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Date 15.06.2026.		Date		Date		Doc No. YPES-11-05-420	Rev. 0
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REVISION HISTORY

REVISION	DESCRIPTION	AUTHOR	DATE
0	New (Review ID: 11917)	K. Safaric	15.06.2026.

1. Scope

1.1. Content

This standard covers the performance, tests and quality requirements for the **4P 1.2 NWP SYSTEM FEMALE CONNECTOR**.

1.2. Qualification

To perform tests, use the following specified standards and specifications. All inspections shall be performed using the applicable inspection plan and product drawing. If there are any differences between this document and product drawings, the content of product drawing takes priority. In all other cases this document shall take priority.

Title	Doc. No.	Rev.
4P 1.2 NWP SYSTEM FEMALE CONNECTOR	YPES-11-05-420	0
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2. Referenced documents

2.1. YAZAKI documents

- Customer drawings:

NO. OF POLES	NAME	PART NUMBER	CUSTOMER
4P	1.2 NWP SYSTEM CONNECTOR (F) SUBASSEMBLY	7289-7837-30:R 7289-7837-30:RU	REFERENCE RENAULT

Table 1 Customer drawings

- Test plan: DPZ24-24-139-076
- Handling manual: YPES-15-1664E

2.2. Other documents

- RNDS-B-00029 v3.0 36-05-019 --M – Connector general requirements

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3. Connector part numbers and applicable terminals

3.1. Connector part numbers

4P 1.2 NWP FEMALE SYSTEM CONNECTOR			
RENAULT PN	YPN	NAME	COLOUR
CODE A			
243409125R	7289-7837-30	4P 1.2 NWP SYSTEM CONNECTOR (F) SUBASSEMBLY	Black
CODE B			
N/A	7289-7838-60	4P 1.2 NWP SYSTEM CONNECTOR (F) SUBASSEMBLY CODE B	Green
CODE C			
N/A	7289-7839-90	4P 1.2 NWP SYSTEM CONNECTOR (F) SUBASSEMBLY CODE C	Blue
CODE D			
N/A	7289-7840-80	4P 1.2 NWP SYSTEM CONNECTOR (F) SUBASSEMBLY CODE D	Brown
CODE 0			
N/A	7289-7836-20	4P 1.2 NWP SYSTEM CONNECTOR (F) SUBASSEMBLY CODE 0	Purple

Table 2 4P 1.2 NWP System Female connector part numbers – All codes

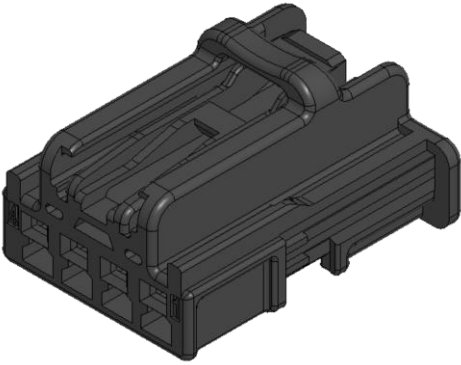
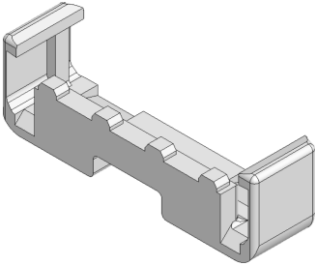
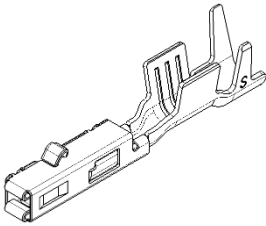
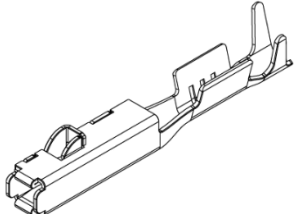
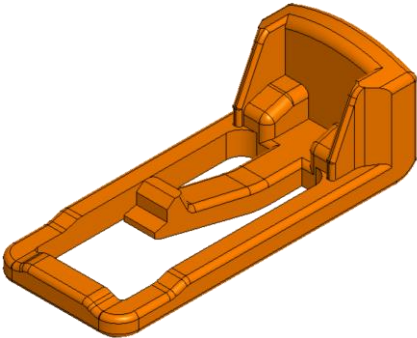
			
Female housing Material: PBT-(GF+MD)17 [Black]			
	4P 1.2 NWP System Female Subassembly		
Female front holder Material: PBT-(GF+MD)17 [Natural]			
CPA (F) Material: PBT-GF30 [Orange]	1.2 YMT F NWP terminal Material: Cu Alloy / Stainless Steel [Sn plating]	1.2 YCO F NWP terminal Material: Cu Alloy [Sn plating]	

Table 3 4P 1.2 NWP System (F) connector Code A - components and materials & applicable terminals

3.2. Terminal part numbers

SIZE	GENDER	NAME	RENAULT PN	YAZAKI PN	WIRE TYPE / SIZE / SUPPLIER
1.2	F	YMT	243468308R	7216-7629-02	COFLRYA_0.35mm2_A3ZP_COFICAB
			243461440R	7216-7630-02	COFLRYA_0.50mm2_A3ZP_COFICAB
					COFLRYA_0.75mm2_A3ZP_COFICAB
			243466074R	7216-7631-02	COFLRYA_1.00mm2_A3ZP_COFICAB
					COFLRYA_1.50mm2_A3ZP_COFICAB
		YCO	N/A	7196-1366-02	COFLRYA_0.35mm2_A3ZP_COFICAB
			N/A	7196-1367-02	COFLRYA_0.50mm2_A3ZP_COFICAB
			N/A	7196-1368-02	COFLRYA_0.75mm2_A3ZP_COFICAB
			N/A	7196-1369-02	COFLRYA_1.50mm2_A3ZP_COFICAB

Table 4 Applicable terminals part numbers

3.3. Applicable mating parts

4P 1.2 NWP CONNECTOR INTERFACE			
RENAULT PN	Acc. Yazaki dwg	NAME	COLOUR
CODE A			
243405768R	7289-7837-30:A	4P 1.2 NWP CONNECTOR INTERFACE	Black
CODE B			
N/A	7289-7838-60:A	4P 1.2 NWP CONNECTOR INTERFACE CODE B	Green
CODE C			
N/A	7289-7839-90:A	4P 1.2 NWP CONNECTOR INTERFACE CODE C	Blue
CODE D			
N/A	7289-7840-80:A	4P 1.2 NWP CONNECTOR INTERFACE CODE D	Brown
CODE 0			
N/A	7289-7836-20:A	4P 1.2 NWP CONNECTOR INTERFACE CODE 0	Purple

Table 5 Applicable mating interface part numbers

4P 1.2 NWP MALE SYSTEM CONNECTOR			
RENAULT PN	YPN	NAME	COLOUR
CODE A			
N/A	7288-7842-30	4P 1.2 NWP SYSTEM CONNECTOR (M) SUBASSEMBLY	Black
CODE B			
N/A	7288-7843-60	4P 1.2 NWP SYSTEM CONNECTOR (M) SUBASSEMBLY CODE B	Green
CODE C			
N/A	7288-7844-90	4P 1.2 NWP SYSTEM CONNECTOR (M) SUBASSEMBLY CODE C	Blue
CODE D			
N/A	7288-7845-80	4P 1.2 NWP SYSTEM CONNECTOR (M) SUBASSEMBLY CODE D	Brown
CODE 0			
N/A	7288-7841-20	4P 1.2 NWP SYSTEM CONNECTOR (M) SUBASSEMBLY CODE 0	Purple

Table 6 Applicable mating connectors part numbers

Title 4P 1.2 NWP SYSTEM FEMALE CONNECTOR		Doc. No. YPES-11-05-420	Rev. 0
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4. Performance data

4.1. Design

Shape and physical dimensions of the product are defined in the applicable product drawings (paragraph 2.1).

4.2. Material

All materials are defined in the applicable product drawings (paragraph 2.1) and in the Table 3 (paragraph 3).

4.3. Quality and performance

The product is designed to meet mechanical, electrical and environmental performance requirements specified in this paragraph.

RENAULT NISSAN DESIGN SPECIFICATION: RNDS-B-00029 v3.0 36-05-019 --M – Electrical connections and connectors specification			
ENVIRONMENT CONDITIONS			
TEMPERATURE CLASS	2	-40°C to +100°C	Maximum test temperature: 125°C
LOCKING CLASS	3	Locking with LQIS	Also refers to specification RNDS-B-00029 v3.0 36-05-019 --M
VIBRATION CLASS	1	Application on car body	Also refers to specification RNDS-B-00029 v3.0 36-05-019 --M
SEALING CLASS	0	Unsealed	Also refers to specification RNDS-B-00029 v3.0 36-05-019 --M

Table 7 Connector class overview

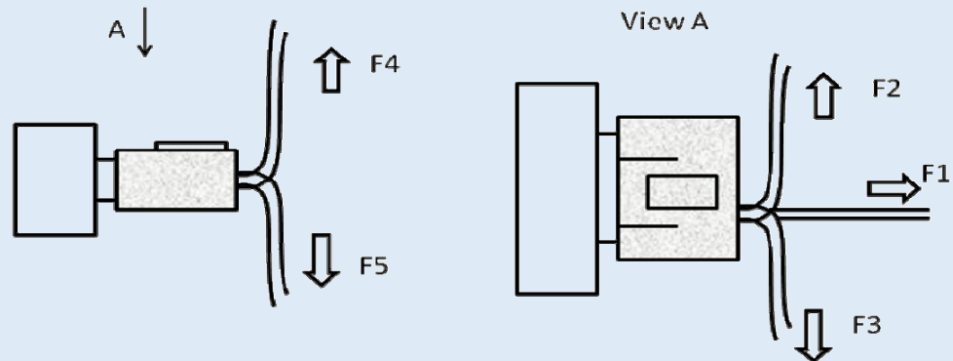
NON-SEQUENTIAL TESTS		
11.1 Terminal Insertion Force		
TEST No.	TEST DESCRIPTION	TEST CONDITIONS
INSERTION		
1	Terminal insertion	Constant speed: 50mm/min $\pm$ 5 mm/min Requirement $\leq$ 5N
2	Terminal insertion force with secondary lock closed	Constant speed: 50mm/min $\pm$ 5 mm/min Requirement $\geq$ 24N
3	Terminal-cavity polarization	Constant speed: 50mm/min $\pm$ 5 mm/min Requirement $\geq$ 24N
11.2 Terminal Retention Force		
RETENTION		
Validation is performed with traction angled at 90° in F1 , F2 , F3 , F4 , F5 directions (as per Figure below)		
		
4	Secondary lock / TPA inactive	Constant speed: 50mm/min $\pm$ 5 mm/min Requirement $\geq$ 40N
5	Secondary lock / TPA active	Constant speed: 50mm/min $\pm$ 5 mm/min Requirement $\geq$ 100N
11.3 Terminal Extraction Force		
EXTRACTION		
6	Secondary lock / TPA inactive (same as 11.2 Terminal retention force)	Constant speed: 50mm/min $\pm$ 5 mm/min Requirement $\geq$ 40N
11.5 Connector mating/unmating force		
MATING/UNMATING		
7	Mating force	Constant speed: 50mm/min $\pm$ 5 mm/min Requirement F3 $\leq$ 60N
	Unmating force	Constant speed: 50mm/min $\pm$ 5 mm/min Requirement F2 $\geq$ 120N

Table 8 Terminal insertion, retention, extraction & Connector mating/unmating force

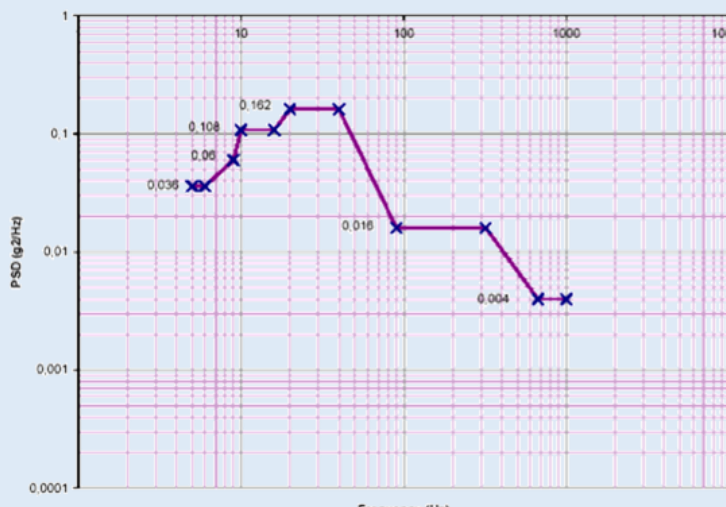
SEQUENTIAL TESTS																												
11.11 Vibration stress resistance																												
TEST No.	TEST DESCRIPTION	TEST CONDITIONS																										
8	VIBRATION																											
																												
	<table><tr><th colspan="2">Profil Générique 802/-F Enveloppe</th></tr><tr><th>Fréquence (Hz)</th><th>DSP (g²/Hz)</th></tr><tr><td>5</td><td>0.036</td></tr><tr><td>6</td><td>0.036</td></tr><tr><td>9</td><td>0.06</td></tr><tr><td>10</td><td>0.108</td></tr><tr><td>16</td><td>0.108</td></tr><tr><td>20</td><td>0.162</td></tr><tr><td>40</td><td>0.162</td></tr><tr><td>90</td><td>0.016</td></tr><tr><td>320</td><td>0.016</td></tr><tr><td>670</td><td>0.004</td></tr><tr><td>1000</td><td>0.004</td></tr></table>		Profil Générique 802/-F Enveloppe		Fréquence (Hz)	DSP (g²/Hz)	5	0.036	6	0.036	9	0.06	10	0.108	16	0.108	20	0.162	40	0.162	90	0.016	320	0.016	670	0.004	1000	0.004
	Profil Générique 802/-F Enveloppe																											
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16	0.108																											
20	0.162																											
40	0.162																											
90	0.016																											
320	0.016																											
670	0.004																											
1000	0.004																											
Pre-conditioning	48h at max Funct. Temp. for the class - cycling step only																											
Terminal resistance	The open circuit voltage shall not exceed 20 mV for a DC current (or peak value for an AC current) to avoid rupture of the oxide layer on the terminals.																											
Class 1: Application on car body	ΔR_c - after vibrations $\leq 5m\Omega$ ΔR_c - after 12h at 85°C / 75% humidity $\leq 7m\Omega$																											
Electrical micro-cuts	Maintaining the terminal resistance at a value over 1Ω for more than 10μs																											
Visual inspection	No deformations or cracks.																											

Table 9 Vibration stress resistance

SEQUENTIAL TESTS		
11.11.3.4 Vibration shock test		
TEST No.	TEST DESCRIPTION	TEST CONDITIONS
VIBRATION SHOCK		
9	Pre-conditioning	48h at max Funct. Temp. for the class - cycling step only
	Vibration shock test	ΔR_c - after vibrations $\leq 5m\Omega$
	Electrical micro-cuts	Maintaining the terminal resistance at a value over 1 Ω for more than 10 μs
	Visual inspection	No deformations or cracks.

Table 10 Vibration shock test

Title	Doc. No.	Rev.
4P 1.2 NWP SYSTEM FEMALE CONNECTOR	YPES-11-05-420	0
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SEQUENTIAL TESTS		
11.16.1 Climatic endurance cycle 1		
TEST No.	TEST DESCRIPTION	TEST CONDITIONS
CLIMATIC ENDURANCE Cycling step - 240h at 125°C		
10	Visual inspection	No deformations or cracks.
	Terminal resistance	The open circuit voltage shall not exceed 20 mV for a DC current (or peak value for an AC current) to avoid rupture of the oxide layer on the terminals. $\Delta R_c \leq 5m\Omega$ (1.2 term. system)
	The efficiency of the inter-housing locking, without voluntary unlocking	$F_2 \geq 72N$
	Terminal retention force	1. w/o sec. lock $\geq 24N$ 2. w/ sec. lock $\geq 60N$

Table 11 Climatic Endurance Cycle 1

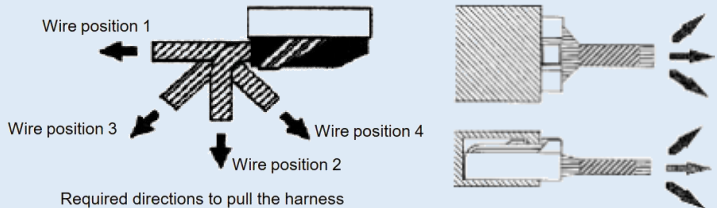
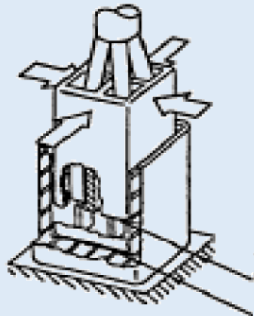
NON-SEQUENTIAL TESTS		
11.22 Dust proofness		
TEST No.	TEST DESCRIPTION	TEST CONDITIONS
DUST PROOFNESS		
11	Terminal resistance	Terminal resistance w/o wire Initial < 6mΩ After test < 11mΩ
11.23 Lock strength		
LOCK STRENGTH		
Pull the harness to directions marked in the following figures at speed of 20 mm/minute constant and measure the load values depending on the connector breaking. 		
12	Lock strength	No electrical disconnection shall occur during lock strength test. Applied force: 100N
11.25 Pry Resistance		
PRY RESISTANCE		
 Terminal to terminal when starting to contact Terminal to terminal as fitted at the maximum Required directions to push connector		
13	Pry resistance	Cycling step (10 cycles) 1 cycle - connector pried axially, rectangular front and rear and right and left around the top with a force of 78N
	Visual inspection	No deformations or cracks. No male terminal deformation. No modification of the female terminal gap.

Table 12 Dust proofness, lock strength & pry resistance

4.3.1. Connector performance

O = Sequence/test done successfully

X = Sequence/test done unsuccessfully

N/A = Not applicable

4P 1.2 F - Terminal insertion force			
TEST No.	Terminals		Wire [mm ²]
	YCO	YMT	
1	X	O	0.35
	≤ 5N	≤ 5N	
	X	O	0.50
	≤ 5N	≤ 5N	
	O	O	0.75
	≤ 5N	≤ 5N	
	N/A	O	1.00
	N/A	≤ 5N	
	X	O	1.50
	≤ 5N	≤ 5N	
2	O	O	0.35
	≥ 24N	≥ 24N	
	O	O	0.50
	≥ 24N	≥ 24N	
	O	O	0.75
	≥ 24N	≥ 24N	
	N/A	O	1.00
	N/A	≥ 24N	
	O	O	1.50
	≥ 24N	≥ 24N	

Table 13 4P 1.2 F Terminal insertion force

4P 1.2 F - Terminal-cavity polarization						
TEST No.	Terminals		Wire [mm²]	Force [N]		
	YCO	YMT		90°	180°	270°
3	O	O	All applicable wire sizes	≥ 24		

Table 14 4P 1.2 F Terminal-cavity polarization

4P 1.2 F - Terminal retention force - Secondary lock / TPA inactive								
TEST No.	Terminals		Wire [mm²]	Force [N]				
	YCO	YMT		F1	F2	F3	F4	F5
4	O	O	All applicable wire sizes	≥ 40				

Table 15 4P 1.2 F Terminal retention force - Secondary lock / TPA inactive

4P 1.2 F - Terminal retention force - Secondary lock / TPA active								
TEST No.	Terminals		Wire [mm²]	Force [N]				
	YCO	YMT		F1	F2	F3	F4	F5
5	N/A	N/A	0.35	Wire breakage occurred before reaching the required force				
	O	O	Other applicable wire sizes	≥ 100				

Table 16 4P 1.2 F Terminal retention force - Secondary lock / TPA active

4P 1.2 F - Terminal extraction force - Secondary lock / TPA inactive								
TEST No.	Terminals		Wire [mm²]	Force [N]				
	YCO	YMT		F1	F2	F3	F4	F5
6	O	O	All applicable wire sizes	≥ 40				

Table 17 4P 1.2 F Terminal extraction force - Secondary lock / TPA inactive

4P 1.2 F – Mating/Unmating			
TEST No.	Terminals		Wire [mm ²]
	YCO	YMT	
7	O ≤ 60N	O ≤ 60N	All applicable wire sizes
	O ≥ 120N	O ≥ 120N	

Table 18 4P 1.2 F Mating/Unmating force

4P 1.2 F – Vibration stress resistance			
TEST No.	Terminals		Wire [mm ²]
	YCO	YMT	
8	N/A	N/A	1.50
	N/A	N/A	
	O ≤ 5mΩ	O ≤ 5mΩ	
	O ≤ 7mΩ	O ≤ 7mΩ	
	O	O	
	O	O	

Table 19 4P 1.2 F Vibration stress resistance

4P 1.2 F – Vibration shock test			
TEST No.	Terminals		Wire [mm ²]
	YCO	YMT	
9	N/A	N/A	1.50
	O ≤ 5mΩ	O ≤ 5mΩ	
	O	O	
	O	O	

Table 20 4P 1.2 F Vibration shock test

4P 1.2 F – Climatic endurance cycle 1			
TEST No.	Terminals		Wire [mm ²]
	YCO	YMT	
10	O	O	0.35
	O ≤ 5mΩ	O ≤ 5mΩ	
	O ≥ 72N	O ≥ 72N	
	O 1. ≥ 24N 2. ≥ 60N	O 1. ≥ 24N 2. ≥ 60N	
	O	O	1.50
	O ≤ 5mΩ	O ≤ 5mΩ	
	O ≥ 72N	O ≥ 72N	
	O 1. ≥ 24N 2. ≥ 60N	O 1. ≥ 24N 2. ≥ 60N	

Table 21 4P 1.2 F Climatic Endurance Cycle 1

4P 1.2 F – Dust proofness			
TEST No.	Terminals		Wire [mm ²]
	YCO	YMT	
11	N/A	O (Initial) < 6mΩ	0.75
	N/A	O (After test) < 11mΩ	

Table 22 4P 1.2 F Dust proofness

4P 1.2 F – Lock strength							
TEST No.	Terminals		Wire [mm²]	Wire pulling direction			
	YCO	YMT		1	2	3	4
12	O	O	1.50	Pass			

Table 23 4P 1.2 F Lock strength

4P 1.2 F – Pry resistance			
TEST No.	Terminals		Wire [mm ²]
	YCO	YMT	
13	N/A	O	1.50
	N/A	O	
		O	

Table 24 4P 1.2 F Pry resistance

5. Quality assurance provision

5.1. Qualification testing

5.1.1. Sample selection

The samples for testing are selected in random order from current production.

5.1.2. Test sequence

Qualification inspection will be verified on testing samples as specified in the product specification.

5.1.3. Requalification testing

If significant changes are made on the product or manufacturing process which significantly affect form, fit or function, requalification testing is mandatory. Requalification testing consists of a complete or a part of original testing sequence as determined by responsible design engineering.

5.1.4. Acceptance

Acceptance is based on verification of products performance as given in paragraph 4.3.1. Failures attributed to the equipment, test setup or operating conditions will not disqualify the product. The indications given in handling manual (YPES-15-1664E) should be considered.

5.1.5. Quality conformity inspection

The applicable Yazaki quality inspection plan will specify sampling acceptable quality level to be used. Dimensional and functional requirements shall be in accordance with applicable drawing and this specification.

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6. APPENDIX – Derating diagrams

6.1. 4P 1.2 NWP SYSTEM FEMALE CONNECTOR

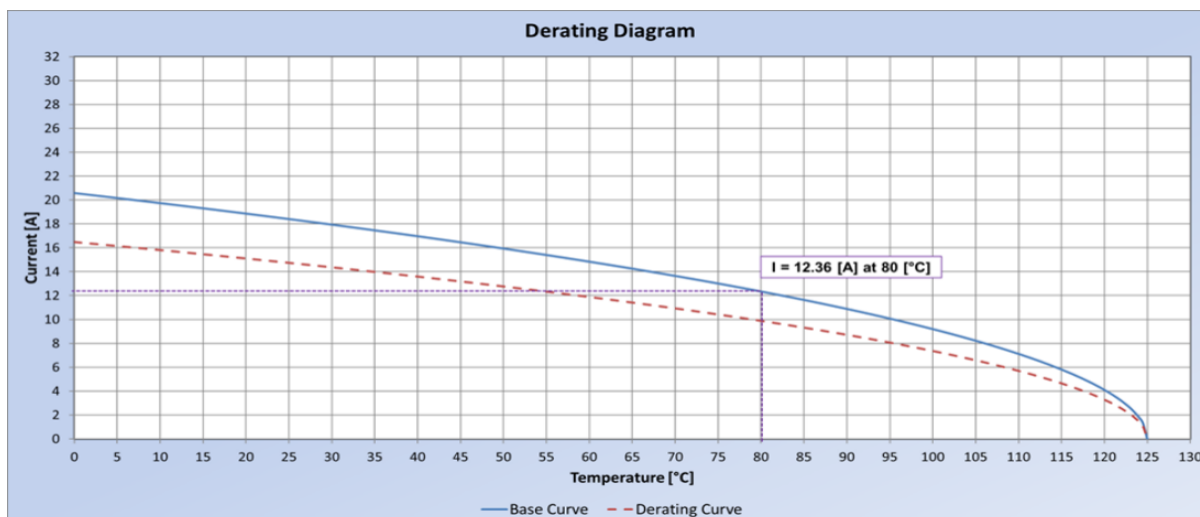


Figure 1 1.2 (F) YCO 0.35mm² - derating diagram

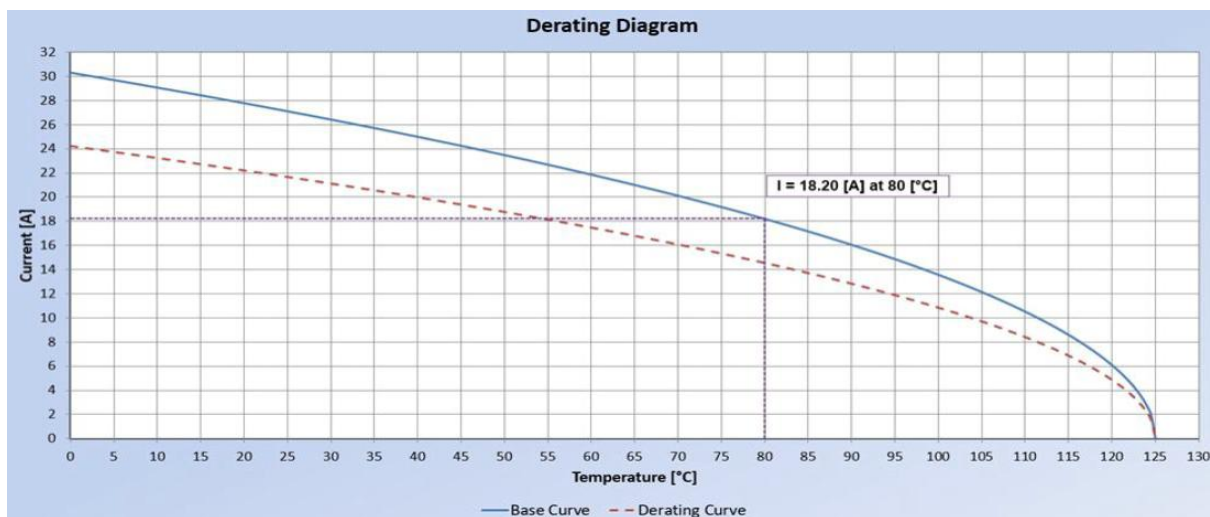


Figure 2 1.2 (F) YCO 1.50mm² - derating diagram

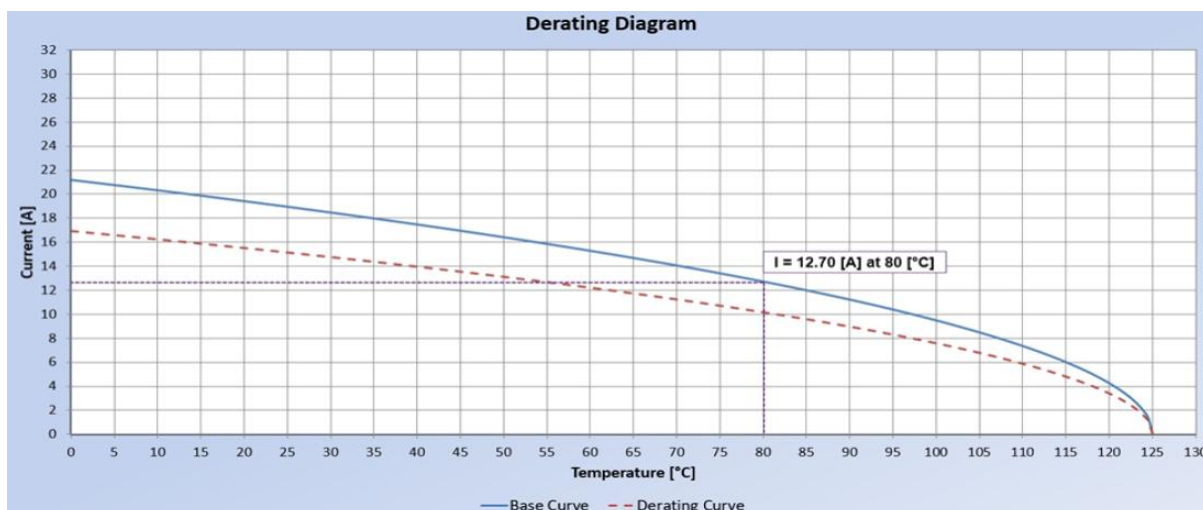


Figure 3 1.2 (F) YMT 0.35mm² - derating diagram

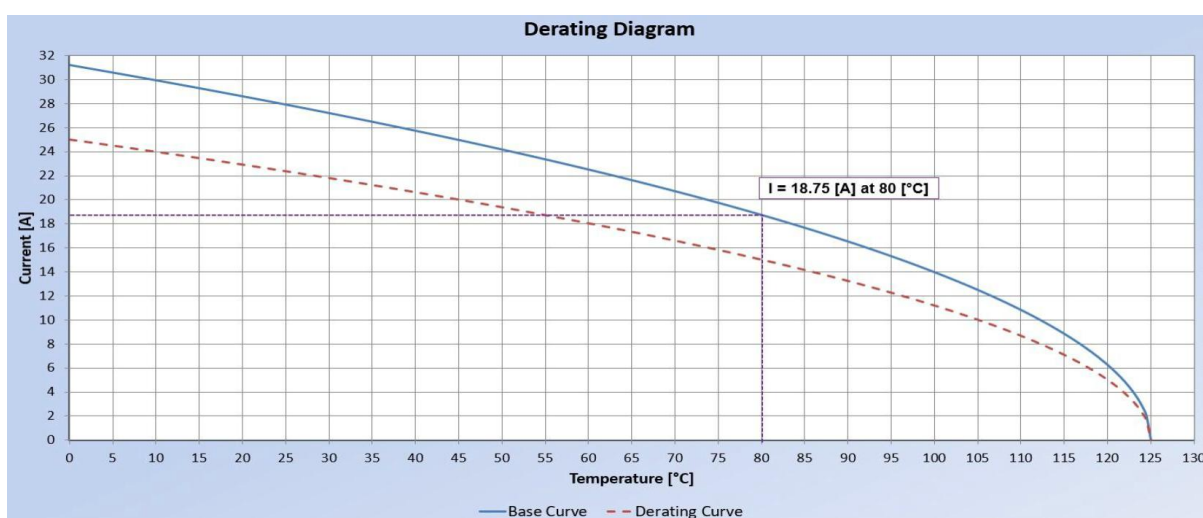


Figure 4 1.2 (F) YMT 1.50mm² - derating diagram