SBC: Standard Bottom Cover. Wiring clearance below backplane 24mm HBC: High profile Bottom Cover. Wiring clearance below backplane 49mm

#### /CS Chassis Card-Cage Slot

MCS: Mixed Card-cage Slots (mixed conduction-cooled & air-cooled boards) CCS: Conduction-cooled Card-cage Slots (conduction-cooled boards only)

- MCS is not available for CM-ATR-3U/HES-FBL chassis models

#### /F Rear-Mounted Fan Assembly

STDF-DC: 2x42 CFM DC Rugged fans (HES & HES-FBL) or 1x27 CFM DC Rugged fan (FAC)

STDF-AC: 2x47 CFM 115 VAC @ 400Hz Rugged fans (HES & HES-FBL) or 1x27 CFM DC Rugged fan (FAC)

F115-400: 2x65 CFM 115 VAC @ 400Hz Rotron PX2 Military fans (HES & HES-FBL) or 1x65 CFM Rotron PX2 Military fan (FAC)

**F200-400:** 2x120 CFM 200 VAC 3PH @ 400Hz Rotron PX2 fans (HES & HES-FBL) or 1x120 CFM Rotron PX2 Military fan (FAC)

- No rear fan required for CM-ATR-3U/S & /SEF-HP, omit option from part number.
- Rugged fans are fitted with aluminum housing. Operating range: -10°C to +70°C
- Full military Rotron PX2 AC fans. Operating range: -54°C to +125°C

#### **/C Chassis Color**

B: Black, G: Navy Grey, E: Army Dark Earth, W: White, R: Red, PT: Platinum, YW: Yellow, GN: Green, BLU: Dark Blue, CR: Chromate MIL-C-5541 or O: Other

#### **PART NUMBER EXAMPLE:**

#### CM-ATR-3U/SEF-18HP/VPX/28VDC/A-475W/UDP/FTC/SBC/CCS/E

- 5 slot, Sealed with Extended Fins + 18 Heat Pipes 3U Avionics Enclosure.
- 5 slot, 3U VPX 1" Pitch backplane. 28VDC input power supply.
- A-475W power supply (+5 VDC @ 40A, +3.3 VDC @ 22A, ±12 VDC @ 8A).
- User-defined front panel layout (requires drawing).
- Finned Top Cover (\$13mm). Standard Bottom Cover (backplane \$25mm).
- Conduction-cooled Card-cage Slots (conduction-cooled boards only).
- Enclosure color: Army Dark Earth.



## **CM ATR ORDERING INFORMATION**

# **6U Military ATR Chassis Ordering**

high performance military aerospace enclosure part number configuration



#### **CHASSIS GENERIC PART NUMBER:**

CM-ATR-S5 /CT /B /I /W /3.3 /D1 /D2 /R /S /FP /TC /BC /CS /F /G /C

#### /S5 COTS Enclosure Size/Model

**CM-ATR-25:** 5 Slot 6U Enclosure (0.8" pitch - 1/2 ATR type) **CM-ATR-125:** 5 Slot 6U Enclosure (1" pitch - 1/2 ATR type) **CM-ATR-35:** 7 Slot 6U Enclosure (0.8" pitch - 3/4 ATR type) **CM-ATR-135:** 7 Slot 6U Enclosure (1" pitch - 3/4 ATR type) **CM-ATR-45:** 12 Slot 6U Enclosure (0.8" pitch - 1 ATR type)

#### /CT Enclosure Cooling Technique

S: Standard Sealed (0.8" pitch)

SEF: Sealed with Extended Fins (0.8" pitch)

SEF-HP: Sealed with Extended Fins + 18/20 Heat Pipes (0.8" pitch)

HES: Sealed with 4 Heat Exchangers (0.8" and 1" pitch versions) SIXHEX: Sealed with 6 Heat Exchangers (0.8" and 1" pitch versions)

**SIXHEX.** Sealed with 6 Heat Exchangers and integrated Heat Pipes

(0.8" pitch with 16HP and 1" pitch with 20HP versions)

FAC: Flowthrough Air Cooled Enclosure (open, non-sealed) (0.8" pitch)

#### /B Backplane Type (slot pitch according to chassis model)

VME64x: Military VME64x Backplane cPCI: Military Compact PCI Backplane VPX: VITA 46 Military VPX Backplane

VME64x/VPX: Hybrid VME64x mixed with VPX Military Backplane VME64x/cPCI: Hybrid VME64x mixed with cPCI Military Backplane

Note: Hybrid dual bus backplanes are available for a limited set of chassis only

#### /I PSU Input Power Voltage

**28VDC:** 28 VDC Input **48VDC:** 48 VDC Input **72VDC:** 72 VDC Input **270VDC:** 270 VDC Input

**90-264VAC:** Autorange 90-264 VAC @ 47-880 Hz Input **200VAC-3PH:** 200 VAC 3 Phase @ 47-880 Hz Input

#### **/W Power Supply Unit Watts**

All PSUs = All PSUs except 28 VDC input | 28 VDC = 28 VDC input only

#### PSUs for CM-ATR-25 (5 slot)

Models: /S or /SEF or /SEF-HP or /HES (0.8") or /FAC 300W: 28 VDC (+5 VDC @ 20A, +3.3 VDC @ 5A, ±12 VDC @ 8A)

400W: All PSUs (+5 VDC @ 20A, +3.3 VDC @ 5A, ±12 VDC @ 12A)

#### Models: /S or /SEF or /SEF-HP or /HES or /SIXHEX or /SIXHEX-HP

**A-475W:** 28 VDC (+5 VDC @ 40A, +3.3 VDC @ 22A, ±12 VDC @ 8A) **A-575W:** All PSUs (+5 VDC @ 40A, +3.3 VDC @ 22A, ±12 VDC @ 12A) **B-450W:** 28 VDC (+5 VDC @ 20A, +3.3 VDC @ 45A, ±12 VDC @ 8A) **B-550W:** All PSUs (+5 VDC @ 20A, +3.3 VDC @ 45A, ±12 VDC @ 12A)

**C-475W:** 28 VDC (+5 VDC @ 20A, +3.3 VDC @ 22A, +12 VDC @ 16A,-12 VDC @ 8A) **C-575W:** All PSUs (+5 VDC @ 20A, +3.3 VDC @ 22A, +12 VDC @ 21A, -12 VDC @ 12A)

#### **MOUNTING TRAY GENERIC PART NUMBER:**

CM-TR-S5 /CT

PSUs for CM-ATR-(1)35 (7 slot) & CM-ATR-125 (5 Slot 1" Pitch)

Models: /S or /SEF or /SEF-HP or /HES (0.8") or /FAC

**400W:** 28 VDC (+5 VDC @ 40A, +3.3 VDC @ 5A, ±12 VDC @ 8A) **500W:** All PSUs (+5 VDC @ 40A, +3.3 VDC @ 5A, ±12 VDC @ 12A)

#### Models: /S or /SEF or /SEF-HP or /HES or /SIXHEX or /SIXHEX-HP

**A-575W:** All PSUs (+5 VDC @ 40A, +3.3 VDC @ 22A, ±12 VDC @ 12A) **A-675W:** 28 VDC (+5 VDC @ 80A, +3.3 VDC @ 22A, ±12 VDC @ 8A) **A-775W:** All PSUs (+5 VDC @ 80A, +3.3 VDC @ 22A, ±12 VDC @ 12A) **B-450W:** 28 VDC (+5 VDC @ 20A, +3.3 VDC @ 45A, ±12 VDC @ 8A) **B-550W:** All PSUs (+5 VDC @ 20A, +3.3 VDC @ 45A, ±12 VDC @ 12A) **B-564W:** 28 VDC (+5 VDC @ 20A, +3.3 VDC @ 80A, ±12 VDC @ 8A)

A-475W: 28 VDC (+5 VDC @ 40A, +3.3 VDC @ 22A, ±12 VDC @ 8A)

**B-664W:** All PSUs (+5 VDC @ 20A, +3.3 VDC @ 80A, ±12 VDC @ 12A) **C-475W:** 28 VDC (+5 VDC @ 20A, +3.3 VDC @ 22A, +12 VDC @ 16A, -12 VDC @ 8A) **C-575W:** All PSUs (+5 VDC @ 20A, +3.3 VDC @ 22A, +12 VDC @ 21A, -12 VDC @ 12A) **C-775W:** 28 VDC (+5 VDC @ 20A, +3.3 VDC @ 22A, +12 VDC @ 41A, -12 VDC @ 8A) **C-825W:** All PSUs (+5 VDC @ 20A, +3.3 VDC @ 22A, +12 VDC @ 41A, -12 VDC @ 12A)

**D-550W:** 28 VDC (+5 VDC @ 40A, +3.3 VDC @ 45A, ±12 VDC @ 8A) **D-650W:** All PSUs (+5 VDC @ 40A, +3.3 VDC @ 45A, ±12 VDC @ 12A)

**E-550W:** 28 VDC (+5 VDC @ 20A, +3.3 VDC @ 45A, +12 VDC @ 16A, -12 VDC @ 8A) **E-650W:** All PSUs (+5 VDC @ 20A, +3.3 VDC @ 45A, +12 VDC @ 21A, -12 VDC @ 12A) **F-575W:** 28 VDC (+5 VDC @ 40A, +3.3 VDC @ 22A, +12 VDC @ 16A, -12 VDC @ 8A) **F-675W:** All PSUs (+5 VDC @ 40A, +3.3 VDC @ 22A, +12 VDC @ 21A, -12 VDC @ 12A)

#### Dual-redundant PSUs for /HES or /SIXHEX or /SIXHEX-HP models

**R2x500W:** (+5 VDC @ 25A, +3.3 VDC @ 23A, ±12 VDC @ 12A)

#### PSU for CM-ATR-45 (12 slot)

#### Models: /S or /SEF or /SEF-HP or /HES (0.8") or /FAC

**950W:** 28 VDC (+5 VDC @ 80A, +3.3 VDC @ 45A, ±12 VDC @ 16A) **1050W:** All PSUs (+5 VDC @ 80A, +3.3 VDC @ 45A, ±12 VDC @ 21A)

#### Models: /HES or /SIXHEX or /SIXHEX-HP

**A-950W:** 28 VDC (+5 VDC @ 80A, +3.3 VDC @ 45A, ±12 VDC @ 16A) **A-1050W:** All PSUs (+5 VDC @ 80A, +3.3 VDC @ 45A, ±12 VDC @ 21A)

**B-950W:** 28 VDC (+5 VDC @ 40A, +3.3 VDC @ 45A, +12 VDC @ 33A, -12 VDC @ 16A) **B-1100W:** All PSUs (+5 VDC @ 40A, +3.3 VDC @ 45A, +12 VDC @ 41A, -12 VDC @ 20A)

B-1065W: 28 VDC (+5 VDC @ 80A, +3.3 VDC @ 80A, ±12 VDC @ 16A)
B-1165W: All PSUS (+5 VDC @ 80A, +3.3 VDC @ 80A, ±12 VDC @ 21A)
C-864W: 28 VDC (+5 VDC @ 40A, +3.3 VDC @ 80A, ±12 VDC @ 16A)
C-964W: All PSUS (+5 VDC @ 40A, +3.3 VDC @ 80A, ±12 VDC @ 20A)
C-1225W: 28 VDC (+5 VDC @ 80A, +3.3 VDC @ 160A, ±12 VDC @ 16A)
C-1425W: All PSUS (+5 VDC @ 80A, +3.3 VDC @ 160A, ±12 VDC @ 21A)
D-1350W: 28 VDC (+5 VDC @ 160A, +3.3 VDC @ 80A, ±12 VDC @ 16A)

#### Dual-redundant PSUs for /HES or /SIXHEX or /SIXHEX-HP models

**R2x725W:** (+5 VDC @ 20A, +3.3 VDC @ 23A, ±12 VDC @ 12A, ±28 VDC @ 9A)

D-1550W: All PSUs (+5 VDC @ 160A, +3.3 VDC @ 80A, ±12 VDC @ 21A)

**R2x675W:** (+5 VDC @ 60A, +3.3 VDC @ 23A, ±12 VDC @ 12A) **R2x625W:** (+5 VDC @ 20A, +3.3 VDC @ 68A, ±12 VDC @ 12A)

*R2x710W:* (+5 VDC @ 20A, +3.3 VDC @ 23A, +12 VDC @ 32A, -12 VDC @ 12A)



#### /3.3 DC/DC AUX0 fitted for 3.3VDC (CM-ATR-25 & CM-ATR-35)

3.3-75W: 3.3VDC @ 22A (in lieu of default 3.3 VDC @ 5A)

Optional DC/DC AUXO converter on Backplane fitted for 3.3VDC. Option suited for 1st generation PSU models 300W/400W/500W. Note: If /3.3-75W is not selected, DC/DC power socket AUXO remains free to the user.

#### /D1 DC/DC AUX1 (CM-ATR-35 & CM-ATR-45) /D2 DC/DC AUX2 (CM-ATR-45)

D1: 100W Optional DC/DC Converter on Backplane. User-defined output 1 D2: 100W Optional DC/DC Converter on Backplane. User-defined output 2

Backplane auxiliary DC/DC converter output options: +2VDC 50W, -2VDC 50W, +3.3VDC 75W, -3.3VDC 75W, +5VDC 100W, -5VDC 100W, +12VDC 100W, -12VDC 100W, +15VDC 100W, -15VDC 100W, +28VDC 100W, -28VDC 100W, +48VDC 100W, -48VDC 100W.

Ordering Examples: 48-100W » 48VDC @ 2A / -5-100W » -5VDC @ 20A / 2-50W » 2VDC @ 25A / ±15-100W » ±15VDC @ 6A

#### /R Redundant PSU (Plug-in for VMEbus systems only)

#### RPSU for CM-ATR-35 (7 slot) & CM-ATR-45 (12 slot)

RA-475W: 28 VDC (+5 VDC @ 40A, +3.3 VDC @ 22A, ±12 VDC @ 8A) RB-575W: All PSUs (+5 VDC @ 40A, +3.3 VDC @ 22A, ±12 VDC @ 12A)

#### **/S Temperature Supervisory Unit**

TSU: Optionally installed in backplane (for /S or /SEF or /FAC models) Note: TSU is fitted as standard in /SEF-HP, /HES, /SIXHEX & /SIXHEX-HP models

#### /FP Front Panel Layout

CMP: Standard CM front panel fitted with MIL-DTL-38999 connectors **UDP:** User-defined front panel layout (requires customer drawing)

#### /TC Chassis Top Cover

*STC:* Standard top cover (wiring clearance 20mm)

FTC: Finned top cover (wiring clearance 20mm)\*

*HTC:* High profile top cover (wiring clearance 35mm)

HETC: Heat Exchanger top cover (wiring clearance 20mm)\*\*

**EHETC:** Extended Heat Exchanger top cover (wiring clearance 35mm)

\* FTC chassis top cover is standard on /SEF & /SEF-HP models

\*\* HETC chassis top cover is standard on /HES, /SIXHEX & /SIXHEX-HP models

#### **/BC Chassis Bottom Cover**

**SBC:** Standard bottom cover (wiring clearance below backplane 25mm) HBC: High profile bottom cover (wiring clearance below backplane 50mm)\*

\* 50mm bottom clearance is standard on /HES-1". /SIXHEX & /SIXHEX-HP models

#### /CS Chassis Card-Cage Slot

**MCS:** Mixed Card-cage slots (mixed conduction-cooled & air-cooled boards) CCS: Conduction-cooled Card-cage slots (conduction-cooled boards only)\*

\* CCS card-cage is standard on /HES-1", /SIXHEX-1" & /SIXHEX-HP-1" models

#### /F Rear-Mounted Fan Assembly

#### Fans for CM-ATR-(1)25 (5 slot) & CM-ATR-(1)35 (7 slot)

Models: /FAC

F115-400: 1x65 CFM 115 VAC @ 400Hz Rotron PX2 Military fan F200-400: 1x120 CFM 200 VAC 3PH @ 400Hz Rotron PX2 fan F28: 1x65 CFM 28 VDC Rotron PX2 Military fan (through DC/AC converter) Models: /HES (0.8")

F115-400: 2x65 CFM 115 VAC @ 400Hz Rotron PX2 Military fans F200-400: 2x120 CFM 200 VAC 3PH @ 400Hz Rotron PX2 fans F28: 2x65 CFM 28 VDC Rotron PX2 Military fans (through DC/AC converter)

#### Models: /HES (1") /SIXHEX or /SIXHEX-HP

F115-400: 2x100 CFM 115 VAC @ 400Hz Rotron PX3 Military fans F200-400: 2x140 CFM 200 VAC 3PH @ 400Hz Rotron PX3 fans F28: 2x100 CFM 28 VDC Rotron PX3 Military fans F115-60: 2x100 CFM 115 VAC @ 60Hz Rugged fans F220-50: 2x100 CFM 220 VAC @ 50Hz Rugged fans

#### Fans for CM-ATR-45 (12 slot)

Models: /FAC

F115-400: 2x100 CFM 115 VAC @ 400Hz Rotron PX3 Military fans F200-400: 2x140 CFM 200 VAC 3PH @ 400Hz Rotron PX3 fans F28: 2x100 CFM 28 VDC Rotron PX3 Military fans

Models: /HES

F115-400: 4x65 CFM 115 VAC @ 400Hz Rotron PX2 Military fans F200-400: 4x120 CFM 200 VAC 3PH @ 400Hz Rotron PX2 fans F28: 4x65 CFM 28 VDC Rotron PX2 Military fans (through DC/AC converter)

#### Models: /SIXHEX or /SIXHEX-HP

F115-400: 4x100 CFM 115 VAC @ 400Hz Rotron PX3 Military fans F200-400: 4x140 CFM 200 VAC 3PH @ 400Hz Rotron PX3 fans F28: 4x100 CFM 28 VDC Rotron PX3 Military fans

F115-60: 4x100 CFM 115 VAC @ 60Hz Rugged fans F220-50: 4x100 CFM 220 VAC @ 50Hz Rugged fans

**VAP:** Vehicle Air-Plenum according to system specs (external forced air source)

- No rear fan required for /S, /SEF & /SEF-HP models, omit option from part number
- Rugged fans are fitted with aluminum housing. Operating range: -10°C to +70°C
- Full military Rotron PX2 & PX3 AC fans. Operating range: -54°C to +125°C
- Note: Fan input voltage can be selected independently of main PSU voltage

#### /G Fan Finger Guards

STDG: Standard Rotron PX2/PX3 finger guards EMIG: Optional EMI shielding finger guards with honeycomb filter **GNF:** Optional finger guards with acoustic noise filter (-5dB)

#### **/C Chassis Color**

B: Black, G: Navy Grey, E: Army Dark Earth, W: White, R: Red, PT: Platinum, YW: Yellow, GN: Green, BLU: Dark Blue, CR: Chromate, O: Other (user-defined)

#### PART NUMBER EXAMPLE:

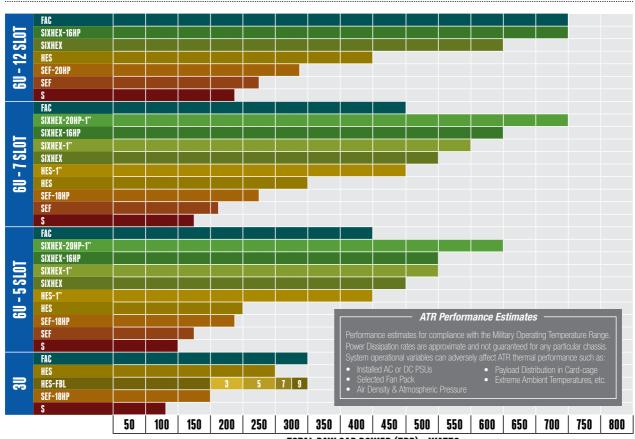
#### CM-ATR-45/HES/VME64x/90-264VAC/A-1050W/15-100W/ -15-100W/UDP/HTC/HBC/MCS/F200-400/EMIG/B

- 12 slot, Heat Exchanger Sidewalls. 6U Avionics Enclosure.
- 12 slot VME64x backplane for 6U boards (0.8" pitch).
- Auto-range 90-264VAC @ 47-880Hz Input Power Supply.
- A-1050W power supply (+5VDC @ 80A, +3.3VDC @ 45A, ±12VDC @ 21A).
- $(\pm)15$ VDC @ 6.6A DC/DC AUX1 & AUX2 user output on backplane. •
- Temperature Supervisory Unit fitted as standard.
- User-defined front panel layout.
- High profile Top & Bottom cover, Universal Card-cage Slots.
- 4x Rotron PX2 military fan 115VAC @ 400Hz (260 CFM total).
- EMI shielded finger guards. Enclosure color: Black.



## CM ATR Chassis Selection Chart

based on system total payload power dissipation



#### TOTAL PAYLOAD POWER (TPP) - WATTS

# Glossary of Technical Terms

establishing new chassis engineering terminology

LT : Chassis Linear Thermal Test (Linear Test)
PT : Chassis Peak Slot Thermal Test (Peak Test)

MT : Chassis Mixed Linear & Peak Slot Thermal Test (Mixed Test)

LT-AV : Linear Test Payload Average TemperaturePT-AV : Peak Test Payload Average TemperatureMT-T1 : Mixed Test Slot 1 Payload Temperature

MT-AV : Mixed Test Payload Average Temperature (excluding Slot 1)
 ΔT : Chassis Payload Delta-T with respect to Ambient Temperature

**TPP**: Total Payload Power

TCEP : Total Chassis Electrical Power
CPTR : Chassis Payload Thermal Resistance
CGTR : Chassis Global Thermal Resistance

**CHMPF**: Chassis Half MTBF Power Factor

**CPMDC**: Chassis Payload MTBF Degradation Coefficient

CIA : Chassis Installed Airflow CEA : Chassis Effective Airflow ADDT : Ambient Airflow Delta-T

**CSAOP**: Chassis Stable Airflow Operating Point

CIARC : Chassis Impedance Airflow Reduction Coefficient

MFARC : Multiple Fan Airflow Reduction Coefficient

OARC : Overall Airflow Reduction Coefficient

OAITO . Overall Almow Neduction Coefficient

SCIDPC: Sealed Chassis Indirect Delta-T Power Coefficient

**PEADT**: Payload to Exhaust Airflow Delta-T

**CCAAT**: Chassis Cooling Airflow Average Temperature