

BACnet Power-Elec Data Point Mapping Version 2

BACnet Interoperability Building Blocks (BIBBs) SUPPORTED	DS-RP-B DS-RPM-B
OBJECTS INSTANCE SUPPORTED	Analog Input (Number of object: 600)

Standard Objects

	Unit	Object Type	Min Obj ID	Max Obj ID
IMPORT ACTIVE ENERGY INDEX	kWh	Analog Input	0	23
EXPORT ACTIVE ENERGY INDEX	kWh	Analog Input	30	53
(+) IMPORT REACTIVE ENERGY INDEX	kVARh	Analog Input	60	83
(-) EXPORT REACTIVE ENERGY INDEX	kVARh	Analog Input	90	113
ACTIVE POWER	W	Analog Input	120	143
REACTIVE POWER	VAR	Analog Input	150	173
POWER FACTOR		Analog Input	180	203
RMS CURRENT	A	Analog Input	210	227
RMS CURRENT AVG	A	Analog Input	240	257
RMS VOLTAGE	V	Analog Input	270	287
RMS VOLTAGE AVG	V	Analog Input	300	317
LINE FREQUENCY	Hz	Analog Input	330	347
OPERATING TIME	Hours	Analog Input	360	383
CYCLE		Analog Input	390	413
SAG PHASE		Analog Input	420	422
SWELL PHASE		Analog Input	423	425
SAG		Analog Input	450	467
SWELL		Analog Input	480	497
OVERCURRENT		Analog Input	510	527
CIRCUIT BREAKER TRIP		Analog Input	540	557
THD	%	Analog Input	570	593

IMPORT ACTIVE ENERGY INDEX

Notes: Object for active import energy index per channel (Float value: 32 bits)
The channel 0 object gives the TOTAL import active energy index of the circuit in three-phase configuration

Property Identifier	Remarks
Object Identifier	AI 0
Object Name	IMPORT ACTIVE ENERGY INDEX 1 - 0
Object Type	ANALOG INPUT
High Limit	
Low Limit	
Units	kWh

Property Identifier	Remarks
Object Identifier	AI 23
Object Name	IMPORT ACTIVE ENERGY INDEX 6 - 3
Object Type	ANALOG INPUT
High Limit	
Low Limit	
Units	kWh

Connector	Channel	N° Instance
1	0	AI 0
	1	AI 1
	2	AI 2
	3	AI 3
2	0	AI 4
	1	AI 5
	2	AI 6
	3	AI 7
3	0	AI 8
	1	AI 9
	2	AI 10
	3	AI 11
4	0	AI 12
	1	AI 13
	2	AI 14
	3	AI 15
5	0	AI 16
	1	AI 17
	2	AI 18
	3	AI 19
6	0	AI 20
	1	AI 21
	2	AI 22
	3	AI 23

EXPORT ACTIVE ENERGY INDEX

Notes: Object for active export energy index per channel (Float value: 32 bits)
The channel 0 object gives the TOTAL export active energy index of the circuit in three-phase configuration

Property Identifier	Remarks
Object Identifier	AI 30
Object Name	EXPORT ACTIVE ENERGY INDEX 1 - 0
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	kWh

Property Identifier	Remarks
Object Identifier	AI 53
Object Name	EXPORT ACTIVE ENERGY INDEX 6 - 3
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	kWh

Connector	Channel	N° Instance
1	0	AI 30
	1	AI 31
	2	AI 32
	3	AI 33
2	0	AI 34
	1	AI 35
	2	AI 36
	3	AI 37
3	0	AI 38
	1	AI 39
	2	AI 40
	3	AI 41
4	0	AI 42
	1	AI 43
	2	AI 44
	3	AI 45
5	0	AI 46
	1	AI 47
	2	AI 48
	3	AI 49
6	0	AI 50
	1	AI 51
	2	AI 52
	3	AI 53

POSITIVE IMPORT REACTIVE ENERGY INDEX

Notes: Object for POSITIVE import reactive energy index per channel (Float value: 32 bits)

The channel 0 object gives the TOTAL import reactive energy index of the circuit in three-phase configuration

Property Identifier	Remarks
Object Identifier	AI 60
Object Name	POSITIVE IMPORT REACTIVE ENERGY INDEX 1 - 0
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	kVARh

Property Identifier	Remarks
Object Identifier	AI 83
Object Name	POSITIVE IMPORT REACTIVE ENERGY INDEX 6 - 3
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	kVARh

Connector	Channel	N° Instance
1	0	AI 60
	1	AI 61
	2	AI 62
	3	AI 63
2	0	AI 64
	1	AI 65
	2	AI 66
	3	AI 67
3	0	AI 68
	1	AI 69
	2	AI 70
	3	AI 71
4	0	AI 72
	1	AI 73
	2	AI 74
	3	AI 75
5	0	AI 76
	1	AI 77
	2	AI 78
	3	AI 79
6	0	AI 80
	1	AI 81
	2	AI 82
	3	AI 83

NEGATIVE IMPORT REACTIVE ENERGY INDEX

Notes: Object for NEGATIVE import reactive energy index per channel (Float value: 32 bits)

The channel 0 object gives the TOTAL import reactive energy index of the circuit in three-phase configuration

Property Identifier	Remarks
Object Identifier	AI 90
Object Name	NEGATIVE IMPORT REACTIVE ENERGY INDEX 1 - 0
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	kVARh

Property Identifier	Remarks
Object Identifier	AI 113
Object Name	NEGATIVE IMPORT REACTIVE ENERGY INDEX 6 - 3
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	kVARh

Connector	Channel	N° Instance
1	0	AI 90
	1	AI 91
	2	AI 92
	3	AI 93
2	0	AI 94
	1	AI 95
	2	AI 96
	3	AI 97
3	0	AI 98
	1	AI 99
	2	AI 100
	3	AI 101
4	0	AI 102
	1	AI 103
	2	AI 104
	3	AI 105
5	0	AI 106
	1	AI 107
	2	AI 108
	3	AI 109
6	0	AI 110
	1	AI 111
	2	AI 112
	3	AI 113

ACTIVE POWER

Notes: Object for active power per channel (Float value: 32 bits)

The channel 0 object gives the TOTAL active power of the circuit in three-phase configuration

Property Identifier	Remarks
Object Identifier	AI 120
Object Name	ACTIVE POWER 1 - 0
Object Type	ANALOG INPUT
High Limit	
Low Limit	
Units	W

Property Identifier	Remarks
Object Identifier	AI 143
Object Name	ACTIVE POWER 6 - 3
Object Type	ANALOG INPUT
High Limit	
Low Limit	
Units	W

Connector	Channel	N° Instance
1	0	AI 120
	1	AI 121
	2	AI 122
	3	AI 123
2	0	AI 124
	1	AI 125
	2	AI 126
	3	AI 127
3	0	AI 128
	1	AI 129
	2	AI 130
	3	AI 131
4	0	AI 132
	1	AI 133
	2	AI 134
	3	AI 135
5	0	AI 136
	1	AI 137
	2	AI 138
	3	AI 139
6	0	AI 140
	1	AI 141
	2	AI 142
	3	AI 143

REACTIVE POWER

Notes: Object for reactive power per channel (Float value: 32 bits)

The channel 0 object gives the TOTAL reactive power of the circuit in three-phase configuration

Property Identifier	Remarks
Object Identifier	AI 150
Object Name	REACTIVE POWER 1 - 0
Object Type	ANALOG INPUT
High Limit	
Low Limit	
Units	VAR

Property Identifier	Remarks
Object Identifier	AI 173
Object Name	REACTIVE POWER 6 - 3
Object Type	ANALOG INPUT
High Limit	
Low Limit	
Units	VAR

Connector	Channel	N° Instance
1	0	AI 150
	1	AI 151
	2	AI 152
	3	AI 153
2	0	AI 154
	1	AI 155
	2	AI 156
	3	AI 157
3	0	AI 158
	1	AI 159
	2	AI 160
	3	AI 161
4	0	AI 162
	1	AI 163
	2	AI 164
	3	AI 165
5	0	AI 166
	1	AI 167
	2	AI 168
	3	AI 169
6	0	AI 170
	1	AI 171
	2	AI 172
	3	AI 173

POWER FACTOR

Notes: Object for power factor per channel (Float value: 32 bits)

The channel 0 object gives the TOTAL power factor of the circuit in three-phase configuration

Property Identifier	Remarks
Object Identifier	AI 180
Object Name	POWER FACTOR 1 - 0
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	1.0
Units	

Property Identifier	Remarks
Object Identifier	AI 203
Object Name	POWER FACTOR 6 - 3
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	1.0
Units	

Connector	Channel	N° Instance
1	0	AI 180
	1	AI 181
	2	AI 182
	3	AI 183
2	0	AI 184
	1	AI 185
	2	AI 186
	3	AI 187
3	0	AI 188
	1	AI 189
	2	AI 190
	3	AI 191
4	0	AI 192
	1	AI 193
	2	AI 194
	3	AI 195
5	0	AI 196
	1	AI 197
	2	AI 198
	3	AI 199
6	0	AI 200
	1	AI 201
	2	AI 202
	3	AI 203

RMS CURRENT

Notes: Object for RMS Current per channel (Float value: 32 bits)

Property Identifier	Remarks
Object Identifier	AI 210
Object Name	RMS CURRENT 1 - 1
Object Type	ANALOG INPUT
High Limit	
Low Limit	
Units	AMPERE

Property Identifier	Remarks
Object Identifier	AI 227
Object Name	RMS CURRENT 6 - 3
Object Type	ANALOG INPUT
High Limit	
Low Limit	
Units	AMPERE

Connector	Channel	N° Instance
1	1	AI 210
	2	AI 211
	3	AI 212
2	1	AI 213
	2	AI 214
	3	AI 215
3	1	AI 216
	2	AI 217
	3	AI 218
4	1	AI 219
	2	AI 220
	3	AI 221
5	1	AI 222
	2	AI 223
	3	AI 224
6	1	AI 225
	2	AI 226
	3	AI 227

RMS CURRENT AVG

Notes: Object for RMS Current Average per channel (Float value: 32 bits)

Property Identifier	Remarks
Object Identifier	AI 240
Object Name	RMS CURRENT AVG 1 - 1
Object Type	ANALOG INPUT
High Limit	
Low Limit	
Units	AMPERE

Property Identifier	Remarks
Object Identifier	AI 257
Object Name	RMS CURRENT AVG 6 - 3
Object Type	ANALOG INPUT
High Limit	
Low Limit	
Units	AMPERE

Connector	Channel	N° Instance
1	1	AI 240
	2	AI 241
	3	AI 242
2	1	AI 243
	2	AI 244
	3	AI 245
3	1	AI 246
	2	AI 247
	3	AI 248
4	1	AI 249
	2	AI 250
	3	AI 251
5	1	AI 252
	2	AI 253
	3	AI 254
6	1	AI 255
	2	AI 256
	3	AI 257

RMS VOLTAGE

Notes: Object for RMS Voltage per channel (Float value: 32 bits)

Property Identifier	Remarks
Object Identifier	AI 270
Object Name	RMS VOLTAGE 1 - 1
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	VOLT

Property Identifier	Remarks
Object Identifier	AI 287
Object Name	RMS VOLTAGE 6 - 3
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	VOLT

Connector	Channel	N° Instance
1	1	AI 270
	2	AI 271
	3	AI 272
2	1	AI 273
	2	AI 274
	3	AI 275
3	1	AI 276
	2	AI 277
	3	AI 278
4	1	AI 279
	2	AI 280
	3	AI 281
5	1	AI 282
	2	AI 283
	3	AI 284
6	1	AI 285
	2	AI 286
	3	AI 287

RMS VOLTAGE AVG

Notes: Object for RMS Voltage Average per channel (Float value: 32 bits)

Property Identifier	Remarks
Object Identifier	AI 300
Object Name	RMS VOLTAGE AVG 1 - 1
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	VOLT

Property Identifier	Remarks
Object Identifier	AI 317
Object Name	RMS VOLTAGE AVG 6 - 3
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	VOLT

Connector	Channel	N° Instance
1	1	AI 300
	2	AI 301
	3	AI 302
2	1	AI 303
	2	AI 304
	3	AI 305
3	1	AI 306
	2	AI 307
	3	AI 308
4	1	AI 309
	2	AI 310
	3	AI 311
5	1	AI 312
	2	AI 313
	3	AI 314
6	1	AI 315
	2	AI 316
	3	AI 317

LINE FREQUENCY

Notes: Object for Line Frequency per channel (Float value: 32 bits)

Property Identifier	Remarks
Object Identifier	AI 330
Object Name	LINE FREQUENCY 1 - 1
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	HERTZ

Property Identifier	Remarks
Object Identifier	AI 347
Object Name	LINE FREQUENCY 6 - 3
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	HERTZ

Connector	Channel	N° Instance
1	1	AI 330
	2	AI 331
	3	AI 332
2	1	AI 333
	2	AI 334
	3	AI 335
3	1	AI 336
	2	AI 337
	3	AI 338
4	1	AI 339
	2	AI 340
	3	AI 341
5	1	AI 342
	2	AI 343
	3	AI 344
6	1	AI 345
	2	AI 346
	3	AI 347

Expert Objects

OPERATING TIME

Notes: Object for operating time per channel (Float value: 32 bits)

The channel 0 object gives the TOTAL operating time of the circuit in three-phase configuration

Property Identifier	Remarks
Object Identifier	AI 360
Object Name	OPERATING TIME 1 - 0
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	HOUR

Property Identifier	Remarks
Object Identifier	AI 383
Object Name	OPERATING TIME 6 - 3
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	HOUR

Connector	Channel	N° Instance
1	0	AI 360
	1	AI 361
	2	AI 362
	3	AI 363
2	0	AI 364
	1	AI 365
	2	AI 366
	3	AI 367
3	0	AI 368
	1	AI 369
	2	AI 370
	3	AI 371
4	0	AI 372
	1	AI 373
	2	AI 374
	3	AI 375
5	0	AI 376
	1	AI 377
	2	AI 378
	3	AI 379
6	0	AI 380
	1	AI 381
	2	AI 382
	3	AI 383

CYCLE

Notes: Object for number of cycle per channel (Integer value: 32 bits)

The channel 0 object gives the TOTAL number of cycle of the circuit in three-phase configuration

Property Identifier	Remarks
Object Identifier	AI 390
Object Name	CYCLE 1 - 0
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

Property Identifier	Remarks
Object Identifier	AI 413
Object Name	CYCLE 6 - 3
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

Connector	Channel	N° Instance
1	0	AI 390
	1	AI 391
	2	AI 392
	3	AI 393
2	0	AI 394
	1	AI 395
	2	AI 396
	3	AI 397
3	0	AI 398
	1	AI 399
	2	AI 400
	3	AI 401
4	0	AI 402
	1	AI 403
	2	AI 404
	3	AI 405
5	0	AI 406
	1	AI 407
	2	AI 408
	3	AI 409
6	0	AI 410
	1	AI 411
	2	AI 412
	3	AI 413

SAG PHASE

Notes: Object for number of sag per phase (Integer value: 32 bits)

Property Identifier	Remarks
Object Identifier	AI 420
Object Name	SAG PHASE 1
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

Phase	N° Instance
1	AI 420
2	AI 421
3	AI 422

Property Identifier	Remarks
Object Identifier	AI 422
Object Name	SAG PHASE 3
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

SWELL PHASE

Notes: Object for number of swell per phase (Integer value: 32 bits)

Property Identifier	Remarks
Object Identifier	AI 423
Object Name	SWELL PHASE 1
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

Phase	N° Instance
1	AI 423
2	AI 424
3	AI 425

Property Identifier	Remarks
Object Identifier	AI 425
Object Name	SWELL PHASE 3
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

SAG

Notes: Object for number of sag per channel (Integer value: 32 bits)

Property Identifier	Remarks
Object Identifier	AI 450
Object Name	SAG 1 - 1
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

Property Identifier	Remarks
Object Identifier	AI 467
Object Name	SAG 6 - 3
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

Connector	Channel	N° Instance
1	1	AI 450
	2	AI 451
	3	AI 452
2	1	AI 453
	2	AI 454
	3	AI 455
3	1	AI 456
	2	AI 457
	3	AI 458
4	1	AI 459
	2	AI 460
	3	AI 461
5	1	AI 462
	2	AI 463
	3	AI 464
6	1	AI 465
	2	AI 466
	3	AI 467

SWELL

Notes: Object for number of swell per channel (Integer value: 32 bits)

Property Identifier	Remarks
Object Identifier	AI 480
Object Name	SWELL 1 - 1
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

Property Identifier	Remarks
Object Identifier	AI 497
Object Name	SWELL 6 - 3
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

Connector	Channel	N° Instance
1	1	AI 480
	2	AI 481
	3	AI 482
2	1	AI 483
	2	AI 484
	3	AI 485
3	1	AI 486
	2	AI 487
	3	AI 488
4	1	AI 489
	2	AI 490
	3	AI 491
5	1	AI 492
	2	AI 493
	3	AI 494
6	1	AI 495
	2	AI 496
	3	AI 497

OVERCURRENT

Notes: Object for number of overcurrent per channel (Integer value: 32 bits)

Property Identifier	Remarks
Object Identifier	AI 510
Object Name	OVERCURRENT 1 - 1
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

Property Identifier	Remarks
Object Identifier	AI 527
Object Name	OVERCURRENT 6 - 3
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

Connector	Channel	N° Instance
1	1	AI 510
	2	AI 511
	3	AI 512
2	1	AI 513
	2	AI 514
	3	AI 515
3	1	AI 516
	2	AI 517
	3	AI 518
4	1	AI 519
	2	AI 520
	3	AI 521
5	1	AI 522
	2	AI 523
	3	AI 524
6	1	AI 525
	2	AI 526
	3	AI 527

CIRCUIT BREAKER TRIP

Notes: Object for number of circuit breaker trip per channel (Integer value: 32 bits)

Property Identifier	Remarks
Object Identifier	AI 540
Object Name	CIRCUIT BREAKER TRIP 1 - 1
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

Property Identifier	Remarks
Object Identifier	AI 557
Object Name	CIRCUIT BREAKER TRIP 6 - 3
Object Type	ANALOG INPUT
High Limit	0
Low Limit	
Units	

Connector	Channel	N° Instance
1	1	AI 540
	2	AI 541
	3	AI 542
2	1	AI 543
	2	AI 544
	3	AI 545
3	1	AI 546
	2	AI 547
	3	AI 548
4	1	AI 549
	2	AI 550
	3	AI 551
5	1	AI 552
	2	AI 553
	3	AI 554
6	1	AI 555
	2	AI 556
	3	AI 557

THD

Notes: Object for THD per channel (Float value: 32 bits)

Property Identifier	Remarks
Object Identifier	AI 570
Object Name	THD 1 - 0
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	%

Property Identifier	Remarks
Object Identifier	AI 593
Object Name	THD 6 - 3
Object Type	ANALOG INPUT
High Limit	0.0
Low Limit	
Units	%

Connector	Channel	N° Instance
1	0	AI 570
	1	AI 571
	2	AI 572
	3	AI 573
2	0	AI 574
	1	AI 575
	2	AI 576
	3	AI 577
3	0	AI 578
	1	AI 579
	2	AI 580
	3	AI 581
4	0	AI 582
	1	AI 583
	2	AI 584
	3	AI 585
5	0	AI 586
	1	AI 587
	2	AI 588
	3	AI 589
6	0	AI 590
	1	AI 591
	2	AI 592
	3	AI 593