

Title: **TECHNICAL EVALUATION
CRITERIA FOR 3CR12
METERING KIOSKS**

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1. Introduction

This document provides an overview of Eskom's technical requirements for an enquiry for the supply of metering kiosks manufactured from 3CR12 steel for outdoor and indoor use. This document provides an overview of the requirements for the different 3CR12 metering kiosks, and acts as an index and supplement to the detailed standards which are provided per metering kiosk product type.

This document defines the technical evaluation criteria that will be used in the enquiry for 3CR12 metering kiosks.

2. Supporting clauses

2.1 Scope

2.1.1 Purpose

This document provides information relating to an enquiry for the technical evaluation, acceptance and supply of 3CR12 metering kiosks for use in Eskom.

2.1.1.1 Metering kiosk types

The enquiry includes the following 3CR12 metering kiosks types:

Table 1: 3CR12 metering kiosks types

Item	Meter Module Type	Drawing number	SAP number
1	KIOSK METER:1PH ;16 KVA ;EMPTY	D-1004 rev 9	0168611
2	KIOSK METER:1PH ;10 KVA ;SPU	D-1004 rev 9	0168866
3	KIOSK METER:1PH;16 KVA;SPU	D-1004 rev 9	0168580
4	KIOSK METER:3PH;25 KVA;EMPTY	D-1002 rev 10	0168612
5	KIOSK METER:3PH ;25 KVA ;SPU	D-1002 rev 10	0168867
6	KIOSK METER:3PH ;50 KVA ;SPU	D-1002 rev 10	0168758
7	KIOSK METER:3PH ;25 KVA ;RURAFLEX	D-1002 rev 10	0182382
8	KIOSK METER:3PH ;50 KVA ;RURA FLEX	D-1002 rev 10	0182383
9	KIOSK METER:3PH ;25-50 KVA ;PREPAY	D-1002 rev 10 & D-1015 rev 1	0206261
10	KIOSK METER:3PH ;25-50 KVA ;BASE	D-1002 rev 10	0212966
11	KIOSK METER:3PH;100 KVA;EMPTY	D-1003 rev 10	0649125
12	KIOSK METER:3PH ;100 KVA ;SPU	D-1003 rev 10	0168335
13	KIOSK METER:3PH ;100 KVA ;BASE	D-1003 rev 10	0631924
14	KIOSK METER:3PH ;100 KVA ;LPU PM	D-1003 rev 10	0168620
15	KIOSK METER:3PH ;200 KVA ;LPU PM	D-1000 rev 13	0168623
16	KIOSK METER:3PH ;315 KVA ;LPU PM	D-1000 rev 13	0168624
17	KIOSK METER:3PH ;500 KVA ;LPU PM	D-1000 rev 13	0168626
18	KIOSK METER:3PH ;200 KVA ;EMPTY PM	D-1000 rev 13	0168599
19	KIOSK METER:3PH ;200 KVA ;BASE	D-1000 rev 13	0168733

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Item	Meter Module Type	Drawing number	SAP number
20	KIOSK METER:3PH ;100 KVA ;GROUND MOUNT	D-1023 rev 1	0223741
21	KIOSK METER:3PH ;200 KVA ;GROUND MOUNT	D-1023 rev 1	0223742
22	KIOSK METER:3PH ;315 KVA ;GROUND MOUNT	D-1023 rev 1	0223738
23	KIOSK METER:3PH ;500 KVA ;GROUND MOUNT	D-1023 rev 1	0223740
24	KIOSK METER:3PH ;800 KVA ;GROUND MOUNT	D-1016 rev 4	0194123
25	KIOSK METER:3PH ;1000 KVA ;GROUND MOUNT	D-1016 rev 4	0194124
26	KIOSK METER:3PH ;CT/VT ; EMPTY	D-1001 rev 11	0168600
27	KIOSK METER:3PH ;CT/VT	D-1001 rev 11	0168627
28	KIOSK METER:3PH ;CT/VT ;BASE	D-1001 rev 11	0168732
29	KIOSK METER:1PH ;16 KVA ;2 WAY ; BS METERS	D-1011 rev 6	0186798
30	KIOSK METER:1PH ;16 KVA ;3 WAY ; BS METERS	D-1011 rev 6	0214975
31	KIOSK METER:1PH ;2 WAY ;EMPTY ; BS METERS	D-1011 rev 6	0212969
32	KIOSK METER:1PH ;16 KVA ;4 WAY ; BS METERS	D-1019 rev 4	0212967
33	KIOSK METER:1PH ;4 WAY ;EMPTY ; BS METERS	D-1019 rev 4	0212970
34	KIOSK METER:1PH ;16 KVA ;6 WAY ; BS METERS	D-1020 rev 4	0212968
35	KIOSK METER:1PH ;6 WAY ;EMPTY ; BS METERS	D-1020 rev 4	0212971
36	KIOSK METER:1PH ;MULTIWAY ;BASE	D-1020 rev 4	0214976
37	KIOSK METER:1PH ;MULTI ;TAPERED BASE	D-1020 rev 4	0214977
38	KIOSK METER:3PH ;25 KVA ;2 WAY	D-1012 rev 6	0186799
39	KIOSK METER:3PH ;50 KVA ;2 WAY	D-1012 rev 6	0212972
40	KIOSK METER:3PH ;2 WAY ;EMPTY	D-1012 rev 6	0212974
41	KIOSK METER:3PH ;2 WAY ;BASE	D-1012 rev 6	0214978
42	KIOSK METER:3PH ;2 WAY ;TAPERED BASE	D-1012 rev 6	0214980
43	KIOSK METER:3PH ;25 KVA ;4 WAY	D-1018 rev 5	0214137
44	KIOSK METER:3PH ;50 KVA ;4 WAY	D-1018 rev 5	0212973
45	KIOSK METER:3PH ;4 WAY ;EMPTY	D-1018 rev 5	0212975
46	KIOSK METER:3PH ;4 WAY ;BASE	D-1018 rev 5	0214979
47	KIOSK METER:3PH ;4 WAY ;TAPERED BASE	D-1018 rev 5	0214991
48	KIOSK METER:1PH ;4.6 KVA ;2 WAY ;SECURE ;POLE MOUNT	D-1030 rev 2	0569540
49	KIOSK METER:1PH ;4.6 KVA ;4 WAY ;SECURE ;POLE MOUNT	D-1031 rev 2	0569541
50	KIOSK METER:1PH ;4.6 KVA ;6 WAY ;SECURE ;POLE MOUNT	D-1032 rev 2	0569542
51	KIOSK METER:1PH ;4.6 KVA ;8 WAY ; SECURE ;POLE MOUNT	D-1033 rev 2	0569543

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Item	Meter Module Type	Drawing number	SAP number
52	KIOSK METER:1PH ;14 KVA ;2 WAY ; SECURE ;POLE MOUNT	D-1030 rev 2	0569544
53	KIOSK METER:1PH ;14 KVA ;4 WAY ; SECURE ;POLE MOUNT	D-1031 rev 2	0569545
54	KIOSK METER:1PH ;14 KVA ;6 WAY ; SECURE ;POLE MOUNT	D-1032 rev 2	0569546
55	KIOSK METER:1PH ;14 KVA ;8 WAY ;SECURE ;POLE MOUNT	D-1033 rev 2	0569547
56	KIOSK METER:1PH;RAT ;SECURE ;POLE MOUNT	D-1034 rev 1	0571155
57	KIOSK METER:1PH ;16 KVA ;2 WAY PREPAY ;GROUND MOUNT	D-1035 rev 1	0615212
58	KIOSK METER:1PH ;2 WAY PREPAY ;EMPTY	D-1035 rev 1	0649116
59	KIOSK METER:1PH ;16 KVA ;4 WAY PREPAY ;GROUND MOUNT	D-1036 rev 1	0615213
60	KIOSK METER:1PH ;4 WAY PREPAY ;EMPTY	D-1036 rev 1	0649117
61	KIOSK METER:1PH ;16 KVA ;6 WAY PREPAY ;GROUND MOUNT	D-1037 rev 1	0615214
62	KIOSK METER:1PH ;6 WAY PREPAY ;EMPTY	D-1037 rev 1	0649118
63	KIOSK METER:1PH ;16 KVA ;8 WAY PREPAY ;GROUND MOUNT	D-1038 rev 1	0615215
64	KIOSK METER:1PH ;8 WAY PREPAY ;EMPTY	D-1038 rev 1	0649119
65	KIOSK METER:1PH;PREPAY;BASE 2 WAY	D-1035 rev 1	0649121
66	KIOSK METER:1PH;TAPERED PREPAY;BASE 2	D-1035 rev 1	0649122
67	KIOSK METER:1PH ;16 KVA ;12 WAY PREPAY ;GROUND MOUNT	D-1039 rev 1	0615216
68	KIOSK METER:1PH ;12 WAY PREPAY ;EMPTY	D-1039 rev 1	0649120
69	KIOSK METER:1PH;PREPAY;BASE 12 WAY	D-1039 rev 1	0649123
70	KIOSK METER:1PH;TAPERED PREPAY;BASE 12	D-1039 rev 1	0649124
71	KIOSK METER:1PH ;16 KVA ;15 WAY	D-1022 rev 2	0223630
72	KIOSK METER:3PH ;WALL MOUNT 400V	D-1014 rev 3	0212961
73	KIOSK METER:3PH ;WALL MOUNT 110V	D-1014 rev 3	0212962
74	KIOSK METER:3PH ;WALL MOUNT ;400V PLATE	D-1021 rev 2	0212963
75	KIOSK METER:3PH ;WALL MOUNT ;110V PLATE	D-1021 rev 2	0212964
76	KIOSK METER:3PH ;SUBS ;POLE MOUNT 1 FDR	D-5806 rev 0	0599894
77	KIOSK METER:3PH ;SUBS ;POLE MOUNT 2 FDR	D-5805 rev 0	0599895

Suppliers may tender for any single item, multiple items or all the above items. Preference shall be given to suppliers that can provide all / most of the items above.

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2.1.2 Applicability

This document shall apply throughout Eskom Holdings Limited Distribution and Transmission Divisions.

2.2 Normative/informative references

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.2.1 Normative

- [1] ISO 9001 Quality Management Systems.
- [2] 240-76628293 Standard for energy meter kiosks: Low-voltage for small power users (SPU).
- [3] D-1004 Manufacturing drawings for single phase SPU metering kiosks outdoor.
- [4] D-1002 Manufacturing drawings for three phase SPU 25 & 50kVA metering kiosks outdoor.
- [5] D-1003 Manufacturing drawings for three phase SPU & LPU 100kVA metering kiosks outdoor.
- [6] D-1015 Manufacturing drawings for three phase Prepayment metering kiosks – inner plate.
- [7] 240-76625427 Standard for energy meter kiosks: Low voltage multi-way for small power users (SPU) underground supply networks.
- [8] D-1011 Manufacturing drawings for 2-3 way single phase ground mount metering kiosks.
- [9] D-1019 Manufacturing drawings for 4 way single phase ground mount metering kiosks.
- [10] D-1020 Manufacturing drawings for 6 way single phase ground mount metering kiosks.
- [11] D-1012 Manufacturing drawings for 2 way three phase ground mount metering kiosks.
- [12] D-1018 Manufacturing drawings for 4 way three phase ground mount metering kiosks.
- [13] D-1035 Manufacturing drawings for 2 way single phase Din-rail meters ground mount metering kiosks.
- [14] D-1036 Manufacturing drawings for 4 way single phase Din-rail meters ground mount metering kiosks.
- [15] D-1037 Manufacturing drawings for 6 way single phase Din-rail meters ground mount metering kiosks.
- [16] D-1038 Manufacturing drawings for 8 way single phase Din-rail meters ground mount metering kiosks.
- [17] D-1039 Manufacturing drawings for 12 way single phase Din-rail meters ground mount metering kiosks.
- [18] D-1022 Manufacturing drawings for 15 way single phase wall-mount metering kiosks.
- [19] 240-76628117 Standard for energy meter kiosks: Outdoor pole- or ground mounted, low-voltage, 200kVA to 500kVA for large electrical power users (LPU).
- [20] D-1000 Manufacturing drawings for 200 – 500kVA LPU metering kiosks outdoor.
- [21] 240-76628297 Standard for energy meter kiosks: Ground mounted, low-voltage, 100kVA to 1MVA for large electrical power users (LPU).
- [22] D-1016 Manufacturing drawings for 1MVA LPU metering kiosks ground mounted.
- [23] D-1023 Manufacturing drawings for 100-500kVA LPU metering kiosks ground mounted
- [24] 240-76628667 Standard for energy meter kiosks: Medium-voltage for Current/Voltage transformers for large power users (LPU).
- [25] D-1001 Manufacturing drawings for CT/VT unit metering kiosks.

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- [26] 240-55146411 Standard for energy meter kiosks: Secure pole-top multi-way metering kiosks
- [27] D-1030 Manufacturing drawings for secure pole-top single phase 2-way metering kiosks.
- [28] D-1031 Manufacturing drawings for secure pole-top single phase 4-way metering kiosks.
- [29] D-1032 Manufacturing drawings for secure pole-top single phase 6-way metering kiosks.
- [30] D-1033 Manufacturing drawings for secure pole-top single phase 8-way metering kiosks.
- [31] D-1034 Manufacturing drawings for secure pole-top Remote Access Terminal (RAT) metering kiosks.
- [32] 240-76628295 Standard for energy meter kiosks: Indoor wall mounted meter panels (LPU)
- [33] D-1014 Manufacturing drawings for single feeder indoor wall-mount metering kiosks.
- [34] D-1023 Manufacturing drawings for single feeder indoor wall-mount metering plate.
- [35] 240-80309303 Standard for substation meter panels: Outdoor single and dual feeder.
- [36] D-5806 Manufacturing drawings for substation single feeder outdoor door metering kiosks.
- [37] D-5805 Manufacturing drawings for substation dual feeder outdoor door metering kiosks.
- [38] 240-98195962 Chemical treatment and powder coating of 3CR12 metering kiosks during manufacturing.
- [39] SANS 60439 Low-voltage switchgear and control gear assemblies Part 5: Particular requirements for assemblies for power distribution in public networks.
- [40] Technical requirements, questionnaires and deviation schedules (Microsoft Excel files):
- Technical requirements for 3CR12 metering kiosks.

2.2.2 Informative

None

2.3 Definitions

2.3.1 General

N/A

2.3.2 Disclosure classification

Controlled disclosure: controlled disclosure to external parties (either enforced by law, or discretionary).

2.4 Abbreviations

N/A

2.5 Roles and responsibilities

This document defines the technical evaluation criteria that will be used by the Eskom technical evaluation team for the evaluation of 3CR12 metering kiosks.

2.6 Process for monitoring

None

2.7 Related/supporting documents

None

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3. Project Timeframes and Deliverables

The technical evaluation will be conducted over two phases as follows:

3.1 Phase 1: Product A&B Schedules, Risk and Support

- Duration: 1 month

Suppliers / manufacturers shall be evaluated on the tender returnables (Technical schedules and Risk and Support). Suppliers / manufacturers which have passed the technical evaluations will be required to provide prototypes and these will be evaluated during phase 2.

3.2 Phase 2: Sample Evaluation

- Duration: 2 months

Only suppliers that meet the criteria set aside for phase 1 will move onto phase 2 of the technical evaluation.

Suppliers / manufacturers shall be advised of their qualification for the evaluation after phase 1 where after they need to prepare the samples. The samples must be ready for inspection a month after notification. Eskom shall notify the supplier / manufacturer of the exact date of the evaluation.

The following items shall be manufactured for technical and quality evaluations:

1. Item 3 - Kiosk meter:1ph;16 kVA; SPU, D-1004 rev 9, SAP 168580
2. Item 11 - Kiosk meter:3ph ;100 kVA ;SPU, D-1003 rev 10, SAP 168335
3. Item 14 - Kiosk meter:3ph ;200 kVA ;LPU PM, D-1000 rev 13, SAP 168623
4. Item 48 – Kiosk meter:1ph ;4.6 kVA ;4 way ;secure ;pole mount, D-1031 rev 2, SAP 0569541
5. Item 58 – Kiosk meter:1ph ;16 kVA ;4 way prepay ;ground mount, D-1036 rev 1, SAP 0615213

NOTE: The 3CR12 metering kiosks must be fully populated as per the SAP description, standard and drawings for inspection.

Supplier visits shall be conducted to evaluate the 3CR12 metering kiosks to design requirements and to verify the information provided in the questionnaire relating to risk and support.

The evaluations shall be conducted at the supplier / manufacturer premises.

4. Tender Returnables (Technical phase 1)

Tenderers shall supply the following information:

- 1) Completed general questionnaire as listed in the Excel files for each item.
- 2) Completed technical schedules for all items tendered as listed in the Excel files for each item.
- 3) Completed risk and support questionnaire as listed in the Excel files for each item.
- 4) Data sheets, brochures and test certificates (where applicable).

5. Tender Evaluation (Technical)

Tender responses shall be evaluated using the methodology of the Preferential Procurement Policy Framework Act (05 of 2000).

The technical tender evaluation will comprise of a detailed technical evaluation whereby the Product A&B schedules and the Risk and Support questionnaires are evaluated and then the sample evaluations at the manufacturers manufacturing premises.

The overall technical scoring shall be made up of scoring in the various sub-categories during the different phases of the technical evaluation as follows:

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Table 2: Technical scoring breakdown

Technical Criteria	Weightings
Product A&B Schedules, Risk and Support (phase 1)	40
Sample Evaluation (phase 2)	60
Total	100
Minimum threshold for qualification	85

5.1 Phase 1 – Product A&B schedules and Risk and Support

Phase 1 shall be made up of scoring in two sub-categories and shall be adjudicated a score out of 100 as follows:

Table 3: Phase 1 scoring breakdown

Phase 1 - Technical sub-category	Weightings
Product A&B Schedules	60
Risk and Support	40
Total	100
Minimum threshold for qualification	85

Only suppliers that meet the minimum threshold for phase 1 will move onto phase 2 of the technical evaluation. Tenders that do not meet the minimum threshold shall be immediately excluded from further evaluation.

5.1.1 Phase 1- Technical Sub-Category: Product A&B Schedules

This section shall comprise scoring of the technical schedules. Major deviations to scored items shall be addressed in Sub-category: Risk and Support.

The A&B Schedules use a default weight of 1 for each scored item. Critical items are assigned higher weights. For example, a weight of 10 indicates that the item will count the same as ten items with weight 1. Each item will be assigned a score by the Eskom evaluation team based upon the tendered response and cross-checked with the supporting documents provided.

Table 4: Scoring of items in Technical Schedules A&B

Criteria	Score
Fully compliant (Indicated as Y in A&B Schedules)	3
Partially compliant - minor deviation (Indicated as P in A&B Schedules)	1
Non-compliant - major deviation (Indicated as N in A&B Schedules)	0

The score for each item will be multiplied by its weight to obtain the total score per item. All scores for the A&B Schedule will be tallied and shall be calculated based on the maximum possible score. This will be recorded as the percentage score.

5.1.2 Phase 1 – Technical Sub-Category: Risk and Support

The Eskom technical team will evaluate the risk and support capability of the supplier / product based on the Risk and Support Questionnaire as listed in the Excel file, deviations schedules and from the non-scored components in Sub-category: Product A&B Schedules. The evaluation of the risk and support of the product / supplier shall be adjudicated a score out of 100 made up of two areas as follows:

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Product Risk (60): A score derived for the product risk based on the following areas and weighted as follows:

- Installed base / time that the product has been installed (weight 25)
- Deviations from standards (weight 25)
- Ability to deliver (weight 25)
- Historical performance (weight 25)

Support (40): A score derived for support based on the following areas and weighted as follows:

- Link between supplier / manufacturer and sub-contractors (weight 30)
- Maintenance support (weight 50)
- Spares holding (weight 20)

5.2 Phase 2 – Sample evaluations

Sample kiosks shall be evaluated and tested against the requirements of the respective specifications and allocated a score based on the criteria as listed for the individual sample kiosks. The scoring principals' applied to the Technical Schedules A&B shall apply to the sample evaluation.

The samples shall be adjudicated a score out of 100 with a **minimum threshold for qualification of 85 on all of the required samples.**

6. Authorization

This document has been seen and accepted by:

Name and surname	Designation
Richard McCurrach	PTM&C Engineering Senior Manager
Deon van Rooi	Metering, DC and Security Technologies Manager (Acting)

7. Revisions

Date	Rev.	Compiler	Remarks
April 2018	2	HPD Groenewald	Removed all references to alternative manufacturing materials from this document. This will be specified in a separate document. Updated the SAP descriptions
December 2016	1	HPD Groenewald	Original document

8. Development team

The following people were involved in the development of this document:

- Mohamed Omar
- Henri Groenewald
- Wernher Schmidt
- Michael McDonald
- Johan le Roux

- Allen Naidoo
- Hylton Hiralal

9. Acknowledgements

None